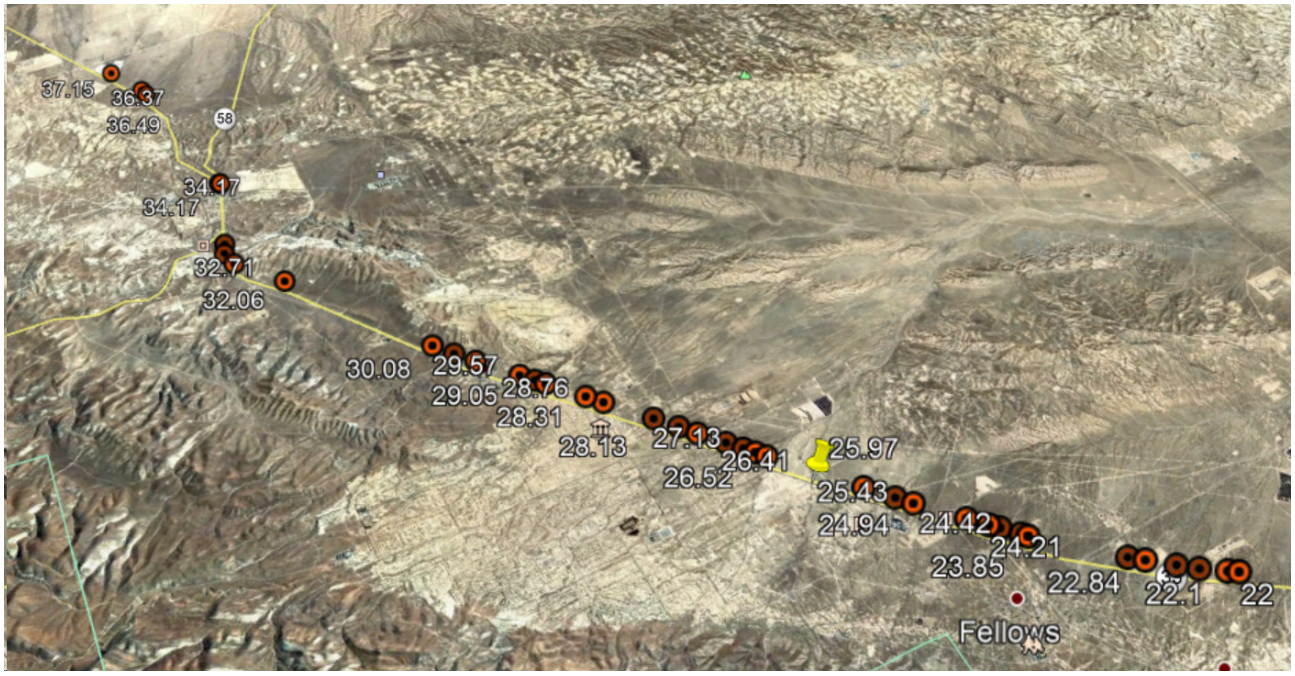
Kern 33 Culvert Rehab

In Kern County on State Route 33 from 0.9 mile south of Henry Road to 0.2 mile north of Cymric Road (North)
06-KER-33-21.8-39.8
Project Number 0618000043

Initial Study
with Proposed Mitigated Negative Declaration

Volume 1 of 2



Prepared by the
State of California Department of Transportation

August 2021

General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in Kern County in California. The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, potential impacts of each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans District 6 office at 1352 West Olive Avenue, Fresno, California 93728 and Taft Library at 27 Cougar Court, Taft, California 93268.
- 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: Mr. Trais Norris, Central Region Environmental, California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, California 93726. Submit comments via email to: trais.norris@dot.ca.gov
- Submit comments by the deadline: October 2, 2021.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans 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 appropriated, Caltrans could design and construct all or part of the project.

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

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: Mr. Trais Norris, Central Region Environmental, California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, California 93726; phone number 209-601-3521 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype), 1-800-735-2929 (Voice), or 711.

06-KER-33-21.8-39.8
Project Number 0618000043

Repair, replace, and/or rehabilitate 40 existing culverts on State Route 33 from post mile 21.8 to post mile 39.8 in Kern County

INITIAL STUDY
with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation
and
Responsible Agency: California Transportation Commission

Jennifer H. Taylor

Jennifer H. Taylor
Office Chief, Central Region
Environmental Southern
California Department of Transportation
CEQA Lead Agency

08/16/2021

Date

The following individual can be contacted for more information about this document:

Trais Norris, Central Region Environmental; 2015 East Shields Avenue, Suite 100, Fresno, California 93726; 209-601-3521

DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

District-County-Route-Post Mile: 06-KER-33-21.8-39.8

EA/Project Number: EA 06-0X240 and Project Number 0618000043

Project Description

The California Department of Transportation (Caltrans) proposes to repair, replace, and/or rehabilitate 40 existing culverts on State Route 33 passing through the census-designated town of McKittrick, from 0.9 mile south of Henry Road to 0.2 mile north of Cymric Road (North) (post miles 21.8 to 39.8) in Kern County.

Determination

An Initial Study has been prepared by the California Department of Transportation (Caltrans), District 6.

On the basis of this study, it is determined that the proposed action with the incorporation of the identified mitigation measures will not have a significant effect on the environment for the following reasons:

An Incidental Take Permit is expected for San Joaquin (Nelson's) antelope squirrel. Mitigation measures proposed for impacts to the San Joaquin (Nelson's) antelope squirrel may include:

- Compensation for loss of habitat will be obtained through the purchase of credits from a mitigation bank, preservation of habitat, or enhancement or restoration of habitat per coordination with California Department of Fish and Wildlife.

_____

Jennifer H. Taylor
Office Chief, Central Region
California Department of Transportation

_____

Date

Table of Contents

Chapter 1 Proposed Project

1.1 Introduction

This project proposes to repair, replace, and/or rehabilitate 40 culverts in Kern County at various locations on State Route 33, passing through the census-designated town of McKittrick, from 0.9 mile south of Henry Road to 0.2 mile north of Cymric Road (North). The project initially proposed the repair, replacement and/or rehabilitation of 44 existing culverts. The scope was later reduced to 40 culverts. State Route 33 at these locations is a rural two-lane conventional highway with a speed limit of 55 miles per hour.

The culverts have perforation, heavy rust, joint separations, sedimentations, sediment/debris, and damaged end treatments. Making these improvements would help to maintain the drainage systems and extend the life of the culverts and the State highway at the culvert locations.

1.2 Purpose and Need

The purpose and need sections discuss the reasons for the project and justify its development.

1.2.1 Purpose

The purpose of the project is to repair, replace and/or rehabilitate 40 culverts at various locations on State Route 33 in Kern County, passing through the census-designated town of McKittrick, from 0.9 mile south of Henry Road to 0.2 mile north of Cymric Road (North) (post mile 21.8 to post mile 39.8).

1.2.2 Need

The project is needed because the culverts have reached or exceeded their design life. They are perforated and heavily rusted, and they have damaged end treatments and joint separations. The project would correct flooding issues within certain areas of the project limits. Upsizing some of the culverts is also needed to correct flooding from multiple causes, including being undersized when installed, road connections to State Route 33 after the culverts were installed which impacted drainage flows, and mud, silt, and debris buildup from stormwater that now inhibits flow through these smaller culverts.

1.3 Project Description

This project proposes to repair, replace, and/or rehabilitate 40 culverts in Kern County on State Route 33 at various locations, passing through the census-designated town of McKittrick, from 0.9 mile south of Henry Road to 0.2 mile north of Cymric Road (North) (post miles 21.8 to 39.8). This would involve removing the entire existing culvert and replacing it with a new reinforced concrete pipe culvert. Culverts within the project have a diameter anywhere from 18 inches to 48 inches. In several cases, replaced culverts would have their diameters increased from 24 inches to 48 inches, or reinforced concrete pipe culverts would be replaced with 6-foot by 4-foot reinforced concrete box culverts to allow greater water flow capacity and improved maintenance access. Several culverts would have their flared end sections or headwalls removed or replaced. Rock slope protection would be placed at most culvert outlets and a few inlets to aid with erosion control. Ditches leading to inlets and from outlets would be graded and shaped until they are 4 feet wide and have slopes that are 3 to 1 or flatter. Replacing culverts requires excavation of the overlaying road asphalt and digging a trench along the culvert alignment. Once the culvert has been replaced, a new roadbed would be placed and compacted before hot-mix asphalt is paved and compacted to reinstate the driving surface of the road. Additional work may include clearing and grubbing of vegetation before culvert replacement, rock slope protection placement, or ditch grading. This entire process would require closing a traffic lane and corresponding one-way traffic control.

Existing improvements that do not meet Caltrans' current standards would be corrected as part of the culvert project. Such work would occur on roadside features that are within 50 feet of a culvert that is proposed for repair or replacement. Temporary construction easements would be needed, but most of the work would be completed within existing Caltrans right-of-way.

The project includes a Build Alternative and a No-Build Alternative.

The preliminary estimated construction cost of the project is $5,055,000. The project is to be funded from the 2020 State Highway Operation and Protection Program's Drainage System Restoration Program in the 2023/2024 Fiscal Year. The current project timeline shows approval of the construction contract is scheduled for June 2024, and completion of the project is expected by July 2025.

