

# **Merced 140 Roadside Safety Improvements Project**

On State Route 140, between 3 miles east of Gustine and 5 miles east of Planada, from post miles 9.1 to 49.0 in Merced County, California

10-MER-140-9.1/49.0  
EA 10-0Y130  
Project ID 1013000243

## **Initial Study with Proposed Mitigated Negative Declaration**



Prepared by the  
State of California Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 325 and the Memorandum of Understanding dated December 23, 2016 and executed by the Federal Highway Administration (FHWA) and Caltrans.

**April 2019**



## **General Information About This Document**

### ***What's in this document:***

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in Merced County in California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). A Categorical Exclusion will be prepared for NEPA compliance. The document explains why the project is being proposed, the alternatives being considered for the project, how the existing environment that could be affected by the project, the potential impacts of each alternative, and the proposed avoidance, minimization, and/or mitigation measures.

### ***What you should do:***

- Read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans District 10 office at 1976 E. Dr. Martin Luther King, Jr. Boulevard, Stockton, CA 95205; the Merced County Library at 2100 O Street, Merced, CA 95340; and the Gustine Public Library at 205 Sixth Street, Gustine, CA 95322. The document may be downloaded at the following website: <http://www.dot.ca.gov/d10/projects.html>.
- Tell us what you think. If you have any comments regarding the proposed project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Jennifer Lugo, Senior Environmental Planner, Northern San Joaquin Valley Management Branch 1, Environmental Division, California Department of Transportation, 855 M Street, Suite 200, Fresno, CA 93721.
- Submit comments via email to: [jennifer.lugo@dot.ca.gov](mailto:jennifer.lugo@dot.ca.gov).
- Submit comments by the deadline: 6/29/2019

### ***What happens next:***

After comments are received from the public and reviewing agencies, Caltrans, as assigned by the Federal Highway Administration, may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is obtained, Caltrans could design and construct all or part of the project.

### ***Alternative Formats***

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention Jennifer Lugo, Northern San Joaquin Valley Management Branch, Environmental Division, 855 M Street, Suite 200, Fresno, CA 93721; phone number (559) 445-6172 (Voice), or use the California Relay Service 1-800-735-2929 (TTY), 1-800-735-2929 (Voice), or 711.

Extend culverts, install guardrail, and reconstruct headwalls at 10 locations on State Route 140 from post miles 9.1 to 49.0 between 3 miles east of Gustine and 5 miles east of Planada in Merced County, California

**INITIAL STUDY  
with Proposed Mitigated Negative Declaration**

Submitted Pursuant to: (State) Division 13, California Public Resources Code  
(Federal) 42 USC 4332(2)(C)

THE STATE OF CALIFORNIA  
Department of Transportation  
Responsible Agencies: California Transportation Commission

04/26/2019  
Date

  
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## **DRAFT**

### **Proposed Mitigated Negative Declaration**

Pursuant to: Division 13, Public Resources Code

#### ***Project Description***

The California Department of Transportation (Caltrans) proposes to extend culverts, construct headwalls and install guardrail systems at 10 locations on State Route 140 in Merced County.

#### ***Determination***

This proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision on the project is final. This Mitigated Negative Declaration is subject to change based on comments received from interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons.

The project would have no effect on Aesthetics, Air Quality, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, and Transportation/Traffic.

The project would have no significant effect on Agriculture, Greenhouse Gas Emissions, Relocations and Real Property Acquisition, Utilities and Emergency Services, and Invasive Species.

The project would have no significantly adverse effect on Biological Resources because the following mitigation measures would reduce potential effects to insignificance:

- Threatened and Endangered Species—Preconstruction surveys, biological monitoring during construction, Worker Environmental Awareness Training for construction staff, purchase of conservation bank credits for the giant garter snake and fairy shrimp, installation of Environmental Sensitive Area fencing.
- Purchase bank credits for Wetlands and Other Waters; establish new habitat via purchase of mitigation land; require Best Management Practices, require Emergency Spill Plan; Preconstruction Worker Environmental Awareness Training.
- Preconstruction botanical surveys
- Preconstruction migratory bird surveys

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Philip Vallejo  
Environmental Office Chief  
California Department of Transportation  
NEPA Lead Agency and CEQA Lead Agency

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Date



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# **Chapter 1**      **Proposed Project**

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## **1.1 Introduction**

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is the lead agency under the California Environmental Quality Act (CEQA).

The Merced State Route 140 Roadside Safety Improvements project proposes to reconstruct headwalls, extend culverts, and remove and install guardrail, at 10 locations along State Route 140 near the City of Gustine and the community of Planada. The project runs from post miles 9.1 to 49.0 in Merced County in California. See Figures 1-1 and 1-2. Within the project limits, State Route 140 is a two-lane highway with 12-foot lanes. Width of the paved shoulder varies from 4 feet to 1 foot throughout the project limits. Right-of-way width varies between 60 feet and 100 feet.

The project is programmed in the 2016 State Highway Operations and Protection Program (SHOPP) under the 20.20.201.015 Clean-Up the Roadside Environment Program (CURE), which is an element of the Collision Severity Reduction Program. The project is slated for construction funding in the 2021/2022 fiscal year.

## **1.2 Purpose and Need**

### **1.2.1 Purpose**

The purpose of the project is to reduce collisions and minimize collision severity involving errant vehicles leaving the traveled way and striking fixed objects.

### **1.2.2 Need**

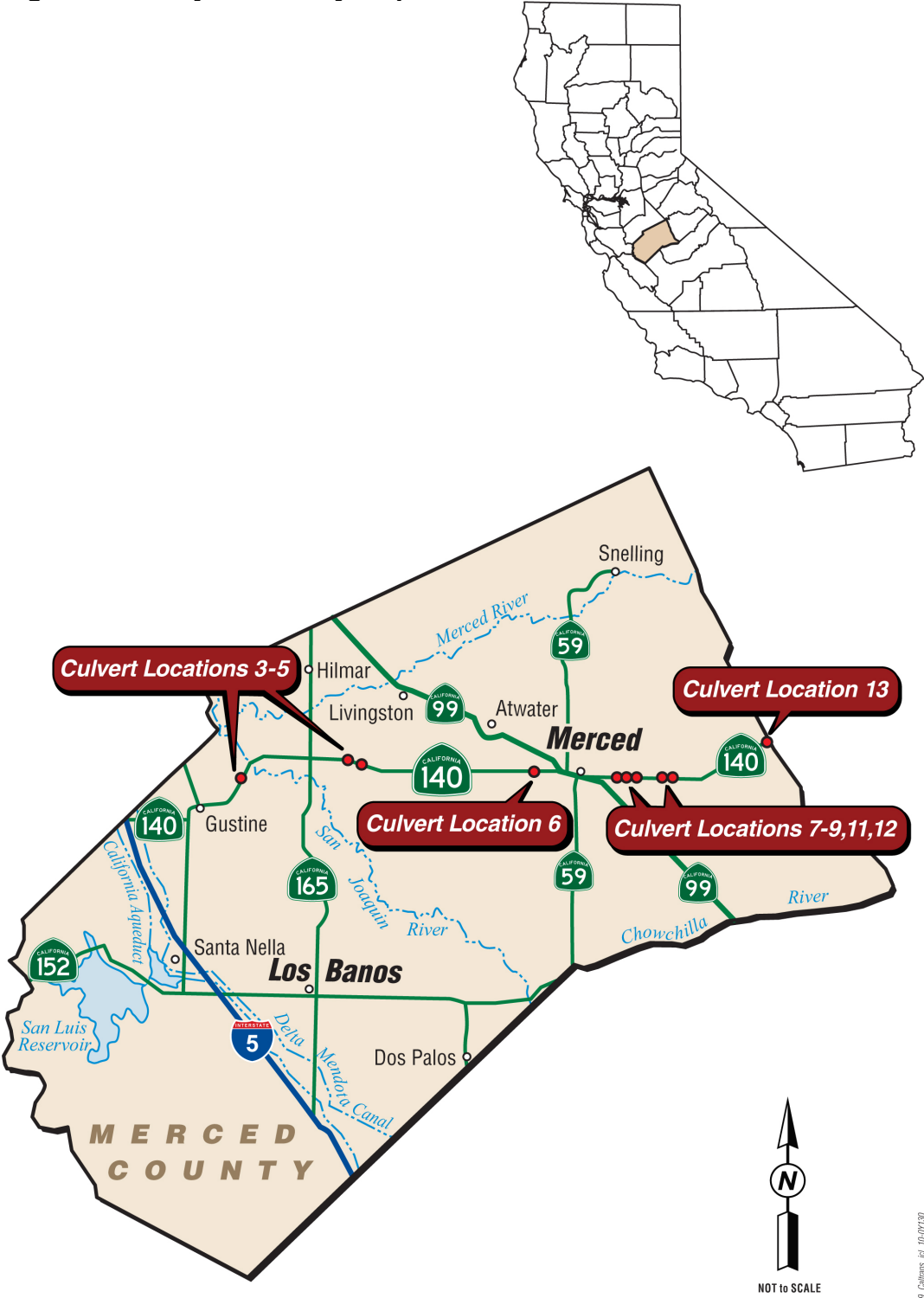
The project is needed because fixed objects, such as culvert headwalls are within the clear recovery zone. Relocating headwalls outside the clear recovery zone would decrease the potential and minimize the severity of collisions.

### **1.2.3 Project Description**

The Merced Roadside Safety Improvement project proposes to extend culverts, remove and reconstruct headwalls outside of the clear recovery zone, and add new guardrails at 10 locations, from post miles 9.1 to 49.0, on State Route 140, near the City of Gustine and the community of Planada. The project would acquire 0.54 acre of right-of-way and 0.43 acre of temporary construction easements. There are two alternatives—a Build Alternative and a No-Build Alternative—described below.



Figure 1-1 Project Vicinity Map

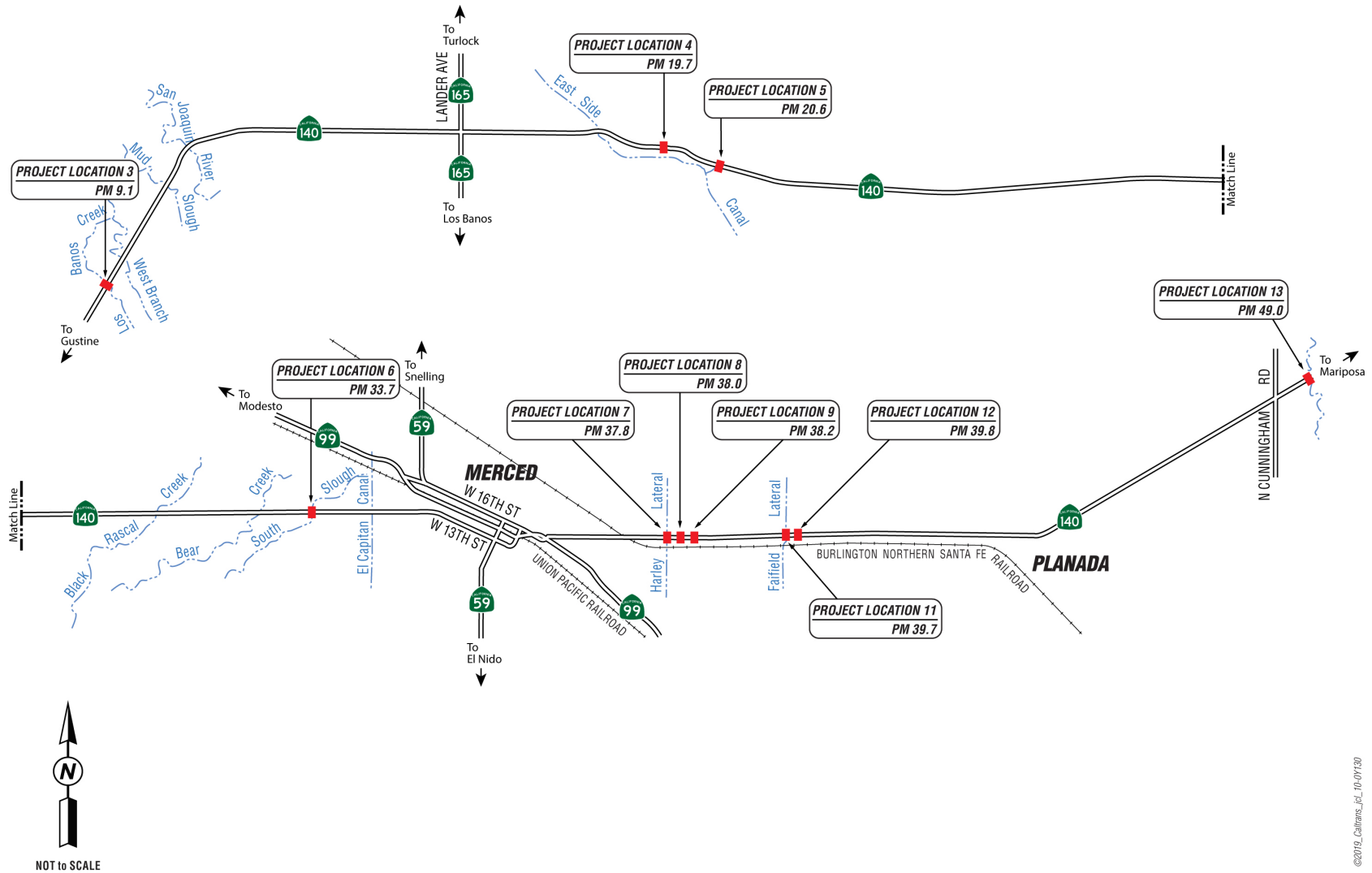


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Figure 1-2 Project Location Map



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## 1.3 Project Alternatives

Two alternatives are under consideration: the Build Alternative and the No-Build Alternative.

### 1.3.1 Build Alternative

The project would extend culverts, replace existing bridge approach guardrails, and remove and reconstruct headwalls outside the clear recovery zone. Below is a description of the work at each of the project locations (Locations 3-9 and 11-13):

Note: Locations 1, 2 and 10 were dropped from the project during the project development process. See Section 1.4 Alternatives Considered but Eliminated from Further Discussion for more information.

- Location 3 (PM 9.1)—A new Midwest Guardrail System would be constructed. Additional fill (embankment) is required next to the existing shoulder for the Midwest Guardrail System. All work would be completed within the existing right-of-way. A temporary water diversion plan is not required. No work in the channel is planned. No trees would be removed.
- Location 4 (PM 19.7)—The culvert would be extended approximately 8.3 feet on the eastbound side and 12.5 feet on the westbound side. New concrete headwalls are proposed at the outlet. Additional fill (embankment) is required next to the existing shoulder to provide a smooth transition to the culvert extension. All work would be completed within the existing right-of-way. A temporary water diversion plan is not required, but there would be work in the channel. Seven trees on the northwest side of the culvert would be removed.
- Location 5 (PM 20.6)—The culvert would be extended approximately 6.3 feet on the eastbound side and 9.2 feet on the westbound side. New concrete headwalls are proposed at the outlet. Additional fill (embankment) is required next to the existing shoulder to provide a smooth transition to the culvert extension. Additional right-of-way acquisition and a temporary construction easement are required. A temporary water diversion plan is not required, but there would be work in the channel. No trees would be removed.
- Location 6 (PM 33.7)—The culvert would be extended approximately 10.7 feet on the eastbound side and 12.1 feet on the westbound side. New concrete headwalls are proposed at the outlet. Storm drain manholes would be installed at the skewed culvert connections. Additional fill (embankment) is required next to the culvert extension. Additional right-of-way acquisition and temporary construction easements are required. A temporary water diversion plan is not required, but there would be work in the channel. Two trees on the southeast bank of the canal would be removed. Some oleander bushes on the southwest side bank would be removed.

- Location 7 (PM 37.8)—The culvert would be extended approximately 2.5 feet on the eastbound side and 13.1 feet on the westbound side. New concrete headwalls and concrete barriers are proposed at the outlet. The Midwest Guardrail System would be constructed on the eastbound direction. Additional fill (embankment) is required next to the proposed culvert extension. A temporary construction easement is required. A temporary water diversion plan is not required, but there would be work in the channel. Branches of two eucalyptus trees on the southeast side of the channel would be trimmed.
- Location 8 (PM 38.0)—The culvert would be extended approximately 2.7 feet on the eastbound side and 15.7 feet on the westbound side. New concrete headwalls and barriers are proposed. The Midwest Guardrail System would be constructed on the eastbound direction. Additional fill (embankment) is required next to the culvert extension. A temporary construction easement is required. A temporary water diversion plan is not required, but there would be work in the channel. No trees would be removed.
- Location 9 (PM 38.0)—The guardrail would be reconstructed. All work would be completed within the right-of-way. A water diversion plan is not required. No trees would be removed.
- Location 11 (PM 39.7)—Merced Irrigation District (MID) would perform the work. The district's facility would be extended 20 feet, and there would be work in the channel. No tree removal would occur. No right-of-way acquisition is required. Work at this location would be performed by the Merced Irrigation District under a service contract/agreement.
- Location 12 (PM 39.8)—The culvert would be extended approximately 2.8 feet on the eastbound side and 14.85 feet on the westbound side. New concrete headwalls and barriers are proposed at the outlet side. The Midwest Guardrail System would be constructed on the eastbound direction. Additional fill (embankment) is required next to the proposed culvert extension. Temporary construction easements are required. A temporary water diversion plan is not required, but there would be work in the channel. No trees would be removed.
- Location 13 (PM 49.0)—The culvert would be extended approximately 15.2 feet on the eastbound side and 14.2 feet on the westbound side. New concrete headwalls are proposed at the outlet side. Additional fill (embankment) is required next to the existing shoulder to provide a smooth transition to the culvert extension. Right-of-way acquisition and temporary construction easements are required. A temporary water diversion plan is not required, but there would be work in the channel. No trees would be removed.

This project contains a number of standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are addressed in more detail in the Environmental Consequences sections found in Chapter 2.

### 1.3.2 No-Build (No-Action) Alternative

The No-Build Alternative would leave fixed objects within the clear recovery zone and the roadway in its existing condition. The No-Build Alternative would not satisfy the need and purpose of the project.

## 1.4 Alternatives Considered but Eliminated from Further Discussion

The current project description describes work at Locations 3-9 and 11-13. The original project description included 13 culvert locations. Locations 1 and 2 were dropped from the project because installing concrete barriers on the bridges would reduce the existing shoulder width to less than 2 feet. Location 10 was dropped from the project because that location would be constructed as part of another Caltrans project.

## 1.5 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for construction of the project:

Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Section 7 of the Endangered Species Act Biological Opinion	To be obtained before the final environmental document
U.S. Army Corps of Engineers	Clean Water Act Section 404 Nationwide Permit	Application to be submitted during the project's final design phase
California Department of Fish and Wildlife	California Fish and Game Code 1600 Lake and Streambed Alteration Agreement	Application to be submitted during the project's final design phase
Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	Application to be submitted during the project's final design phase
State Historic Preservation Office	State Historic Preservation Office Concurrence Letter	Received December 2018—see Appendix E

## Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

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As part of the scoping and environmental analysis done for the project, the following environmental issues were considered, but no adverse impacts were identified. So, there is no further discussion of these issues in this document.

- Existing and Future Land Use—The project complies with current land use plans and would have no effect on future land use. (2013 Merced County General Plan)
- Consistency with State, Regional, and Local Plans and Programs—The project is consistent with the Merced County Association of Governments 2019 Federal Transportation Improvement Program.
- Coastal Zone—The project is not located within the coastal zone. (2015 Supplemental Project Study Report, Vicinity Map)
- Wild and Scenic Rivers—There are no protected wild and scenic rivers within the project limits. (U.S. Wild and Scenic Rivers System webpage, January 2019)
- Parks and Recreational Facilities—There are no parks or recreational areas within the project limits. (Merced County, Parks and Recreation webpage, January 2019)
- Timberlands—There are no timberlands or forests in the project area per *California's Forest Resources: Forest Inventory and Analysis*, U.S. Department of Agriculture, USDA Forest Service webpage.
- Wildfire—The proposed project on State Route 140 from Gustine to Planada is not located within or near a very high fire hazard severity zone, per the Fire Prevention Wildland Zone Map in State Responsibility Area. Cal Fire has determined that Merced County has no Very High Fire Hazard Severity Zones in the Local Responsibility Area. (Fire and Resource Assessment Program, California Department of Forestry and Fire Protection webpage)
- Growth—The project is not a capacity-increasing project. The project would extend existing culverts and remove and reconstruct headwalls, so it would not disrupt the existing growth patterns in the project area.
- Community Character and Cohesion—Because the project would extend existing culverts, reconstruct guardrail, and replace headwalls, it would not disrupt the existing community character or cohesion, nor would it result in any new impacts to businesses or residences in the project area.
- Environmental Justice—No minority or low-income populations would be adversely affected by the project. Therefore, this project is not subject to the provisions of Executive Order 12898.

- **Traffic and Transportation/Pedestrian and Bicycle Facilities**—The contractor would maintain access to all businesses, residences, and public services at all times. The project would be constructed with one-lane traffic control, which could create some delays for motorists and impacted users. The Caltrans Public Information Officer would notify impacted groups, such as bicycle users, pedestrians with disabilities, etc., via media releases. (Transportation Management Plan, September 2018)
- **Cultural Resources**—Within the Area of Potential Effects, four historic-era resources were identified. Two of these properties were previously evaluated and determined not eligible for the National Register of Historic Places under any qualifying criteria. The State Historic Preservation Officer concurred with those findings, and those determinations remain valid. The other two linear features were evaluated for the current project and determined not eligible for listing in the National Register of Historic Places. There are no known prehistoric or historic archaeological resources within the Archaeological Study Area. No new archaeological resources were identified during the archaeological survey for this project (Valentin 2018). Caltrans, pursuant to the Section 106 Programmatic Agreement Stipulation IX.A and as applicable to the PRC 5024 Memorandum of Understanding Stipulation IX.A.2 has determined a Finding of No Historic Properties Effected as appropriate for this project as there are no historic properties within the Area of Potential Effects. According to CEQA Guidelines 15064.5(a), Caltrans has determined there are no historic resources within the project's Area of Potential Effects. The State Historic Preservation Officer in a letter dated December 4, 2018, concurred with these findings for the current project (see Appendix E). (Historic Property Survey Report, November 2018; Historic Resources Evaluation Report, November 2018; Archaeological Survey Report, October 2018)
- **Hydrology and Floodplain**—The project does not consist of a longitudinal encroachment or a significant encroachment on the base floodplain. (Location Hydraulic Study, September 2018)
- **Water Quality**—No long-term water quality impacts are anticipated. All short-term water quality impacts would be addressed in the design and construction phases of the project. To address any potential impacts, Best Management Practices (BMPs) would be implemented in accordance with the Project Planning and Design Guide. The contractor, as required in Caltrans Standard Specification Section 13-1, must address all potential water quality impacts that may occur during construction. (Water Quality Assessment Report, October 2018)
- **Geology/Soils/Seismic/Topography**—The project would not present a significant risk to life or property or a significant adverse impact on the natural geology, soil, seismicity or topography. (Merced County General Plan - Geology, Soils, and Mineral Resources, Section 10-2, November 2012; California Conservation webpage Data Viewer Map)
- **Paleontology**—The project area contains high sensitivity for paleontological resources. Because excavation for the project would be of limited depth and

localized to single-point areas instead of widespread vertical and lateral excavation, the intensity of the impact is minimal, and mitigation is not required. There is low probability of encountering significant paleontological finds. (Paleontological Identification Report, October 25, 2018)

- **Hazardous Waste/Materials**—There are no Leaking Underground Storage Tank (LUST) cases within the project area. The potential to encounter contaminated soil is minimal. Levels of aerially deposited lead in the project limits are below regulatory thresholds. Caltrans Standard Special Provision pertaining to Treated Wood Waste would be added to the construction contract for the removal of existing guardrail, and a survey for asbestos-containing material would be required prior to construction at Location 3. No hazardous waste sites would not be impacted as a result of the project. (Initial Site Assessment, October 2018)
- **Air Quality**—The project would not adversely affect air quality. The project is exempt from all project-level conformity requirements per 40 Code of Federal Regulations 93.126 because of the proposed safety and drainage improvements at spot locations and installation of guardrail throughout the project limits. In addition, the proposed project is not a capacity-increasing project or a project of air quality concern. (Air Quality Compliance memorandum, February 2019)
- **Noise**—The project is not considered a Type 1 project and not subject to the Caltrans Traffic Noise Analysis Protocol. No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8.02 and applicable local noise standards. (Noise Compliance Study, September 2018)
- **Natural Communities**—Natural communities within the project area are occupied by non-native grassland habitat, vernal pools, seasonal wetlands and swales, seasonal marshes, drainage basins, ephemeral drainages, culverts, ditches, and canals (Los Banos Creek, McCoy Lateral, Livingstone Drain, Bear Creek, Fairfield Canal, and Miles Creek). Non-native grassland habitat is not a sensitive community; it is spread between sensitive communities (vernal pools) at Location 13. The vernal pools critical habitat is discussed in the Threatened and Endangered species section later in this chapter. Agricultural areas contain poor quality habitat with very low potential to provide suitable habitat for any sensitive species. Undeveloped residential and commercial lots, and residential and commercial developments are not considered habitat and would not support any sensitive species. (Natural Environment Study and Biological Assessment, March 2019)
- **Visual**—Caltrans Landscape staff determined that construction activities would result in a negligible visual impact. Caltrans would preserve as many mature native trees as possible to minimize any visual impacts. (Scenic Resource Evaluation/Visual Impact Assessment Report, February 2019)



## **2.1 Human Environment**

### **2.1.1 Farmland**

#### ***Regulatory Setting***

The National Environmental Policy Act (NEPA) and the Farmland Protection Policy Act (7 U.S. Code 4201-4209; and its regulations, 7 Code of Federal Regulations Part 658) require federal agencies, such as the Federal Highway Administration, to coordinate with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act (CEQA) requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

#### ***Affected Environment***

The Merced State Route 140 Roadside Safety Improvement project encompasses a 40-mile-long segment of State Route 140 in Merced County. It crosses the flat agricultural land of the San Joaquin Valley through Merced County and continues southeast through the foothills of Mariposa County. Within the project limits, the land uses tend toward agricultural and rural residential with higher-density residential housing and commercial areas in the City of Merced and the community of Planada. Project improvements include extending existing culverts, reconstructing existing headwalls, and removing and installing guardrail at 10 locations. Existing culverts transfer water from large local irrigation canals to other smaller irrigation canals that supply water for agricultural lands.

A Farmland Conversion Impact Rating form for the project was submitted to the Natural Resources Conservation Service in February 2019 for evaluation. In return, the Natural Resources Conservation Service broke down farmland impacts by location number in separate impact rating forms, reflecting which farms were and were not under protection by the Land Conservation Act, and stated that the average farm size is 394 acres (see Appendix D). Total farmland along the corridor is 698.58 acres, according to the Merced County Assessor's Office.

#### ***Environmental Consequences***

Table 2.1 Farmland Impacts shows right-of-way acquisition (direct impacts) and temporary construction easements (indirect impacts) for the project and also identifies farmlands protected under the Land Conservation Act. The project would convert a small amount of farmland that is prime, unique, statewide or locally important farmland (0.49 acre directly converted; with 0.56 acre of temporary impacts). No

farmland parcels would be bisected, and all farmland converted would be for transportation purposes and would be considered state right-of-way as a result of the project.