Figure 1-1 Project Vicinity Map

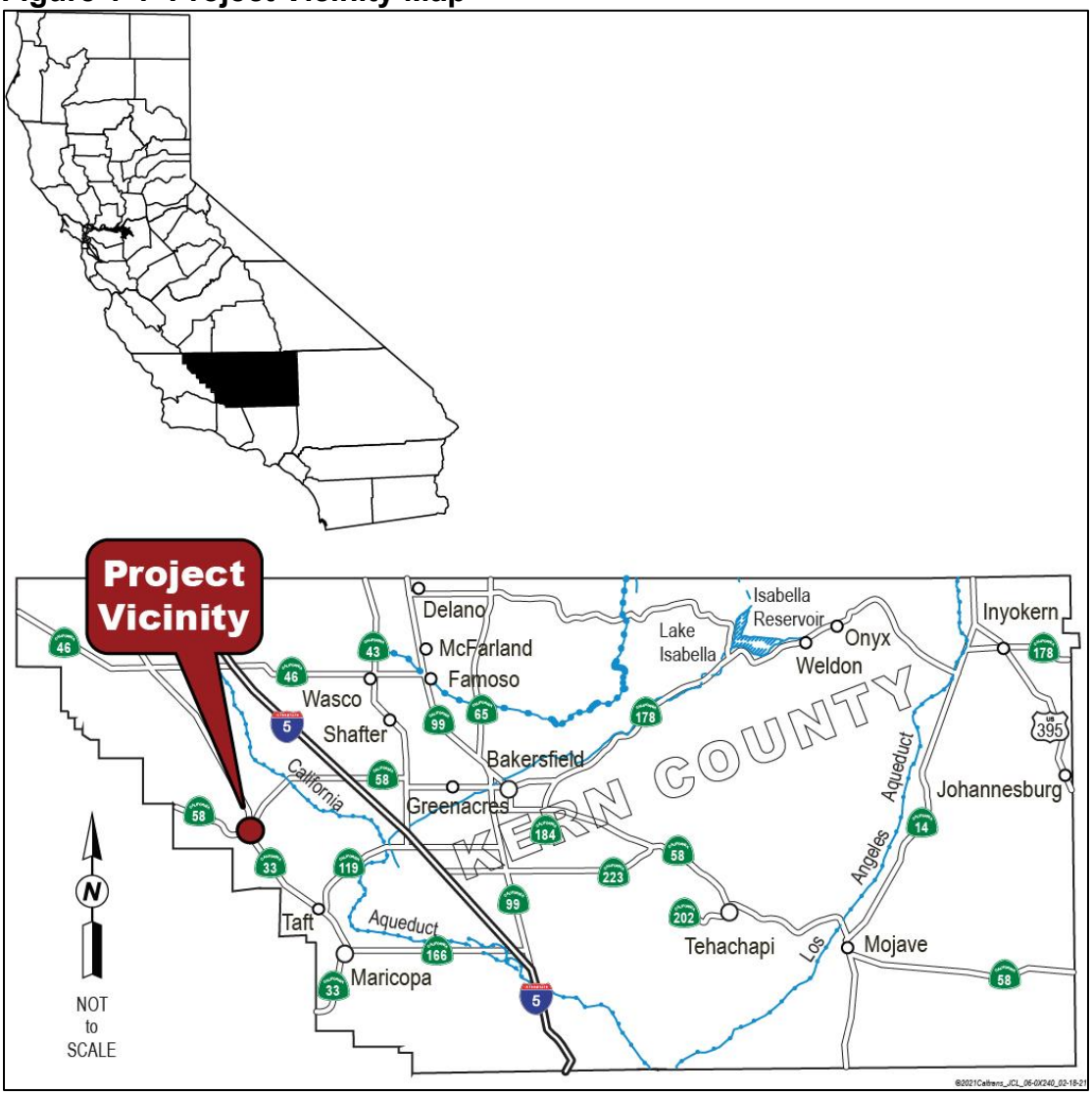
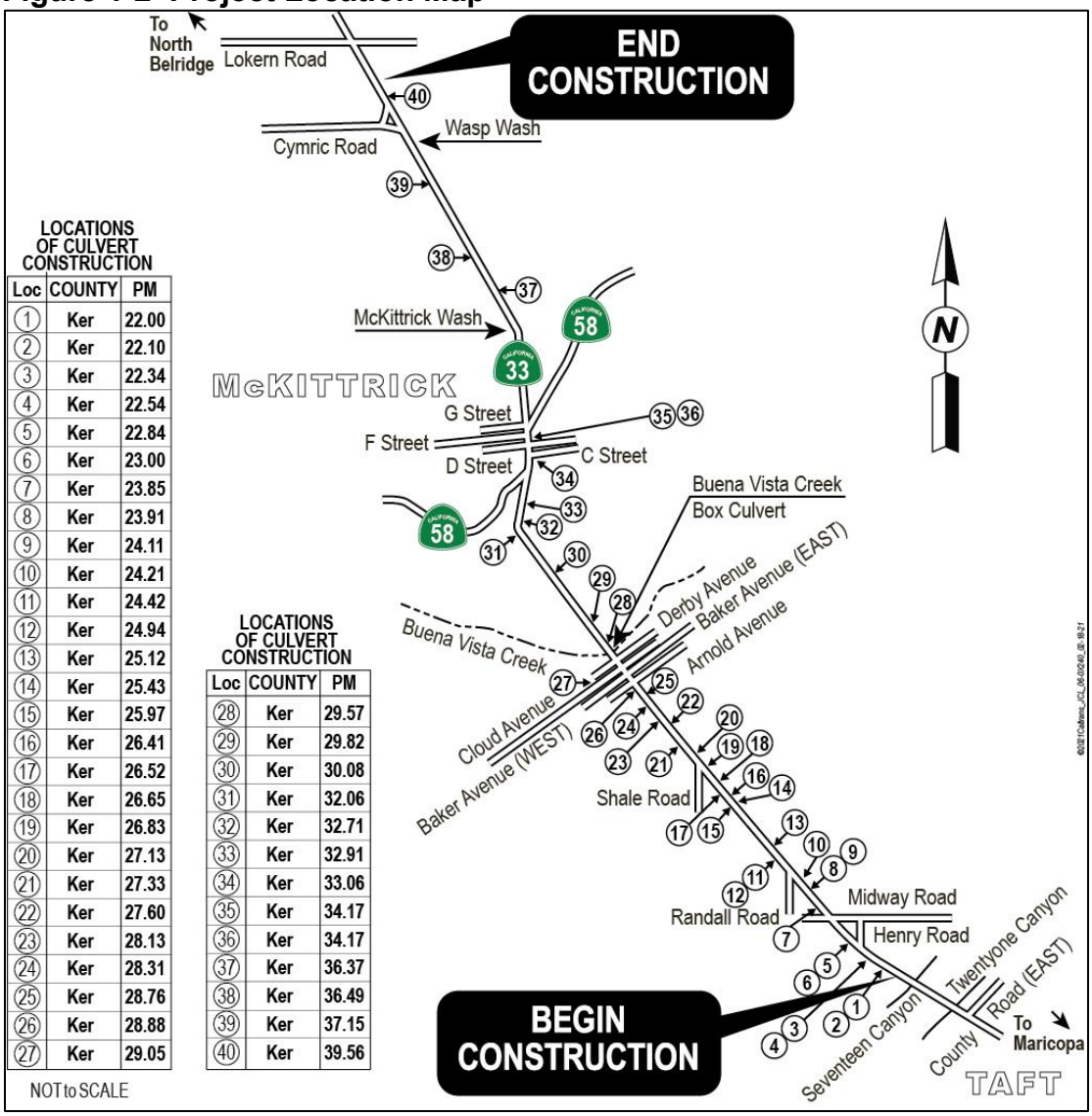


Figure 1-2 Project Location Map



LOCATIONS OF CULVERT CONSTRUCTION

Loc	COUNTY	PM
1	Ker	22.00
2	Ker	22.10
3	Ker	22.34
4	Ker	22.54
5	Ker	22.84
6	Ker	23.00
7	Ker	23.85
8	Ker	23.91
9	Ker	24.11
10	Ker	24.21
11	Ker	24.42
12	Ker	24.94
13	Ker	25.12
14	Ker	25.43
15	Ker	25.97
16	Ker	26.41
17	Ker	26.52
18	Ker	26.65
19	Ker	26.83
20	Ker	27.13
21	Ker	27.33
22	Ker	27.60
23	Ker	28.13
24	Ker	28.31
25	Ker	28.76
26	Ker	28.88
27	Ker	29.05

LOCATIONS OF CULVERT CONSTRUCTION

Loc	COUNTY	PM
28	Ker	29.57
29	Ker	29.82
30	Ker	30.08
31	Ker	32.06
32	Ker	32.71
33	Ker	32.91
34	Ker	33.06
35	Ker	34.17
36	Ker	34.17
37	Ker	36.37
38	Ker	36.49
39	Ker	37.15
40	Ker	39.56

1.4 Project Alternatives

A Build Alternative and a No-Build Alternative are being considered for the project.

1.4.1 Build Alternative

The Build Alternative initially called out for the repair, replacement, and/or rehabilitation of 44 existing culverts; the scope was later reduced to 40 culverts. The project is on State Route 33, passing through the census-designated town of McKittrick, from 0.9 mile south of Henry Road to 0.2 mile north of Cymric Road (North) (post miles 21.8 to 39.8) in Kern County. The

culvert locations are detailed in the Project Location Map in Figure 1-2 and on the Culvert Location Plans in Appendix B.

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 listed in Section 1.5 of this chapter under “Standard Measures and Best Management Practices.”

1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative would leave the State Route 33 culverts in their current condition. There would be no improvements to the failing culverts thus causing further deterioration of the culverts and State highway in addition to worsening flood conditions.

1.5 Standard Measures and Best Management Practices

The project may include but is not limited to the following Standard Special Provisions.

14-1.02 Environmentally Sensitive Area: Pertains to environmentally sensitive areas marked on the ground. Do not enter an environmentally sensitive area unless authorized. If breached, notify the resident engineer.

14-6.03 Species Protection: Pertains to protecting regulated species and their habitat that occur within or near the job site. Upon discovery of a regulated species, notify the resident engineer.

14-6.03B Bird Protection: Pertains to protecting migratory and nongame birds, their occupied nests, and their eggs. Upon discovery of an injured or dead bird or migratory or nongame bird nests that may be adversely affected by construction activities, immediately stop all work and notify the resident engineer. Exclusion devices, nesting-prevention measures, and removing constructed and unoccupied nests may be used.

14-7.03 Discovery of Unanticipated Paleontological Resources: If paleontological resources are discovered at the job site, do not disturb the resources and immediately stop all work within a 60-foot radius of the discovery, secure the area, and notify the resident engineer. Do not move paleontological resources or take them from the job site.

14-8.02 Noise Control: Pertains to controlling and monitoring noise resulting from work activities. Noise levels are not to exceed 86 decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

14-9.02 Air Pollution Control: Comply with air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the construction contract.

14-11 Hazardous Waste and Contamination: Includes specifications relating to hazardous waste and contamination.

14-11.02 Discovery of Unanticipated Asbestos and Hazardous Substances: Upon discovery of unanticipated asbestos or a hazardous substance, immediately stop work and notify the resident engineer.

14-11.04 Dust Control: Excavation, transportation, and handling of material containing hazardous waste or contamination must result in no visible dust migration. When clearing, grubbing, and performing earthwork operations in areas containing hazardous waste or contamination, provide a water truck or tank on the job site.

14-11.12 Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue: Includes specifications for removing, handling, and disposing of yellow thermoplastic and yellow-painted traffic stripe and pavement marking. The residue from the removal of this material is a generated hazardous waste (lead chromate). Removal of existing yellow thermoplastic and yellow-painted traffic stripe and pavement marking exposes workers to health hazards that must be addressed in a lead compliance plan.

14-11.13C Safety and Health Protection Measures: Applies to worker protective measures for potential lead exposure.

14-11.14 Treated Wood Waste: Includes specifications for handling, storing, transporting, and disposing of treated wood waste.

1.6 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation supporting a Categorical Exclusion determination will be prepared in accordance with the National Environmental Policy Act. When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special-status species by the U.S. National Marine Fisheries Service and the U.S. Fish and Wildlife Service—in other words, species protected by the Federal Endangered Species Act).

1.7 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	1600—Streambed Alteration Agreement Permit. Three 1600 permits are required.	Target Submittal January 26, 2023.
U.S. Fish and Wildlife Service	Letter of Concurrence	Biological Opinion: Target submittal September 24, 2021.
California Department of Fish and Wildlife	Incidental Take Permit	Incidental Take Permit: Target date January 26, 2023.
Regional Water Quality Control Board	401 Waste Discharge Permit (General Order)	Target Submittal January 26, 2023.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Potentially Significant Impact, Less Than Significant with Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A No Impact answer reflects this determination. The questions in this checklist 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 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.

“No Impact” determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report (bound separately in Volume 2), and no further discussion is included in this document.

2.1.1 Aesthetics

Considering the information included in the Landscape Architecture Recommendation Memorandum dated February 25, 2021, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	**No Impact**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Aesthetics
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	**No Impact**
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	**No Impact**

2.1.2 Agriculture and Forest Resources

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 Department 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.

Considering the project improvements would be within the existing State right-of-way, temporary construction easements would be directly next to the State right-of-way, which is predominantly developed with oil fields with no agriculture or forest lands within the project limits; the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
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?	**No Impact**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	**No Impact**
c) Conflict with existing zoning, 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))?	**No Impact**
d) Result in the loss of forest land or conversion of forest land to non-forest use?	**No Impact**
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?	**No Impact**

2.1.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Considering the information included in the Air Quality Memorandum dated May 15, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Air Quality
b) 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?	**No Impact**
c) Expose sensitive receptors to substantial pollutant concentrations?	**No Impact**
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	**No Impact**

2.1.4 Biological Resources

Considering the information included in the Natural Environment Study dated June 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
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 Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration Fisheries?	**Less Than Significant with Mitigation Incorporated**
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 Wildlife or U.S. Fish and Wildlife Service?	**Less Than Significant Impact**
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**Less Than Significant Impact**

Question—Would the project:	CEQA Significance Determinations for Biological Resources
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?	**No Impact**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**No Impact**
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?	**No Impact**

a) Affected Environment

Plant Species

A Natural Environment Study was completed for the project in June 2021. This section provides a detailed description of the special-status plants that occur or have the potential to occur within the Biological Study Area. Twenty-one special-status plant species were identified to be historically present within the five U.S. Geological Survey quadrangles queried on the U.S. Fish and Wildlife Service's Information for Planning and Consultation, the California Department of Fish and Wildlife's California Natural Diversity Database, and the California Native Plant Society's Rare Plant Inventory.

Vegetation Types: Allscale Scrub, Red Brome/Mediterranean Grass Grassland, and California Jewelflower

Of the 21 special-status plant species identified, 18 are associated with vegetation types that are present in the Biological Study Area, including allscale scrub and red brome/Mediterranean grass grassland. Focused botanical surveys for special-status rare plants were conducted in April and May 2021; none of the listed special-status plants with a blooming period in April and May were seen during the surveys. However, this area is experiencing a drought and annual plant species present in the Biological Study Area dried out very early this season.

There is marginally suitable habitat in the form of allscale scrub for the California jewelflower. The California jewelflower is an annual herb that is part of the mustard family *(Brassicaceae).* It is entirely endemic to California and occurs in flats and gentle slopes in non-alkaline grasslands in shadscale scrub, valley grassland, and pinyon-juniper woodland. Historically, it has been seen in various valley habitats in the Central Valley and Carrizo Plain. The California jewelflower typically blooms from February through May.

The California jewelflower is federally and state listed as endangered. The California jewelflower is also included in the California Native Plant Society's Inventory of Rare and Endangered Plants. This species was not found and is unlikely to occur in the Biological Study Area. No impacts to this species are anticipated.

Environmental Consequences

Plant Species

Allscale Scrub, Red Brome/Mediterranean Grass Grassland, and California Jewelflower

The Biological Study Area contains marginally suitable habitat in the form of allscale scrub for the California jewelflower and poor-quality habitat in the form of red brome/Mediterranean grass grassland. Although the project has potential to impact low quality habitat for this species no direct impacts to the California jewel flower are anticipated. This species was not found within the project area during surveys and due to habitat conditions and the existing disturbance present, the habitat onsite is unlikely to support this species.

No impacts to California jewelflower are anticipated. The majority of the impacts to low quality habitat are temporary and would be available for dispersal by this species once construction is complete.

Avoidance and minimization measures would be implemented to ensure potential impacts are minimized. Due to the low rain year that occurred during surveys additional botanical surveys will be conducted prior to construction to ensure the California jewelflower is not present onsite.

Caltrans has determined that the proposed project May Affect but is Not Likely to Adversely Affect the California jewelflower and Informal consultation with U.S. Fish and Wildlife Service will be initiated for this species.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented to protect plant species.

- Preconstruction Worker Environmental Awareness Training would be held for all project personnel. The training would discuss special-status species that are present, have the potential to be present, and protection requirements for each species.
- Preconstruction botanical surveys focused on identifying rare plants in the project impact area would be conducted during the bloom season before construction. Surveys will follow the 2018 California Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.

Compensatory Mitigation

No impacts to California jewel flowers are anticipated therefore no compensatory mitigation is proposed.

Affected Environment

Kern Mallow

Marginally suitable habitat in the form of allscale scrub is present in the Biological Study Area. The Kern mallow is an annual herb that is a part of the mallow family *(Malvaceae).* The Kern mallow is federally listed as endangered; it is entirely endemic to California. The Kern mallow typically occurs in the valley saltbush scrub natural community, where it grows under and around spiny and common saltbushes and in patches with other herbaceous plants, rather than in the intervening alkali scalds. The Kern mallow is also included in the California Native Plant Society's Inventory of Rare and Endangered Plants.

The Kern mallow was not seen during focused botanical surveys that were conducted for special-status rare plants in April and May 2021. The focused botanical surveys also surveyed a reference population to ensure they accounted for limitations that may occur during a drought year. On March 16, 2021, the Kern mallow was confirmed blooming at the Lokern area reference site. (CNDDB #MYE15F0014). If this species was present onsite there is a high likely hood this this species would have been observed during botanical surveys. The Kern mallow is not expected to be present in the Biological Study Area.

Environmental Consequences

Kern Mallow

The Biological Study Area contains marginally suitable habitat for the Kern mallow in the form of allscale scrub and poor-quality habitat in the form of red brome/Mediterranean grass grassland.

Although the project has potential to impact low quality habitat for this species no direct impacts to the Kern mallow are anticipated. This species was not found within the project area during surveys and due to the current habitat conditions and existing disturbance present, the habitat onsite is unlikely to support this species.

No direct impacts to Kern mallow are anticipated. The majority of the impacts to low quality potential habitat are temporary and would be available for dispersal by this species once construction is complete.

Avoidance and minimization measures would be implemented to ensure potential impacts are minimized. Due to the low rain year that occurred during surveys additional botanical surveys will be conducted prior to construction to ensure the Kern mallow is not present onsite.

Caltrans has determined that the proposed project May Affect but is Not Likely to Adversely Affect the Kern Mallow and Informal consultation with USFWS will be initiated for this species.

Avoidance, Minimization, and/or Mitigation Measures

Potential avoidance and minimization efforts for this project would consist of the following:

- Preconstruction Worker Environmental Awareness Training would be held for all project personnel. The training would discuss special-status species that are present, have the potential to be present, and protection requirements for each species.
- Preconstruction botanical surveys focused on identifying rare plants in the Project Impact Area would be conducted during the bloom season before construction. Surveys will follow the 2018 California Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.

Compensatory Mitigation

No impacts to the Kern mallow are anticipated therefore no compensatory mitigation is proposed.

Affected Environment

San Joaquin Woolly-Threads

San Joaquin woolly-threads are federally and state-listed endangered species; they are also included in the California Native Plant Society's Inventory of Rare and Endangered Plants. San Joaquin woolly-threads are typically found in chenopod scrub and valley and foothill grasslands and have a February through May bloom period. The elevation of San Joaquin woolly-threads ranges from 195 feet to 2,625 feet.