**Table 2.1 Farmland Impacts (Acres)**

Location	Direct Impacts (Right-of Way Acquisition)	Indirect Impacts (Temporary Construction Easements)	Total Farmland Size	Under Land Conservation Act Protection	Percentage Prime Farmland Lost
3	0	0		No	
4	0	0		No	
5	0.02	0.16	50.16	Yes	<1% Direct/Temporary
6	0.053	0.052	119.3	No	
7	0	0.07	3.07	Yes	<1% Temp Only
8	0	0.06	3.05	Yes	<1% Temp Only
9	0	0		No	
10	0	0		No	
11	0	0		No	
12	0	0.07	12	Yes	<1% Temp Only
13	0.47	0.20	511	Yes	<1% Direct/Temporary
<b>Total Acres</b>	<b>0.49</b>	<b>0.61</b>	<b>698.58</b>		

For all locations, the Natural Resources Conservation Service AD-1006 form's Total Site Assessment Points were under 160 points. No further coordination with the Natural Resources Conservation Service is required. Also, according to the Merced General Plan Agricultural Resources Element, Policy AG 2.9: Infrastructure Extension policy opposes work in areas designated for agricultural use, "unless necessary to protect public health, safety, and welfare." The purpose and need of this project are to reduce collisions and minimize collision severity involving errant

vehicles leaving the traveled way and striking fixed projects, such as culverts and headwalls.

This Caltrans project is consistent with the Merced County General Plan and listed in the Federal Transportation Improvement Plan and the State Highway Operation and Protection Program.

### ***Avoidance, Minimization, and/or Mitigation Measures***

Caltrans' determination of farmland impacts is less than significant, and no mitigation measures are proposed.

## **2.1.2 Relocations and Real Property Acquisition**

### ***Regulatory Setting***

The Caltrans Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and Title 49 Code of Federal Regulations Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. See Appendix A for a copy of the Caltrans Title VI Policy Statement.

### ***Affected Environment***

A Right-of-Way Data Sheet was completed for this project in January 2019. The surrounding land use within the project limits is agricultural with some areas of residential use and railroad property. However, the project area consists of mostly agricultural land in Merced County.

### ***Environmental Consequences***

Table 2.1 shows the locations where additional right-of-way or temporary construction easements would be required. The project would move fixed objects outside of the clear recovery zone.

The project would not require property owner relocation assistance because the total acquisition for the project is approximately a half acre at canal areas, local roads adjacent to the highway, and slivers of agriculture land, with no residential displacements. See the temporary construction easements shown in Table 2.2. Temporary construction easement areas include railroad property, canals, and grazing land. Temporary construction easement use is estimated for a period of 12 months.

**Table 2.2 Right-of-Way Acquisition and Temporary Construction Easements**

<b>Location</b>	<b>APN</b>	<b>Right of Way Acquisition (Acres)</b>	<b>Temporary Construction Easement (Acres)</b>
5 (PM 20.6)	049-110-011	0.02	0.166
6 (PM 33.7)	059-030-034 059-030-036 059-150-044 059-150-016	0.053	0.052
7 (PM 37.8)	061-310-020	0	0.07
8 (PM 38.0)	061-310-015	0	0.06
12 (PM 39.8)	061-033-004	0	0.07
13 (PM 49.0)	053-190-016 053-190-015	0.47	0.020
<b>Totals</b>		<b>0.54</b>	<b>0.43</b>

### ***Avoidance, Minimization, and/or Mitigation Measures***

No relocation assistance or benefits for right-of-way acquisition are required. No mitigation measures are proposed.

### **2.1.3 Utilities and Emergency Services**

#### ***Affected Environment***

A Right-of-Way Data Sheet was completed for this project in January 2019 to determine right-of-way jurisdiction and impacted utilities in the project area. A Transportation Management Plan was prepared in September 2018.

The following agencies provide emergency services such as police and fire protection and hospital care for the Merced County area:

- California Highway Patrol—1500 Bell Drive, Merced, CA 95301
- Merced County Fire Department—735 Martin Luther King Jr. Way, Merced, CA 95341
- Merced Police Department—470 West 11<sup>th</sup> Street, Merced, CA 95341
- Merced County Sheriff Department—700 West 22<sup>nd</sup> Street, Merced, CA 95340
- Mercy Medical Center Clinic—1248 D Street, Merced, CA 95341
- Golden Valley Health Centers—857 West Childs Avenue, Merced, CA 95341

- Gustine Fire Department—686 3<sup>rd</sup> Avenue, Gustine, CA 95322
- Golden Valley Health Centers—637 Merced Street, Newman, CA 95360

The following utilities provide services for the project area:

- Pacific Gas and Electric
- Sierra Telephone
- AT&T
- Comcast
- Williams Communications
- Chevron
- Merced Irrigation District
- Atchison Topeka & Santa Fe Railway Company

### ***Environmental Consequences***

The project would be constructed with one-lane traffic control and night work, according to the Transportation Management Plan. Access to businesses and residences would be maintained throughout construction. Portable changeable message signs would be used, and impacted groups would be notified and informed of upcoming construction by the Caltrans Public Information Office.

Several underground utilities occur in the project area: gas, fiber optics, communications, oil, cable, sewer and water. Potholing would be completed to determine underground conflicts.

Work is within or adjacent to the Atchison Topeka & Santa Fe Railway Company right-of-way at Locations 7, 8, and 12, and temporary construction easements would be acquired.

At Location 11, the Merced Irrigation District (MID) facility would be extended 20 feet, and work at this location would be performed by Merced Irrigation District under a service contract/agreement.

At Location 13, proposed right-of-way acquisition (0.47 acre) and temporary construction easements (0.20 acre) are parallel to the highway. There is a conflict with a telephone pedestal; a temporary disruption of this service may occur, but would be brief.

### ***Avoidance, Minimization, and/or Mitigation Measures***

No mitigation measures are proposed.

## 2.2 Biological Environment

A Natural Environment Study and a Biological Assessment were prepared for the project in March 2019.

The project area lies near the Sierra Nevada foothills, a biologically diverse area known to support unique and endemic species. The action area is composed of 10 areas spread out across about 40 miles, the adjacent highway shoulders, existing Caltrans right-of-way, and areas within the new Caltrans right-of-way. The action area of each of the 10 locations consists of the project footprint and a 100-foot buffer.

### 2.2.1 Wetlands and Other Waters

#### ***Regulatory Setting***

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (33 U.S. Code 1344), is the main law regulating wetlands and surface waters. One purpose of the Clean Water Act is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands.

Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark, in the absence of adjacent wetlands. When adjacent wetlands are present, the Clean Water Act jurisdiction extends beyond the ordinary high water mark to the limits of the adjacent wetlands. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of: hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

The U.S. Army Corps of Engineers issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of U.S. Army Corps of Engineers' Individual permits.

There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the U.S. Army Corps of Engineers' decision to approve is based on compliance with U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (40 Code of Federal Regulations 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines were developed by the U.S. Environmental Protection Agency in conjunction with the U.S. Army Corps of Engineers and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative that would have less adverse effects. The guidelines state that the U.S. Army Corps of Engineers may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, Executive Order 11990 states that a federal agency, such as the Federal Highway Administration and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated mainly by the State Water Resources Control Board, the Regional Water Quality Control Boards and the California Department of Fish and Wildlife. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved.

Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Wildlife before beginning construction. If the California Department of Fish and Wildlife determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. California Department of Fish and Wildlife jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the California Department of Fish and Wildlife.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the Clean Water Act. In compliance with Section 401 of the Clean Water Act, the Regional Water Quality Control Boards also issue water quality certifications for

activities that may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request.

### ***Affected Environment***

A Biological Assessment and Natural Environment Study for the project were prepared in March 2019. A wetland delineation was conducted in July 2018, and the Ordinary High Water Mark was delineated in November 2018.

The limits of the project cross over several waterways, including rivers, perennial creeks, sloughs, and canals such as the Los Banos Creek, McCoy Lateral, Livingstone Drain, Bear Creek, Fairfield Canal, and Miles Creek. All waters connect directly or indirectly to the San Joaquin River.

Field work for the determination of wetlands and other waters was conducted in 2018 throughout the existing Caltrans right-of-way and on other parcels where permission to enter had been granted. Field studies included the examination of vegetation, soils, and hydrology to determine the presence or absence of wetland indicators. Delineations of wetlands and other waters were conducted in the action area, following the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual, the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (version 2.0), and *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (2008). See Appendix F, Waters of the U.S. Mapping.

The project area was investigated to determine the presence of U.S. Army Corps of Engineers' jurisdictional waters of the U.S. and wetlands. Approximately 0.06097 acre of isolated wetlands at Location 8 is anticipated to be non-jurisdictional. However, approximately 0.75454 acre of potential U.S. Army Corps of Engineers jurisdictional waters was identified within the project action areas, composing 0.120 acre of Section 404 wetlands and 0.634561 acre of Section 404 other waters. Sensitive species habitat and aquatic sites include those for the giant garter snake, Greene's tuctoria, and rare plants. See Table 2.3 for total Waters of the U.S. in the action area.

**Table 2.3 Waters of the U.S. in Action Area**

<b>Location</b>	<b>Acreage</b>
3	0.0928
4	0.07227
5	0.15532
6	0.21902
13	0.21513
<b>Total</b>	<b>0.75454</b>



### **Environmental Consequences**

Associated riparian vegetation would be removed or disturbed as a result of the project. Work within the U.S. Army Corps of Engineers jurisdictional areas would require coordination with U.S. Army Corps of Engineers and a Clean Water Act Section 404 Nationwide permit.

Accessing the streambeds, where most work would take place, may disturb adjacent wetlands and riparian zones and would require a 1602 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife. Coordination with the regulatory agency would take place during the permit application phase of the project planning process.

Approximately 0.75454 acre of Waters of the State occurs within the project areas. Coordination with the Central Valley Regional Water Quality Control Board and a Clean Water Act Section 401 Water Quality Certification would be required for the 0.321 acre of impacts.

Potential impacts at each location are listed in Table 2.4, Permanent Impacts to Waters of the U.S., Work Below Ordinary High Water Mark. Approximately 0.321 acre of permanent impacts to potential Waters of the U.S. are anticipated due to the extension of the culverts at Locations 4, 5, 6, and 13. All impacts to Waters of the U.S. are permanent. Avoidance and minimization efforts would allow for jurisdictional wetlands to be avoided at Location 13.

**Table 2.4 Permanent Impacts to Waters of the U.S.,  
Work Below Ordinary High Water Mark**

<b>Location</b>	<b>Permanent Impacts (Acres)</b>
13	0.021629
6	0.195233
5	0.064263
4	0.039906
<b>Total</b>	<b>0.321031</b>

The following permits would be acquired for the project:

- A 1600 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife would be needed for Locations 4, 5, 6, and 13.
- A Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board would be needed for Locations 4, 5, 6, 8, and 13.
- A Clean Water Act Section 404 Nationwide Permit from the U.S. Army Corps of Engineers would be required for Locations 4, 5, 6, 8, and 13.

As stated previously, at Location 11, the Merced Irrigation District would move its own distribution system outside the clear recovery zone. Caltrans would coordinate

with the Merced Irrigation District to ensure proper permitting is obtained for Location 11:

A U.S. Army Corps of Engineers Clean Water Act Section 401 permit would be obtained to improve water quality. Measures would include rock slope protection and the removal of invasive plant species. In addition, a Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board would be needed to provide no loss of Waters of the U.S. at this location. A 1600 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife would be required.

### ***Avoidance, Minimization, and/or Mitigation Measures***

The following avoidance and minimization measures would be implemented for the proposed project:

- A Spill Prevention Plan would be prepared describing measures to be taken to minimize the risk of fluids or other materials used during construction (e.g., oils, transmission and hydraulic fluids, cement, fuel) from entering streams or contaminating adjacent riparian areas. A cleanup protocol would be developed before construction begins and would be implemented in case a spill occurs.
- Stockpiling of materials, including portable equipment, vehicles and supplies (e.g., chemicals) would be restricted to the designated construction staging areas, exclusive of any riparian and wetland areas.
- Construction activities would comply with all construction site Best Management Practices specified in the Storm Water Pollution Prevention Plan.

Measures that would be in place for Location 11 include:

- Preconstruction surveys for migratory bird surveys.
- Worker Environmental Awareness Training for construction staff.

## **2.2.2 Plant Species**

### ***Regulatory Setting***

The U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife have regulatory responsibility for the protection of special-status plant species. Special-status species are selected for protection because they are rare and/or subject to population and habitat declines. “Special-status” is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act and/or the California Endangered Species Act. See the Threatened and Endangered Species section (2.2.3) in this document for detailed information about these species.

This section of the document discusses all other special-status plant species, including California Department of Fish and Wildlife species of special concern, U.S. Fish and Wildlife Service candidate species, and California Native Plant Society rare and endangered plants.

The regulatory requirements for the Federal Endangered Species Act can be found at 16 U.S. Code Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for the California Endangered Species Act can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000-21177.

### ***Affected Environment***

A Natural Environment Study was prepared for the project in March 2019. Floristic surveys were conducted in the action area between April 2018 and May 2018 following the California Department of Fish and Wildlife *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009). The surveys were conducted during the appropriate blooming periods for target species.

#### ***Henderson's Bent Grass***

Henderson's bent grass (*Agrostis hendersonii*) is listed as a rare plant species by the California Native Plant Society. Its current ranking is 3.2, which means it meets the definition of the California Endangered Species Act and is eligible for state listing and is moderately threatened in California. Henderson's bent grass is an annual grass of the poaceae family (*Agrostis*) that is limited to California and Oregon. The species blooms April through June and is typically found in wetlands, such as vernal pools. It grows to a maximum height of 8 to 70 centimeters. It has short narrow leaves only a few centimeters long. The inflorescence is a dense, narrow, cylindrical tuft no longer than 5 centimeters long made up of small spikelets with hair-like tips and bent awns.

#### ***Hoover's Calycadenia***

Hoover's calycadenia (*Calycadenia hooveri*) is listed as a rare plant species by the California Native Plant Society. Its current ranking is 1B.3, which means it is rare, threatened or endangered in California and elsewhere and not very threatened in California. It meets the definitions of the California Endangered Species Act and is eligible for state listing. It is an annual herb of the asteraceae family (*Calycadenia*) that is native to California. The species is typically found in valley grasslands and foothill woodlands. It blooms June through September.

#### ***Beaked Clarkia***

The beaked clarkia (*Clarkia rostrata*) is listed as a rare plant species by the California Native Plant Society. Its current ranking is 1B.3, which means it is rare, threatened or endangered in California and elsewhere and not very threatened in California. It meets the definitions of the California Endangered Species Act and is eligible for

state listing. The beaked clarkia is an annual herb of the onagraceae family (*Clarkia*) that is native and endemic to California. The species is typically found in valley grasslands and foothill woodlands. It blooms April through May.

#### ***Ewan's Larkspur***

Ewan's larkspur (*Delphinium hansenii*) is listed as a rare plant species by the California Native Plant Society. Its current ranking is 4.2, which means it may meet the definitions of the California Endangered Species Act and few of these rankings are eligible for state listing and it is moderately threatened. It is a perennial herb of the ranunculaceae family (*Delphinium*) that is native and endemic to California. The species is typically found in valley grasslands and foothill woodlands. It blooms March through May.

#### ***Dwarf Downingia***

The dwarf downingia (*Downingia pusilla*) is listed as a rare plant species by the California Native Plant Society. Its current ranking is 2B.2, which means it is rare, threatened or endangered in California but more common elsewhere and is moderately threatened. It meets the definitions of the California Endangered Species Act and is eligible for state listing. It is an annual herb of the campanulaceae family (*Downingia*) that is native to California but is found elsewhere in North American and beyond such as South America. The species is typically found in wetlands, such as vernal pools. It blooms March through May. The dwarf downingia is a wildflower that has smaller flowers reaching 4 millimeters in width at maximum. It grows erect stems with few pointed leaves. The tiny tubular flower is white or blue with yellow spots near the mouth of the tube. The fruit is a capsule 2 or 3 centimeters long.

#### ***Forked Hareleaf***

The forked hareleaf (*Lagophylla dichotoma*) is listed as a rare plant species by the California Native Plant Society. Its current ranking is 1B.1, which means it is rare, threatened, or endangered in California and elsewhere and seriously threatened in California. It meets the definitions of the California Endangered Species Act and is eligible for state listing. The forked hareleaf is an annual herb of the asteraceae family (*Lagophylla*) that is native and common to California. The species is typically found in valley grasslands and foothill woodlands. It blooms April through June.

#### ***Pincushion Navarretia***

The pincushion navarretia (*Navarretia myersii*) is listed as a rare plant species by the California Native Plant Society. Its current ranking is 1B.1, which means it is rare, threatened or endangered in California but more common elsewhere and seriously threatened. It meets the definitions of the California Endangered Species Act and is eligible for state listing. It is an annual herb of the polemoniaceae family (*Navarretia*) that is native and endemic to California. The species is typically found in wetlands, such as vernal pools. It blooms April through May. The pincushion navarretia is a wildflower that has smaller flowers reaching 21 millimeters wide at maximum. The inflorescence grows outer bract lobes with a few generally at the base.

### ***Spiny-Sepaled Button-Celery***

The spiny-sepaled button-celery (*Eryngium spinosepalum*) is listed as a rare plant species by the California Native Plant Society. Its current ranking is 1B.2, which means it is rare, threatened or endangered in California and elsewhere, and it meets the definition of California Endangered Species Act and is eligible for state listing and is moderately threatened in California. It is an annual or perennial herb of the apiaceae family (Eryngium) that is limited to California. It is found in wetlands, more specifically vernal pools. It blooms April through May.

### ***Merced Phacelia***

Merced Phacelia (*Phacelia cuuata*) is listed as a rare plant species by the California Native Plant Society. Its current ranking is 3.2, which means it may meet the definition of the California Endangered Species Act and is eligible for state listing and is moderately threatened in California. It is an annual herb of the borgaginaceae family (Phacelia) that is limited to California. The species is typically found in valley grasslands. It blooms February through May.

## ***Environmental Consequences***

### ***Henderson's Bent Grass***

Vernal pool and/or wetland habitat for this species exists only at Location 13. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

### ***Hoover's Calycadenia***

Valley and foothill grasslands occur at the proper elevation for this species to exist only at Location 13. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

### ***Beaked Clarkia***

Valley and foothill grasslands occur at the proper elevation for this species to exist only at Location 13. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

### ***Ewan's Larkspur***

Valley and foothill grasslands occur at the proper elevation for this species to exist only at Location 13. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

### ***Dwarf Downingia***

Vernal pool and/or wetland habitat for this species exists only at Location 13. The species was not found in the action area or in the area adjacent to the action area in

the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

***Forked Hareleaf***

Valley and foothill grasslands occur at the proper distribution for this species to exist only at Locations 7-12. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

***Pincushion Navarretia***

Vernal pool and/or wetland habitat for this species exists only at Location 13. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

***Spiny-Sepaled Button-Celery***

Only spiny-sepaled button-celery were found in the action area. Habitat for this species exists only at Location 13, within the vernal pools and/or wetlands onsite. The species was found in the action area in the 2018 botanical surveys.

***Merced Phacelia***

Valley grasslands occur at the proper distribution for this species only at Locations 7-12. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

***Avoidance, Minimization, and/or Mitigation Measures***

The following measures would be implemented for all above plant species:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.

- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at Location 13. California Department of Fish and Wildlife *Protocols for surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal, state-listed, or rare species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

With the implementation of avoidance and minimization efforts, and no impacts anticipated, no compensatory mitigation is proposed.

### **2.2.3 Threatened and Endangered Species**

#### ***Regulatory Setting***

The main federal law protecting threatened and endangered species is the Federal Endangered Species Act: 16 U.S. Code Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend.

Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (and Caltrans, as assigned), are required to consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement or a Letter of Concurrence. Section 3 of Federal Endangered Species Act defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code Section 2050, et seq. The California

Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife is the agency responsible for implementing California Endangered Species Act.

Section 2080 of the California Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions, an incidental take permit is issued by California Department of Fish and Wildlife. For species listed under both Federal Endangered Species Act and California Endangered Species Act requiring a Biological Opinion under Section 7 of Federal Endangered Species Act, the California Department of Fish and Wildlife may also authorize impacts to California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

### ***Affected Environment***

A Biological Assessment and Natural Environment Study for the project were prepared in March 2019. The Biological Assessment was submitted to the U.S. Fish and Wildlife Service on March 13, 2019 for Section 7 consultation. Current species lists are found in Appendix B of this document.

Below are descriptions of the critical habitat and the federally listed species of plants and animals that have the potential to occur within the action area.

### ***Critical Habitat***

Critical Habitat is defined as a specific geographic area that contains features essential to the conservation of a threatened or endangered species. Critical Habitat is designed to protect the essential elements of physical and biological features of a landscape and essential areas in the appropriate quantity and spatial arrangement that a species needs to survive and reproduce. Within the action area, the U.S. Fish and Wildlife Service has listed six federally listed Critical Habitat designations for the following species: California tiger salamander, vernal pool fairy shrimp, vernal pool tadpole shrimp, conservancy fairy shrimp, fleshy owl’s clover and Greene’s tuctoria.



### **California Tiger Salamander**

The California tiger salamander (*Ambystoma californiense*) is listed as a federally and state threatened species. Adult California tiger salamanders are terrestrial amphibians, but fully aquatic, with external gills and fins during the larval stage. This species frequents annual grasslands, foothills, oak savanna and edges of mixed woodland, where it spends most of its life underground in burrows. This species is about 7 to 8 inches long with a stocky black body, a broad and rounded snout, and large pale yellow to white spots and bars randomly marking the side body.

At Location 13, California tiger salamander Critical Habitat falls within the grazing fields of the northern and southern portions of the action area. The grasslands contain aquatic habitat (vernal pools and swales) that may provide potential breeding habitat for the species.

### **Giant Garter Snake**

The giant garter snake (*Thamnophis gigas*) is common to the Central Valley wetlands of California. The back of a giant garter snake varies from brownish to olive with a checkered pattern of black spots, and a yellow strip down the center. Two light-colored stripes run along the snake's sides. The snake's underside is cream to olive or brown and sometimes infused with orange.

### **Fairy Shrimp**

Wet season surveys were conducted for the 2018 wet season between January 31, 2018 and May 10, 2018. Samples of vernal pool species were collected by Caltrans biologists under the U.S. Fish and Wildlife Service 10(a)(1)(A) Recovery Permit TE-032713-3. The collected samples were identified in-office under stereo microscope using the key in *Fairy Shrimps of California's Puddles, Pools, and Playas* (Eriksen and Belk 1999). A 90-day report was prepared and submitted to the U.S. Fish and Wildlife Service for the wet seasons sampled. Some aquatic resources sampled during the 2018 wet season with no identified branchiopod species were subsequently surveyed in August 2018 during the 2018 dry season.

The fairy shrimp prefers smaller vernal pools with clear cooler water and feeds on algae, bacteria, protozoa and detritus. It has no anti-predator defenses, so it is a food source for other species, including the California tiger salamander, western spadefoot toad and various waterfowl, which may disperse fairy shrimp to other vernal pools during migration.

The vernal pool fairy shrimp (*Branchinecta lynchi*) is a federally threatened freshwater crustacean. It ranges in size from 0.12 inch to 1.5 inches long and typically appears to be semi-transparent or grayish-white with a delicate elongated body, large compound eyes, and 11 pairs of swimming legs. It is differentiated from other fairy shrimp by the presence and size of mounds on the male's second antennae, and by the female's short pear-shaped brood pouch.

The conservancy fairy shrimp (*Branchinecta conservatoria*), a federally endangered freshwater crustacean, is found in vernal pools or vernal pool-like habitats. It is about 0.5 to 1 inch long. It has a delicate elongate body, large compound eyes, no carapace (exterior) and 11 pairs of swimming legs. This species is different from other fairy shrimp by the distal segment of the male's second antennae, which is about 30 percent shorter than the basal segment, and its tip is bent about 90 degrees. The female brood pouch is tapered at each end and has a terminal opening.

The vernal pool tadpole shrimp (*Lepidurus packardii*), a federally endangered freshwater crustacean, is found in vernal pools or vernal pool-like habitats. It is 2 inches long, with a shield-like carapace up to 1.3 inches long. It has compound eyes and up to 48 pairs of swimming legs, two cercopods, and pincer-like appendages at the end of its tail.

### **Colusa Grass**

Colusa grass (*Neostapfia colusana*) is listed as a federally threatened species by the U.S. Fish and Wildlife Service. It is an annual grass member of the chloridoideae family (Poaceae) that is limited to California. It is usually found growing in single species stands in alkaline basins of the Sacramento and San Joaquin valleys, as well as acidic soils along the eastern San Joaquin Valley and the Sierra Nevada foothills.

Colusa grass is a clumping bunchgrass with distinctive cylindrical inflorescences covered in flat spikelets; the inflorescences are said to resemble tiny ears of corns. This grass blooms from May to August. It fruits with grains covered in a gluey secretion, and when a plant is mature each clump becomes brown and sticky.

Habitat for this species exists only at Location 13 within the vernal pool and/or wetlands. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

Focused botanical surveys occurred during a drought year, so suitable habitat for this species could be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. However, these areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite.

### **Succulent (Fleshy) Owl's-Clover**

The succulent (fleshy) owl's-clover (*Castilleja campestris* ssp. *succulenta*) is listed as a federally threatened species by the U.S. Fish and Wildlife Service. Focused surveys were conducted for the succulent (fleshy) owl's-clover during the 2018 blooming season. It is an annual grass member of the broomrape family (Orobanchaceae) that is limited to California. It is a hemiparasitic species that obtains its nutrients from the roots of other nearby plants. It grows in northern claypan and northern hardpan vernal

pool soils in the vernal pool regions of the Sierra Nevada foothills and co-occurs with several other native species of vernal pool plants.

The succulent (fleshy) owl's-clover has grown in acidic soils and is associated with the following soil types within the southern Sierra Foothills Vernal Pool Region: Amador, Anderson, Corning, Fallbrook, Hideaway, Keyes, Pentz, Ramona, Redding, San Joaquin, Vista, Yokohl and the Pollasky-Montpellier complex. It is also associated with vernal pools with an average depth of 6 to 10 inches that lack an overabundance of non-native water-dominant grasses.

The succulent (fleshy) owl's-clover is an erect herbaceous plant that ranges between 1.96 and 11.8 inches tall. It blooms in April and May, producing small yellow, long tubular flowers that form a clustered spike. Threats to this species' survival include urbanization, agriculture, and other vernal pool habitat-degrading activities.

### *Greene's Tuctoria*

Greene's tuctoria (*Tuctoria greenei*) is listed as a federally endangered species by the U.S. Fish and Wildlife Service. It is an annual grass member of the gramineae family (Poaceae) that is limited to California. It occurs in wetlands and more specifically vernal pools in open grasslands on the eastern side of the Sacramento and San Joaquin valleys and the adjacent foothills. Unusual for grasses in its group, Greene's tuctoria is not only known for its low elevations, but also for its mountain locations in Modoc and Shasta counties.

Greene's tuctoria is an erect-becoming-decumbent plant that ranges from 2 to 6 inches tall. It blooms in May, June and July, producing florets that are protected by veiny bracts tipped by numerous tiny teeth. Greene's tuctoria is threatened by agriculture, urban development, overgrazing and trampling by livestock, alterations in hydrology, and introduced species.

### *Hairy Orcutt Grass*

Hairy orcutt grass (*Orcuttia pillosa*) is listed as a federally endangered species by the U.S. Fish and Wildlife Service. It is an annual grass that belongs to the grass family (Poaceae). This species is endemic to California's vernal pool regions, with populations occurring in northeastern Sacramento Valley and the southern Sierra Nevada foothills. Hairy orcutt grass has been noted to occur on specific soils depending on its location; in the southern Sierra Nevada foothills, it occurs on the Cometa, Greenfield, Hanford, Meikle, and Whitney soil series.