Marginally suitable habitat in the form of allscale scrub and poor-quality habitat in the form of red brome/Mediterranean grass grassland is present in the Biological Study Area. Valley grassland is present in the Biological Study Area in the form of red brome/Mediterranean grass grassland. Habitat is marginal or poor because it is highly disturbed by vehicles regularly driving in nearby habitats and the presence of invasive plant species that occupy space that could otherwise support this species.

San Joaquin woolly-threads were not seen during focused botanical surveys that were conducted for special-status rare plants in April and May 2021. Focused botanical surveys also surveyed a reference population to ensure they accounted for limitations that may occur during a drought year. San Joaquin woolly-threads were confirmed blooming at the Santos Creek reference site on March 16, 2021. (CNDDB #MYE15F0014). Since San Joaquin woolly-threads were not observed onsite during surveys, there is a

low potential for them to be present in the Biological Study Area. If this species was present, there is a high likelihood Joaquin woolly-threads would have been observed during surveys.

Environmental Consequences

San Joaquin Woolly-Threads

The Biological Study Area contains marginally suitable habitat in the form of allscale scrub and poor-quality habitat in the form of red brome/Mediterranean grass grassland.

Although the project has potential to impact low quality habitat for this species no direct impacts to the San Joaquin wooly-threads are anticipated. This species was not found within the project area during surveys and due to the current habitat conditions and existing disturbance present, the habitat onsite is unlikely to support this species.

Direct impacts to San Joaquin woolly-threads are not anticipated. The majority of the impacts to low quality potential habitat are temporary and would be available for dispersal by this species once construction is complete. Avoidance and minimization measures would be implemented to ensure any potential impacts are minimized. Due to the low rain year that occurred during surveys additional botanical surveys will be conducted prior to construction to ensure the San Joaquin wooly-threads is not present onsite.

Caltrans has determined that the proposed project May Affect but is Not Likely to Adversely Affect the San Joaquin woolly-threads and Informal consultation with U.S. Fish and Wildlife Service will be initiated for this species.

Species impacts and Federal Endangered Species Act determinations are summarized in Table 2.1 below.

Avoidance, Minimization, and/or Mitigation Measures

- Preconstruction Worker Environmental Awareness Training would be held for all project personnel. The training would discuss special-status species that are present, have the potential to be present, and protection requirements for each species.
- Preconstruction botanical surveys focused on identifying rare plants in the Project Impact Area would be conducted during the bloom season before construction. Surveys will follow the 2018 California Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.

Compensatory Mitigation

No impacts to San Joaquin woolly-threads are anticipated therefore no compensatory mitigation is proposed.

Table 2.1 Species Impacts and Federal Endangered Species Act Determinations

Species	Status	Federal Endangered Species Act Determination
Buena Vista Lake ornate shrew	Federally Endangered	No Effect
Giant kangaroo rat	Federally Endangered	May Affect, Not Likely to Adversely Affect
San Joaquin kit fox	Federally Endangered	May Effect
Tipton kangaroo rat	Federally Endangered	No Effect
California condor	Federally Endangered	No Effect
Blunt-nosed leopard lizard	Federally Endangered	May Affect, Not Likely to Adversely Affect
Giant garter snake	Federally Threatened	No Effect
Green sea turtle	Federally Threatened	No Effect
California red-legged frog	Federally Threatened	No Effect
Delta smelt	Federally Threatened	No Effect
Vernal pool fairy shrimp	Federally Threatened	No Effect
California Jewelflower	Federally Endangered	May Affect, Not Likely to Adversely Affect
Kern mallow	Federally Endangered	May Affect, Not Likely to Adversely Affect
San Joaquin woolly-threads	Federally Endangered	May Affect, Not Likely to Adversely Affect

a) Affected Environment

Animal Species

A Natural Environment Study was completed for the project in June 2021. This section presents a broader view of special-status animal species than the more focused discussion found in the Threatened and Endangered Species section.

Animals are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring onsite. Special-status animal species were identified to be historically present within the five U.S. Geological Service quadrangles queried on the U.S. Fish and Wildlife Service's Information for Planning and Consultation and the California Department of Fish and Wildlife's California Natural Diversity Database. San

Joaquin (Nelson's) antelope squirrel *(Ammospermophilus nelson),* short-nosed kangaroo rat *(Dipodomys nitratoides brevinasus),* Tulare grasshopper mouse *(Onychomys torridus tularensis),* San Joaquin coachwhip *(Coluber flagellum ruddocki)*, loggerhead shrike *(Lanius ludovicianus),* and LeConte's thrasher *(Toxostoma lecontei)* were found to be present within the Biological Study Area. A San Joaquin kit fox *(Vulpes macrotis)* was seen less than 6 miles from the Biological Study Area.

San Joaquin Coachwhip

The San Joaquin coachwhip is a California Species of Special Concern. The San Joaquin coachwhip can range from 3 feet long to 8 feet long. The San Joaquin coachwhip's common name is derived from its slender body, tail, and scalation, suggesting a breaded whip. These snakes live in a variety of habitats, including desert, prairie, scrubland, juniper-grassland, woodland, thorn forest, and farmland. Their diet consists of rodents, lizards, snakes, birds, turtles, insects, eggs, and carrion; they seek cover in rodent burrows, bushes, trees, and rock piles. Mating occurs in April and May; females lay eggs in June and July, and young hatch in late August to early September. There is one CNDDB occurrence for San Joaquin coachwhip within the BSA from 1997. Focused surveys for this species were not completed. There was one incidental observation of the species within the Biological Study Area in 2020 during blunt-nosed leopard lizard surveys.

Environmental Consequences

Animal Species

San Joaquin Coachwhip

The Biological Study Area contains suitable habitat and an appropriate prey base for the San Joaquin coachwhip. The project would impact up to 5.58 acres of suitable San Joaquin coachwhip habitat. Of these, about 0.01 acre of impacts would be considered permanent, and 5.57 acres would be temporary because the impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again.

Avoidance, Minimization, and/or Mitigation Measures

- Preconstruction surveys would be conducted to avoid potential impacts on this species.
- A qualified biologist would be present at the construction site during initial ground-disturbing activities and for activities in habitat that may contain the species.
- Project-related vehicles should observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways. Requiring low speed limits within the construction site would lessen the probability that snakes can be run over by vehicles and equipment.

- Areas of disturbance would be recontoured and revegetated with a native seed mix.

Compensatory Mitigation

With avoidance and minimization measures, no direct impacts to San Joaquin coachwhip are anticipated therefore no compensatory mitigation is proposed.

Affected Environment

California Legless Lizard and California Glossy Snake

These species have been grouped together because they are special-status species that have the potential to be in, but have not been seen within, the Biological Study Area; use the same habitat; and project impacts, avoidance and minimization measures and mitigation impacts would be the same for the Temblor legless lizard, California legless lizard, and California glossy snake.

California Legless Lizard

The California legless lizard is a California species of special concern. Even though this species has an extensive range, it does not occur commonly within its full range. This lizard is common in suitable habitats in the Coast Ranges from Contra Costa County, south to the Mexico-United States border. However, the California legless lizard only has a spotty occurrence throughout the rest of its range, which includes the San Joaquin Valley to the west slope of the southern Sierra, the Tehachapi Mountains west of the desert, and in the mountains of Southern California. The California legless lizard's elevation distribution ranges from near sea level to 6,000 feet. The California legless lizard is a burrowing species associated with sandy or loose, loamy soils; it lives mostly underground. It needs moisture for survival, so it favors moist, warm, loose soil with some plant cover. The California legless lizard can often be found in sparsely vegetated areas of coastal dune, valley foothill, chaparral, and coastal scrub habitats. The closest California Natural Diversity Database occurrence for the California legless lizard is 0.35 mile to the west of the project area, dated 2015.

California Glossy Snake

The California glossy snake is a California species of special concern. California glossy snakes prefer semiarid grasslands, but they can also be found in chaparral, sagebrush, valley-foothill hardwood, pinyon-juniper woodland, and annual grass. They are typically found at elevations from below sea level to 6,000 feet. They are a nonvenomous, nocturnal predator of small lizards. Adults breed in the late spring and early summer, with the eggs hatching in early summers and the newly hatched young about 9.8 inches in total length. The closest California Natural Diversity Database occurrence for the California glossy snake is within the project area, 1 mile north of McKittrick, dated 2015.

Environmental Consequences

California Legless Lizard and California Glossy Snake

Direct impacts to California legless lizard and California glossy are not anticipated. However, impacts to potential habitat that may be used by these species will occur.

The Biological Study Area contains suitable habitat in allscale scrub and red brome/Mediterranean grass grassland habitat and an appropriate prey base for California legless lizards and California glossy snakes. The project would impact up to 5.73 acres of suitable habitat. Of these, about 0.01 acre of impacts would be considered permanent, and 5.72 acres would be temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again. While the potential exists that California legless lizards and California glossy snakes would take refuge in duff or covered areas, they are able to move out of harm's way.

Avoidance, Minimization, and/or Mitigation Measures

- Preconstruction surveys would be conducted to avoid potential impacts on these species.
- A qualified biologist would be present at the construction site during initial ground-disturbing activities and for activities in habitats that may contain these species.
- Project-related vehicles should observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways. Requiring low speed limits within the construction site would lessen the probability that snakes can be run over by vehicles and equipment.
- Areas of disturbance would be recontoured and revegetated with a native seed mix.
- Based on the nocturnal nature of these species, night construction has the potential to impact any nocturnal species present in the Biological Study Area or nearby areas. Any night lighting would be directed away from natural areas.

Compensatory Mitigation

With avoidance and minimization measures, no impacts to the special-status species are expected. Therefore, no compensatory mitigation is proposed for these species.

Affected Environment

Burrowing Owl

The burrowing owl *(Athene cunicularia)* is the only owl in North America that nests in underground burrows. This small owl (about 9 inches long, with a 15-inch wingspan, and 5 ounces to 8 ounces in weight) is brown with white spots

on its wings and back, with an off-white breast with brown bars. Its eyes are yellow, and its face is highlighted by a conspicuous white eyebrow. The burrowing owl has long legs and spends a great deal of time standing on the ground or a small mound near the burrow entrance or perched on low perches such as brush and fence posts.