Hairy orcutt grass grows in tufts of numerous stems that range between 2 and 8 inches tall. Hairy orcutt grass florets emerge as early as April and, depending on annual rainfall, can bloom as late as September. The size of this population can vary from year to year depending on the amount of rainfall; however, small-numbered populations with plants numbering less than 100 are not expected to persist.

### **San Joaquin Valley Orcutt Grass**

San Joaquin Valley orcutt grass (*Orcuttia inaequalis*) is listed as a federally threatened species by the U.S. Fish and Wildlife Service. This species is a member of the grass family (Poaceae) and is endemic to California. Mature San Joaquin Valley orcutt grass plants grow from tufts of several erect stems, ranging between 2 and 12 inches long. Like hairy orcutt grass, this species has a gray appearance due to the presence of long hairs on the stem and leaves and produces three different types of leaves throughout its lifetime. Plants initially grow under water for about three months and then produce floating leaves in response to increasing water temperatures in pools, with floating leaves remaining as long as standing water is present. Once water has entirely evaporated from pools, typically during the months of June and July, *Orcuttia* produces terrestrial leaves. Inflorescences emerge within days of the disappearance of the standing water, with flowering peaking in June and July but sometimes extending through the months of August and September.

### **Swainson's Hawk**

The Swainson's hawk, a state threatened species, is a summer migrant in the Central and Sacramento Valley, Klamath Basin, northeastern plateau, and Lassen, Kern, Mono, and Inyo counties. Individuals migrate north to California in March through May and return to South America in September through October.

Swainson's hawks breed and forage in large expanses of grasslands, agricultural lands, and alfalfa fields. They nest in tall trees such as oaks, cottonwoods, walnuts, and willows, usually near rivers or streams adjacent to their foraging areas. They usually prey on small mammals (especially voles), lizards, birds, and insects. Breeding occurs from late March to late August, with peak activity in late May through July. Nests are composed of a platform of sticks, bark, and fresh leaves built in a tree or bush, or on a utility pole from 4-100 feet above ground. Once abundant in California, their population has declined from the loss of nesting and foraging habitat.

Protocol surveys for the Swainson's hawk were not conducted for the project. No nests were observed during the multiple site visits at any of the project locations. However, there are several trees within the project vicinity that could provide potential nesting habitat, along with suitable foraging locations nearby.

### **Boggs Lake Hedge-Hyssop**

Boggs lake hedge-hyssop (*Gratiola heterosepala*) is listed as a state endangered species by the California Department of Fish and Wildlife. Botanical surveys for this species were performed in 2018. It is an annual herb member of the plantaginaceae family (*Gratiola*) that is limited to California and Oregon. The species occurs only in clay soils in or near shallow water such as at the margins of lakes and vernal pools. Boggs lake hedge-hyssop has reddish-green stems. The thin stems and small leaves are dotted with hair-like glands. The top of the stem is occupied by an inflorescence, producing long tubular yellow flowers with white tips. This herb blooms April through September.

### Environmental Consequences

Table 2.5 shows the Endangered Species Act determinations for 16 species included in the U.S. Fish and Wildlife Service special-status species queries performed for the project. Of these, three species were found to have at least a low potential to occur onsite. Formal consultation with the U.S. Fish and Wildlife Service was initiated on March 12, 2019.

**Table 2.5 Endangered Species Act Determinations**

Common Name	Scientific Name	Status	Determination
Fresno Kangaroo Rat	<i>Dipodomys nitratoide exilis</i>	FE	No Effect
San Joaquin Kit Fox	<i>Vulpes macrotis mutica</i>	FE	No Effect
Blunt-Nosed Leopard Lizard	<i>Gambelia silus</i>	FE	No Effect
Giant Garter Snake	<i>Thamnophis gigas</i>	FT	May Affect, Likely to Adversely Affect
California Red-Legged Frog	<i>Rana draytonii</i>	FT	No Effect
California Tiger Salamander	<i>Ambystoma californiense</i>	FT	May Affect, Not Likely to Adversely Affect
Delta Smelt	<i>Hypomesus transpacificus</i>	FT	No Effect
Valley Elderberry Longhorn Beetle	<i>Desmocerus californicus dimorphus</i>	FT	No Effect
Conservancy Fairy Shrimp	<i>Branchinecta conservation</i>	FE	May Affect, Not Likely to Adversely Affect
Vernal Pool Fairy Shrimp	<i>Branchinecta lynchi</i>	FT	May Affect, Likely to Adversely Affect
Vernal Pool Tadpole Shrimp	<i>Lepidurus packardii</i>	FE	May Affect, Not Likely to Adversely Affect
Colusa Grass	<i>Neistapfia colusana</i>	FT	May Affect, Not Likely to Adversely Affect
Succulent (Fleshy) Owl's-Clover	<i>Castilleja campestris ssp. succulenta</i>	FT	May Affect, Not Likely to Adversely Affect
Greene's Tuctoria	<i>Tuctoria greenei</i>	FE	May Affect, Not Likely to Adversely Affect
Hairy Orcutt Grass	<i>Orcuttia pilosa</i>	FE	May Affect, Not Likely to Adversely Affect
San Joaquin Valley Orcutt Grass	<i>Orcuttia inaequalis</i>	FT	May Affect, Not Likely to Adversely Affect
California Central Valley Steelhead Trout, Distinct Population Segment (DPS)	<i>Oncorhynchus mykiss</i>	FT	No Effect
Critical Habitat for Succulent (Fleshy) Owl's-Clover			May Affect, Not Likely to Adversely Affect
Critical Habitat for Greene's Tuctoria			May Affect, Not Likely to Adversely Affect
Critical Habitat for Conservancy Fairy Shrimp			May Affect, Likely to Adversely Affect
Critical Habitat for Vernal Pool Fairy Shrimp			May Affect, Likely to Adversely Affect
Critical Habitat for Vernal Pool Tadpole Shrimp			May Affect, Likely to Adversely Affect
Critical Habitat for California Tiger Salamander			May Affect, Not Likely to Adversely Affect

Common Name	Scientific Name	Status	Determination
Critical Habitat for California Central Valley Steelhead Trout			No Effect
Chinook Salmon Essential Fish Habitat			No Effect

### ***Critical Habitat***

Although critical habitat for the California tiger salamander, vernal pool fairy shrimp, vernal pool tadpole shrimp, conservancy fairy shrimp, fleshy owl's clover and Greene's tuctoria occurs within the action area at Location 13, only primary constituent elements for vernal pool fairy shrimp, vernal pool tadpole shrimp, and conservancy fairy shrimp occur within the impact area.

The U.S. Fish and Wildlife Service has listed vernal pool fairy shrimp, vernal pool tadpole shrimp, and conservancy fairy shrimp Critical Habitat within the action area. At Location 13, the action area was mapped as Critical Habitat. Most of the action area there is occupied by non-native grassland and interspersed aquatic features (vernal pools and swales). Some of the aquatic features are seasonal and provide wet periods of sufficient duration during years of average rainfall to support the incubation, maturation, and reproduction of vernal pool fairy shrimp. These features further support this species by providing food, shelter, and dispersal habitat. The southern portion of the Location 13 action area within mapped Critical Habitat contains the primary constituent elements to support the vernal pool fairy shrimp.

### ***California Tiger Salamander***

It is Caltrans' determination that the project *may affect, not likely to adversely affect* the California tiger salamander. Small mammal burrows were not observed onsite. The action area contains potential upland habitat for the California tiger salamander. In addition, the grassland habitat within the action area could also provide suitable dispersal habitat to salamanders that may be in the area.

It is Caltrans' determination that the proposed project *may affect, not likely to adversely affect* the California tiger salamander Critical Habitat. Areas of mapped Critical Habitat within upland non-native grasslands lack small mammal burrows to provide upland refuge for the species for shelter, feeding, and protection from predators and extreme temperatures. Onsite aquatic and upland areas within mapped Critical Habitat for the California tiger salamander are not expected to contain the necessary primary constituent elements to support the species.

Overall permanent impacts to dispersal habitat are minimal and discountable: less than half an acre. Permanent impacts that may result from the project are not anticipated to have a negative effect on potential tiger salamander populations that may be in the area. Also, habitat that would be impacted is directly adjacent to the roadway and receives constant disturbance from adjacent traffic.

Permanent and temporary impacts to California tiger salamander upland and aquatic habitat are not expected to occur. Vernal pools, seasonal wetlands, seasonal wetland swales, roadside ditches, and detention basins were all considered "potential breeding

habitat” for California tiger salamander aquatic habitat. Any pools that could be considered suitable breeding habitat would be avoided during construction.

### ***Giant Garter Snake***

It is Caltrans’ determination that the project *may affect, likely to adversely affect* the giant garter snake because there is potential suitable aquatic and terrestrial habitat at Locations 3, 4, 5 and 6. The project would not affect activities of this species because construction would take place during the giant garter snake active period. During this time (May 1 to October 1), the giant garter snake is expected to actively move and avoid danger, lessening mortality. However, potentially suitable habitat would be permanently and temporarily impacted during construction. Table 2.6 shows the areas of impact that would result from the proposed action. Impacts are relatively minor and should not adversely affect giant garter snakes that may be in the area.

**Table 2.6 Giant Garter Snake Habitat Impacts**

<b>Potential Area of Impact to Giant Garter Snake Aquatic and Terrestrial Habitats (acres)</b>		
Location 3		
	Permanent	Temporary
Aquatic Habitat	0	0
Terrestrial Habitat	0.149	0.232
Location 4		
	Permanent	Temporary
Aquatic Habitat	0.014	0.017
Terrestrial Habitat	0.334	0.337
Location 5		
	Permanent	Temporary
Aquatic Habitat	0.013	0.089
Terrestrial Habitat	0.178	0.422
Location 6		
	Permanent	Temporary
Aquatic Habitat	0.030	0.045
Terrestrial Habitat	0	0.066
Total Aquatic Permanent	0.058	
Total Terrestrial Permanent	0.512	
Total Aquatic Temporary	0.151	
Total Terrestrial Temporary	0.826	

### ***Vernal Pool Fairy Shrimp***

Vernal pool habitat was present in the action area at Location 13 only. There were six pools, with one pool being bisected into two pools by the culvert. Surveys for the species were carried out during the 2018 wet season. The vernal pool fairy shrimp was identified in four out of seven of the pools within the action area. Additional surveys were carried out during the 2018 dry season. The vernal pool fairy shrimp was identified in the final three vernal pools during those surveys, and no other listed brachiopods were found during surveys. Impacts to the vernal pool fairy shrimp at Location 13 only would occur from soil disturbances associated with clearing and grubbing and the presence of construction equipment and vehicles; both could displace cysts located in areas that receive seasonal inundation sufficient for the completion of the reproductive cycle.

Therefore, it is Caltrans' determination that the project *may affect, likely to adversely affect* the vernal pool fairy shrimp; *may affect, not likely to adversely affect* the vernal pool tadpole shrimp; and *may affect, not likely to adversely affect* the conservancy fairy shrimp.

### ***Fairy Shrimp Critical Habitat***

It is Caltrans' determination that the project *may affect, likely to adversely affect* the conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp. The permanent and temporary loss of suitable habitat would directly impact the onsite population of the vernal pool fairy shrimp in areas to be impacted by the project. Although it is likely that the vernal pool fairy shrimp would persist in other areas of suitable habitat in the action area that would not be impacted by the project, the onsite population would be reduced. Areas of habitat that would be temporarily impacted during construction would become available for use by the species once the project is constructed, but it would take some time for natural conditions to be restored and for individuals to re-colonize the area.

The species could also be indirectly impacted by the continued loss of habitat. Construction activities such as clearing, grubbing and grading would directly impact Critical Habitat through the permanent and temporary removal of aquatic habitat. Additional direct impacts would occur through the temporary presence of construction equipment and vehicles within the project footprint. There is also the potential for indirect impacts to designated Critical Habitat through the introduction or spread of invasive species of plants. See Table 2.7 for project impact totals for Critical Habitat.



**Table 2.7 Summary of Impacts to Vernal Pool Fairy Shrimp**

Impact Type	Project Impacts (acres)
<b>Impacts within Critical Habitat</b>	
Acres of Permanent Impacts	0.008
Acres of Temporary Impacts	0.013
<b>Impacts outside Critical Habitat</b>	
Acres of Permanent Impacts	0.008
Acres of Temporary Impacts	0.008
<b>Total Acres of Impacts in the Action Area</b>	<b>0.037</b>

### *Colusa Grass*

Colusa grass has not been documented in the action area, so no impacts to individual plants are expected to occur from the project. However, suitable habitat for this species may be present in the non-native grasslands.

### *Succulent (Fleshy) Owl's-Clover*

It is Caltrans' determination that the proposed project *may affect, not likely to adversely affect* the succulent (fleshy) owl's-clover. There are no documented occurrences of the succulent (fleshy) owl's-clover within the action area. The closest documented occurrence is about a tenth of a mile away and is dated from 2001, south of State Route 140. Suitable habitat occurs at Location 13 only.

Focused surveys were conducted for the succulent (fleshy) owl's-clover during the 2018 blooming season, though no reference sites were visited; the species was not found within the action area. However, the survey occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. However, these areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite.

### *Greene's Tuctoria*

It is Caltrans' determination that the project *may affect, not likely to adversely affect* Greene's tuctoria. There are no documented occurrences of the species within the action area. The closest known population occurs adjacent to the action area at Location 13, north of State Route 140 within 1 mile. The latest recorded occurrences within 1 mile were from 1975.

Focused surveys were conducted for Greene's tuctoria during the 2018 blooming season, but it was not identified within the action area.

### ***Hairy Orcutt Grass***

It is Caltrans' determination that the project *may affect, not likely to adversely affect* hairy orcutt grass. Habitat for this species exists only at Location 13, within the vernal pools and/or wetlands onsite. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference sites were visited. There are no known occurrences within 1 mile of the action area.

Focused botanical surveys occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. However, these areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite.

### ***San Joaquin Valley Orcutt Grass***

It is Caltrans' determination that the project *may affect, not likely to adversely affect* San Joaquin Valley orcutt grass. Vernal pool and/or wetland habitat for this species exists only at Location 13. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

Focused botanical surveys occurred during a drought year, so there is a possibility that suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. However, these areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite.

### ***Swainson's Hawk***

Although the Swainson's hawk or nests were not observed during site visits, there are several trees within the project vicinity that could provide potential nesting habitat, along with suitable foraging locations nearby. Two trees would be removed during construction. With implementation of the proposed avoidance minimizations measures, no impacts to Swainson's hawk are anticipated.

### ***Boggs Lake Hedge-Hyssop***

Vernal pool and/or wetland habitat for this species exists only at Location 13. The species was not found in the action area or in the area adjacent to the action area in the 2018 botanical surveys, but no reference site was visited. There are no known occurrences within 1 mile of the action area.

### ***Avoidance, Minimization, and/or Mitigation Measures***

The following avoidance and minimization measures would be implemented for the following critical habitat and species.

### ***Critical Habitat***

Work would be restricted to the minimal amount necessary to complete the project so that the construction footprint will have the least amount of disturbance to species and their habitat while also using Environmentally Sensitive Area (ESA) fencing to reduce potential disturbance.

Aquatic resources next to the edge of right-of-way found to be suitable for the vernal pool fairy shrimp would be excluded prior to the start of construction by Environmentally Sensitive Area fencing. Access, egress, and ground-disturbing activities would be sited to avoid vernal pools, where feasible. If, during construction, activities impact the integrity of pool hydrology within the micro-watershed, then compensation may be required for that pool, which would be determined during consultation with the U.S. Fish and Wildlife Service. Compensatory mitigation ratios may be higher in areas designated as Critical Habitat than in non-Critical Habitat areas.

Compensatory mitigation would be required for unavoidable effects to critical habitat. This would require consultation with the U.S. Fish and Wildlife Service to determine appropriate compensatory ratios, which may include:

- Purchase of conservation bank credits from a U.S. Fish and Wildlife Service approved bank—when made available—for vernal pool fairy shrimp.
- Restoration of habitat on protected land, which may include Natural Community Conservation Plans or Habitat Conservation Plans.
- Establishment of new habitat by permittee responsible mitigation through the purchase of mitigation lands or changes in current land practices to augment the existing nearby natural landscape.

Compensatory mitigation ratios may be higher in areas designated as Critical Habitat than non-Critical Habitat areas.

### ***California Tiger Salamander***

No permanent or temporary impacts would occur to the California tiger salamander with avoidance and minimization measures, and no compensatory mitigation is proposed. The following measures have been included in the project to protect this species at Location 13 only:

- Biological monitoring and preconstruction surveys would occur to protect any migrating salamanders during the migration season of November 1 to May 31.
- Environmentally Sensitive Area exclusion fencing would be installed around potential breeding ponds to prevent any individuals from entering the work area.
- Worker Environmental Awareness Training (WEAT) would be provided to all construction staff who enter the project site, prior to performing any project-related work or activities. The training would be provided by a qualified biologist and would discuss the federal-listed species with a potential to occur on the

project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.

- Areas adjacent to but outside the work area would be protected with brightly colored, dual-purpose Environmentally Sensitive Area fencing to prevent unnecessary disturbance to habitat and/or species. The Environmentally Sensitive Area fencing would also exclude California tiger salamanders and be applied to offsite areas next to the project footprint that contain suitable aquatic features. A qualified biologist would oversee the installation and would visit the site weekly to ensure that the fencing is in good working condition.
- If a 70% or greater chance of rainfall is predicted within 24 hours of a project activity, a qualified biologist would survey the project site for the presence of migrating California tiger salamanders prior to the start of construction each day that rain is forecasted.
- No project work that could impact migrating California tiger salamanders would occur during or within 48 hours following significant rain events, defined as ¼-inch or more of rain in a 24-hour period.
- For work conducted during the migration season of November 1 to May 31, a qualified biologist would survey active work areas (including access roads) in the morning, following measurable precipitation that measures less than ¼-inch. Construction may not begin until the biologist has confirmed that no California tiger salamanders are in the work area.
- Trenches greater than 6 inches deep would be required to be covered or have an escape ramp present. These would be checked daily for trapped California tiger salamanders and other wildlife. Before trenches are filled, they would be inspected thoroughly for trapped wildlife.
- Any pipes or culverts stored onsite must be capped to prevent entry by a California tiger salamander. Pipes must be inspected before installation to ensure that California tiger salamanders have not taken cover inside. If any California tiger salamanders are found on pipes or culverts, the assigned Caltrans biologist would be notified.
- Vehicle travel would be limited to established roadways unless otherwise designated. Any travel beyond the paved highway would adhere to a 20-mile-per-hour daytime speed limit and 10-mile-per-hour nighttime speed limit.
- Areas that would be temporarily impacted due to construction would be seeded with a native seed mix once construction is complete.

No compensatory mitigation is proposed for the California tiger salamander or designated Critical Habitat because the channel that the project would impact is not suitable breeding habitat and it does not contain all the necessary primary constituent elements to support the species.

### ***Giant Garter Snake***

The following measures developed by the U.S. Fish and Wildlife Service would be implemented to avoid and minimize effects to the giant garter snake at Locations 3-6 only:

- All construction activities will take place between May 1 and October 1, the active period for the giant garter snake.
- Preconstruction surveys will be conducted by a qualified biologist to identify areas that have the potential to encounter a giant garter snake.
- Prior to the start of work, silt fencing will be installed around the project limits to prevent giant garter snakes from entering the work area.
- There will be a biological monitor present during any initial clearing and grubbing activities in areas that have the potential to encounter a giant garter snake.
- Construction personnel will participate in a worker environmental awareness program approved by the U.S. Fish and Wildlife Service. A qualified biologist will inform all construction personnel about the life history of the giant garter snake; how to identify the species and its habitats; what to do if a giant garter snake is encountered during construction activities; as well as explain the state and federal laws pertaining to the giant garter snake.
- Standard construction Best Management Practices (BMPs) will be implemented throughout construction to avoid and minimize adverse effects to water quality within the project impact area.
- If a live giant garter snake is encountered during construction activities, the biological monitor will do the following:
  - Stop construction activity in the vicinity of the giant garter snake. Monitor the giant garter snake and allow the giant garter snake to leave on its own. The monitor will remain in the area for the remainder of the workday to make sure that the giant garter snake is not harmed or that it leaves the site and does not return. Escape routes for the giant garter snake will be determined in advance of construction. If the giant garter snake does not leave on its own within one working day, further consultation with the U.S. Fish and Wildlife Service will be conducted.

Unavoidable effects to the giant garter snake will require consultation with the U.S. Fish and Wildlife Service to determine appropriate compensatory ratios, which may include:

- Purchase of conservation bank credits from a U.S. Fish and Wildlife Service- and California Department of Fish and Wildlife-approved bank—when made available—for giant garter snake.
- Restoration of habitat on protected land, which may include Natural Community Conservation Plans or Habitat Conservation Plans.

- Establishment of new habitat by permittee-responsible mitigation through the purchase of mitigation lands or changes in current land practices to augment the existing nearby natural landscape.
- Giant garter snake temporary impacts will be recontoured and revegetated with an appropriate weed-free native plant seed mixture following the completion of construction.

### *Vernal Pool Fairy Shrimp*

Aquatic resources, adjacent to the edge of right-of-way, found to be suitable for the vernal pool fairy shrimp would be excluded prior to the start of construction by Environmentally Sensitive Area fencing. Access, egress, and ground-disturbing activities will be sited to avoid vernal pools, where feasible. If, during construction, activities might impact the integrity of pool hydrology within the micro-watershed, then compensation may be required for that pool, which would be determined during consultation with the U.S. Fish and Wildlife Service. Unavoidable effects will be compensated through a purchase of credits at a mitigation bank approved by the applicable regulatory agency or agencies.

Unavoidable effects to fairy shrimp would require consultation with the U.S. Fish and Wildlife Service to determine appropriate compensatory ratios, and compensatory mitigation ratios may be higher in areas designated as Critical Habitat than in non-Critical Habitat areas. Compensatory mitigation for fairy shrimp includes the following:

- Purchase of conservation bank credits from a U.S. Fish and Wildlife Service-approved bank—when made available—for vernal pool fairy shrimp.
- Restoration of habitat on protected land, which may include Natural Community Conservation Plans or Habitat Conservation Plans.
- Establishment of new habitat by permittee-responsible mitigation through the purchase of mitigation lands or changes in current land practices to augment the existing nearby natural landscape.

### *Colusa Grass*

The following avoidance and minimization measures have been included in the project to protect Colusa grass:

- A Worker Environmental Awareness Training (WEAT) would be provided to all construction staff who enter the project site, prior to performing any project-related work or activities. The training would be provided by a qualified biologist and would discuss the federal-listed species with a potential to occur on the project.
- Preconstruction botanical surveys would be completed throughout the new Caltrans right-of-way prior to the start of construction.

- If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them would be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, re-initiation with the U.S. Fish and Wildlife Service may be required and transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff would be coordinated with the U.S. Fish and Wildlife Service.

### *Succulent (Fleshy) Owl's-Clover*

This species has not been documented in the action area, so no impacts to individual plants are expected to occur from the proposed action. However, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite. The following avoidance and minimization measures have been included in the project to protect the succulent (fleshy) owl's-clover:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way at Location 13 prior to the start of construction. Methodologies outlined in the California Department of Fish and Wildlife *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling,

and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

### *Greene's Tuctoria*

Surveys occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. However, these areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite.

The following measures would be implemented to avoid and minimize effects to Greene's tuctoria:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at Location 13. The California Department of Fish and Wildlife *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling,



and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

### *Hairy Orcutt Grass*

Focused botanical surveys occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. These areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite. The following measures would be implemented to avoid and minimize effects to the hairy orcutt grass:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at Location 13. The California Department of Fish and Wildlife *Protocols for surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.

If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

### **San Joaquin Valley Orcutt Grass**

Focused botanical surveys occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. These areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite. The following measures would be implemented to avoid and minimize effects to the San Joaquin hairy orcutt grass:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at Location 13. The California Department of Fish and Wildlife *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

### **Swainson's Hawk**

The following measures would be implemented to avoid and minimize effects to the Swainson's hawk:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Preconstruction nesting surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction if construction is to occur during the nesting season (February 1 to September 30). Surveys will follow general guidelines identified in the *“Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley.”*
- If Swainson’s hawks are observed nesting within a half mile of the project, a 600-foot-radius no-work buffer will be designated. Nest trees will be identified with Environmentally Sensitive Area fencing around the nest tree wherever the no-work buffer may overlap with construction activities.
- Nest trees will be monitored until a qualified biologist has determined that the birds have fledged.
- If work will need to occur within the 600-foot buffer, some activities may be allowed if a biological monitor is present and determines that those construction activities are not disrupting the Swainson’s hawks’ nesting.

### ***Boggs Lake Hedge-Hyssop***

Focused botanical surveys occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. However, these areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite. The following measures would be implemented to avoid and minimize effects to the Boggs lake hedge-hyssop:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.

- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at Location 13. The California Department of Fish and Wildlife *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal-listed, state-listed, or rare species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

## **2.2.4 Invasive Species**

### ***Regulatory Setting***

On February 3, 1999, President William J. Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration guidance issued August 10, 1999 directs the use of the State’s invasive species list, maintained by the California Invasive Species Council, to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a project.

### ***Affected Environment***

A Natural Environment Study and a Biological Assessment for the project were prepared in February 2019.

The following invasive species were found growing throughout the biological study areas in disturbed areas next to the highway: poison hemlock (*Conium*), black mustard (*Blossica nigra*), milk thistle (*Silybum marianum*), red brome (*Bromus madritensis*), and ripgut (*Bromus diandrus*). General Caltrans maintenance activities along this route involve grading shoulders and minimizing vegetation. The disturbed areas are also a result of pedestrian and vehicular traffic.

### **Environmental Consequences**

To prevent the introduction and spread of other invasive species into the project area, Caltrans has issued policy guidelines that provide a framework for addressing roadside vegetation management and minimization measures for construction activities and maintenance programs as follows:

- Caltrans periodically maintains the vegetation in its right-of-way by mowing, disking, and the spraying of herbicides.
- Equipment staging in weed-free areas: Staging and storage of equipment should be done in weed-free areas. Infestations of noxious and/or highly invasive weeds were mapped in the project planning effort to determine if hand, mechanical, or chemical eradication treatments are feasible, or if it is feasible to designate those areas as excluded from contractor's use.
- A non-standard special provision would be included in the construction contract that requires construction equipment and vehicles be cleaned prior to entering and exiting the project site.

### **Avoidance, Minimization, and/or Mitigation Measures**

No mitigation is proposed.

## **Chapter 3**      **CEQA Evaluation**

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### **3.1      Determining Significance under CEQA**

The proposed project is a joint project by the California Department of Transportation (Caltrans) and the Federal Highway Administration and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The Federal Highway Administration's responsibility for environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S. Code Section 327 (23 USC 327) and the Memorandum of Understanding dated December 23, 2016 and executed by the Federal Highway Administration and Caltrans. Caltrans is the lead agency under CEQA and NEPA.

One of the main differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an Environmental Impact Statement, or a lower level of documentation, will be required. NEPA requires that an Environmental Impact Statement be prepared when the proposed federal action as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an Environmental Impact Statement, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require Caltrans to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report must be prepared. Each significant effect on the environment must be disclosed in the Environmental Impact Report and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an Environmental Impact Report. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

### **3.2      CEQA Environmental Checklist**

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in

connection with the projects will indicate that there are no impacts to a particular resource. A NO IMPACT answer in the last column reflects this determination. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 to provide you with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

**AESTHETICS**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Aesthetics*****a-b) No Impact***

No qualifying scenic resources, as defined by the Section 15300.2(d) of the California Environmental Quality Act, Implementation Guidelines, would be affected by the project.

***c) No Impact***

The project would not substantially degrade the existing visual character or quality of the site and its surroundings. A Visual Impact Assessment was prepared in February 2019 determining that the proposed project would result in a negligible visual impact.

***d) No Impact***

The project would not include lighting elements in an area where currently there is no lighting.



## AGRICULTURE AND FOREST RESOURCES

<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p>				
Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### CEQA Significance Determinations for Agriculture and Forest Resources

#### ***a-b) Less Than Significant Impact***

See Chapter 2, Farmland, for a detailed farmland discussion. A total of 0.54 acre of right-of-way would be acquired; temporary construction easements in the amount of 0.43 acre would be needed for the proposed project. Location 13 only would convert approximately 0.47 acre of prime and unique farmland under the Land Conservation Act to non-agricultural use, out of 511 acres. Approximately 0.20 acre would be used

as temporary construction easements on both sides of the road. The culverts at Location 13 would be extended 15.2 feet on the south side, and 14.2 feet on the north side.

The purpose and need of this project are to reduce collisions and minimize collision severity involving errant vehicles leaving the traveled way and striking fixed objects. According to the Merced General Plan Agricultural Resources Element, Policy AG 2.9: Infrastructure Extension policy opposes work in areas designated for agricultural use “unless necessary to protect public health, safety, and welfare.” The project is consistent with the Merced County General Plan and is supported by its listing in the Federal Transportation Improvement Plan and the State Highway Operation and Protection Program.

***c-d) No Impact***

There are no forest or timberlands impacted by the project.

***e) No Impact***

The project would not involve other changes in the existing environment which, due to their location or nature, could result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

**AIR QUALITY**

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.				
Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Air Quality****a) No Impact**

The project would not conflict with or obstruct implementation of the applicable air quality plan for the San Joaquin Valley Air Basin and the San Joaquin Valley Air Pollution Control District.

**b) No Impact**

The project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The project is exempt from all project-level conformity requirements under 40 Code of Federal Regulations 93.126 based on the proposed safety and drainage improvements at spot locations throughout the project limits.

**c) No Impact**

There would be no cumulatively considerable net increase of any criteria pollutant because of the project. The project would extend culverts, install guardrail, remove and replace headwalls at spot locations. Short-term air quality and pollutants would be temporary during construction.

**d) No Impact**

The project would not expose sensitive receptors to substantial pollutant concentrations. During construction, the project would generate air pollutants: temporary exhaust from construction equipment containing hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. The contractor will be required to comply with construction mitigation methods listed in the Caltrans Standards Specifications for Dust Control that require compliance with local air district pollution control requirements.

**e) No Impact**

The project would not create objectionable odors that would affect a substantial number of people because the land uses in the project area are rural, agricultural, and railroad utility, with minimal residents. The project may temporarily generate air pollutants from construction equipment. The impacts would vary each day as construction progresses, and some residences close to the right-of-way may encounter dust and odors. The inclusion of Caltrans Standard Specifications pertaining to dust control and dust palliative requirements for all construction contracts would effectively reduce and control emission impacts during construction.

**BIOLOGICAL RESOURCES**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Biological Resources*****a) Less Than Significant with Mitigation Incorporated***

As discussed in the Threatened and Endangered Species section in Chapter 2 of this document, the Caltrans determination for the project is “*may affect, likely to adversely affect*” the giant garter snake, vernal pool fairy shrimp, vernal pool tadpole shrimp and fairy and tadpole shrimp critical habitat. Also, the Caltrans determination for the

project is “*may affect, not likely to adversely affect*” the California tiger salamander and its critical habitat, conservancy fairy shrimp, vernal pool tadpole shrimp, Colusa grass, succulent (fleshy) owl’s clover and its critical habitat, Greene’s tuctoria and its critical habitat, hairy orcutt grass, and San Joaquin Valley orcutt grass. Proposed avoidance, minimization, and mitigation measures would reduce the project impacts to below significance.

***b) Less Than Significant Impact***

There would not be a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. As discussed in Chapter 2 of this document, Natural Communities section, the project is occupied by non-native grassland habitat, vernal pools, seasonal wetlands and swales, seasonal marshes, drainage basins, ephemeral drainages, culverts, ditches, ditches, agricultural areas, undeveloped residential and commercial lots. Non-native grassland is mixed with fairy and tadpole shrimp vernal pool critical habitat. The Caltrans determination for the project is “*may affect, not likely to adversely affect*” this critical habitat, and avoidance, minimization, and mitigation measures would reduce the impacts to below significance.

***c) Less Than Significant with Mitigation Incorporated***

As discussed in Chapter 2 of this document, Wetlands section, the project would permanently impact 0.32 acre of Waters of the U.S.; 0.06 acre was delineated. A 1600 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife would be needed for Locations 4, 5, 6, and 13. A Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board would be needed for Locations 4, 5, 6, 8, and 13. A Clean Water Act Section 404 Nationwide Permit from the U.S. Army Corps of Engineers would be required for Locations 4, 5, 6, 8, and 13. Implementation of avoidance, minimization, and mitigation measures would reduce the impacts to below significance.

***d) No Impact***

The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

***e) No Impact***

The project is not in conflict with any local policy or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The Merced County General Plan’s Oak Conservation Policy directs that cutting existing trees should be minimized.

***f) No Impact***

There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans that would be impacted with construction of the project.

**CULTURAL RESOURCES**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Cultural Resources*****a-b) No Impact***

Within the Area of Potential Effects, four historic-era resources were identified. Two of these properties were previously evaluated and determined not eligible for the National Register of Historic Places under any qualifying criteria. The State Historic Preservation Officer concurred with those findings, and those determinations remain valid. The other two linear features were evaluated for the current project and determined not eligible for listing in the National Register of Historic Places. There are no known prehistoric or historic archaeological resources within the Archaeological Study Area. No new archaeological resources were identified during the archaeological survey for this project (Valentin 2018). Caltrans, pursuant to the Section 106 Programmatic Agreement Stipulation IX.A and as applicable to the Public Resources Code 5024 Memorandum of Understanding Stipulation IX.A.2 has determined a Finding of No Historic Properties Effectuated is appropriate for this project as there are no historic properties within the Area of Potential Effects. According to CEQA Guidelines 15064.5(a), Caltrans has determined there are no historic resources within the project's Area of Potential Effects. The State Historic Preservation Officer in a letter dated December 4, 2018 concurred with these findings for the project (see Appendix E). (Historic Property Survey Report, November 2018; Historic Resources Evaluation Report, November 2018; Archaeological Survey Report, October 2018)

***c) No Impact***

The project would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature. Although the project area contains high

sensitivity for paleontological resources, the project activities would be of limited depth and localized to single-point areas instead of widespread vertical and lateral excavation; the intensity of the impact is minimal, and mitigation is not recommended.

**d) No Impact**

The project would not disturb any human remains, including those interred outside of dedicated cemeteries. If previously identified cultural materials are unearthed during construction, it is Caltrans policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities must cease in any area or nearby area suspected to overlie remains, and the local coroner contacted. Pursuant to California Public Resources Section 5097.98, if the remains are thought to be Native American, the coroner would notify the Native American Heritage Commission, which would then notify the Most Likely Descendent.



**GEOLOGY AND SOILS**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Geology and Soils****a) No Impact**

The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving i, ii, iii and iv. Sources for this response included the California Geological Survey webpage, *Faulting in California*, the Merced County General Plan webpage, and the California Conservation webpage Data Viewer. No faults were identified in the project area, and

seismic hazards activities are low. There is no strong seismic ground shaking in the project area.

***b) No Impact***

The project would not result in substantial soil erosion or the loss of topsoil. Construction would use a cut-and-fill method as well as landscape planting to reduce any soil erosion.

***c) No Impact***

The project is not located in a geologic unit or soil that is unstable or that would become unstable because of the project.

***d) No Impact***

The project is not located on expansive soil, as defined in Table 18-1-B of the Uniform Building code (1994), that would create substantial risks to life or property.

***e) No Impact***

The project would not impact soils used for septic tanks or alternate wastewater disposal systems.

**GREENHOUSE GAS EMISSIONS**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

***a-b) Less Than Significant Impact***

While the project would result in greenhouse gas emissions during construction, it is anticipated that the project would not result in any increase in operational greenhouse gas emissions. The project would extend culverts, construct headwalls, and install guardrail systems. It would not impact traffic flow or change the traffic capacity of the roadway. Therefore, the project would result in a less than significant impact to greenhouse gas emissions.

**HAZARDS AND HAZARDOUS MATERIALS**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Hazards and Hazardous Materials****a) No Impact**

The Caltrans Standard Special provision pertaining to Treated Wood Waste would be added to the construction contract for the removal of existing guardrail at Locations 3,

4, 6, 7, 8 and 12, and an asbestos-containing material survey would be required prior to construction for Location 3, which is considered a bridge.

**b) No Impact**

An asbestos-containing material survey would be required prior to construction for Location 3, which is considered a bridge. If asbestos occurs, special handling would be required during construction.

**c) No Impact**

There are no schools within a quarter-mile of the project area.

**d) No Impact**

There are no Cortese List sites in the project area.

**e) No Impact**

The project lies within Merced County's airport land use plan. Three airports surround the project area. The nearest airport—Gustine Municipal Airport—is about 1 mile south of the first culvert improvement area, which is outside of the project limits of the project. The Merced Regional Airport is about 1 mile south of State Route 140 in the City of Merced, and no culvert work is proposed within the City of Merced. The Merced County Castle Airport is about 3 miles north of State Route 140. A local private airport—the Stevinson Strip Airport—sits about 1 mile north of State Route 140. The project, at spot locations, in rural areas, would extend culverts, reconstruct headwalls, and install guardrail. The project would not result in a safety hazard for people residing or working in the project area.

**f) No Impact**

The Stevinson Strip Airport is a private airstrip. It is located about 1 mile north of State Route 140. The project would not result in a safety hazard for people residing or working nearby because the project area is about 1 mile away from the airstrip.

**g) No Impact**

The project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. During construction, at least one lane would be open at all time (Transportation Management Plan Checklist, September 2018).

**h) No Impact**

The project would not expose people or structures to a significant wildland fire. The project area's land use is agricultural.

**HYDROLOGY AND WATER QUALITY**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## **CEQA Significance Determinations for Hydrology and Water Quality**

### **a) No Impact**

The project would not violate any water quality standards or waste discharge requirements because Caltrans is required to reduce potential water quality impacts in the design and construction phases. With use of selected Best Management Practices, water quality would be protected, and the risk for accidental releases of oil, grease, and chemical pollutants would be reduced.

### **b) No Impact**

The project would extend culverts, install guardrail, and reconstruct headwalls; it would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge so that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

### **c-d) No Impact**

Drainage patterns would not be altered with construction of the project.

### **e) No Impact**

The project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The project would not increase the volume of traffic on State Route 140, therefore, the present runoff conditions would remain unaltered. Best Management Practices with Caltrans Standard Provisions would help alleviate impacts to runoff water during construction. The Caltrans Stormwater Unit would provide appropriate Best Management Practices for all stormwater concerns.

### **f) No Impact**

The project would not substantially degrade water quality, with the implementation of Best Management Practices.

### **g) No Impact**

The project is not a housing project.

### **h) No Impact**

The project would not place, within a 100-year flood hazard area, structures that would impede or redirect flood flows. The project activities would not significantly impact the floodway opening because this project would extend culverts and not reduce the flow in the channels.

### **i) No Impact**

The project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding because of the failure of a levee or dam. There would be no impacts to any levee or dam.

***j) No Impact***

The project would not cause inundation by seiche, tsunami, or mudflow, as it is not near major bodies of water. The project area is outside the coastal zone and not in an area subject to sea-level rise.



**LAND USE AND PLANNING**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Land Use and Planning****a) No Impact**

The project would not physically divide an established community. The project is on a roadside of a highway facility; additional right-of-way and temporary construction easements would be acquired from farmland and a railroad for the project.

**b) No Impact**

The project would extend culverts, reconstruct headwalls, and install guardrail, and would not conflict with any applicable land use plans.

**c) No Impact**

The project does not conflict with an existing habitat conservation plan or a natural conservation plan.

## MINERAL RESOURCES

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### CEQA Significance Determinations for Mineral Resources

#### **a) No Impact**

The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. In Merced County, precious minerals and building material aggregate resources are ample and exceed projected demand, according to the Merced County General Plan.

#### **b) No Impact**

The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. See answer “a” above.

**NOISE**

Would the project result in:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Noise****a) No Impact**

The project is not expected to expose persons to or generate noise levels in excess of noise standards. Temporary noise impacts during construction would be handled by the Caltrans Standard Specifications Section 14-8.02 Noise Control.

**b) No Impact**

The project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. As directed by Caltrans, the contractor would implement the appropriate additional noise mitigation measures, such as turning off idling equipment, rescheduling construction activity, and installing acoustic barrier around stationary construction noise sources.

**c) No Impact**

The project would not cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. No adverse noise impacts from construction are anticipated. Construction noise would be short term, intermittent, and overshadowed by local traffic noise. Under Caltrans Noise Section 14-8.02 “Noise Control,” noise levels generated during construction should not exceed 86 dB at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m. Noise would be monitored and controlled from the construction area. All equipment would have sound control devices that are no less effective than provided on the original equipment. No equipment would have an unmuffled exhaust.

**d) No Impact**

The project would not create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. The degree of construction noise impacts may vary for different areas within the project limits and vary depending on the construction activity. Caltrans, along with the contractor, would implement measures to minimize the temporary noise impacts from construction.

**e) No Impact**

The project sits within Merced County’s airport land use plan. Three airports surround the project area. The nearest airport—Gustine Municipal Airport—is about 1 mile south of the first culvert improvement area, which is outside of the project limits. The Merced Regional Airport is about 1 mile south of State Route 140 in the City of Merced. The Merced County Castle Airport is about 3 miles north of State Route 140. The project would not expose people residing or working in the project area to excess noise levels.

**f) No Impact**

A local private airport—Stevinson Strip Airport—is about 1 mile north of State Route 140. The project would not expose people residing or working in the project area to excess noise levels.

**POPULATION AND HOUSING**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Population and Housing****a) No Impact**

The project would not induce substantial population growth in an area, either directly or indirectly. The project would provide roadside safety improvements throughout the project limits and is not a capacity-increasing project.

**b) No Impact**

The project would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing areas. The proposed right-of-way acquisition would occur at three culvert locations. The project would provide roadside safety improvements throughout the project limits.

**c) No Impact**

The project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

**PUBLIC SERVICES**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Public Services****a) No Impact**

The project would not trigger the need for new or modified public facilities of any type. Prior to construction, Caltrans and the contractor would, per Caltrans Standard Specifications, carefully plan any necessary lane closures and use proper traffic control devices throughout the duration of construction. According to the Transportation Management Plan Checklist prepared by Caltrans, the contractor would maintain access to all businesses, residences, and public services at all times. With these standard specifications and lane closures strategy, the project would not affect government facilities or public response services within the project area. The project would be constructed with one-lane traffic control, which could create some delays for motorists and impacted users. The Caltrans Public Information Officer would notify impacted groups, such as bicycle users, pedestrians with disabilities, and others via media releases.

**RECREATION**

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Recreation****a) No Impact**

The project would not increase the use of existing neighborhood and regional parks or other recreational facilities so that substantial physical deterioration of the facility would occur or be accelerated. No park or recreational facility would be impacted as a result of the project.

**b) No Impact**

The project does not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. The project is a roadside safety improvement project focusing on extending culverts, installing guardrail, and reconstructing headwalls.

**TRANSPORTATION/TRAFFIC**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Transportation/Traffic****a) No Impact**

The project would not conflict with any traffic circulation plan or policy.

**b) No Impact**

The project would not conflict with any applicable congestion management program. Any lane closures or construction work on local roads would require concurrence from city and county public works agencies. The implementation of the Caltrans



Traffic Management Plan, as well as coordination with the County, would reduce traffic congestion within the project area during the construction phase.

**c) No Impact**

The project would have no impact on air traffic patterns. The nearest airport—Gustine Municipal Airport—is about 1 mile south of the first culvert location, which is outside of the project limits. The Merced Regional Airport is about 1 mile south of State Route 140 in the City of Merced, and no culvert work is proposed within the City of Merced. The Merced County Castle Airport is about 3 miles north of State Route 140. A local private airport—Stevenson Strip Airport—sits about 1 mile north of State Route 140. The project, at spot locations, in rural areas, would extend culverts, reconstruct headwalls, and install guardrail.

**d) No Impact**

The project would not increase hazards due to a design feature. The project is a roadside safety improvement project focusing on extending culverts, installing guardrail, and reconstructing headwalls, features that are being improved.

**e) No Impact**

The project would not result in inadequate emergency access. The project would be constructed with one-lane traffic control. There would be some night work for some aspects of the project. During the construction phase, Caltrans would implement a Traffic Management Plan with Best Management Practices with the contractor, the city and county to provide adequate emergency access. The public would be informed ahead of construction by the Caltrans Public Information Officer.

**f) No Impact**

The project would not conflict with any policies, plans, or programs regarding transit, bicycle, or pedestrian facilities. The project would not interfere with any existing public transit plan or program. The project would improve the drainage within the project limits.

**TRIBAL CULTURAL RESOURCES**

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Tribal Cultural Resources****a) No Impact**

Caltrans determined that there are no resources listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

**b) No Impact**

Native American Heritage Commission consultation was initiated, by letter, in March 2019 to determine if any cultural properties were known to exist within or adjacent to the project area. In response, the Native American Heritage Commission stated that its files failed to indicate the presence of Native American cultural resources within or adjacent to the proposed project. The Native American Heritage Commission provided a list of tribal contacts who may be interested in the project. Native American tribes were consulted by letter, in late March 2019, in accordance with Assembly Bill No. 52 of the California Environmental Quality Act. Eleven of 13 Native American contacts responded to Caltrans consultation letters. One of the Native American contacts requested final documentation, and another contact requested to be informed of the progress of studies. According to the Archaeological Survey Report, October 2018, no known prehistoric or historic archaeological resources were found within the project limits. (See Chapter 4, Comments and Coordination.)

**UTILITIES AND SERVICE SYSTEMS**

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Utilities and Service Systems****a-b) No Impact**

The project would not require a new or additional discharge of water, so it would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. The project would have no impact on wastewater treatment facilities.

**c) No Impact**

The project would extend existing culverts, remove and reconstruct headwalls, and remove existing guardrail and install guardrail, but this work would not cause significant environmental effects.

**d) No Impact**

The project would have no effect on the need for water supplies.

**e) No Impact**

The project would have no impact on wastewater treatment needs.

**f) No Impact**

The project would have no impact on landfill needs.

**g) No Impact**

The project would comply with all solid waste regulations.

**MANDATORY FINDINGS OF SIGNIFICANCE**

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CEQA Significance Determinations for Mandatory Findings of Significance*****a) Less Than Significant with Mitigation Incorporated***

The project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels. Impacts to Wetlands and other Waters and Threatened and Endangered Species would be mitigated below significance. See Chapter 2, Biological Environment.

***b) No Impact***

The project would not have any cumulative impacts as a result of the project.

***c) No Impact***

The project would not have any environmental impacts that would cause substantial adverse effects on human beings.

### 3.3 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (also known as GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are concerned mostly with the emissions of greenhouse gases generated by human activity, including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), HFC-23 (fluoroform), HFC-134a (1, 1, 1, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of greenhouse gas emissions is electricity generation, followed by transportation.<sup>1</sup> In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) are the largest contributors of greenhouse gas emissions.<sup>2</sup> The dominant greenhouse gas emitted is CO<sub>2</sub>, mostly from fossil fuel combustion.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” “Greenhouse gas mitigation” covers the activities and policies aimed at reducing greenhouse gas emissions to reduce or “mitigate” the impacts of climate change. “Adaptation” is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).

#### **Regulatory Setting**

This section outlines federal and state efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

##### **Federal**

To date, no national standards have been established for nationwide mobile-source greenhouse gas reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and greenhouse gas emissions reduction at the project level.

<sup>1</sup> <https://www.epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-1990-2014>

<sup>2</sup> <https://www.arb.ca.gov/cc/inventory/data/data.htm>

The National Environmental Policy Act (NEPA) (42 U.S. Code Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. The Federal Highway Administration therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices.<sup>3</sup> This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability.”<sup>4</sup> Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life. Addressing these factors up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making.

Various efforts have been made at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

The Energy Policy Act of 1992 (EPACT92, 102nd Congress H.R.776.ENR): With this act, Congress set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. EPACT92 consists of 27 titles detailing various measures designed to lessen the nation’s dependence on imported energy, provide incentives for clean and renewable energy, and promote energy conservation in buildings. Title III of EPACT92 addresses alternative fuels. It gave the U.S. Department of Energy administrative power to regulate the minimum number of light-duty alternative fuel vehicles required in certain federal fleets beginning in fiscal year 1993. The main goal of the program is to cut petroleum use in the United States by 2.5 billion gallons per year by 2020.

Energy Policy Act of 2005 (109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

Energy Policy and Conservation Act of 1975 (42 U.S. Code Section 6201) and Corporate Average Fuel Standards: This act establishes fuel economy standards for

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<sup>3</sup> <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

<sup>4</sup> <https://www.sustainablehighways.dot.gov/overview.aspx>

on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the Corporate Average Fuel Economy (CAFE) program on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

The U.S. EPA's authority to regulate greenhouse gas emissions stems from the U.S. Supreme Court decision in *Massachusetts v. Environmental Protection Agency* (2007). The Supreme Court ruled that greenhouse gases meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the court's ruling, the U.S. Environmental Protection Agency finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing act and Environmental Protection Agency's assessment of the scientific evidence that form the basis for Environmental Protection Agency's regulatory actions.

The U.S. Environmental Protection Agency in conjunction with the National Highway Traffic Safety Administration (NHTSA) issued the first of a series of greenhouse gas emission standards for new cars and light-duty vehicles in April 2010<sup>5</sup> and significantly increased the fuel economy of all new passenger cars and light trucks sold in the United States. The standards required these vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. In August 2012, the federal government adopted the second rule that increases fuel economy for the fleet of passenger cars, light-duty trucks, and medium-duty passenger vehicles for model years 2017 and beyond to average fuel economy of 54.5 miles per gallon by 2025. Because the National Highway Traffic Safety Administration cannot set standards beyond model year 2021 due to statutory obligations and the rules' long timeframe, a mid-term evaluation is included in the rule. The Mid-Term Evaluation is the overarching process by which the National Highway Traffic Safety Administration, Environmental Protection Agency, and Air Resources Board will decide on the Corporate Average Fuel Economy (CAFE) and greenhouse gas emissions standard stringency for model years 2022–2025. The National Highway Traffic Safety Administration has not formally adopted standards for model years 2022 through 2025. However, the Environmental Protection Agency finalized its mid-term review in January 2017, affirming that the target fleet average of at least 54.5 miles per gallon by 2025 was appropriate. In March 2017, President Donald Trump ordered the Environmental Protection Agency to reopen the review and reconsider the mileage target.<sup>6</sup>

The National Highway Traffic Safety Administration and Environmental Protection Agency issued a Final Rule for "Phase 2" for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies

<sup>5</sup> <https://one.nhtsa.gov/Laws-&-Regulations/CAFE-%E2%80%93-Fuel-Economy>

<sup>6</sup> <https://www.federalregister.gov/documents/2017/03/22/2017-05316/notice-of-intention-to-reconsider-the-final-determination-of-the-mid-term-evaluation-of-greenhouse>



estimate that the standards will save up to 2 billion barrels of oil and reduce CO<sub>2</sub> emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

### **State**

With the passage of legislation including State Senate and Assembly bills and executive orders, California has been innovative and proactive in addressing greenhouse gas emissions and climate change.

Assembly Bill 1493, Pavley Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order S-3-05 (June 1, 2005): The goal of this order is to reduce California’s greenhouse gas emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill 32 in 2006 and SB 32 in 2016.

Assembly Bill 32 (AB 32), Chapter 488, 2006: Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 greenhouse gas emissions reduction goals as outlined in Executive Order S-3-05, while further mandating that the Air Resources Board create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” The Legislature also intended that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020 (Health and Safety Code Section 38551(b)). The law requires the Air Resources Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas reductions.

Executive Order S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard (LCFS) for California. Under this order, the carbon intensity of California’s transportation fuels is to be reduced by at least 10 percent by the year 2020. The Air Resources Board re-adopted the low carbon fuel standard regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor’s 2030 and 2050 greenhouse gas reduction goals.

Senate Bill 97 (SB 97), Chapter 185, 2007, Greenhouse Gas Emissions: This bill requires the Governor’s Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) Guidelines for addressing greenhouse gas emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires Air Resources Board to set regional emissions reduction

targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a “Sustainable Communities Strategy” (SCS) that integrates transportation, land use, and housing policies to plan how it will achieve the emissions target for its region.

Senate Bill 391 (SB 391), Chapter 585, 2009, California Transportation Plan: This bill requires the State’s long-range transportation plan to meet California’s climate change goals under AB 32.

Executive Order B-16-12 (March 2012): This order required state entities under the direction of the governor, including the Air Resources Board, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

Executive Order B-30-15 (April 2015): This order established an interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of greenhouse gas emissions to implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets. It also directs the Air Resources Board to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO<sub>2</sub>e). Finally, it requires the Natural Resources Agency to update the state’s climate adaptation strategy, Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.

Senate Bill 32, (SB 32) Chapter 249, 2016: This bill codifies the greenhouse gas reduction targets established in Executive Order B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

### *Environmental Setting*

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multi-year program to reduce greenhouse gas emissions in California. AB 32 required the Air Resources Board to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing greenhouse gas emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Air Resources Board in 2008 and must be updated every 5 years. The second updated plan, California’s 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in Executive Order B-30-15 and SB 32.

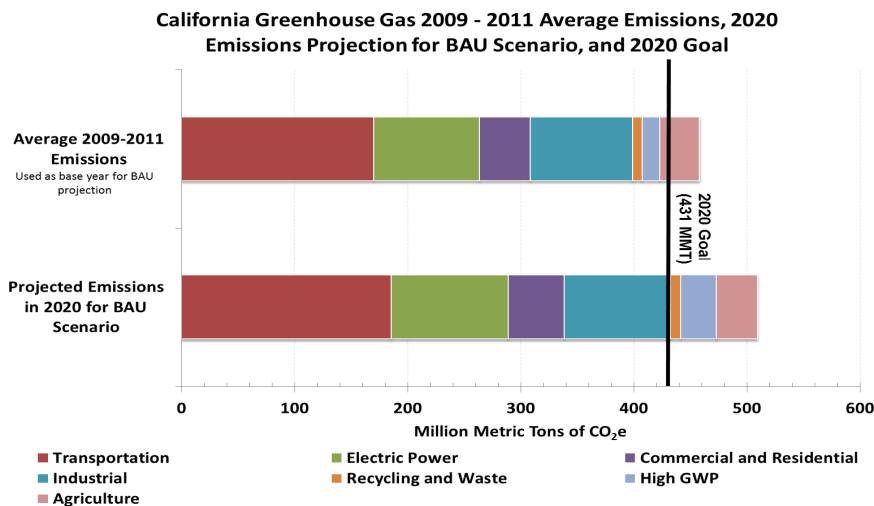
The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce greenhouse gas emissions. As part of its supporting documentation for the updated Scoping Plan, the Air Resources Board released the

greenhouse gas inventory for California.<sup>7</sup> The Air Resources Board is responsible for maintaining and updating California's Greenhouse Gas Inventory per H&SC Section 39607.4. The associated forecast/projection is an estimate of the emissions anticipated to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented.

An emissions projection estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. The projected 2020 emissions provided in Figure 3-1 represent a business-as-usual (BAU) scenario assuming none of the Scoping Plan measures are implemented. The 2020 BAU emissions estimate assists the Air Resources Board in demonstrating progress toward meeting the 2020 goal of 431 MMTCO<sub>2</sub>e.<sup>8</sup> The 2018 edition of the greenhouse gas emissions inventory found total California emissions of 429 MMTCO<sub>2</sub>e for 2016.