Burrowing owls can be active during the day or night. They often live in old rodent burrows, typically those of the California ground squirrel, but they are capable of digging their own. Their habitat consists of open, dry annual or perennial grasslands, deserts, or open scrublands with low vegetation, soils suitable for digging, and a suitable prey base of burrowing rodents, small reptiles, and insects. Several owl pairs may nest close to one another and form loose colonies, but adult owls will aggressively defend their own burrow against other burrowing owls and predators.

Burrowing owls can be found throughout much of California, where suitable habitat occurs. Much of their habitat has been lost to urban and agricultural development, particularly throughout the San Joaquin Valley. Small, isolated populations can be found in pockets of remaining habitat, but the overall population trend has been down over the last several decades. The burrowing owl is listed as a California Species of Concern.

There were no burrowing owls present during surveys. There are 20 California Natural Diversity Database records for the five quad areas. Seven of the 20 are within 1 mile of the Biological Study Area, and three are between 1 and 2 miles. The most recent California Natural Diversity Database occurrence is at a location less than 1 mile from the Biological Study Area (2011). General habitat associations were determined during field surveys. This included habitat requirements of grasslands, fallow fields, and sparsely vegetated scrub seen during surveys. Potentially suitable habitat for the burrowing owl is present in the Biological Study Area in the form of allscale scrub and red brome/Mediterranean grass grassland. The closest California Natural Diversity Database occurrence is next to the project area, along State Route 33, 1.8 miles north-northwest from Fellows, dated 2001.

Environmental Consequences

Burrowing Owl

The project is not expected to affect any burrowing owls due to the low probability of them occurring in the Biological Study Area.

The Biological Study Area contains suitable habitat in the form of allscale scrub and red brome/Mediterranean grass grassland. There is an appropriate prey base for burrowing owls in the Biological Study Area. The project would impact up to 5.73 acres of suitable burrowing owl habitat. There would be about 0.01 acre of permanent impacts to allscale scrub, 5.57 acres of temporary impacts to allscale scrub, and 0.15 acre of temporary impacts to red brome/Mediterranean grass grassland. Temporary impacts are temporary

because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again after construction. While the potential exists that burrowing owls would take refuge in their burrows, in which they may become trapped or crushed by vehicles and heavy equipment, burrowing owls can move to avoid danger. Avoidance and minimization measures would be in place to minimize any potential impacts on the species.

Avoidance, Minimization, and/or Mitigation Measures

- To avoid any impacts to the burrowing owl, a qualified biological monitor would be onsite during the construction phase of the project, in areas of suitable habitat as determined by this biological monitor, to ensure that direct take of this species does not occur.
- Suitable habitat has been mapped in areas of sparsely vegetated scrub (i.e., allscale scrub and bush seepweed).
- To ensure that any burrowing owls that may occupy the Biological Study Area in the future are not affected by the project, preconstruction surveys will be completed 30 days before construction following the Burrowing Owl Survey Protocol and Mitigation Guidelines per the California Department of Fish and Wildlife, 2012. If preconstruction surveys determine that burrowing owls are present, one or more of the following mitigation measures may be required:

  (1) Avoidance of active nests and surrounding buffer areas during construction activities.

  (2) Monitoring of occupied burrows by a qualified biologist during construction activities near the buffer area.

Compensatory Mitigation

With avoidance and minimization measures, no impacts to the burrowing owl are expected. Therefore, no compensatory mitigation is proposed for this species.

Affected Environment

LeConte's Thrasher

The LeConte's thrasher is a California Species of Special Concern. LeConte's thrasher typically nests and forages in sparsely vegetated desert flats, dunes, alluvial fans, or gently rolling hills with saltbush and/or cholla. They generally do not live in steep-sided canyons, preferring small arroyos, open flats, or dunes. They prefer to feed on insects, including grasshoppers, ants, and beetles, among many others. They also eat spiders, centipedes, and other arthropods, and sometimes small lizards and a few berries and seeds. Nesting may begin in February or even January, but it lasts until June in some areas.

Suitable habitat for foraging and nesting is present in the Biological Study Area in the form of allscale scrub. This species was seen within the Biological Study Area during small mammal surveys in 2020 and vegetation surveys in 2021.

Environmental Consequences

LeConte's Thrasher

The Biological Study Area contains suitable habitat (allscale scrub) and an appropriate prey base for LeConte's thrasher. The project would impact up to 5.58 acres of allscale scrub. Of these, about 0.01 acre of impacts would be considered permanent, and 5.57 acres would be temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again. Avoidance and minimization measures would be in place to minimize any potential impacts on the species.

Avoidance, Minimization, and/or Mitigation Measures

- In accordance with the Migratory Bird Treaty Act, to avoid impacts to nesting birds, any native or exotic vegetation removal or tree-trimming activities would occur outside of the nesting bird season (i.e., February through August). If vegetation clearing is necessary during the nesting season, a biological monitor would conduct a preconstruction survey to identify the location of nests. Should nesting birds be found, the biological monitor would establish an exclusionary buffer. This buffer would be clearly marked in the field by construction personnel under the guidance of the biological monitor, and construction or clearing would not be conducted within this zone until the biological monitor determines that the young have fledged or the nest is no longer active.
- Preconstruction surveys would be conducted to avoid potential impacts on this species.
- A qualified biologist would be present at the construction site during initial ground-disturbing activities and for activities in habitats that may contain the species.

Compensatory Mitigation

With the incorporation of the avoidance and minimization measures listed above, no compensatory mitigation is expected.

Affected Environment

Loggerhead Shrike

The loggerhead shrike is a California Species of Special Concern. Loggerhead shrikes require an open habitat with an area to forage, with elevated perches and nesting sites. They are often found in open pastures or grasslands and appear to prefer red cedar and hawthorn trees for nesting. Loggerhead shrikes may also nest in fencerows or hedgerows near open

pastures and require elevated perches as lookout points for hunting. Open pastures and grasslands with shorter vegetation are preferred by loggerhead shrikes, increasing their hunting efficiency. This bird consumes prey, such as amphibians, insects, lizards, small mammals, and small birds.

Suitable habitat in the form of allscale scrub and red brome/Mediterranean grass grassland is present in the Biological Study Area. This species was seen during protocol-level small mammal and blunt-nosed leopard lizard surveys completed in the Biological Study Area in 2020.

Environmental Consequences

Loggerhead Shrike

The Biological Study Area contains suitable habitat (allscale scrub and red brome/Mediterranean grass grassland) and an appropriate prey base for loggerhead shrikes. The project would impact up to 5.73 acres of suitable loggerhead shrike habitat. There would be about 0.01 acre of permanent impacts to allscale scrub, 5.57 acres of temporary impacts to allscale scrub, and 0.15 acre of temporary impacts to red brome/Mediterranean grass grassland. Temporary impacts are temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again. Avoidance and minimization measures would be in place to minimize any potential impacts on the species.

Avoidance, Minimization, and/or Mitigation Measures

- In accordance with the Migratory Bird Treaty Act, to avoid impacts to nesting birds, any native or exotic vegetation removal or tree-trimming activities would occur outside of the nesting bird season (i.e., February through August). If vegetation clearing is necessary during the nesting bird season, a biological monitor would conduct a preconstruction survey to identify the location of nests. Should nesting birds be found, the biological monitor would establish an exclusionary buffer. This buffer would be clearly marked in the field by construction personnel under the guidance of the biological monitor, and construction or clearing would not be conducted within this zone until the biological monitor determines that the young have fledged or the nest is no longer active.
- If nesting activity is present, the active site would be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for birds in the region normally occurs from February 1 to August 31. To protect any nest site, the following restrictions on construction are required between February 1 and August 31 (or until nests are no longer active, as determined by the biological monitor): (1) clearing limits would be established a minimum of 100 feet in any direction from any occupied nest, and (2) access and surveying would be restricted within 100 feet of any occupied nest. Any encroachment into the 100-foot buffer area around the known nest would

be allowed only if a qualified biologist determined that the proposed activity would not disturb the nest occupants.

- A qualified biologist would be present at the construction site during initial ground-disturbing activities and for activities in habitats that may contain the species.

Compensatory Mitigation

With the incorporation of the avoidance and minimization measures listed above, no compensatory mitigation is expected.

Affected Environment

American Badger

The American badger is a California Species of Special Concern. American badgers *(Taxidea taxus)* are primarily found in grasslands and other open habitats with friable, uncultivated soils. They prefer a supply of rodent prey in their habitat, with prey consisting of small animals, including pocket gophers, ground squirrels, moles, marmots, prairie dogs, woodrats, kangaroo rats, deer mice, and voles. They also eat insects and birds.

American badgers are solitary animals that are mainly active at night. They tend to be inactive during the winter months. They are not true hibernators, but they spend much of the winter in cycles of torpor that usually lasts about 29 hours. They build underground burrows for protection and sleeping. A typical den may be as far as 10 feet below the surface and contain about 33 feet of tunnels and an enlarged sleeping chamber. American badgers use multiple burrows within their home range. Mating occurs in late spring and early autumn.

American badgers were absent during project surveys. Suitable habitat in the form of allscale scrub and red brome/Mediterranean grass grassland is present in the Biological Study Area. The Biological Study Area contains an appropriate prey base for the American badger.

Environmental Consequences

American Badger

The Biological Study Area contains suitable habitat (allscale scrub and red brome/Mediterranean grass grassland) for American badgers. The project would impact up to 5.73 acres of suitable American badger habitat. There would be about 0.01 acre of permanent impacts to allscale scrub, 5.57 acres of temporary impacts to allscale scrub, and 0.15 acre of temporary impacts to red brome/Mediterranean grass grassland. Temporary impacts are temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again. American badgers can move and may potentially avoid danger. Avoidance and minimization measures would be in place to minimize any potential impacts on the species.