The 2020 BAU emissions projection was revisited in support of the First Update to the Scoping Plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand as well as other factors. It also accounts for the effects of the 2008 economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario include reductions anticipated from Pavley I and the Renewable Electricity Standard (30 MMTCO<sub>2</sub>e total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 MMTCO<sub>2</sub>e.

**Figure 3-1 2020 Business as Usual (BAU) Emissions Projection 2014 Edition**



<https://www.arb.ca.gov/cc/inventory/data/bau.htm>

<sup>7</sup> 2018 Edition of the GHG Emission Inventory (July 2018)

<https://www.arb.ca.gov/cc/inventory/data/data.htm>

<sup>8</sup> The revised target using Global Warming Potentials (GWP) from the Intergovernmental Panel on Climate Change Fourth Assessment Report (AR4)

## **Project Analysis**

An individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its incremental change in emissions when combined with the contributions of all other sources of greenhouse gas.<sup>9</sup> In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130). To make this determination, you must compare the incremental impacts of the project with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

Greenhouse gas emissions for transportation projects can be divided into those produced during operations and those produced during construction. The following represents a best faith effort to describe the potential greenhouse gas emissions related to the proposed project.

## **Operational Emissions**

The purpose of this project is to reduce the potential for and severity of traffic collisions on State Route 140 within the project limits by improving the clear recovery zone for the traveling public. The project would improve safety and drainage along State Route 140 by removing and reconstructing headwalls within the clear recovery zone, replacing guardrail, and constructing culvert extensions. Although fill would be placed to support the extended culverts at some locations, and shoulders would be widened, the purpose of the project is to remove obstacles from the clear recovery zone. The project would not add vehicle capacity or increase vehicle miles traveled. Accordingly, it is not expected to cause any increase in operational greenhouse gas emissions.

## **Construction Emissions**

Construction greenhouse gas emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the greenhouse gas emissions produced

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<sup>9</sup> This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the U.S. Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Construction greenhouse gas emissions for the proposed project were calculated using the Caltrans Construction Emissions Tool spreadsheet (CAL-CET). The estimated construction emissions were 289 metric tons of CO<sub>2</sub>e, and the project is expected to take about five months (150 working days) to complete.

Caltrans Standard Specifications Section 7-1.02C, Emissions Reduction, a part of all construction contracts, requires the contractor to certify awareness of, and comply with, the emissions reduction regulations mandated by the California Air Resources Board. Standard Specifications Section 14-9.02, Air Pollution Control, requires contractors to comply with all air-pollution-control rules, regulations, ordinances, and statutes of the Air Resources Board and the local air pollution control district. Caltrans requires that contractors comply with all applicable local air district requirements that apply to transportation projects if more stringent than State air pollution control requirements per California Government Code 11017. Standard construction best management practices for air quality would also apply. Such air-pollution control measures can also help reduce construction greenhouse gas emissions.

### **CEQA Conclusion**

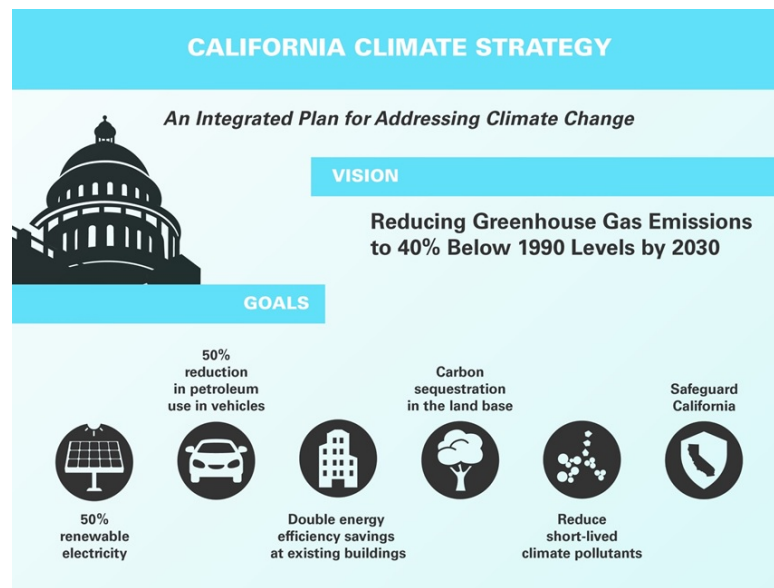
While the project would result in greenhouse gas emissions during construction, it is anticipated that the project would not result in any increase in operational greenhouse gas emissions. Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These are outlined in the following section.

### **Greenhouse Gas Reduction Strategies**

#### **Statewide Efforts**

To further the vision of California's greenhouse gas reduction targets outlined in AB 32 and SB 32, then-Governor Edmund G. Brown Jr. identified key climate change strategy pillars (concepts). See Figure 3-2. These pillars highlight the idea that several major areas of the California economy will need to reduce emissions to meet the 2030 greenhouse gas emissions target. These pillars are (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy-efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, Safeguarding California.

### **Figure 3-2 Governor's Climate Change Pillars: 2030 Greenhouse Gas Reduction Goals**



The transportation sector is integral to the people and economy of California. To achieve greenhouse gas emission reduction goals, it is vital that we build on our past successes in reducing criteria and toxic air pollutants from transportation and goods movement activities. Greenhouse gas emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled. One of then-Governor Brown's key pillars sets the ambitious goal of reducing today's petroleum use in cars and trucks by up to 50 percent by 2030.

Then-Governor Brown called for support to manage natural and working lands, including forests, rangelands, farms, wetlands, and soils, so they can store carbon. These lands have the ability to remove carbon dioxide from the atmosphere through biological processes, and to then sequester carbon in above- and below-ground matter.

### ***Caltrans Activities***

Caltrans continues to be involved on the Governor's Climate Action Team as the Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Executive Order B-30-15, issued in April 2015, and SB 32 (2016), set a new interim target to cut greenhouse gas emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

### ***California Transportation Plan (CTP 2040)***

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas emissions. The plan defines performance-based goals, policies, and strategies to achieve our collective vision for California's future statewide, integrated, multimodal

transportation system. It serves as an umbrella document for all of the other statewide transportation planning documents.

SB 391 (Liu 2009) requires the California Transportation Plan to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the state's transportation needs. While Metropolitan Planning Organizations have primary responsibility for identifying land use patterns to help reduce greenhouse gas emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

### *Caltrans Strategic Management Plan*

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce greenhouse gas emissions, among other goals. Specific performance targets in the plan that will help to reduce greenhouse gas emissions include the following:

- Increasing percentage of non-auto mode share
- Reducing vehicle miles traveled per capita
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) greenhouse gas emissions

### *Funding and Technical Assistance Programs*

In addition to developing plans and performance targets to reduce greenhouse gas emissions, Caltrans also administers several funding and technical assistance programs that have greenhouse gas reduction benefits. These include the Bicycle Transportation Program, Safe Routes to School, Transportation Enhancement Funds, and Transit Planning Grants. A more extensive description of these programs can be found in *Caltrans Activities to Address Climate Change* (2013).

The Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a department policy that will ensure coordinated efforts to incorporate climate change into departmental decisions and activities.

*Caltrans Activities to Address Climate Change* (April 2013) provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

### *Project-Level Greenhouse Gas Reduction Strategies*

The following measures will also be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project:

- Caltrans Standard Specification 14-9.02 requires contractors to comply with all state, local, Air Resources Board, and air district rules, regulations, ordinances, and statutes. Measures that reduce construction vehicle emissions, such as idling

- restrictions and ensuring engines are properly tuned and maintained, may also help reduce greenhouse gas emissions.
- A transportation management plan will be developed and implemented to minimize traffic delays and associated idling emissions resulting from periods of one-way traffic control during construction.

### ***Adaptation Strategies***

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage—or, put another way, planning and design for resilience. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. These types of impacts to the transportation infrastructure may also have economic and strategic ramifications.

### ***Federal Efforts***

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the Council on Environmental Quality, the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011<sup>10</sup>, outlining the federal government’s progress in expanding and strengthening the nation’s capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provided an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as fresh water, and providing accessible climate information and tools to help decision-makers manage climate risks.

The federal Department of Transportation issued a U.S. Department of Transportation Policy Statement on Climate Adaptation in June 2011, committing to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of Department of Transportation in order to ensure that taxpayer resources are invested wisely and that transportation infrastructure, services and operations remain effective in current and future climate conditions.”<sup>11</sup>

To further the Department of Transportation Policy Statement, on December 15, 2014, the Federal Highway Administration issued order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*).<sup>12</sup> This directive established a Federal Highway Administration policy to strive to

<sup>10</sup> <https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/resilience>

<sup>11</sup> <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

<sup>12</sup> <https://www.fhwa.dot.gov/legisregs/directives/orders/5520.cfm>



identify the risks of climate change and extreme weather events to current and planned transportation systems. The Federal Highway Administration will work to integrate consideration of these risks into its planning, operations, policies, and programs in order to promote preparedness and resilience; safeguard federal investments; and ensure the safety, reliability, and sustainability of the nation's transportation systems.

The Federal Highway Administration has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels.<sup>13</sup>

### State Efforts

On November 14, 2008, then-Governor Arnold Schwarzenegger signed Executive Order S-13-08, which directed a number of state agencies to address California's vulnerability to sea-level rise caused by climate change. This order set in motion several agencies and actions to address the concern of sea-level rise and directed all state agencies planning to construct projects in areas vulnerable to future sea-level rise to consider a range of sea-level rise scenarios for the years 2050 and 2100, assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea-level rise. Sea-level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, and storm surge and storm wave data.

Then-Governor Schwarzenegger also requested the National Academy of Sciences to prepare an assessment report to recommend how California should plan for future sea-level rise. The final report, *Sea-Level Rise for the Coasts of California, Oregon, and Washington* (Sea-Level Rise Assessment Report),<sup>14</sup> was released in June 2012 and included relative sea-level rise projections for the three states, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates, and the range of uncertainty in selected sea-level rise projections. It provided a synthesis of existing information on projected sea-level rise impacts to state infrastructure (such as roads, public facilities, and beaches), natural areas, and coastal and marine ecosystems, and a discussion of future research needs regarding sea-level rise.

In response to Executive Order S-13-08, the California Natural Resources Agency (Resources Agency), in coordination with local, regional, state, federal, and public and private entities, developed *The California Climate Adaptation Strategy* (December 2009),<sup>15</sup> which summarized the best available science on climate change impacts to California, assessed California's vulnerability to the identified impacts, and outlined solutions that can be implemented within and across state agencies to

<sup>13</sup> <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

<sup>14</sup> *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at: [http://www.nap.edu/catalog.php?record\\_id=13389](http://www.nap.edu/catalog.php?record_id=13389).

<sup>15</sup> <http://www.climatechange.ca.gov/adaptation/strategy/index.html>

<sup>16</sup> <http://www.opc.ca.gov/2013/04/update-to-the-sea-level-rise-guidance-document/>

promote resiliency. The adaptation strategy was updated and rebranded in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan).

Then-Governor Jerry Brown enhanced the overall adaptation planning effort by signing Executive Order B-30-15 in April 2015, requiring state agencies to factor climate change into all planning and investment decisions. In March 2016, sector-specific Implementation Action Plans that demonstrate how state agencies are implementing Executive Order B-30-15 were added to the Safeguarding California Plan. This effort represents a multi-agency, cross-sector approach to addressing adaptation to climate change-related events statewide.

Executive Order S-13-08 also gave rise to the *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance), produced by the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT), of which Caltrans is a member. First published in 2010, the document provided “guidance for incorporating sea-level rise (SLR) projections into planning and decision making for projects in California,” specifically, “information and recommendations to enhance consistency across agencies in their development of approaches to SLR.”<sup>16</sup>

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation, and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is actively engaged in working toward identifying these risks throughout the state and will work to incorporate this information into all planning and investment decisions as directed in Executive Order B-30-15.

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

Design plans indicate culvert extensions would be constructed of corrugated steel pipe or concrete. These materials would be resistant to damage from wildfire that could occur under potential future drier and hotter conditions.

## **Chapter 4**      **Comments and Coordination**

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This chapter summarizes the results of the Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination. Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization and/or mitigation measures and related environmental requirements.

Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team meetings, intergovernmental coordination meetings, and agency meetings.

### ***Natural Resources Conservation Service Coordination***

March 1, 2019—One Farmland Conservation Impact Rating form for all project locations was sent to Jarrod Martin, at the Natural Resources Conservation Service for evaluation. Mr. Martin assigned this evaluation to Resource Conservationist Jennifer Foster.

March 7, 2019—Farmland Conservation Impacts forms were completed by Jennifer Foster of the Natural Resources Conservation Service. The forms reflect that the project area contains prime, unique, statewide or locally important farmland. See Appendix D. For all locations, the total Natural Resources Conservation Service AD-1006 forms Total Site Assessment Points were under 160 points. No further coordination with the Natural Resources Conservation Service is required.

### ***Native American Heritage Commission and Native American Tribe Coordination***

March 22, 2017—Native American consultation was initiated through written correspondence with the Native American Heritage Commission (NAHC) requesting a search of its files to determine if any cultural properties were known to exist within or adjacent to the project area. The names of Native American individuals or group representatives who may be interested in the proposed project were also requested.

March 24, 2017—The Native American Heritage Commission responded to Caltrans' request stating that its files failed to indicate the presence of Native American cultural resources. The Native American Heritage Commission provided a list of contacts who may interested in the project as well as recommendations for further tribal consultation:

Ms. Lois Martin, Chairperson, Southern Sierra Miwuk Nation

Robert Ledger, Sr., Chairperson, Dumna Wo-Wah Tribal Government

Ms. Kerri Vera, Environmental, Tule River Indian Tribe

Ms. Katherine Erolinda Perez, Chairperson, North Valley Yokuts Tribe

Ms. Jennifer Ruiz, Chairperson, Picayune Rancheria of Chukchansi Indians  
Mr. Neil Peyron, Chairperson, Tule River Indian Tribe  
Mr. Valentin Lopez, Chairperson, Amah Mutsun Tribal Band  
Ms. Silvia Burley, Chairperson, California Valley Miwok Tribe  
Ms. Lorrie Planas, Chairperson, Choinumni Tribe  
Mr. Jerry Brown, Chairperson, Chowchilla Tribe of Yokuts

April 7, 2017—Caltrans Cultural staff received a response from Ms. Tara C. Estes-Harter, Cultural Resources Specialist, of the Picayune Rancheria of Chukchansi Indians. She stated that the tribe was unaware of any undocumented Tribal Cultural Resources at any of the project locations. Ms. Estes-Harter would like to be informed of any Native American cultural resources found, especially from any ground disturbance.

May 22, 2018—Follow-up emails to consultation letters were sent to:

Mr. Edward Ketchum, Tribal Member, Amah Mutsun Tribal Band  
Ms. Lois Martin, Chairperson, Southern Sierra Miwuk Nation  
Ms. Kerri Vera, Environmental, Tule River Indian Tribe  
Ms. Katherine Erolinda Perez, Chairperson, North Valley Yokuts Tribe  
Mr. Neil Peyron, Chairperson, Tule River Indian Tribe  
Robert Ledger, Sr., Chairperson, Dumna Wo-Wah Tribal Government  
Mr. Valentin Lopez, Chairperson, Amah Mutsun Tribal Band  
Ms. Silvia Burley, Chairperson, California Valley Miwok Tribe  
Ms. Lorrie Planas, Chairperson, Choinumni Tribe  
Mr. Jerry Brown, Chairperson, Chowchilla Tribe of Yokuts

There have been no responses from 11 of the 13 Native American contacts.

May 30, 2018—Mr. Edward Ketchum, of the Amah Mutsun Tribal Band, replied via email. He was unaware of any specific cultural sites along the current State Route 140 alignment. He indicated that if Native American monitoring is required during project-related activities, he suggested that Caltrans contact Mr. Val Lopez, Chairperson, Amah Mutsun Tribal Band. Mr. Ketchum requested copies of the final documents for the project.

October 2018—Ms. Estes-Harter and Mr. Ketchum were kept informed of the progress of studies via email and were provided both digital and physical copies of cultural documents.

### **State Historic Preservation Officer**

November 2018—Caltrans Cultural Resources staff initiated consultation with the State Historic Preservation Officer on two cultural resources. Caltrans requested concurrence that the two linear features be determined not eligible for listing in the National Register of Historic Places.

December 4, 2018—The State Historic Preservation Officer concurred with Caltrans' findings for this project, and a copy of the concurrence letter can be found in Appendix E.

### **U.S. Fish and Wildlife Service**

November 30, 2017—Caltrans Biology staff obtained a species list for the project quadrangles from the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPac).

December 20, 2017—Caltrans Biology staff submitted a request for approval to the U.S. Fish and Wildlife Service Recovery Permit coordinator, Sarah Markegard, for authorization to conduct protocol wet season vernal pool branchiopod surveys in the action area of Location 13.

January 13, 2018—Ms. Markegard provided Caltrans Biology staff with approval to conduct wet season vernal pool branchiopod surveys in Location 13.

May 25, 2018—A letter was mailed to the U.S. Fish and Wildlife Service in Sacramento advising the agency of Caltrans' project. Kim Forrest, U.S. Fish and Wildlife Service Preserve Manager responded on June 1, 2018, indicating that Caltrans should limit itself to its right-of-way and not enter the preserve at Location 3. A teleconference was held between federal and state agencies regarding Section 4(f) evaluations. As the project progressed, Caltrans reduced the scale of the project at Location 3 by removing the culvert replacement component and performing only guardrail work so no encroachment onto the preserve would occur. Kim Forrest was made aware of the project change.

December 21, 2018—Caltrans Biology staff updated the official species list using the IPac tool.

March 2019—A Biological Assessment was submitted to Jen Schofield, U.S. Fish and Wildlife Service.

### **California Department of Fish and Wildlife**

September 12, 2018—Caltrans Biology staff contacted California Department of Fish and Wildlife liaison Steven Hulbert, via email, to inquire which culverts may be under jurisdiction by the California Department of Fish and Wildlife.

September 18, 2018—Mr. Hulbert replied stating that the Department would take jurisdiction over Locations 3, 4, 5, 6, 9, 11, and 13.

***National Marine Fisheries Service***

November 26, 2018—Caltrans Biology staff acquired an official species list form the National Marine Fisheries Service.

## **Chapter 5**      **List of Preparers**

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This document was prepared by the following Caltrans Central Region staff:

Jon L. Brady, Associate Environmental Planner/Architectural Historian. M.A., History, California State University, Fresno; B.A., Political Science and Anthropology; more than 30 years of experience as a consulting archaeologist and historian. Contribution: Architectural History.

Benjamin Broyles, Senior Environmental Planner. B.A., Anthropology, University of California, Santa Cruz; 18 years of cultural resources management experience. Contribution: Architectural History.

Jacob Fleener, Environmental Planner (Natural Sciences). B.S., Biology, California State University, Fresno. M.B.A., Keller Graduate School; 2 years of biology experience. Contribution: Natural Environment Study and Biological Assessment.

Rogério Leong, Engineering Geologist. B.S., Geology, University of Sao Paulo, Brazil; 17 years of environmental site assessment and investigation experience. Contribution: Water Quality Assessment.

Joseph Llanos, Graphic Designer III. B.A., Graphic Design, California State University, Fresno; 20 years of visual design and public participation experience. Contribution: Graphic Designer.

Judith Lopez, Associate Environmental Planner. B.S., Business Administration, California State University, Fresno; 20 years of environmental planning experience. Contribution: Initial Study with Proposed Mitigation Negative Declaration.

Jennifer Lugo, Senior Environmental Planner. M.A., History, California State University, Fresno; B.A., History, Minor in Political Science, California State University, Fresno; 14 years of environmental planning experience. Contribution: Environmental Branch Chief.

Kendra Reif, Associate Environmental Planner (Generalist and Air Quality Specialist). M.P.A., Public Administration, California State University, Fresno; B.A., Political Science, University of Nevada, Reno; 3 years of transportation and environmental planning experience; 2 years of air quality analysis experience. Contribution: Air Quality Report.

Richard C. Stewart, Engineering Geologist, P.G. B.S., Geology, California State University, Fresno; more than 30 years of hazardous waste and water quality experience; 17 years of paleontology/geology experience. Contribution: Paleontological Identification Report.

Sylvère CM Valentin, Associate Environmental Planner (Archaeology). M.A., Anthropology, Forensic Anthropology Certificate, California State University, Los Angeles; B.A., Business Administration, Minor Asian Pacific Studies, Loyola Marymount University; 19 years of experience in California archaeology and cultural resource management. Contribution: Historic Property Survey Report and Archaeological Survey Report.



# Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

## DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR  
P.O. BOX 942873, MS-49  
SACRAMENTO, CA 94273-0001  
PHONE (916) 654-6130  
FAX (916) 653-5776  
TTY 711  
www.dot.ca.gov



*Making Conservation  
a California Way of Life.*

April 2018

### NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Related federal statutes and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, please visit the following web page:  
[http://www.dot.ca.gov/hq/bep/title\\_vi/t6\\_violated.htm](http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm).

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811. Telephone (916) 324-8379, TTY 711, email [Title.VI@dot.ca.gov](mailto:Title.VI@dot.ca.gov), or visit the website [www.dot.ca.gov](http://www.dot.ca.gov).

A handwritten signature in blue ink, appearing to read "Laurie Berman".

LAURIE BERMAN  
Director

*"Provide a safe, sustainable, integrated and efficient transportation system  
to enhance California's economy and livability"*



## Appendix B Species Lists

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### 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:  
Consultation Code: 08ESMF00-2019-SLI-0668  
Event Code: 08ESMF00-2019-E-02021  
Project Name: Merced 140 access roads-3

December 21, 2018

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.

12/21/2018

Event Code: 08ESMF00-2019-E-02021

3

Attachment(s):

- Official Species List

12/21/2018

Event Code: 08ESMF00-2018-E-02021

1

## 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

12/21/2018

Event Code: 08ESMF00-2019-E-02021

2

## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0668

Event Code: 08ESMF00-2019-E-02021

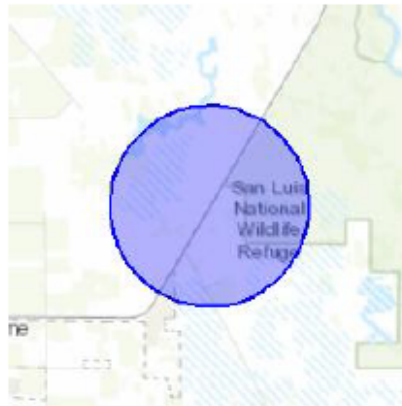
Project Name: Merced 140 acces roads-3

Project Type: TRANSPORTATION

Project Description: The project is part of the Collision Severity Reduction Program and proposes to remove existing barrier, railings, and parapets. This project falls under the Clean-Up the Roadside Environment (CURE) Program which is an element of the Collision Severity Reduction Program. The purpose of the program is to decrease the potential of collisions and minimize severity involving fixed objects.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.27623054323717N120.95547355315622W>



Counties: Merced, CA



## Endangered Species Act Species

There is a total of 11 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
<b>Fresno Kangaroo Rat <i>Dipodomys nitratoides exilis</i></b> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5150">https://ecos.fws.gov/ecp/species/5150</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf</a>	Endangered
<b>San Joaquin Kit Fox <i>Vulpes macrotis mutica</i></b> 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

## Reptiles

NAME	STATUS
<b>Blunt-nosed Leopard Lizard <i>Gambelia silus</i></b> 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
<b>Giant Garter Snake <i>Thamnophis gigas</i></b> 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

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12/21/2018

Event Code: 08ESMF00-2019-E-02021

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## Amphibians

NAME	STATUS
<b>California Red-legged Frog</b> <i>Rana draytonii</i> There is final 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
<b>California Tiger Salamander</b> <i>Ambystoma californiense</i> Population: U.S.A. (Central CADPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt</b> <i>Hypomesus transpacificus</i> There is final 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

## Insects

NAME	STATUS
<b>Valley Elderberry Longhorn Beetle</b> <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
<b>Conservancy Fairy Shrimp</b> <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
<b>Vernal Pool Fairy Shrimp</b> <i>Branchinecta lynchi</i> There is final 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
<b>Vernal Pool Tadpole Shrimp</b> <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

## Critical habitats

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



## 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:  
Consultation Code: 08ESMF00-2019-SLI-0669  
Event Code: 08ESMF00-2019-E-02023  
Project Name: Merced 140 access roads-4

December 21, 2018

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.*).

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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.

12/21/2018

Event Code: 08ESMF00-2019-E-02023

3

Attachment(s):

- Official Species List

12/21/2018

Event Code: 08ESMF00-2019-E-02023

1

## 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-0669

Event Code: 08ESMF00-2019-E-02023

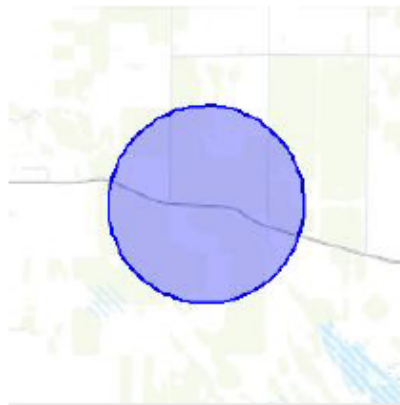
Project Name: Merced 140 acces roads-4

Project Type: TRANSPORTATION

**Project Description:** The project is part of the Collision Severity Reduction Program and proposes to remove existing barrier, railings, and parapets. This project falls under the Clean-Up the Roadside Environment (CURE) Program which is an element of the Collision Severity Reduction Program. The purpose of the program is to decrease the potential of collisions and minimize severity involving fixed objects.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.30947668936696N120.79006301132432W>



Counties: Merced, CA

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## Endangered Species Act Species

There is a total of 11 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
<b>Fresno Kangaroo Rat</b> <i>Dipodomys nigratoides exilis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5150">https://ecos.fws.gov/ecp/species/5150</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf</a>	Endangered
<b>San Joaquin Kit Fox</b> <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

## Reptiles

NAME	STATUS
<b>Blunt-nosed Leopard Lizard</b> <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
<b>Giant Garter Snake</b> <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

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12/21/2018

Event Code: 08ESMF00-2019-E-02023

4

## Amphibians

NAME	STATUS
<b>California Red-legged Frog <i>Rana draytonii</i></b> 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
<b>California Tiger Salamander <i>Ambystoma californiense</i></b> Population: U.S.A. (Central CA DPS) 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/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt <i>Hypomesus transpacificus</i></b> 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

## Insects

NAME	STATUS
<b>Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i></b> 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/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
<b>Conservancy Fairy Shrimp <i>Branchinecta conservatio</i></b> 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/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
<b>Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i></b> 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
<b>Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i></b> 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/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

## Critical habitats

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





## 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:  
Consultation Code: 08ESMF00-2019-SLI-0670  
Event Code: 08ESMF00-2019-E-02025  
Project Name: Merced 140 access roads-5

December 21, 2018

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.

12/21/2018

Event Code: 08ESMF00-2019-E-02025

3

Attachment(s):

- Official Species List

12/21/2018

Event Code: 08ESMF00-2019-E-02025

1

## 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

12/21/2018

Event Code: 08ESMF00-2019-E-02025

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## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0670

Event Code: 08ESMF00-2019-E-02025

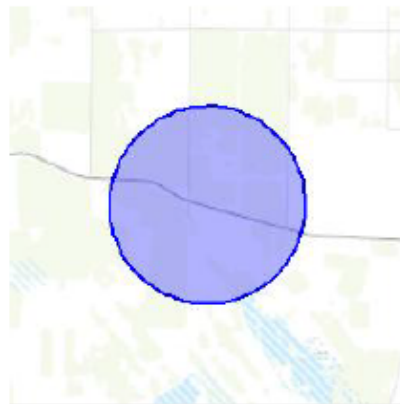
Project Name: Merced 140 access roads-5

Project Type: TRANSPORTATION

**Project Description:** The project is part of the Collision Severity Reduction Program and proposes to remove existing barrier, railings, and parapets. This project falls under the Clean-Up the Roadside Environment (CURE) Program which is an element of the Collision Severity Reduction Program. The purpose of the program is to decrease the potential of collisions and minimize severity involving fixed objects.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.305584787699615N120.77517712501796W>



Counties: Merced, CA

## Endangered Species Act Species

There is a total of 11 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
<b>Fresno Kangaroo Rat</b> <i>Dipodomys nigratoides exilis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5150">https://ecos.fws.gov/ecp/species/5150</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf</a>	Endangered
<b>San Joaquin Kit Fox</b> <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

## Reptiles

NAME	STATUS
<b>Blunt-nosed Leopard Lizard</b> <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
<b>Giant Garter Snake</b> <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

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12/21/2018

Event Code: 08ESMF00-2019-E-02025

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## Amphibians

NAME	STATUS
<b>California Red-legged Frog <i>Rana draytonii</i></b> 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
<b>California Tiger Salamander <i>Ambystoma californiense</i></b> Population: U.S.A. (Central CA DPS) 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/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt <i>Hypomesus transpacificus</i></b> 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

## Insects

NAME	STATUS
<b>Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i></b> 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/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
<b>Conservancy Fairy Shrimp <i>Branchinecta conservatio</i></b> 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/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
<b>Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i></b> 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
<b>Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i></b> 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/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

## Critical habitats

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



## 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:

December 21, 2018

Consultation Code: 08ESMF00-2019-SLI-0671

Event Code: 08ESMF00-2019-E-02027

Project Name: Merced 140 access roads-6

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/commtow.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.

12/21/2018

Event Code: 08ESMF00-2019-E-02027

3

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

12/21/2018

Event Code: 08ESMF00-2019-E-02027

2

## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0671

Event Code: 08ESMF00-2019-E-02027

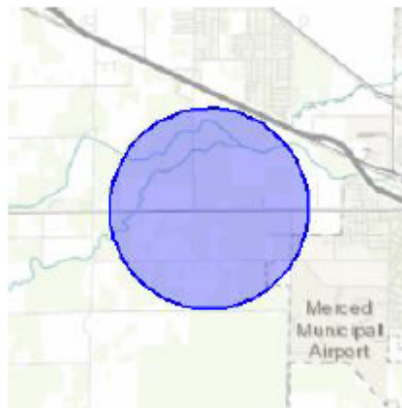
Project Name: Merced 140 access roads-6

Project Type: TRANSPORTATION

**Project Description:** The project is part of the Collision Severity Reduction Program and proposes to remove existing barrier, railings, and parapets. This project falls under the Clean-Up the Roadside Environment (CURE) Program which is an element of the Collision Severity Reduction Program. The purpose of the program is to decrease the potential of collisions and minimize severity involving fixed objects.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.30275143906201N120.53821429316852W>



Counties: Merced, CA

## Endangered Species Act Species

There is a total of 11 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

## 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

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12/21/2018

Event Code: 08ESMF00-2019-E-02027

4

## Amphibians

NAME	STATUS
<b>California Red-legged Frog</b> <i>Rana draytonii</i> There is final 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
<b>California Tiger Salamander</b> <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt</b> <i>Hypomesus transpacificus</i> There is final 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

## Insects

NAME	STATUS
<b>Valley Elderberry Longhorn Beetle</b> <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
<b>Conservancy Fairy Shrimp</b> <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
<b>Vernal Pool Fairy Shrimp</b> <i>Branchinecta lynchi</i> There is final 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
<b>Vernal Pool Tadpole Shrimp</b> <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

12/21/2018

Event Code: 08ESMF00-2019-E-02027

5

## Flowering Plants

NAME	STATUS
Colusa Grass <i>Neostapfia colusana</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/5690">https://ecos.fws.gov/ecp/species/5690</a>	Threatened

## Critical habitats

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





## 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:  
Consultation Code: 08ESMF00-2019-SLI-0672  
Event Code: 08ESMF00-2019-E-02029  
Project Name: Merced 140 access roads-7

December 21, 2018

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.

12/21/2018

Event Code: 08ESMF00-2019-E-02029

3

Attachment(s):

- Official Species List

12/21/2018

Event Code: 08ESMF00-2019-E-02029

1

## 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

12/21/2018

Event Code: 08ESMF00-2019-E-02029

2

## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0672

Event Code: 08ESMF00-2019-E-02029

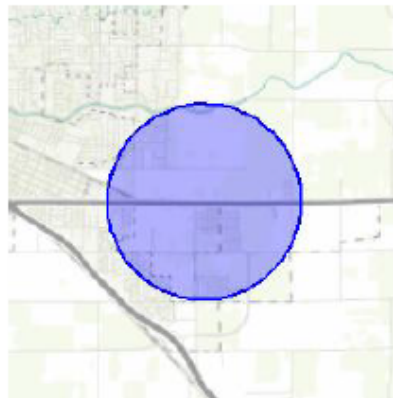
Project Name: Merced 140 access roads-7

Project Type: TRANSPORTATION

**Project Description:** The project is part of the Collision Severity Reduction Program and proposes to remove existing barrier, railings, and parapets. This project falls under the Clean-Up the Roadside Environment (CURE) Program which is an element of the Collision Severity Reduction Program. The purpose of the program is to decrease the potential of collisions and minimize severity involving fixed objects.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.29513645933471N120.43179628470173W>



Counties: Merced, CA

## Endangered Species Act Species

There is a total of 14 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

## 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

12/21/2018

Event Code: 08ESMF00-2019-E-02029

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## Amphibians

NAME	STATUS
<b>California Red-legged Frog</b> <i>Rana draytonii</i> There is final 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
<b>California Tiger Salamander</b> <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt</b> <i>Hypomesus transpacificus</i> There is final 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

## Insects

NAME	STATUS
<b>Valley Elderberry Longhorn Beetle</b> <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
<b>Conservancy Fairy Shrimp</b> <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
<b>Vernal Pool Fairy Shrimp</b> <i>Branchinecta lynchi</i> There is final 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
<b>Vernal Pool Tadpole Shrimp</b> <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

12/21/2018

Event Code: 08ESMF00-2019-E-02029

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## Flowering Plants

NAME	STATUS
<b>Colusa Grass</b> <i>Neostapfia colusana</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5690">https://ecos.fws.gov/ecp/species/5690</a>	Threatened
<b>Fleshy Owl's-clover</b> <i>Castilleja campestris ssp. succulenta</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8095">https://ecos.fws.gov/ecp/species/8095</a>	Threatened
<b>Hairy Orcutt Grass</b> <i>Orcuttia pilosa</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2262">https://ecos.fws.gov/ecp/species/2262</a>	Endangered
<b>San Joaquin Orcutt Grass</b> <i>Orcuttia inaequalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5506">https://ecos.fws.gov/ecp/species/5506</a>	Threatened

## Critical habitats

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





## 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:

December 21, 2018

Consultation Code: 08ESMF00-2019-SLI-0673

Event Code: 08ESMF00-2019-E-02031

Project Name: Merced 140 access roads-8

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:

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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.

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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.

12/21/2018

Event Code: 08ESMF00-2019-E-02031

3

Attachment(s):

- Official Species List

## Official Species List

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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

12/21/2018

Event Code: 08ESMF00-2019-E-02031

2

## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0673

Event Code: 08ESMF00-2019-E-02031

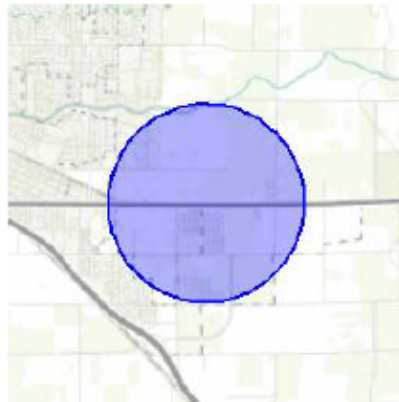
Project Name: Merced 140 access roads-8

Project Type: TRANSPORTATION

**Project Description:** The project is part of the Collision Severity Reduction Program and proposes to remove existing barrier, railings, and parapets. This project falls under the Clean-Up the Roadside Environment (CURE) Program which is an element of the Collision Severity Reduction Program. The purpose of the program is to decrease the potential of collisions and minimize severity involving fixed objects.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.29517238455888N120.42808393858982W>



Counties: Merced, CA

## Endangered Species Act Species

There is a total of 14 threatened, endangered, or candidate species on this species list.

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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

## 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

12/21/2018

Event Code: 08ESMF00-2019-E-02031

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## Amphibians

NAME	STATUS
<b>California Red-legged Frog <i>Rana draytonii</i></b> There is final 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
<b>California Tiger Salamander <i>Ambystoma californiense</i></b> Population: U.S.A. (Central CADPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt <i>Hypomesus transpacificus</i></b> There is final 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

## Insects

NAME	STATUS
<b>Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i></b> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
<b>Conservancy Fairy Shrimp <i>Branchinecta conservatio</i></b> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
<b>Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i></b> There is final 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
<b>Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i></b> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

12/21/2018

Event Code: 08ESMF00-2019-E-02031

5

## Flowering Plants

NAME	STATUS
<b>Colusa Grass</b> <i>Neostapfia colusana</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/5690">https://ecos.fws.gov/ecp/species/5690</a>	Threatened
<b>Fleshy Owl's-clover</b> <i>Castilleja campestris ssp. succulenta</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/8095">https://ecos.fws.gov/ecp/species/8095</a>	Threatened
<b>Hairy Orcutt Grass</b> <i>Orcuttia pilosa</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/2262">https://ecos.fws.gov/ecp/species/2262</a>	Endangered
<b>San Joaquin Orcutt Grass</b> <i>Orcuttia inaequalis</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/5506">https://ecos.fws.gov/ecp/species/5506</a>	Threatened

## Critical habitats

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





## 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:

Consultation Code: 08ESMF00-2019-SLI-0674

Event Code: 08ESMF00-2019-E-02033

Project Name: Merced 140 access roads-9

December 21, 2018

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.*).

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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.

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12/21/2018

Event Code: 08ESMF00-2019-E-02033

3

Attachment(s):

- Official Species List

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This species list is provided by:

**Sacramento Fish And Wildlife Office**  
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12/21/2018

Event Code: 08ESMF00-2019-E-02033

2

## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0674

Event Code: 08ESMF00-2019-E-02033

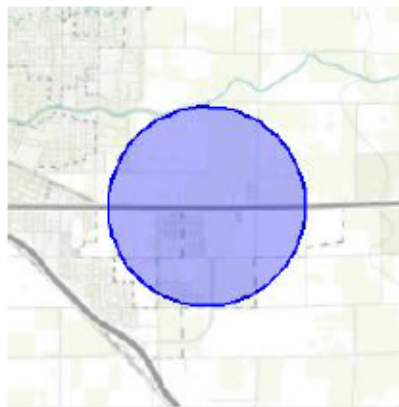
Project Name: Merced 140 access roads-9

Project Type: TRANSPORTATION

**Project Description:** The project is part of the Collision Severity Reduction Program and proposes to remove existing barrier, railings, and parapets. This project falls under the Clean-Up the Roadside Environment (CURE) Program which is an element of the Collision Severity Reduction Program. The purpose of the program is to decrease the potential of collisions and minimize severity involving fixed objects.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.29510337675838N120.42450299851221W>



Counties: Merced, CA

## Endangered Species Act Species

There is a total of 14 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

## 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

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12/21/2018

Event Code: 08ESMF00-2019-E-02033

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## Amphibians

NAME	STATUS
<b>California Red-legged Frog</b> <i>Rana draytonii</i> There is final 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
<b>California Tiger Salamander</b> <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt</b> <i>Hypomesus transpacificus</i> There is final 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

## Insects

NAME	STATUS
<b>Valley Elderberry Longhorn Beetle</b> <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
<b>Conservancy Fairy Shrimp</b> <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
<b>Vernal Pool Fairy Shrimp</b> <i>Branchinecta lynchi</i> There is final 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
<b>Vernal Pool Tadpole Shrimp</b> <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

12/21/2018

Event Code: 08ESMF00-2019-E-02033

5

## Flowering Plants

NAME	STATUS
<b>Colusa Grass</b> <i>Neostapfia colusana</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5690">https://ecos.fws.gov/ecp/species/5690</a>	Threatened
<b>Fleshy Owl's-clover</b> <i>Castilleja campestris ssp. succulenta</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8095">https://ecos.fws.gov/ecp/species/8095</a>	Threatened
<b>Hairy Orcutt Grass</b> <i>Orcuttia pilosa</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2262">https://ecos.fws.gov/ecp/species/2262</a>	Endangered
<b>San Joaquin Orcutt Grass</b> <i>Orcuttia inaequalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5506">https://ecos.fws.gov/ecp/species/5506</a>	Threatened

## Critical habitats

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





## 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:

December 21, 2018

Consultation Code: 08ESMF00-2019-SLI-0675

Event Code: 08ESMF00-2019-E-02035

Project Name: Merced 140 access roads-12

**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.

12/21/2018

Event Code: 08ESMF00-2019-E-02035

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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

12/21/2018

Event Code: 08ESMF00-2019-E-02035

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## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0675

Event Code: 08ESMF00-2019-E-02035

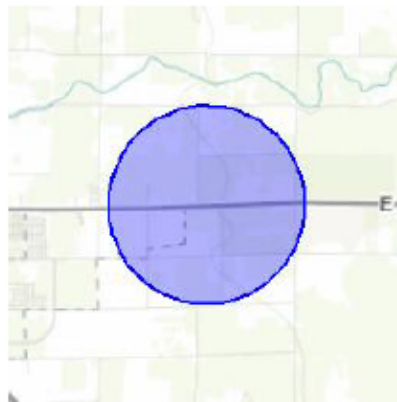
Project Name: Merced 140 access roads-12

Project Type: TRANSPORTATION

**Project Description:** The project is part of the Collision Severity Reduction Program and proposes to remove existing barrier, railings, and parapets. This project falls under the Clean-Up the Roadside Environment (CURE) Program which is an element of the Collision Severity Reduction Program. The purpose of the program is to decrease the potential of collisions and minimize severity involving fixed objects.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.29558640682781N120.39537083047259W>



Counties: Merced, CA

## Endangered Species Act Species

There is a total of 14 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.

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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

## 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

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12/21/2018

Event Code: 08ESMF00-2019-E-02035

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## Amphibians

NAME	STATUS
<b>California Red-legged Frog <i>Rana draytonii</i></b> There is final 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
<b>California Tiger Salamander <i>Ambystoma californiense</i></b> Population: U.S.A. (Central CADPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt <i>Hypomesus transpacificus</i></b> There is final 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

## Insects

NAME	STATUS
<b>Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i></b> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
<b>Conservancy Fairy Shrimp <i>Branchinecta conservatio</i></b> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
<b>Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i></b> There is final 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
<b>Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i></b> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

12/21/2018

Event Code: 08ESMF00-2019-E-02035

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## Flowering Plants

NAME	STATUS
<b>Colusa Grass</b> <i>Neostapfia colusana</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5690">https://ecos.fws.gov/ecp/species/5690</a>	Threatened
<b>Fleshy Owl's-clover</b> <i>Castilleja campestris ssp. succulenta</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8095">https://ecos.fws.gov/ecp/species/8095</a>	Threatened
<b>Hairy Orcutt Grass</b> <i>Orcuttia pilosa</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2262">https://ecos.fws.gov/ecp/species/2262</a>	Endangered
<b>San Joaquin Orcutt Grass</b> <i>Orcuttia inaequalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5506">https://ecos.fws.gov/ecp/species/5506</a>	Threatened

## Critical habitats

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





## 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:  
Consultation Code: 08ESMF00-2019-SLI-0676  
Event Code: 08ESMF00-2019-E-02037  
Project Name: Merced 140 access roads-13

December 21, 2018

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/contow.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.

12/21/2018

Event Code: 08ESMF00-2019-E-02037

3

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

12/21/2018

Event Code: 08ESMF00-2019-E-02037

2

## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0676

Event Code: 08ESMF00-2019-E-02037

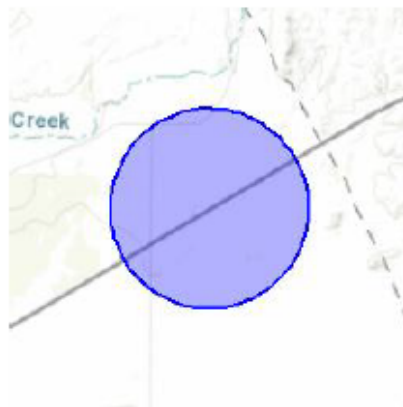
Project Name: Merced 140 access roads-13

Project Type: TRANSPORTATION

**Project Description:** The project is part of the Collision Severity Reduction Program and proposes to remove existing barrier, railings, and parapets. This project falls under the Clean-Up the Roadside Environment (CURE) Program which is an element of the Collision Severity Reduction Program. The purpose of the program is to decrease the potential of collisions and minimize severity involving fixed objects.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.332544332370276N120.24094870868825W>



Counties: Merced, CA

## Endangered Species Act Species

There is a total of 14 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.

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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

## 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

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12/21/2018

Event Code: 08ESMF00-2019-E-02037

4

## Amphibians

NAME	STATUS
<b>California Red-legged Frog</b> <i>Rana draytonii</i> There is final 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
<b>California Tiger Salamander</b> <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
<b>Delta Smelt</b> <i>Hypomesus transpacificus</i> There is final 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

## Insects

NAME	STATUS
<b>Valley Elderberry Longhorn Beetle</b> <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
<b>Conservancy Fairy Shrimp</b> <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
<b>Vernal Pool Fairy Shrimp</b> <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened
<b>Vernal Pool Tadpole Shrimp</b> <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

12/21/2018

Event Code: 08ESMF00-2019-E-02037

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## Flowering Plants

NAME	STATUS
Colusa Grass <i>Neostapfia colusana</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5690">https://ecos.fws.gov/ecp/species/5690</a>	Threatened
Fleshy Owl's-clover <i>Castilleja campestris ssp. succulenta</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8095">https://ecos.fws.gov/ecp/species/8095</a>	Threatened
Greene's Tuctoria <i>Tuctoria greenii</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1573">https://ecos.fws.gov/ecp/species/1573</a>	Endangered
San Joaquin Orcutt Grass <i>Orcuttia inaequalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5506">https://ecos.fws.gov/ecp/species/5506</a>	Threatened

## Critical habitats

There are 6 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> <a href="https://ecos.fws.gov/ecp/species/2076#crithab">https://ecos.fws.gov/ecp/species/2076#crithab</a>	Final
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> <a href="https://ecos.fws.gov/ecp/species/8246#crithab">https://ecos.fws.gov/ecp/species/8246#crithab</a>	Final
Fleshy Owl's-clover <i>Castilleja campestris ssp. succulenta</i> <a href="https://ecos.fws.gov/ecp/species/8095#crithab">https://ecos.fws.gov/ecp/species/8095#crithab</a>	Final
Greene's Tuctoria <i>Tuctoria greenii</i> <a href="https://ecos.fws.gov/ecp/species/1573#crithab">https://ecos.fws.gov/ecp/species/1573#crithab</a>	Final
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> <a href="https://ecos.fws.gov/ecp/species/498#crithab">https://ecos.fws.gov/ecp/species/498#crithab</a>	Final
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> <a href="https://ecos.fws.gov/ecp/species/2246#crithab">https://ecos.fws.gov/ecp/species/2246#crithab</a>	Final

## **National Marine Fisheries Service Species List – November 2018**

**From:** [NMFSWCRCA Specieslist - NOAA Service Account](#)  
**To:** [Fleener, Jacob@DOT](#)  
**Subject:** Re: California Department of Transportation, Merced 140 access roads  
**Date:** Monday, November 26, 2018 10:08:39 AM

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Receipt of this message confirms that NMFS has received your email to [nmfswcrca.specieslist@noaa.gov](mailto:nmfswcrca.specieslist@noaa.gov). If you are a federal agency (or representative) and have followed the steps outlined on the California Species List Tools web page ([http://www.westcoast.fisheries.noaa.gov/maps\\_data/california\\_species\\_list\\_tools.html](http://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html)), you have generated an official Endangered Species Act species list.

Messages sent to this email address are not responded to directly. For project specific questions, please contact your local NMFS office.

Northern California/Klamath (Arcata) 707-822-7201

North-Central Coast (Santa Rosa) 707-387-0737

Southern California (Long Beach) 562-980-4000

California Central Valley (Sacramento) 916-930-3600



Quad Name **Stevinson**

Quad Number **37120-C7**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

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

Eulachon (T) -

sDPS Green Sturgeon (T) -

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat - **X**

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

**ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

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

**ESA Whales**

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

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -  
 Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH -  
 Chinook Salmon EFH - **X**  
 Groundfish EFH -  
 Coastal Pelagics EFH -  
 Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office  
 562-980-4000

MMPA Cetaceans -  
 MMPA Pinnipeds -

Quad Name **Atwater**

Quad Number **37120-C5**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -  
 CCC Coho ESU (E) -  
 CC Chinook Salmon ESU (T) -  
 CVSR Chinook Salmon ESU (T) -  
 SRWR Chinook Salmon ESU (E) -  
 NC Steelhead DPS (T) -  
 CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -



Eulachon (T) -

sDPS Green Sturgeon (T) -

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

**ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -



Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office

562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Jake Fleener, M.B.A.  
Environmental Planner (Natural Science)  
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Fresno, CA 93721  
PH 559.445.6197  
Jacob.Fleener@dot.ca.gov

## California Department of Fish and Wildlife - California Natural Diversity Database



### Summary Table Report California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria: Quad<span style="color:Red"> IS </span>(Gustine (3712038)<span style="color:Red"> OR </span>Stevinson (3712037)<span style="color:Red"> OR </span>Atwater (3712035)<span style="color:Red"> OR </span>Merced (3712034)<span style="color:Red"> OR </span>Owens Reservoir (3712032))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Agelaius tricolor</i> tricolored blackbird	G2G3 S1S2	None Candidate Endangered	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	60 311	952 S:27	1	0	0	1	4	21	19	8	23	4	0
<i>Ambystoma californiense</i> California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	70 377	1185 S:21	0	10	0	0	0	11	7	14	21	0	0
<i>Anniella pulchra</i> northern California legless lizard	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	90 90	375 S:1	0	0	1	0	0	0	1	0	1	0	0
<i>Antrozous pallidus</i> pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	70 70	416 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Ardea alba</i> great egret	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	75 75	43 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Ardea herodias</i> great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	75 75	155 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	G2T1 S1	None None	Rare Plant Rank - 1B.2	65 175	65 S:5	0	3	0	0	0	2	1	4	5	0	0
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	150 225	1976 S:6	2	1	2	0	0	1	0	6	6	0	0



**Summary Table Report**  
California Department of Fish and Wildlife  
California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Atriplex cordulata</i> var. <i>cordulata</i> heartscale	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	70 175	66 S:4	0	1	0	0	0	3	4	0	4	0	0
<i>Atriplex depressa</i> brittlescale	G2 S2	None None	Rare Plant Rank - 1B.2	95 175	60 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Atriplex persistens</i> vernal pool smallscale	G2 S2	None None	Rare Plant Rank - 1B.2	65 140	41 S:9	1	0	0	0	1	7	7	2	8	1	0
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	G2 S2	Endangered None	IUCN_EN-Endangered	70 270	43 S:4	0	1	0	0	0	3	3	1	4	0	0
<i>Branchinecta longiantenna</i> longhorn fairy shrimp	G1 S1S2	Endangered None	IUCN_EN-Endangered	70 70	20 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	70 355	767 S:36	1	5	1	0	0	29	4	32	36	0	0
<i>Branchinecta mesoallensis</i> midvalley fairy shrimp	G2 S2S3	None None		190 345	128 S:13	0	0	0	0	0	13	2	11	13	0	0
<i>Branta hutchinsii leucopareia</i> caakling (=Aleutian Canada) goose	G5T3 S3	Delisted None		70 70	19 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Brasenia schreberi</i> watershield	G5 S3	None None	Rare Plant Rank - 2B.3	170 170	43 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Buteo regalis</i> ferruginous hawk	G4 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	175 175	107 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Buteo swainsoni</i> Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	57 312	2469 S:35	8	6	2	1	1	17	5	30	34	1	0
<i>Calycadenia hooveri</i> Hoover's calycadenia	G2 S2	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive	360 500	37 S:5	2	2	0	0	0	1	1	4	5	0	0
<i>Castilleja campestris</i> var. <i>succulenta</i> succulent owl's-clover	G4?T2T3 S2S3	Threatened Endangered	Rare Plant Rank - 1B.2	185 360	95 S:18	2	5	0	0	0	11	0	18	18	0	0



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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Charadrius montanus</i> mountain plover	G3 S2S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	275 275	90 S:1	1	0	0	0	0	0	0	1	1	0	0
<i>Chloropyron molle ssp. hispidum</i> hispid salty bird's-beak	G2T1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	60 70	35 S:2	0	1	0	0	0	1	2	0	2	0	0
<i>Cismontane Alkali Marsh</i> Cismontane Alkali Marsh	G1 S1.1	None None		75 75	4 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Clarkia rostrata</i> beaked clarkia	G2G3 S2S3	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	450 450	74 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	G3 S2.1	None None		75 75	60 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Dipodomys heermanni dixonii</i> Merced kangaroo rat	G3G4T2T3 S2S3	None None		330 330	21 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Downingia pusilla</i> dwarf downingia	GU S2	None None	Rare Plant Rank - 2B.2	273 360	132 S:3	0	1	1	0	0	1	1	2	3	0	0
<i>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	55 325	1357 S:10	1	5	4	0	0	0	1	9	10	0	0
<i>Eryngium racemosum</i> Delta button-celery	G1 S1	None Endangered	Rare Plant Rank - 1B.1	55 75	26 S:7	1	3	2	1	0	0	6	1	7	0	0
<i>Eryngium spinosepalum</i> spiny-sepal button-celery	G2 S2	None None	Rare Plant Rank - 1B.2	70 350	108 S:15	1	0	0	0	0	14	1	14	15	0	0
<i>Eumops perotis californicus</i> western mastiff bat	G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern WBWG_H-High Priority	180 180	296 S:1	0	0	0	0	0	1	1	0	1	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Extriplex joaquinana</i> San Joaquin spearscale	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	70 75	124 S:2	0	1	0	0	0	1	2	0	2	0	0
<i>Falco columbarius</i> merlin	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	310 310	37 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Haliaeetus leucocephalus</i> bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	270 270	327 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lagophylla dichotoma</i> forked hare-leaf	G2 S2	None None	Rare Plant Rank - 1B.1		7 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lanius ludovicianus</i> loggerhead shrike	G4 S4	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	72 72	109 S:1	1	0	0	0	0	0	0	1	1	0	0
<i>Lasiurus blossevillei</i> western red bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	70 70	128 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Lasiurus cinereus</i> hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	70 70	238 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	G4T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	30 30	97 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	65 323	325 S:11	2	3	1	0	0	5	3	8	11	0	0