Avoidance, Minimization, and/or Mitigation Measures

- Preconstruction surveys would be conducted to avoid potential impacts on this species.
- A qualified biologist would be present at the construction site during initial ground-disturbing activities and for activities in habitats that may contain the species.
- Preconstruction Worker Environmental Awareness Training would be held for all project personnel. The training would discuss special-status species that are present, have the potential to be present, and protection requirements for each species.

Compensatory Mitigation

With the incorporation of the avoidance and minimization measures listed above, no compensatory mitigation is expected.

Affected Environment

Giant Kangaroo Rat

The giant kangaroo rat is both a federal and state endangered species. This species is primarily found on slopes in grasslands and shrub communities. Giant kangaroo rats prefer relatively flat terrain of similar composition, with shrubs and rocks being almost absent. Typical habitat includes stretches of easily excavated sandy loam covered with annual grasses and herbs. This species has been found in a narrow band of gently sloping ground along the western edge of the San Joaquin Valley, with occasional colonies on steeper slopes and ridge tops, Kern County in the south to Merced County in the north. Giant kangaroo rats prefer gentle slopes that are sloped at less than 10 degrees; however, most remaining populations can be found on poorer, marginal habitats that include shrub communities on a variety of soil types and on slopes up to about 22 degrees.

Giant kangaroo rats are primarily seed eaters; however, they also eat green plants and insects. Foraging activity is greatest in the spring as seeds of annual plants ripen.

Although there is limited marginally suitable habitat present in allscale scrub, bush seepweed, and red brome/Mediterranean grass grassland in the Biological Study Area, no burrows or characteristic haystacks were seen during surveys. Giant kangaroo rats were absent during protocol surveys conducted in 2020, following the U.S. Fish and Wildlife Service’s March 2013 “Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats.” The closest California Natural Diversity Database occurrence is in the project area along State Route 33, 1.8 miles north of Derby Acres, dated 1979.

Environmental Consequences

Giant Kangaroo Rat

The Biological Study Area contains limited marginally suitable habitat (i.e., allscale scrub, bush seepweed, and red brome/Mediterranean grass grassland) and an appropriate prey base for the giant kangaroo rat. The project would impact up to 6.01 acres of limited marginally suitable giant kangaroo rat habitat. The project would cause 0.01 acre of permanent impacts to allscale scrub, 5.57 acres of temporary impacts to allscale scrub, 0.28 acre of temporary impacts to bush seepweed, and 0.15 acre of temporary impacts to red brome/Mediterranean grass grassland. Temporary impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again after construction.

Caltrans has determined that the proposed project May Affect but is not Likely to Adversely Affect the giant kangaroo rat. Informal consultation under Section 7 of the Endangered Species Act will be initiated with US Fish and Wildlife Service.

Avoidance, Minimization, and/or Mitigation Measures

- A qualified biologist would be present at the construction site during initial ground-disturbing activities and for activities in habitats that may contain the species.
- A preconstruction survey would occur for giant kangaroo rats. If special-status wildlife species are present within the proposed project impact area, the work would stop, and the biological monitor would contact the appropriate resource agencies. To the greatest extent practicable, efforts would be made to avoid the species' habitat.

Compensatory Mitigation

With the incorporation of the avoidance and minimization measures listed above, no compensatory mitigation is expected. No giant kangaroo rats were found to be present during surveys. A 2081 incidental take permits from California Department of Fish and Wildlife is not anticipated to be needed.

Affected Environment

Short-Nosed Kangaroo Rat

The short-nosed kangaroo rat is a California Species of Special Concern. This species is primarily found in arid grasslands with scattered shrubs, shrublands, and friable soils. Short-nosed kangaroo rats live in highly saline soils around Soda Lake on the Carrizo Plain and less saline soils elsewhere. In the Panoche Valley in San Benito County, this species is found on gently sloping and rolling low hilltops that have some shrubs. Over most of their range, they are generally more numerous in lighter, powder soils such as the sandy bottoms and banks of arroyos and sandy areas.

At higher elevations in the western portion of its geographic range, the reproductive season for short-nosed kangaroo rats is about 2 months to 3 months shorter than on the San Joaquin Valley floor, with breeding beginning in late February or March and typically ending in May. This species is nocturnal and active year-round.

This species was present during surveys of the Biological Study Area and surveys along Caltrans' right-of-way. Although the habitat is marginal in these areas and primarily composed of disturbed areas, the species is present. Marginal habitat in the Biological Study Area consists of allscale scrub, red brome/Mediterranean grass grassland, and ruderal habitat, with the habitat considered marginal due to the absence in the Biological Study Area of light, powder soils typical of sandy bottoms and banks of arroyos.

Environmental Consequences

Short-Nosed Kangaroo Rat

The Biological Study Area contains marginally suitable habitat (i.e., allscale scrub, red brome/Mediterranean grass grassland, and ruderal) and an appropriate prey base for the short-nosed kangaroo rat. The project would impact up to 9.29 acres of marginally suitable short-nosed kangaroo rat habitat. There would be about 0.01 acre of permanent impacts to allscale scrub, 5.57 acres of temporary impacts to allscale scrub, 0.15 acre of temporary impacts to red brome/Mediterranean grass grassland, and 3.56 acres of temporary impacts to ruderal habitat. Temporary impacts are temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again. Even though short-nosed kangaroo rats that take refuge in burrows or haystacks may become trapped or crushed by vehicles and heavy equipment, they can move and may potentially avoid danger. Avoidance and minimization measures would be in place to minimize any potential impacts on the species.

Avoidance, Minimization, and/or Mitigation Measures

- A preconstruction survey would occur for short-nosed kangaroo rats. If this species is seen onsite, it would be allowed to leave of its own volition. To the greatest extent practicable, efforts would be made to avoid the species' habitat.
- A biological monitor would be present during initial ground-disturbing activities.

Compensatory Mitigation

With the incorporation of the avoidance and minimization measures listed above, no compensatory mitigation is expected.

Affected Environment

San Joaquin Pocket Mouse and Tulare Grasshopper Mouse

These species have been grouped together because they are special-status species that have the potential to be in, but have not been seen within, the Biological Study Area; use the same habitat; and project impacts and avoidance, minimization, and/or mitigation measures would be the same for all three species.

These species have been grouped together because they are special-status species that have the potential to be in, but have not been seen within, the Biological Study Area; use the same habitat; and project impacts and avoidance, minimization, and/or mitigation measures would be the same for all three species.

San Joaquin Pocket Mouse

The San Joaquin pocket mouse is classified as a rare or sensitive species with no official status. The San Joaquin pocket mouse *(Perognathus inornatus)* is found in the Tehachapi Mountains and the lower slopes of the western Sierra Nevada at elevations of up to 2,000 feet. Additionally, it occurs in the upper Sacramento Valley, the San Joaquin Valley, the Salinas Valley, and southwards to the Mojave Desert. The San Joaquin pocket mouse can also be found in the “Upper Sonoran Life Zone,” which is characterized by grassland and semidesert vegetation, and the “Lower Sonoran Life Zone,” which is a hot desert with creosote bush and Joshua tree.

The San Joaquin pocket mouse feeds on seeds of grasses and various plants, carrying them back to its burrow in its cheek pouches. It may also eat soft-bodied invertebrates. It may become torpid in winter; breeding takes place between March and July.

Tulare Grasshopper Mouse

The Tulare grasshopper mouse is a California Species of Special Concern. The Tulare grasshopper mouse *(Onychomys torridus tularensis)* is primarily found in arid shrubland communities along the western margin of the Tulare Basin, including western Kern County, Carrizo Plain Natural Area, and the Cuyama Valley side of the Caliente Mountains. The Tulare grasshopper mouse is also found in San Luis Obispo County, the Ciervo-Panoche Region, Fresno County, and San Benito County. The Tulare grasshopper mouse is found in the same communities as the listed kangaroo rats, blunt-nosed leopard lizard, and the San Joaquin kit fox. The Tulare grasshopper mouse prefers open scrub and semi-scrub habitats. It often prefers compact soils with a sparse growth of perennial grasses. The Tulare grasshopper mouse eats mostly small animals, with insects forming the bulk of its diet. Prey items include scorpions, beetles, grasshoppers, pocket mice, and western harvest mice; predators include American badgers, San Joaquin kit foxes, coyotes, and barn owls.

Tulare grasshopper mice are nocturnal and active year-round. They are unlikely dormant, at least not for long periods of time. Allscale scrub provides suitable habitat to the San Joaquin pocket mouse and Tulare grasshopper mouse. Red brome/Mediterranean grass grassland provides suitable habitat for the San Joaquin pocket mouse and Tulare grasshopper mouse. Although suitable habitat exists in the Biological Study Area, the Tulare grasshopper mouse was absent from surveys. While there are recorded California Natural Diversity Database occurrences of the Tulare grasshopper mouse within 0.5 mile of the project area, protocol small mammal trapping surveys did not see this species within the project area.

Environmental Consequences

San Joaquin Pocket Mouse and Tulare Grasshopper Mouse

The Biological Study Area contains suitable habitat and an appropriate prey base for the San Joaquin pocket mouse and Tulare grasshopper mouse.

San Joaquin Pocket Mouse

The project would impact up to 5.73 acres of suitable San Joaquin pocket mouse habitat. There would be about 0.01 acre of permanent impacts to allscale scrub, 5.57 acres of temporary impacts to allscale scrub, and 0.15 acre of temporary impacts to red brome/Mediterranean grass grassland. Temporary impacts are temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again. While the potential exists for this species to be crushed by vehicles and heavy equipment, it can move and may potentially avoid danger. Avoidance and minimization measures would be in place to minimize any potential impacts to this species.

Tulare Grasshopper Mouse

The project would impact up to 5.58 acres of suitable Tulare grasshopper mouse habitat. There would be about 0.01 acre of permanent impacts to allscale scrub and 5.57 acres of temporary impacts to allscale scrub. Temporary impacts are temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again. While the potential exists for this species to be crushed by vehicles and heavy equipment, it can move and may potentially avoid danger. Avoidance and minimization measures would be in place to minimize any potential impacts to this species.