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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Lindera occidentalis</i> California lindera	G2G3 S2S3	None None	IUCN_NT-Near Threatened	70 355	437 S:26	0	2	1	0	0	23	6	20	26	0	0
<i>Myotis yumanensis</i> Yuma myotis	G5 S4	None None	BLM_S-Sensitive IUCN_LC-Least Concern WBWG_LM-Low-Medium Priority	70 70	265 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Navaretia myersii</i> ssp. <i>myersii</i> pincushion navaretia	G2T2 S2	None None	Rare Plant Rank - 1B.1	325 325	14 S:1	1	0	0	0	0	0	0	1	1	0	0
<i>Navaretia nigelliformis</i> ssp. <i>radians</i> shining navaretia	G4T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	200 330	81 S:16	2	3	3	0	0	8	0	16	16	0	0
<i>Navaretia prostrata</i> prostrate vernal pool navaretia	G2 S2	None None	Rare Plant Rank - 1B.1	65 90	60 S:4	2	0	0	0	0	2	1	3	4	0	0
<i>Neostaphia colusana</i> Colusa grass	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1	110 350	64 S:5	1	0	3	0	1	0	2	3	4	1	0
<i>Northern Hardpan Vernal Pool</i> Northern Hardpan Vernal Pool	G3 S3.1	None None		315 315	126 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Oncorhynchus mykiss irideus</i> pop. 11 steelhead - Central Valley DPS	G5T2Q S2	Threatened None	AFS_TH-Threatened		31 S:2	0	0	0	1	0	1	0	2	2	0	0
<i>Orcuttia inaequalis</i> San Joaquin Valley Orcutt grass	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1	200 350	47 S:6	0	3	3	0	0	0	3	3	6	0	0
<i>Orcuttia pilosa</i> hairy Orcutt grass	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	175 175	34 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Perognathus inornatus</i> San Joaquin Pocket Mouse	G2G3 S2S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern	320 340	126 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Phacelia ciliata</i> var. <i>opaca</i> Meroed phacelia	G5TH SH	None None	Rare Plant Rank - 3.2	200 200	7 S:3	0	0	0	0	1	2	3	0	2	1	0
<i>Sagittaria sanfordii</i> Sanford's arrowhead	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	150 500	126 S:4	0	1	0	0	0	3	3	1	4	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Spea hammondi</i> western spadefoot	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	65 369	516 S:15	0	2	0	0	0	13	4	11	15	0	0
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	70 75	563 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Thamnophis gigas</i> giant gartersnake	G2 S2	Threatened Threatened	IUCN_VU-Vulnerable	70 170	366 S:4	0	1	0	0	1	2	4	0	3	1	0
<i>Tuctoria greenei</i> Greene's tuctoria	G1 S1	Endangered Rare	Rare Plant Rank - 1B.1	250 310	50 S:7	2	1	1	2	1	0	3	4	6	0	1
<i>Valley Sacaton Grassland</i> Valley Sacaton Grassland	G1 S1.1	None None		75 75	9 S:1	1	0	0	0	0	0	1	0	1	0	0
<i>Valley Sink Scrub</i> Valley Sink Scrub	G1 S1.1	None None		65 65	29 S:1	0	0	1	0	0	0	1	0	1	0	0
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	G4T2 S2	Endangered Threatened		73 225	1017 S:5	1	0	1	1	0	2	2	3	5	0	0

# California Native Plant Society – Inventory of Rare and Endangered Plants

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## Inventory of Rare and Endangered Plants

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scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank	Photo	State Listing Status	Federal Listing Status
<a href="#">Astragalus tener var. tener</a>	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S1	G2T1		1991 Dean Wm. Taylor	
<a href="#">Atriplex cordulata var. cordulata</a>	heartscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G3T2	no photo available		
<a href="#">Atriplex persistens</a>	vernal pool smallscale	Chenopodiaceae	annual herb	Jun, Aug, Sep, Oct	1B.2	S2	G2		2000 Robert E. Preston, Ph.D.	
<a href="#">Chloropyron molle ssp. hispidum</a>	hispid bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	1B.1	S1	G2T1		2012 Doug Wirtz	
<a href="#">Eryngium racemosum</a>	Delta button-celery	Apiaceae	annual / perennial herb	Jun-Oct	1B.1	S1	G1		2010 Chris Winchell	CE

## Appendix B • Species Lists

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<a href="#"><u>Eryngium spinosepalum</u></a>	spiny-sepal button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.2	S2	G2	
								2009 Cristian Singer
<a href="#"><u>Extriplex joaquinana</u></a>	San Joaquin sparscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2	no photo available
<a href="#"><u>Myosurus minimus ssp. apus</u></a>	little mousetail	Ranunculaceae	annual herb	Mar-Jun	3.1	S2	G5T2Q	
								2005 Russell Huddleston
<a href="#"><u>Navaretia prostrata</u></a>	prostrate vernal pool navaretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G2	
								2007 Janell Hillman
<a href="#"><u>Sagittaria sanfordii</u></a>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3	
								2007 Wendy Fisher

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scientific name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank	Photo	State Listing Status	Federal Listing Status
<a href="#">Astragalus tener var. tener</a>	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S1	G2T1	 1991 Dean Wm. Taylor		
<a href="#">Atriplex cordulata var. cordulata</a>	heartscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G3T2	no photo available		
<a href="#">Atriplex coronata var. coronata</a>	crownscale	Chenopodiaceae	annual herb	Mar-Oct	4.2	S3	G4T3	 2010 Neal Kramer		
<a href="#">Atriplex depressa</a>	brittlescale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2	 2009 Zoya Akulova		
<a href="#">Atriplex persistens</a>	vernal pool smallscale	Chenopodiaceae	annual herb	Jun, Aug, Sep, Oct	1B.2	S2	G2			

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[Eryogonum racemosum](#)

Delta  
button-  
celery

Apiaceae

annual /  
perennial  
herb

Jun-Oct

1B.1 S1 G1

CE

2000 Robert E. Preston, Ph.D.



2010 Chris Winchell

[Hordeum intercedens](#)

vernal  
barley

Poaceae

annual herb

Mar-Jun

3.2 S3S4 G3G4



2010 Gary A. Monroe

[Lasthenia glabrata](#)  
[ssp. coulteri](#)

Coulter's  
goldfields

Asteraceae

annual herb

Feb-Jun

1B.1 S2 G4T2



2003 Dean Wm. Taylor

[Myosurus minimus](#)  
[ssp. aris](#)

little  
mousetail

Ranunculaceae

annual herb

Mar-Jun

3.1 S2 G5T2Q



2005 Russell Huddleston

[Navaretia prostrata](#)

prostrate  
vernal pool  
navaretia

Polemoniaceae

annual herb

Apr-Jul

1B.1 S2 G2



2007 Janell Hillman

[Sagittaria sanfordii](#)

Sanford's  
arrowhead

Alismataceae

perennial  
rhizomatous  
herb  
(emergent)

May-Oct(Nov)

1B.2 S3 G3



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## Search Criteria

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scientific ame	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank	Photo	State Listing Status	Federal Listing Status
<a href="#">Atriplex persistens</a>	vernal pool smallscale	Chenopodiaceae	annual herb	Jun, Aug, Sep, Oct	1B.2	S2	G2			
2000 Robert E. Preston, Ph.D.										
<a href="#">Neostanfia colusana</a>	Colusa grass	Poaceae	annual herb	May-Aug	1B.1	S1	G1		CE	FT
2009 Doug Wirtz										
<a href="#">Sagittaria sanfordii</a>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3			
2007 Wendy Fisher										

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## Search Criteria

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Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank	Photo	State Listing Status	Federal Listing Status
<a href="#">Brasenia schreberi</a>	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	2B.3	S3	G5	 2008 Dean Kelch		
<a href="#">Castilleja campestris</a> var. <a href="#">succulenta</a>	succulent owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	(Mar)Apr-May	1B.2	S2S3	G4? T2T3	 2011 Dylan Neubauer	CE	FT
<a href="#">Convolvulus simulans</a>	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4	 2012 Neal Kramer		
<a href="#">Downingia pusilla</a>	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU	 2011 Dylan Neubauer		
<a href="#">Eryngium spinosepalum</a>	spiny-sepal button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.2	S2	G2			

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Hesperivax  
caulescens

hogwallow  
starfish

Asteraceae

annual herb

Mar-Jun

4.2

S3

G3



2009 Cristian Singer



2009 Barry Rice

Lagophylla  
dichotoma

forked  
hare-leaf

Asteraceae

annual herb

Apr-May

1B.1

S2

G2



2010 Ryan O'Dell

Navarretia  
nigelliformis  
ssp. radians

shining  
navarretia

Polemoniaceae

annual herb

(Mar)Apr-  
Jul

1B.2

S2

G4T2



2008 Steve Matson

Neostapfia  
colusana

Colusa  
grass

Poaceae

annual herb

May-Aug

1B.1

S1

G1



2009 Doug Wirtz

Orcuttia  
inaequalis

San  
Joaquin  
Valley  
Orcutt  
grass

Poaceae

annual herb

Apr-Sep

1B.1

S1

G1



2002 Joshua D. Boldt

Orcuttia  
pilosa

hairy  
Orcutt  
grass

Poaceae

annual herb

May-Sep

1B.1

S1

G1

CE FT

CE FT

CE FE

<http://rareplants.cnps.org/result.html?adv=t&quad=3712034#cdisp=1,2,3,4,5,6,7,8,15,9,10>

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2003 George W. Hartwell

[Phacelia](#)  
[ciliata](#) var.  
[opaca](#)

Merced  
phacelia

Hydrophyllaceae annual herb

Feb-May

3.2

SH

G5TH

no photo available

[Sagittaria](#)  
[sanfordii](#)

Sanford's  
arrowhead

Alismataceae

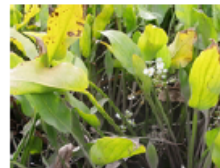
perennial  
rhizomatous  
herb  
(emergent)

May-  
Oct(Nov)

1B.2

S3

G3



2007 Wendy Fisher

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## Search Criteria

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scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank	Photo	State Listing Status	Federal Listing Status
<a href="#">Calycadenia hooveri</a>	Hoover's calycadenia	Asteraceae	annual herb	Jul-Sep	1B.3	S2	G2			
								2007 Neal Kramer		
<a href="#">Castilleja campestris</a> var. <a href="#">succulenta</a>	succulent owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	(Mar)Apr-May	1B.2	S2S3	G4? T2T3		CE	FT
								2011 Dylan Neubauer		
<a href="#">Clarkia rostrata</a>	beaked clarkia	Onagraceae	annual herb	Apr-May	1B.3	S2S3	G2G3			
								1996 Dean Wm. Taylor		
<a href="#">Delphinium hansenii</a> ssp. <a href="#">ewanianum</a>	Ewan's larkspur	Ranunculaceae	perennial herb	Mar-May	4.2	S3	G4T3			



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<u><a href="#">Downingia pusilla</a></u>	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU	2011 Debra L. Cook 		
<u><a href="#">Eryngium spinosepalum</a></u>	spiny-sepal button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.2	S2	G2	2011 Dylan Neubauer 		
<u><a href="#">Navarretia myersii ssp. myersii</a></u>	pin cushion navarretia	Polemoniaceae	annual herb	Apr-May	1B.1	S2	G2T2	no photo available		
<u><a href="#">Navarretia nigelliformis ssp. radians</a></u>	shining navarretia	Polemoniaceae	annual herb	(Mar)Apr-Jul	1B.2	S2	G4T2	2008 Steve Matson 		
<u><a href="#">Neostapfia colusana</a></u>	Colusa grass	Poaceae	annual herb	May-Aug	1B.1	S1	G1	2009 Doug Wirtz 	CE	FT
<u><a href="#">Orcuttia inaequalis</a></u>	San Joaquin Valley Orcutt grass	Poaceae	annual herb	Apr-Sep	1B.1	S1	G1	2002 Joshua D. Boldt 	CE	FT
<u><a href="#">Phacelia ciliata var. gagea</a></u>	Merced phacelia	Hydrophyllaceae	annual herb	Feb-May	3.2	SH	G5TH	no photo available		
<u><a href="#">Sagittaria sanfordii</a></u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3			

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2008 F. Gauna

Tuctoria  
greenii

Greene's  
tuctoria

Poaceae

annual herb

May-  
Jul(Sep)

1B.1 S1 G1

CR FE

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## **Appendix C** Avoidance, Minimization and/or Mitigation Summary

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To be sure that all environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record [ECR] that follows) would be implemented. During project design, avoidance, minimization, and/or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in the Environmental Commitments Record are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following Environmental Commitments Record is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented.

Note: Some measures may apply to more than one resource area. Duplicated or redundant measures have not been included in this Environmental Commitments Record.

### ***Biological Resources***

#### ***Wetlands and Other Waters***

The following permits would be acquired for the project:

A 1600 Lake and Streambed Alteration Agreement from the CDFW would be needed for Locations 4, 5, 6, and 13.

A Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board would be needed for Locations 4, 5, 6, 8, and 13.

A Clean Water Act Section 404 Nationwide Permit from the USACE would be required for Locations 4, 5, 6, 8, and 13.

The following avoidance and minimization measures would be implemented for the proposed project:

- A Spill Prevention Plan would be prepared describing measures to be taken to minimize the risk of fluids or other materials used during construction (e.g., oils, transmission and hydraulic fluids, cement, fuel) from entering streams or contaminating adjacent riparian areas. A cleanup protocol would be developed before construction begins and would be implemented in space of a spill occurs.
- Stockpiling of materials, including portable equipment, vehicles and supplies (e.g., chemicals) would be restricted to the designated construction staging areas, exclusive of any riparian and wetland areas.

- Construction activities would comply with all construction site Best Management Practices specified in the Storm Water Pollution Prevention Plan.

Merced Irrigation District would move their own distribution system outside the clear recovery zone at Location 11. Caltrans would coordinate with the Merced Irrigation District to ensure proper permitting is obtained for Location 11:

A USACE Clean Water Act Section 404 permit would be obtained to improve water quality. Measures would include rock slope protection and the removal of invasive plant species. In addition, a Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board would be needed to provide no loss of waters of the U.S. at this location. A 1600 Lake and Streambed Alteration Agreement from the CDFW would be required.

Measures would be in place for Location 11 include:

- Preconstruction surveys for Migratory bird surveys.
- Worker Environmental Awareness Training for construction staff.

### ***Plant Species***

The following measures would be implemented for all plant species discussed in Chapter 2:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.

- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at location 13. CDFW *Protocols for surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal, state-listed, or rare species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the USFWS.

With the implementation of avoidance and minimization efforts, and no impacts anticipated, no compensatory mitigation is proposed.

### ***Threatened and Endangered Species***

The following avoidance and minimization measures would be implemented for the following critical habitat and species.

#### ***Critical Habitat***

Work would be restricted to the minimal amount necessary to complete the project so that the construction footprint will have the least amount of disturbance to species and their habitat while also using Environmentally Sensitive Area (ESA) fencing to reduce potential disturbance.

Aquatic resources next to the edge of right-of-way found to be suitable for the vernal pool fairy shrimp would be excluded prior to the start of construction by Environmentally Sensitive Area fencing. Access, egress, and ground-disturbing activities would be sited to avoid vernal pools, where feasible. If, during construction, activities impact the integrity of pool hydrology within the micro-watershed, then compensation may be required for that pool, which would be determined during consultation with the U.S. Fish and Wildlife Service. Compensatory mitigation ratios may be higher in areas designated as Critical Habitat than in non-Critical Habitat areas.

Compensatory mitigation would be required for unavoidable effects to critical habitat. This would require consultation with the U.S. Fish and Wildlife Service to determine appropriate compensatory ratios, which may include:

- Purchase of conservation bank credits from a U.S. Fish and Wildlife Service approved bank—when made available—for Vernal pool fairy shrimp.
- Restoration of habitat on protected land, which may include Natural Community Conservation Plans or Habitat Conservation Plans.

- Establishment of new habitat by permittee responsible mitigation through the purchase of mitigation lands or changes in current land practices to augment the existing nearby natural landscape.

Compensatory mitigation ratios may be higher in areas designated as Critical Habitat than non-Critical Habitat areas.

### *California Tiger Salamander*

No permanent or temporary impacts would occur to the California tiger salamander with avoidance and minimization measures, and no compensatory mitigation is proposed. The following measures have been included in the project to protect this species at Location 13 only:

- Biological monitoring and preconstruction surveys would occur to protect any migrating salamanders during the migration season of November 1 to May 31.
- Environmentally Sensitive Area exclusion fencing would be installed around potential breeding ponds to prevent any individuals from entering the work area.
- Worker Environmental Awareness Training (WEAT) would be provided to all construction staff who enter the project site, prior to performing any project-related work or activities. The training would be provided by a qualified biologist and would discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- Areas adjacent to but outside the work area would be protected with brightly colored, dual-purpose Environmentally Sensitive Area fencing to prevent unnecessary disturbance to habitat and/or species. The Environmentally Sensitive Area fencing would also exclude California tiger salamanders and be applied to offsite areas next to the project footprint that contain suitable aquatic features. A qualified biologist would oversee the installation and would visit the site weekly to ensure that the fencing is in good working condition.
- If a 70% or greater chance of rainfall is predicted within 24 hours of a project activity, a qualified biologist would survey the project site for the presence of migrating California tiger salamanders prior to the start of construction each day that rain is forecasted.
- No project work that could impact migrating California tiger salamanders would occur during or within 48 hours following significant rain events, defined as ¼-inch or more of rain in a 24-hour period.
- For work conducted during the migration season of November 1 to May 31, a qualified biologist would survey active work areas (including access roads) in the morning, following measurable precipitation that measures less than ¼-inch. Construction may not begin until the biologist has confirmed that no California tiger salamanders are in the work area.

- Trenches greater than 6 inches deep would be required to be covered or have an escape ramp present. These would be checked daily for trapped California tiger salamanders and other wildlife. Before trenches are filled, they would be inspected thoroughly for trapped wildlife.
- Any pipes or culverts stored onsite must be capped to prevent entry by a California tiger salamander. Pipes must be inspected before installation to ensure that California tiger salamanders have not taken cover inside. If any California tiger salamanders are found on pipes or culverts, the assigned Caltrans biologist would be notified.
- Vehicle travel would be limited to established roadways unless otherwise designated. Any travel beyond the paved highway would adhere to a 20-miles-per-hour daytime speed limit and 10-mile-per-hour nighttime speed limit.
- Areas that would be temporarily impacted due to construction would be seeded with a native seed mix once construction is complete.

No compensatory mitigation is proposed for California tiger salamander or designated Critical Habitat because the channel that the project would impact is not suitable breeding habitat and it does not contain all the necessary primary constituent elements to support the species.

### *Giant Garter Snake*

The following measures developed by the U.S. Fish and Wildlife Service would be implemented to avoid and minimize effects to the giant garter snake at Locations 3-6 only:

- All construction activities will take place between May 1 and October 1, the active period for the giant garter snake.
- Preconstruction surveys will be conducted by a qualified biologist to identify areas that have the potential to encounter a giant garter snake.
- Prior to the start of work, silt fencing will be installed around the project limits to prevent giant garter snakes from entering the work area.
- There will be a biological monitor present during any initial clearing and grubbing activities in areas that have the potential to encounter a giant garter snake.
- Construction personnel will participate in a worker environmental awareness program approved by the U.S. Fish and Wildlife Service. A qualified biologist will inform all construction personnel about the life history of the giant garter snake; how to identify the species and its habitats; what to do if a giant garter snake is encountered during construction activities; as well as explain the state and federal laws pertaining to the giant garter snake.
- Standard construction Best Management Practices (BMPs) will be implemented throughout construction to avoid and minimize adverse effects to water quality within the project impact area.

- If a live giant garter snake is encountered during construction activities, the biological monitor will do the following:
  - Stop construction activity in the vicinity of the giant garter snake. Monitor the giant garter snake and allow the giant garter snake to leave on its own. The monitor will remain in the area for the remainder of the workday to make sure that the giant garter snake is not harmed or that it leaves the site and does not return. Escape routes for the giant garter snake will be determined in advance of construction. If the giant garter snake does not leave on its own within one working day, further consultation with the U.S. Fish and Wildlife Service will be conducted.

Unavoidable effects to the giant garter snake will require consultation with the U.S. Fish and Wildlife Service to determine appropriate compensatory ratios, which may include:

- Purchase of conservation bank credits from a U.S. Fish and Wildlife Service- and California Department of Fish and Wildlife-approved bank—when made available - for giant garter snake.
- Restoration of habitat on protected land, which may include Natural Community Conservation Plans or Habitat Conservation Plans.
- Establishment of new habitat by permittee-responsible mitigation through the purchase of mitigation lands or changes in current land practices to augment the existing nearby natural landscape.
- Giant garter snake temporary impacts will be recontoured and revegetated with an appropriate weed-free native plant seed mixture following the completion of construction.

### *Vernal Pool Fairy Shrimp*

Aquatic resources, adjacent to the edge of right-of-way, found to be suitable for the vernal pool fairy shrimp would be excluded prior to the start of construction by Environmentally Sensitive Area fencing. Access, egress, and ground-disturbing activities will be sited to avoid vernal pools, where feasible. If, during construction, activities might impact the integrity of pool hydrology within the micro-watershed, then compensation may be required for that pool, which would be determined during consultation with the U.S. Fish and Wildlife Service. Unavoidable effects will be compensated through a purchase of credits at a mitigation bank approved by the applicable regulatory agency or agencies.

Unavoidable effects to fairy shrimp would require consultation with the U.S. Fish and Wildlife Service to determine appropriate compensatory ratios, and compensatory mitigation ratios may be higher in areas designated as Critical Habitat than in non-Critical Habitat areas. Compensatory mitigation for fairy shrimp includes the following:

- Purchase of conservation bank credits from a U.S. Fish and Wildlife Service-approved bank—when made available—for vernal pool fairy shrimp.
- Restoration of habitat on protected land, which may include Natural Community Conservation Plans or Habitat Conservation Plans.
- Establishment of new habitat by permittee-responsible mitigation through the purchase of mitigation lands or changes in current land practices to augment the existing nearby natural landscape.

### *Colusa Grass*

The following avoidance and minimization measures have been included in the project to protect Colusa grass:

- A Worker Environmental Awareness Training (WEAT) would be provided to all construction staff who enter the project site, prior to performing any project-related work or activities. The training would be provided by a qualified biologist and would discuss the federal-listed species with a potential to occur on the project.
- Preconstruction botanical surveys would be completed throughout the new Caltrans right-of-way prior to the start of construction.
- If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them would be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, re-initiation with the U.S. Fish and Wildlife Service may be required and transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff would be coordinated with the U.S. Fish and Wildlife Service.

### *Succulent (Fleshy) Owl's-Clover*

This species has not been documented in the action area, so no impacts to individual plants are expected to occur from the proposed action. However, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite. The following avoidance and minimization measures have been included in the project to protect the succulent (fleshy) owl's-clover:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The

Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.

- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way at Location 13 prior to the start of construction. Methodologies outlined in the California Department of Fish and Wildlife *Protocols for surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

### ***Greene's Tuctoria***

Surveys occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. However, these areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite.

The following measures would be implemented to avoid and minimize effects to Greene's tuctoria:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The



Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.

- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at Location 13. The California Department of Fish and Wildlife *Protocols for surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

### ***Hairy Orcutt Grass***

Focused botanical surveys occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. These areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite. The following measures would be implemented to avoid and minimize effects to the hairy orcutt grass:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.

- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at Location 13. The California Department of Fish and Wildlife *Protocols for surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.

If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

#### ***San Joaquin Valley Orcutt Grass***

Focused botanical surveys occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. These areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite. The following measures would be implemented to avoid and minimize effects to the San Joaquin hairy orcutt grass:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.

- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at Location 13. The California Department of Fish and Wildlife *Protocols for surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal-listed species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts (to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

### ***Swainson's Hawk***

The following measures would be implemented to avoid and minimize effects to the Swainson's hawk:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Preconstruction nesting surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction if construction is to occur during the nesting season (February 1 to September 30). Surveys will follow general guidelines identified in the "*Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*."
- If Swainson's hawks are observed nesting within a half mile of the project, a 600-foot radius no-work buffer will be designated. Nest trees will be identified with Environmentally Sensitive Area fencing around the nest tree wherever the no-work buffer may overlap with construction activities.

- Nest trees will be monitored until a qualified biologist has determined that the birds have fledged.
- If work will need to occur within the 600-foot buffer, some activities may be allowed if a biological monitor is present and determines that those construction activities are not disrupting the Swainson's hawks' nesting.

### ***Boggs Lake Hedge-Hyssop***

Focused botanical surveys occurred during a drought year, so suitable habitat for this species may be present in the non-native grasslands. The location where non-native grasslands occur contains areas associated with this species and vernal pool and wetland habitat. However, these areas are used for cattle grazing, which may result in too much disturbance for this species to maintain a viable population. In addition, the presence of non-native species of grasses and forbs may further reduce the potential for this species to occur onsite. The following measures would be implemented to avoid and minimize effects to the Boggs lake hedge-hyssop:

- A Worker Environmental Awareness Training (WEAT) will be provided to all workers who enter the project site, prior to performing any project-related work or activities. The training will be provided by a qualified biologist and will discuss the federal-listed species with a potential to occur on the project, as well as areas of designated Critical Habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impact.
- An Emergency Spill Prevention Plan will be prepared that includes measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways or sensitive upland habitats. The Emergency Spill Prevention Plan will be kept onsite and easily accessible throughout the duration of construction.
- The contractor will follow Best Management Practices (BMPs) specifically developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) will be restricted to designated construction staging areas.
- Once construction is complete, all areas disturbed by the project will be re-seeded with a native species seed mix.
- Preconstruction botanical surveys will be completed throughout the new Caltrans right-of-way prior to the start of construction at Location 13. The California Department of Fish and Wildlife *Protocols for surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (2009) will be followed.
- If any federal-listed, state-listed, or rare species of plants are observed within the project footprint during the preconstruction botanical surveys, efforts to avoid them will be made through the installation of Environmentally Sensitive Area (ESA) fencing. For any individuals that cannot be avoided, transplanting efforts

(to a suitable location outside of the project impact area), seed collection, or the collection, stockpiling, and re-application of duff will be coordinated with the U.S. Fish and Wildlife Service.

### ***Invasive Species***

To prevent the introduction and spread of other invasive species discussed in Chapter 2 into the project area, Caltrans has issued policy guidelines that provide a framework for addressing roadside vegetation management and minimization measures for construction activities and maintenance programs as follows:

- Caltrans periodically maintains the vegetation in its right of way by mowing, disking, and the spraying of herbicides.
- Equipment Staging in weed-free areas: Staging and storage of equipment should be done in weed-free areas. Infestations of noxious and/or highly invasive weeds were mapped as far of the project planning effort to determine if hand, mechanical, or chemical eradication treatments are feasible, or if it is feasible to designate those areas as excluded from contractor's use.
- A non-standard special provision would be included in the construction contract that requires construction equipment and vehicles be cleaned prior to entering and exiting the project site.

No mitigation is proposed.