Animal species and impacts to species are summarized in Table 2.1.

Avoidance, Minimization, and/or Mitigation Measures

- Preconstruction surveys would be conducted to avoid potential impacts on these species.

- A qualified biologist would be present at the construction site during initial ground-disturbing activities.
- Requiring low speed limits within the construction site would lessen the probability that these species can be run over by vehicles and equipment. Project-related vehicles should observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways.

Compensatory Mitigation

With the incorporation of the avoidance and minimization measures listed above, no compensatory mitigation is expected.

Affected Environment

Threatened and Endangered Species

A Natural Environment Study was prepared for the project in June 2021. No Blunt-nosed leopard lizard (*Gambelia sila*) were observed within the Biological Study area. The San Joaquin (Nelson's) antelope squirrel *(Ammospermophilus nelson)* were found to be present within the Biological Study Area. A San Joaquin kit fox *(Vulpes macrotis)* was seen less than 6 miles from the Biological Study Area.

Blunt-Nosed Leopard Lizard

Nine blunt-nosed leopard lizard observations recorded in the California Natural Diversity Database are within the Biological Study Area and date from 1978 to 2020. Full-protocol surveys for the blunt-nosed leopard lizard within all suitable habitats within the Caltrans right-of-way portions of the Project Impact Area were completed in September 2020. No blunt-nosed leopard lizards were seen during these protocol surveys. Survey results are valid for 1 year. A decent portion of the Project Impact Area is not considered suitable blunt-nosed leopard lizard habitat due to the high vegetation density.

Potentially suitable habitat within the Biological Study Area for the blunt-nosed leopard lizard is allscale scrub, which is found throughout the Biological Study Area. Additionally, roadway shoulders provide burrows that may be used by blunt-nosed leopard lizards. The proposed project would impact 5.58 acres of allscale scrub habitat. About 0.01 acre of impacts would be considered permanent, and 5.57 acres would be temporary. Temporary impacts include habitat removal or modification when ditches leading to the inlets are graded or to prepare the area to allow access for removal and replacement of headwalls. Temporary impacts are temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again after construction. Permanent impacts are considered permanent because the impacted habitat is expected to either take several growing seasons before it recovers to pre-project quality, or it will never recover completely and will become ruderal habitat. However, no take of this

species is expected with the implementation of avoidance and minimization measures.

No designated critical habitat exists within the project area.

Caltrans has determined that the proposed project May Affect but is not Likely to Adversely Affect the blunt-nosed leopard lizard. Informal consultation under Section 7 of the Endangered Species Act will be initiated with US Fish and Wildlife Service.

Environmental Consequences

Threatened and Endangered Species

Blunt-Nosed Leopard Lizard

Nine blunt-nosed leopard lizard observations recorded in the California Natural Diversity Database are within the Biological Study Area and date from 1978 to 2020. Full-protocol surveys for the blunt-nosed leopard lizard within all suitable habitats within the Caltrans right-of-way portions of the Project Impact Area were completed in September 2020. No blunt-nosed leopard lizards were seen during these protocol surveys. Survey results are valid for 1 year. A decent portion of the Project Impact Area is not considered suitable blunt-nosed leopard lizard habitat due to the high vegetation density.

Potentially suitable habitat within the Biological Study Area for the blunt-nosed leopard lizard is allscale scrub, which is found throughout the Biological Study Area. Additionally, roadway shoulders provide burrows that may be used by blunt-nosed leopard lizards. The proposed project would impact 5.58 acres of allscale scrub habitat. About 0.01 acre of impacts would be considered permanent, and 5.57 acres would be temporary. Temporary impacts include habitat removal or modification when ditches leading to the inlets are graded or to prepare the area to allow access for removal and replacement of headwalls. Temporary impacts are temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again after construction. Permanent impacts are considered permanent because the impacted habitat is expected to either take several growing seasons before it recovers to pre-project quality, or it will never recover completely and will become ruderal habitat. However, no take of this species is expected with the implementation of avoidance and minimization measures.

No designated critical habitat exists within the project area.

Avoidance, Minimization, and/or Mitigation Measures

- Preconstruction surveys for the blunt-nosed leopard lizard would be conducted using the current version of the California Department of Fish and Wildlife's Approved Survey Methodology for the Blunt-Nosed Leopard

Lizard. Transects would be walked north and south except where topography prevents. A minimum of two surveyors would be present during each survey, with transects about 50 feet apart. The Project Impact Area with a 200-foot buffer would be surveyed by Caltrans biologists.

- If blunt-nosed leopard lizards are found within the Biological Study Area, the U.S. Fish and Wildlife Service would be contacted to discuss ways to proceed with the project and avoid take to the maximum extent possible.
- A biological monitor would be onsite during initial ground-disturbing activities.
- Project-related vehicles should observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways. Requiring low speed limits within the construction site would lessen the probability that blunt-nosed leopard lizard can be run over by vehicles and equipment.

Compensatory Mitigation

There is no proposed compensatory mitigation for blunt-nosed leopard lizards because the species is not expected to be present in the Biological Study Area. No impacts area anticipated.

Affected Environment

San Joaquin (Nelson's) Antelope Squirrel

A Natural Environment Study was prepared for the project in June 2021. The San Joaquin (Nelson's) antelope squirrel, also known as the Nelson's antelope squirrel, is state-listed as threatened. This squirrel has tiny, rounded ears and a streamlined, spindle-shaped body with short legs. Its short tail has laterally projecting thick fringes of hairs and is usually held cocked or curled over the squirrel's back. The San Joaquin (Nelson's) antelope squirrel is a buffy-tan color with a light stripe along its sides and light grayish to white undersides.

The San Joaquin (Nelson's) antelope squirrel is a permanent resident of the western San Joaquin Valley from 200 feet to 1,200 feet above sea level on dry, sparsely vegetated, and loam soils. Suitable habitat contains scattered shrubs, annual forbs, and grasses, and it is distributed over broken terrain with small gullies and washes.

Allscale scrub, bush seepweed, red brome/Mediterranean grass grassland, and ruderal habitats all provide suitable habitat for San Joaquin (Nelson's) antelope squirrels in the Project Impact Area and Biological Study Area. There are 18 California Natural Diversity Database occurrences for San Joaquin (Nelson's) antelope squirrels within the Biological Study Area, with observations ranging from 1975 to 2016. Protocol-level small mammal trapping was performed within the Project Impact Area in October and November 2020. No San Joaquin (Nelson's) antelope squirrels were

captured, but two were seen within the Project Impact Area during the survey. Incidental observations of the species were also made during field surveys for other species. A total of 68 observations of San Joaquin (Nelson's) antelope squirrels were made within the Biological Study Area between April and September 2020 during blunt-nosed leopard lizard surveys. Eight San Joaquin (Nelson's) antelope squirrels were seen in the Biological Study Area during botanical surveys in April and May 2021.

Environmental Consequences

San Joaquin (Nelson's) Antelope Squirrel

Up to about 9.57 acres of impacts to potentially suitable habitat for San Joaquin (Nelson's) antelope squirrels are expected for this project. Allscale scrub, bush seepweed, red brome/Mediterranean grass grassland, and ruderal habitat all provide potentially suitable habitat for the San Joaquin (Nelson's) antelope squirrel in the Biological Study Area. About 0.01 acre of permanent impacts to allscale scrub, 5.57 acres of temporary impacts to allscale scrub, 0.28 acre of temporary impacts to bush seepweed, 0.15 acre of temporary impacts to red brome/Mediterranean grass grassland, and 3.56 acres of temporary impacts to ruderal habitat are expected. Areas of temporary impacts would be recontoured and revegetated after construction; therefore, those areas would be available to be used as future habitat.

The majority of all impacts to this species are temporary. Although temporary impacts may occur to this species habitat the potential for direct impacts such as take to individual squirrels is low. San Joaquin antelope squirrels typically use several burrows within their home range and measures will be in place to discourage squirrels from occupying the work site prior to construction. Work at each location will take only a day or two then San Joaquin antelope squirrels will be able to utilize those areas once again.

Avoidance, Minimization, and/or Mitigation Measures

- Preconstruction surveys would be performed within 30 days before construction.
- Surveys would be conducted within the proposed project boundary and a 50-foot area outside the Project Impact Area to identify potentially occupied burrows.
- If active San Joaquin (Nelson's) antelope squirrel burrows are discovered within the Project Impact Area where feasible to identify habitat features, the California Department of Fish and Wildlife shall be notified immediately, and a qualified biological monitor with a current San Joaquin (Nelson's) antelope squirrel handling permit will be present at the construction site during ground-disturbing activities at each culvert. The monitor shall have the authority to relocate San Joaquin (Nelson's) antelope squirrels onsite, if necessary.

- Before starting project construction, a biological monitor would provide Worker Environmental Awareness Training for all project personnel. Training would cover special-status species that are present, have the potential to be present in the Biological Study Area, and protection requirements for each species.
- Environmentally sensitive area fencing would be installed before the start of ground-disturbing activities. Environmentally sensitive area fencing installation and removal would be monitored by an approved biological monitor or biologist from Caltrans, the U.S. Fish and Wildlife Service, and/or the California Department of Fish and Wildlife.
- Low speed limits would be required within the construction site.
- All steep-walled trenches or excavations deeper than 12 inches will include escape ramps. At least one escape ramp shall be provided in any onsite trenches or excavations at no more than a 2 to 1 slope. Such trenches or excavations would be inspected for wildlife immediately before backfilling.
- Any holes, trenches, or excavations without escape ramps that would not be filled within the working day must be covered overnight and inspected before beginning work on the following day.
- Rat holes, well cellars, and other holes for which escape ramps are not practical would be covered with a solid barrier to prevent wildlife entrapment. Installed grating on well cellars would be no larger than 1 inch.