# Appendix D Farmland Conversion Impact Rating Forms

## Location 3

U.S. Department of Agriculture							
FARMLAND CONVERSION IMPACT RATING							
<b>PART I (To be completed by Federal Agency)</b>				Date Of Land Evaluation Request <b>February 25, 2019</b>			
Name of Project <b>MER140 Roadside Improvements Proj.</b>				Federal Agency Involved <b>Caltrans</b>			
Proposed Land Use <b>Location 3 (PM 9.1)</b>				County and State <b>Merced, CA</b>			
<b>PART II (To be completed by NRCS)</b>				Date Request Received By NRCS <b>02/25/2019</b>		Person Completing Form: <b>Jennifer Foster</b>	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)				YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %			Amount of Farmland As Defined in FPPA Acres: %			
Name of Land Evaluation System Used	Name of State or Local Site Assessment System			Date Land Evaluation Returned by NRCS <b>03/07/2019</b>			
<b>PART III (To be completed by Federal Agency)</b>				Alternative Site Rating			
				Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly							
B. Total Acres To Be Converted Indirectly							
C. Total Acres In Site							
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>							
A. Total Acres Prime And Unique Farmland							
B. Total Acres Statewide Important or Local Important Farmland							
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted							
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value							
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b> Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)							
<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b> (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)				Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use				(15)			
2. Perimeter In Non-urban Use				(10)			
3. Percent Of Site Being Farmed				(20)			
4. Protection Provided By State and Local Government				(20)			
5. Distance From Urban Built-up Area				(15)			
6. Distance To Urban Support Services				(15)			
7. Size Of Present Farm Unit Compared To Average				(10)			
8. Creation Of Non-farmable Farmland				(10)			
9. Availability Of Farm Support Services				(5)			
10. On-Farm Investments				(20)			
11. Effects Of Conversion On Farm Support Services				(10)			
12. Compatibility With Existing Agricultural Use				(10)			
TOTAL SITE ASSESSMENT POINTS				160	0	0	0
<b>PART VII (To be completed by Federal Agency)</b>							
Relative Value Of Farmland (From Part V)				100	0	0	0
Total Site Assessment (From Part VI above or local site assessment)				160	0	0	0
TOTAL POINTS (Total of above 2 lines)				260	0	0	0
Site Selected:		Date Of Selection		Was A Local Site Assessment Used?			
				YES <input type="checkbox"/> NO <input type="checkbox"/>			
Reason For Selection:							
Name of Federal agency representative completing this form:						Date:	
(See Instructions on reverse side)						Form AD-1006 (03-02)	

**Location 4**

U.S. Department of Agriculture					
FARMLAND CONVERSION IMPACT RATING					
<b>PART I (To be completed by Federal Agency)</b>			Date Of Land Evaluation Request <b>February 25, 2019</b>		
Name of Project <b>MER140 Roadside Improvements Proj.</b>			Federal Agency Involved <b>Caltrans</b>		
Proposed Land Use <b>Location 4 (PM 19.7)</b>			County and State <b>Merced, CA</b>		
<b>PART II (To be completed by NRCS)</b>			Date Request Received By NRCS <b>02/25/2019</b>		Person Completing Form: <b>Jennifer Foster</b>
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)			YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Major Crop(s)			Acres Irrigated		Average Farm Size
Farmable Land In Govt. Jurisdiction Acres: %			Amount of Farmland As Defined in FPPA Acres: %		
Name of Land Evaluation System Used			Name of State or Local Site Assessment System		Date Land Evaluation Returned by NRCS <b>03/07/2019</b>
<b>PART III (To be completed by Federal Agency)</b>			Alternative Site Rating		
			Site A	Site B	Site C
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site					
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide Important or Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b>					
Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)					
<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b> (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)			Maximum Points	Site A	Site B
1. Area In Non-urban Use			(15)		
2. Perimeter In Non-urban Use			(10)		
3. Percent Of Site Being Farmed			(20)		
4. Protection Provided By State and Local Government			(20)		
5. Distance From Urban Built-up Area			(15)		
6. Distance To Urban Support Services			(15)		
7. Size Of Present Farm Unit Compared To Average			(10)		
8. Creation Of Non-farmable Farmland			(10)		
9. Availability Of Farm Support Services			(5)		
10. On-Farm Investments			(20)		
11. Effects Of Conversion On Farm Support Services			(10)		
12. Compatibility With Existing Agricultural Use			(10)		
TOTAL SITE ASSESSMENT POINTS			160	0	0
<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)			100	0	0
Total Site Assessment (From Part VI above or local site assessment)			160	0	0
TOTAL POINTS (Total of above 2 lines)			260	0	0
Site Selected:			Date Of Selection		
			Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>		
Reason For Selection:					
Name of Federal agency representative completing this form: (See Instructions on reverse side)					Date:

Form AD-1006 (03-02)



## Location 5

U.S. Department of Agriculture							
FARMLAND CONVERSION IMPACT RATING							
<b>PART I</b> (To be completed by Federal Agency)				Date Of Land Evaluation Request <b>February 25, 2019</b>			
Name of Project <b>MER140 Roadside Improvements Proj.</b>				Federal Agency Involved <b>Caltrans</b>			
Proposed Land Use <b>Location 5 (PM 20.6)</b>				County and State <b>Merced, CA</b>			
<b>PART II</b> (To be completed by NRCS)				Date Request Received By NRCS <b>02/27/2019</b>		Person Completing Form: <b>Jennifer Foster</b>	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)				YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated <b>468,226</b>	Average Farm Size <b>394</b>
Major Crop(s) <b>Almond-Sweet Potato-Tomato</b>		Farmable Land In Govt. Jurisdiction Acres: <b>522,500%</b> <b>42.3</b>		Amount of Farmland As Defined in FPPA Acres: <b>593,44%</b> <b>46.9</b>			
Name of Land Evaluation System Used <b>California Storie Index</b>		Name of State or Local Site Assessment System <b>none</b>		Date Land Evaluation Returned by NRCS <b>03/07/2019</b>			
<b>PART III</b> (To be completed by Federal Agency)				Alternative Site Rating			
				Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				<b>0.02</b>			
B. Total Acres To Be Converted Indirectly				<b>0.16</b>			
C. Total Acres In Site				<b>0.18</b>			
<b>PART IV</b> (To be completed by NRCS) Land Evaluation Information							
A. Total Acres Prime And Unique Farmland							
B. Total Acres Statewide Important or Local Important Farmland				<b>0.18</b>			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				<b>&lt;1%</b>			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				<b>-</b>			
<b>PART V</b> (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				<b>34.6</b>			
<b>PART VI</b> (To be completed by Federal Agency) Site Assessment Criteria (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)				Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use				(15)	<b>15</b>		
2. Perimeter In Non-urban Use				(10)	<b>0</b>		
3. Percent Of Site Being Farmed				(20)	<b>0</b>		
4. Protection Provided By State and Local Government				(20)	<b>0</b>		
5. Distance From Urban Built-up Area				(15)	<b>15</b>		
6. Distance To Urban Support Services				(15)	<b>0</b>		
7. Size Of Present Farm Unit Compared To Average				(10)	<b>0</b>		
8. Creation Of Non-farmable Farmland				(10)	<b>0</b>		
9. Availability Of Farm Support Services				(5)	<b>5</b>		
10. On-Farm Investments				(20)	<b>20</b>		
11. Effects Of Conversion On Farm Support Services				(10)	<b>0</b>		
12. Compatibility With Existing Agricultural Use				(10)	<b>0</b>		
TOTAL SITE ASSESSMENT POINTS				<b>160</b>	<b>55</b>	<b>0</b>	<b>0</b>
<b>PART VII</b> (To be completed by Federal Agency)							
Relative Value Of Farmland (From Part V)				<b>100</b>	<b>34.6</b>	<b>0</b>	<b>0</b>
Total Site Assessment (From Part VI above or local site assessment)				<b>160</b>	<b>55</b>	<b>0</b>	<b>0</b>
TOTAL POINTS (Total of above 2 lines)				<b>260</b>	<b>89.6</b>	<b>0</b>	<b>0</b>
Site Selected:		Date Of Selection		Was A Local Site Assessment Used?			
				YES <input type="checkbox"/> NO <input type="checkbox"/>			
Reason For Selection:							
Name of Federal agency representative completing this form:						Date:	
(See Instructions on reverse side) Form AD-1006 (03-02)							

## Location 6

U.S. Department of Agriculture					
FARMLAND CONVERSION IMPACT RATING					
<b>PART I (To be completed by Federal Agency)</b>			Date Of Land Evaluation Request <b>February 25, 2019</b>		
Name of Project <b>MER140 Roadside Improvements Proj.</b>			Federal Agency Involved <b>Caltrans</b>		
Proposed Land Use <b>Location 6 (PM 33.7)</b>			County and State <b>Merced, CA</b>		
<b>PART II (To be completed by NRCS)</b>			Date Request Received By NRCS <b>02/25/2019</b>		Person Completing Form: <b>Jennifer Foster</b>
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)			YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Major Crop(s)			Acres Irrigated		Average Farm Size
Farmable Land In Govt. Jurisdiction Acres: %			Amount of Farmland As Defined in FPPA Acres: %		
Name of Land Evaluation System Used			Name of State or Local Site Assessment System		Date Land Evaluation Returned by NRCS <b>03/07/2019</b>
<b>PART III (To be completed by Federal Agency)</b>			Alternative Site Rating		
			Site A	Site B	Site C
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site					
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide Important or Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b>					
Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)					
<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b> (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)			Maximum Points	Site A	Site B
1. Area In Non-urban Use			(15)		
2. Perimeter In Non-urban Use			(10)		
3. Percent Of Site Being Farmed			(20)		
4. Protection Provided By State and Local Government			(20)		
5. Distance From Urban Built-up Area			(15)		
6. Distance To Urban Support Services			(15)		
7. Size Of Present Farm Unit Compared To Average			(10)		
8. Creation Of Non-farmable Farmland			(10)		
9. Availability Of Farm Support Services			(5)		
10. On-Farm Investments			(20)		
11. Effects Of Conversion On Farm Support Services			(10)		
12. Compatibility With Existing Agricultural Use			(10)		
TOTAL SITE ASSESSMENT POINTS			160	0	0
<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)			100	0	0
Total Site Assessment (From Part VI above or local site assessment)			160	0	0
TOTAL POINTS (Total of above 2 lines)			260	0	0
Site Selected:			Date Of Selection		
			Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>		
Reason For Selection:					
Name of Federal agency representative completing this form: (See Instructions on reverse side)					Date:

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## Location 7

U.S. Department of Agriculture						
FARMLAND CONVERSION IMPACT RATING						
<b>PART I (To be completed by Federal Agency)</b>			Date Of Land Evaluation Request <b>February 25, 2019</b>			
Name of Project <b>MER140 Roadside Improvements Proj.</b>			Federal Agency Involved <b>Caltrans</b>			
Proposed Land Use <b>Location 7 (PM 37.8)</b>			County and State <b>Merced, CA</b>			
<b>PART II (To be completed by NRCS)</b>			Date Request Received By NRCS <b>02/27/2019</b>		Person Completing Form: <b>Jennifer Foster</b>	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)			YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated <b>468,226</b>	Average Farm Size <b>394</b>
Major Crop(s) <b>Almond-Sweet Potato-Tomato</b>		Farmable Land In Govt. Jurisdiction Acres: <b>522,500</b> % <b>42.3</b>	Amount of Farmland As Defined in FPPA Acres: <b>593,446</b> % <b>46.9</b>			
Name of Land Evaluation System Used <b>California Storie Index</b>		Name of State or Local Site Assessment System <b>none</b>	Date Land Evaluation Returned by NRCS <b>03/07/2019</b>			
<b>PART III (To be completed by Federal Agency)</b>			Alternative Site Rating			
			Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly			-			
B. Total Acres To Be Converted Indirectly			0.07			
C. Total Acres In Site			0.07			
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>						
A. Total Acres Prime And Unique Farmland			-			
B. Total Acres Statewide Important or Local Important Farmland			0.07			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted			<1%			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value			-			
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b> Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)			43			
<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b> (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)			Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use			(15)	0		
2. Perimeter In Non-urban Use			(10)	0		
3. Percent Of Site Being Farmed			(20)	0		
4. Protection Provided By State and Local Government			(20)	20		
5. Distance From Urban Built-up Area			(15)	0		
6. Distance To Urban Support Services			(15)	0		
7. Size Of Present Farm Unit Compared To Average			(10)	20		
8. Creation Of Non-farmable Farmland			(10)	0		
9. Availability Of Farm Support Services			(5)	5		
10. On-Farm Investments			(20)	20		
11. Effects Of Conversion On Farm Support Services			(10)	0		
12. Compatibility With Existing Agricultural Use			(10)	0		
TOTAL SITE ASSESSMENT POINTS			160	65	0	0
<b>PART VII (To be completed by Federal Agency)</b>						
Relative Value Of Farmland (From Part V)			100	43	0	0
Total Site Assessment (From Part VI above or local site assessment)			160	65	0	0
TOTAL POINTS (Total of above 2 lines)			260	108	0	0
Site Selected:		Date Of Selection	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>			
Reason For Selection:						
Name of Federal agency representative completing this form:						Date:
(See Instructions on reverse side)						Form AD-1006 (03-02)

## Location 8

U.S. Department of Agriculture <b>FARMLAND CONVERSION IMPACT RATING</b>					
<b>PART I (To be completed by Federal Agency)</b>			Date Of Land Evaluation Request <b>February 25, 2019</b>		
Name of Project <b>MER140 Roadside Improvements Proj.</b>			Federal Agency Involved <b>Caltrans</b>		
Proposed Land Use <b>Location 8 (PM 38)</b>			County and State <b>Merced, CA</b>		
<b>PART II (To be completed by NRCS)</b>			Date Request Received By NRCS <b>02/27/2019</b>		Person Completing Form: <b>Jennifer Foster</b>
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)			YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	
			Acres Irrigated <b>468,226</b>	Average Farm Size <b>394</b>	
Major Crop(s) <b>Almond-Sweet Potato-Tomato</b>	Farmable Land In Govt. Jurisdiction Acres: <b>522,500</b> % <b>42.3</b>		Amount of Farmland As Defined in FPPA Acres: <b>593,466</b> % <b>46.9</b>		
Name of Land Evaluation System Used <b>California Storie Index</b>	Name of State or Local Site Assessment System <b>none</b>		Date Land Evaluation Returned by NRCS <b>03/07/2019</b>		
<b>PART III (To be completed by Federal Agency)</b>			Alternative Site Rating		
			Site A	Site B	Site C
A. Total Acres To Be Converted Directly			-		
B. Total Acres To Be Converted Indirectly			0.06		
C. Total Acres In Site			0.06		
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>					
A. Total Acres Prime And Unique Farmland			-		
B. Total Acres Statewide Important or Local Important Farmland			0.06		
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted			<1%		
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value			-		
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b> Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)			43		
<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b> (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)			Maximum Points	Site A	Site B
1. Area In Non-urban Use			(15)	0	
2. Perimeter In Non-urban Use			(10)	0	
3. Percent Of Site Being Farmed			(20)	0	
4. Protection Provided By State and Local Government			(20)	20	
5. Distance From Urban Built-up Area			(15)	0	
6. Distance To Urban Support Services			(15)	0	
7. Size Of Present Farm Unit Compared To Average			(10)	20	
8. Creation Of Non-farmable Farmland			(10)	0	
9. Availability Of Farm Support Services			(5)	5	
10. On-Farm Investments			(20)	20	
11. Effects Of Conversion On Farm Support Services			(10)	0	
12. Compatibility With Existing Agricultural Use			(10)	0	
TOTAL SITE ASSESSMENT POINTS			160	65	0
<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)			100	43	0
Total Site Assessment (From Part VI above or local site assessment)			160	65	0
TOTAL POINTS (Total of above 2 lines)			260	108	0
Site Selected:			Date Of Selection		
			Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>		
Reason For Selection:					
Name of Federal agency representative completing this form: (See Instructions on reverse side)					Date:

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## Location 9

U.S. Department of Agriculture					
FARMLAND CONVERSION IMPACT RATING					
<b>PART I (To be completed by Federal Agency)</b>			Date Of Land Evaluation Request <b>February 25, 2019</b>		
Name of Project <b>MER140 Roadside Improvements Proj.</b>			Federal Agency Involved <b>Caltrans</b>		
Proposed Land Use <b>Location 9 (PM 38)</b>			County and State <b>Merced, CA</b>		
<b>PART II (To be completed by NRCS)</b>			Date Request Received By NRCS <b>02/25/2019</b>		Person Completing Form: <b>Jennifer Foster</b>
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)			YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Major Crop(s)		Farmable Land In Govt. Jurisdiction Acres: %	Acres Irrigated		Average Farm Size
Name of Land Evaluation System Used		Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS <b>03/07/2019</b>		
<b>PART III (To be completed by Federal Agency)</b>			Alternative Site Rating		
			Site A	Site B	Site C
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site					
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide Important or Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b> Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)					
<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b> (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)			Maximum Points	Site A	Site B
1. Area In Non-urban Use			(15)		
2. Perimeter In Non-urban Use			(10)		
3. Percent Of Site Being Farmed			(20)		
4. Protection Provided By State and Local Government			(20)		
5. Distance From Urban Built-up Area			(15)		
6. Distance To Urban Support Services			(15)		
7. Size Of Present Farm Unit Compared To Average			(10)		
8. Creation Of Non-farmable Farmland			(10)		
9. Availability Of Farm Support Services			(5)		
10. On-Farm Investments			(20)		
11. Effects Of Conversion On Farm Support Services			(10)		
12. Compatibility With Existing Agricultural Use			(10)		
TOTAL SITE ASSESSMENT POINTS			160	0	0
<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)			100	0	0
Total Site Assessment (From Part VI above or local site assessment)			160	0	0
TOTAL POINTS (Total of above 2 lines)			260	0	0
Site Selected:			Date Of Selection		
			Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>		
Reason For Selection:					
Name of Federal agency representative completing this form:					Date:
(See Instructions on reverse side)					Form AD-1006 (03-02)



## Location 11

U.S. Department of Agriculture					
FARMLAND CONVERSION IMPACT RATING					
<b>PART I (To be completed by Federal Agency)</b>			Date Of Land Evaluation Request <b>February 25, 2019</b>		
Name of Project <b>MER140 Roadside Improvements Proj.</b>			Federal Agency Involved <b>Caltrans</b>		
Proposed Land Use <b>Location 11 (MID)</b>			County and State <b>Merced, CA</b>		
<b>PART II (To be completed by NRCS)</b>			Date Request Received By NRCS <b>02/25/2019</b>		Person Completing Form: <b>Jennifer Foster</b>
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)			YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Major Crop(s)			Farmable Land In Govt. Jurisdiction Acres: %	Acres Irrigated	Average Farm Size
Name of Land Evaluation System Used			Name of State or Local Site Assessment System	Amount of Farmland As Defined in FPPA Acres: %	
				Date Land Evaluation Returned by NRCS <b>03/07/2019</b>	
<b>PART III (To be completed by Federal Agency)</b>			Alternative Site Rating		
			Site A	Site B	Site C
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site					
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide Important or Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b>					
Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)					
<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b> (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)			Maximum Points	Site A	Site B
1. Area In Non-urban Use			(15)		
2. Perimeter In Non-urban Use			(10)		
3. Percent Of Site Being Farmed			(20)		
4. Protection Provided By State and Local Government			(20)		
5. Distance From Urban Built-up Area			(15)		
6. Distance To Urban Support Services			(15)		
7. Size Of Present Farm Unit Compared To Average			(10)		
8. Creation Of Non-farmable Farmland			(10)		
9. Availability Of Farm Support Services			(5)		
10. On-Farm Investments			(20)		
11. Effects Of Conversion On Farm Support Services			(10)		
12. Compatibility With Existing Agricultural Use			(10)		
TOTAL SITE ASSESSMENT POINTS			160	0	0
<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)			100	0	0
Total Site Assessment (From Part VI above or local site assessment)			160	0	0
TOTAL POINTS (Total of above 2 lines)			260	0	0
Site Selected:			Was A Local Site Assessment Used?		
Date Of Selection			YES <input type="checkbox"/> NO <input type="checkbox"/>		
Reason For Selection:					
Name of Federal agency representative completing this form:					
Date:					
(See Instructions on reverse side)					

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## Location 12

U.S. Department of Agriculture						
FARMLAND CONVERSION IMPACT RATING						
<b>PART I (To be completed by Federal Agency)</b>			Date Of Land Evaluation Request <b>February 25, 2019</b>			
Name of Project <b>MER140 Roadside Improvements Proj.</b>			Federal Agency Involved <b>Caltrans</b>			
Proposed Land Use <b>Location 12 (PM 39.8)</b>			County and State <b>Merced, CA</b>			
<b>PART II (To be completed by NRCS)</b>			Date Request Received By NRCS <b>02/27/2019</b>		Person Completing Form: <b>Jennifer Foster</b>	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)			YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated <b>468,226</b>	Average Farm Size <b>394</b>
Major Crop(s) <b>Almond-Sweet Potato-Tomato</b>		Farmable Land In Govt. Jurisdiction Acres: <b>522,506</b> % <b>42.3</b>	Amount of Farmland As Defined in FPPA Acres: <b>593,446</b> % <b>46.9</b>			
Name of Land Evaluation System Used <b>California Storie Index</b>		Name of State or Local Site Assessment System <b>none</b>	Date Land Evaluation Returned by NRCS <b>03/07/2019</b>			
<b>PART III (To be completed by Federal Agency)</b>			Alternative Site Rating			
			Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly			-			
B. Total Acres To Be Converted Indirectly			0.07			
C. Total Acres In Site			0.07			
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>						
A. Total Acres Prime And Unique Farmland			0.07			
B. Total Acres Statewide Important or Local Important Farmland			-			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted			<1%			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value			-			
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b> Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)			60			
<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b> (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)			Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use			(15)	2		
2. Perimeter In Non-urban Use			(10)	2		
3. Percent Of Site Being Farmed			(20)	0		
4. Protection Provided By State and Local Government			(20)	20		
5. Distance From Urban Built-up Area			(15)	10		
6. Distance To Urban Support Services			(15)	15		
7. Size Of Present Farm Unit Compared To Average			(10)	10		
8. Creation Of Non-farmable Farmland			(10)	0		
9. Availability Of Farm Support Services			(5)	5		
10. On-Farm Investments			(20)	20		
11. Effects Of Conversion On Farm Support Services			(10)	0		
12. Compatibility With Existing Agricultural Use			(10)	10		
TOTAL SITE ASSESSMENT POINTS			160	94	0	0
<b>PART VII (To be completed by Federal Agency)</b>						
Relative Value Of Farmland (From Part V)			100	60	0	0
Total Site Assessment (From Part VI above or local site assessment)			160	94	0	0
TOTAL POINTS (Total of above 2 lines)			260	154	0	0
Site Selected:		Date Of Selection	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>			
Reason For Selection:						
Name of Federal agency representative completing this form:						Date:
(See Instructions on reverse side)						Form AD-1006 (03-02)

## Location 13

U.S. Department of Agriculture					
FARMLAND CONVERSION IMPACT RATING					
<b>PART I (To be completed by Federal Agency)</b>			Date Of Land Evaluation Request <b>February 25, 2019</b>		
Name of Project <b>MER140 Roadside Improvements Proj.</b>			Federal Agency Involved <b>Caltrans</b>		
Proposed Land Use <b>Location 13 (PM 49.0)</b>			County and State <b>Merced, CA</b>		
<b>PART II (To be completed by NRCS)</b>			Date Request Received By NRCS <b>02/27/2019</b>		Person Completing Form: <b>Jennifer Foster</b>
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)			YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Acres Irrigated <b>468,226</b>	Average Farm Size <b>394</b>
Major Crop(s) <b>Almond-Sweet Potato-Tomato</b>	Farmable Land In Govt. Jurisdiction Acres: <b>522,506</b> % <b>42.3</b>		Amount of Farmland As Defined in FPPA Acres: <b>593,446</b> % <b>46.9</b>		
Name of Land Evaluation System Used <b>California Storie Index</b>	Name of State or Local Site Assessment System <b>none</b>		Date Land Evaluation Returned by NRCS <b>03/07/2019</b>		
<b>PART III (To be completed by Federal Agency)</b>			Alternative Site Rating		
A. Total Acres To Be Converted Directly			Site A	Site B	Site C
B. Total Acres To Be Converted Indirectly			0.47		
C. Total Acres In Site			0.2		
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>			0.67		
A. Total Acres Prime And Unique Farmland			0.67		
B. Total Acres Statewide Important or Local Important Farmland			-		
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted			<1%		
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value			-		
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b>					
Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)			95		
<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b> (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)			Maximum Points	Site A	Site B
1. Area In Non-urban Use			(15)	15	
2. Perimeter In Non-urban Use			(10)	10	
3. Percent Of Site Being Farmed			(20)	0	
4. Protection Provided By State and Local Government			(20)	20	
5. Distance From Urban Built-up Area			(15)	15	
6. Distance To Urban Support Services			(15)	0	
7. Size Of Present Farm Unit Compared To Average			(10)	4	
8. Creation Of Non-farmable Farmland			(10)	0	
9. Availability Of Farm Support Services			(5)	0	
10. On-Farm Investments			(20)	0	
11. Effects Of Conversion On Farm Support Services			(10)	0	
12. Compatibility With Existing Agricultural Use			(10)	0	
TOTAL SITE ASSESSMENT POINTS			160	64	0
<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)			100	95	0
Total Site Assessment (From Part VI above or local site assessment)			160	64	0
TOTAL POINTS (Total of above 2 lines)			260	159	0
Site Selected: <b>Build</b>			Date Of Selection <b>3/13/2019</b>		
			Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
Reason For Selection: Location 13, located at post mile 49.0, would improve safety and drainage. The project improvements have been identified and approved in the Federal Transportation Improvement Program by the Merced County Association of Governments.					
Name of Federal agency representative completing this form: <b>Judith Lopez, Assoc. Env. Planner</b>					Date: <b>3/13/2019</b>
(See Instructions on reverse side)					

Form AD-1006 (03-02)



# Appendix E SHPO Concurrence Letter

## State Historic Preservation Officer Concurrence Letter



State of California • Natural Resources Agency

Edmund G. Brown Jr., Governor

DEPARTMENT OF PARKS AND RECREATION  
OFFICE OF HISTORIC PRESERVATION

Lisa Ann L. Mangat, Director

Julianne Polanco, State Historic Preservation Officer  
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100  
Telephone: (916) 445-7000 FAX: (916) 445-7068  
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

December 4, 2018

VIA EMAIL

In reply refer to: FHWA\_2018\_1114\_001

Mr. Phillip Vallejo, Branch Chief  
Central California Cultural Resources Branch  
Caltrans District 6  
855 M Street, Suite 200  
Fresno, CA 93721

Subject: Determinations of Eligibility for the Proposed Merced State Route 140 Access Road Project, Merced County, CA

Dear Mr. Vallejo:

Caltrans is initiating consultation for the above project in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA)*. As part of your documentation, Caltrans submitted a Historic Property Survey Report (HPSR), Archaeological Survey Report and a Historical Resources Evaluation Report for the proposed project.

Caltrans is proposing drainage work at eleven (11) discrete locations along State Route 140 in Merced, California. This includes the relocation of canal access roads, culvert extensions, and removal and reconstruction of headwalls within the clear recovery zone. Right-of-way acquisition and temporary construction easements are required for relocation of the canal access roads and utility relocations. A full project description and depiction of the area of potential effects (APE) can be found on pages 1-2 of the HPSR.

Pursuant to Stipulation VIII.C.6 of the PA, Caltrans request concurrence that the following resources are not eligible for the National Register of Historic Places:

- Howard Lateral, State Route (SR) 140, Post Mile (PM) 19.7, Merced County
- Livingston Drain, SR 140, PM 20.67, Merced County

Based on my review of the submitted documentation, I concur.

Mr. Vallejo  
December 4, 2018  
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Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 445-7014 with e-mail at [natalie.lindquist@parks.ca.gov](mailto:natalie.lindquist@parks.ca.gov) or Alicia Perez at (916) 445-7020 with e-mail at [alicia.perez@parks.ca.gov](mailto:alicia.perez@parks.ca.gov).

Sincerely,



Julianne Polanco  
State Historic Preservation Officer

## Appendix F Waters of the U.S. Mapping











## **List of Technical Studies**

Air Quality Report

Noise Study Report

Water Quality Report

Biological Assessment

Natural Environment Study

Location Hydraulic Study

Historical Property Survey Report

- Historic Resource Evaluation Report
- Historic Architectural Survey Report
- Archaeological Survey Report

Hazardous Waste Reports

- Initial Site Assessment

Scenic Resource Evaluation/Visual Assessment

Paleontological Identification Report