Compensatory Mitigation

An Incidental Take Permit will be obtained for San Joaquin (Nelson's) antelope squirrel. Mitigation measures proposed for impacts to the San Joaquin (Nelson's) antelope squirrel may include:

- Compensation for loss of habitat will be obtained through the purchase of credits from a mitigation bank, preservation of habitat, or enhancement or restoration of habitat per coordination with California Department Fish and Game.

Affected Environment

San Joaquin Kit Fox

A Natural Environment Study was prepared for the project in June 2021. The San Joaquin kit fox is federally listed as endangered and state listed as threatened. The San Joaquin kit fox is the smallest canid species in North America. It averages 31 inches long and about 12 inches tall at the shoulder. San Joaquin kit foxes have a small, slim body, relatively long ears set close together, a narrow nose, and a long, bushy tail tapering slightly toward its black-tipped tail. They typically carry their tail low and straight.

The San Joaquin kit fox is found in the southern half of the state in annual grassland or grassy open stages of vegetation dominated by scattered shrubs and brush. It is primarily carnivorous, feeding on desert cottontails, rodents, insects, reptiles, birds, bird eggs, and vegetation. San Joaquin kit foxes dig their own dens in open, level areas with loose-textured soils supporting scattered, shrubby vegetation.

Suitable but suboptimal habitat for the San Joaquin kit fox is found in the Project Impact Area and Biological Study Area. This habitat includes allscale scrub, bush seepweed, red brome/Mediterranean grass grassland, and disturbed/developed and ruderal habitat. There are 14 California Natural Diversity Database occurrences for San Joaquin kit foxes within the Biological Study Area, with years of observations ranging from 1985 to 2007. A Caltrans biologist saw a roadkill San Joaquin kit fox north of the project during blunt-nosed leopard lizard surveys. A consulting biologist identified a potential burrow within the Project Impact Area during focused botanical surveys in April or May 2021. There is no San Joaquin kit fox critical habitat in the Biological Study Area. Rodent burrows were seen throughout the Biological Study Area along State Route 33 and varying distances from State Route 33 during 2021 surveys. Based on the marginal habitat in the Biological Study Area, the San Joaquin kit fox has a low potential for occurrence in the project impact area.

Environmental Consequences

San Joaquin Kit Fox

Habitat within the study area contains suitable but suboptimal San Joaquin kit fox foraging habitat with an appropriate prey base and potential den sites. The project has the potential to impact up to 11.95 acres of suboptimal San Joaquin kit fox habitat. About 0.01 acre of permanent impacts to allscale scrub, 5.57 acres of temporary impacts to allscale scrub, 0.01 acre of temporary impacts to bush seepweed, 2.39 acres of temporary impacts to disturbed/developed habitat, 0.15 acre of temporary impacts to red brome/Mediterranean grass grassland, and 3.56 acres of temporary impacts to ruderal habitat are expected. Temporary impacts are temporary because impacted areas would be restored to their original grade and revegetated with a native seed mix. Construction activity has the potential to disturb San Joaquin kit foxes due to the destruction of burrows and associated noise, vibration, dust, and the presence of workers and active equipment. This potential for disturbance would be greater during any work performed at night because the species is primarily nocturnal.

Caltrans has determined that the proposed project May Affect but is not Likely to Adversely Affect the San Joaquin kit fox. Informal consultation under Section 7 of the Endangered Species Act will be initiated with US Fish and Wildlife Service.

Avoidance, Minimization, and/or Mitigation Measures

In addition to implementing best management practices during construction, Caltrans proposes to avoid and minimize impacts to species, where feasible, by limiting vegetation removal to required areas only.

The following measures specific to the San Joaquin kit fox are consistent with the *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or during Ground Disturbance* (USFWS 2011). Implementing these measures will ensure that the project will not directly or indirectly increase the threat to individual kit foxes over the baseline threat presented by traffic on State Route 33.

- Project-related vehicles should observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. To the extent possible, night-time construction should be minimized. Off-road traffic outside of designated project areas should be prohibited.
- To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- Preconstruction/pre-activity surveys would be conducted no less than 14 days and no more than 30 days before the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox.
- Food trash and other garbage that may attract wildlife to the work area would be disposed of in closed containers and removed at the end of each workday. Feeding of any wildlife would be prohibited.
- All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is used or moved in any way.
- Use of rodenticides and herbicides in project areas should be restricted.
- Firearms (except by qualified and permitted public safety agents) and pets would not be permitted on the work site.
- A Worker Environmental Awareness Training for SJKF will be provided to the construction workers before the start of construction.
- Surveys would be conducted within the proposed project boundary and a 200-foot buffer, where feasible, outside the Project Impact Area to identify habitat features.

- If natal/pupping dens are discovered within the project area; or within 200 feet of the Project Impact Area, the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife would be notified immediately.
- The California Department of Fish and Wildlife recommends a 250-foot no-disturbance buffer around natal dens, a 150-foot no-disturbance buffer around known dens, and a 50-foot no-disturbance buffer around potential or atypical dens. Disturbance to all San Joaquin kit fox dens would be avoided to the maximum extent possible.
- A qualified biologist would be present at the construction site during initial ground-disturbing activities at each culvert found to be in proximity to evidence of San Joaquin kit fox presence.
- To the extent possible, a biologist would be available on call during all construction periods when not present onsite.

Compensatory Mitigation

Informal Section 7 Consultation will be conducted with the U.S. Fish and Wildlife Service for the San Joaquin kit fox. Mitigation, if required, would be determined in coordination with the resource agencies during the consultation process. A Letter of Concurrence is expected to be issued before project construction starts.

b) Affected Environment

Natural Communities

This section focuses on the natural communities of concern covered in the Natural Environment Study prepared for the project in June 2021.

The Biological Study Area and the total area studied consisted of an 872-acre area. It is defined as the area that may be directly, indirectly, temporarily, or permanently affected by construction and construction-related activities in addition to a 200-foot buffer to evaluate onsite habitat conditions. It includes the area along State Route 33 from 0.9 mile south of Henry Road to 0.2 mile north of Cymric Road (North).

The project impact area is the area that would be directly affected by project construction. The project impact area includes the 40 culverts that need to be repaired, replaced, and/or rehabilitated, a 50-foot buffer around the inlet and outlet of each culvert, the temporary construction areas, and staging areas.

The project is along the western edge of the San Joaquin Valley. Within the project area, State Route 33 is generally straight with a few gentle turns that traverse the generally flat to gently rolling alluvial fans of the Temblor Range and Diablo Range that run parallel to and west of the State Route 33 floodplains and McKittrick Valley. The elevation range within the Biological Study Area is about 500 to 1,500 feet above sea level.

The climate within the project area is hot and dry in the summer and cool and moist in the winter. The average annual high temperature is 77.7 degrees Fahrenheit, and the average annual low is 52.8 degrees Fahrenheit. The hottest month is July, with an average high of 98.4 degrees Fahrenheit, and the coldest month is December, with an average low of 40.9 degrees Fahrenheit. Precipitation generally falls between December and March and averages 5.39 inches annually.

One natural community, Shrubland Alliance—bush seepweed *(Suaeda moquinii)*, was found within the Biological Study Area. This community is at moderate risk of extirpation in California due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors. Shrubs are less than 5 feet tall, and the canopy is open to continuous. Herbaceous, non-woody layer is sparse to intermittent. Bush seepweed has greater than 2 percent of absolute cover, and no other shrub has greater than or equal cover in the shrub canopy.

Vegetation communities were identified in the Biological Study Area. Those communities include *Atriplex polycarpa* Shrubland Alliance. The allscale scrub *Atriplex polycarpa* community is the dominant natural community found outside the Caltrans right-of-way but within the Biological Study Area. Small sections of this community were found at some culvert inlets and outlets within the project impact area; however, at these locations, allscale scrub is often found associated with ruderal vegetation. The valley saltbush scrub community in the Biological Study Area is dominated by allscale scrub *(Atriplex polycarpa),* and this community is not a sensitive natural community. The *Bromus rubens* community is found only at the south end of the project, but most of this community is outside the Caltrans right-of-way and the project impact area. Within the *Bromus rubens* community, red brome and/or schismus are dominant or codominant with other non-natives in the herbaceous layer.

Disturbed/Developed habitat was also found in the Biological Study Area. It is habitat that is either devoid of vegetation, unable to support vegetation, or is within the confines of private property. Non-native plant species seen in this habitat include oleander *(Nerium oleander),* eucalyptus *(Eucalyptus sp.),* red brome *(Bromus madritensis)*, ripgut brome *(Bromus diandrus)*, wild oat *(Avena fatua)*, Mediterranean mustard *(Hirschfeldia incana)*, and black mustard *(Brassica nigra).* This vegetation type is present throughout the Biological Study Area.

Ruderal vegetation can be described as vegetated areas where the natural vegetation cover has been disturbed by humans. Ruderal vegetation within the Biological Study Area consists of fragmented plant communities, mainly consisting of allscale scrub with an understory of red brome grasslands near the culverts and upland mustard fields within State Route 33 shoulder backing. Vegetation found in the right-of-way were primarily ruderal and

disturbed/developed areas, while the Biological Study Area consisted mostly of allscale scrub.

Environmental Consequences

Natural Communities

Bush seepweed covers a small portion of the Biological Study Area. This community is restricted to one 6-acre patch near the middle segment of the project. Most of the patch is outside the Caltrans right-of-way and the project impact area. The bush seepweed areas are small in the Biological Study Area and have been found to be associated with habitat dominated by alkali flats and shallow dry basins encrusted with salt, with a small percentage of vegetative cover. Due to the scale and level of detail, the vegetation types were mapped; a good portion of the 6-acre patch of bush seepweed in the Biological Study Area is an alkali flat.

There are no potential permanent impacts expected to occur to the bush seepweed community; however, there is potential for temporary impacts. Temporary impacts include habitat removal or modification when ditches leading to the inlets are graded or to prepare the area to allow access for removal and replacement of headwalls. Temporary impacts are temporary because impacted areas would be recontoured and revegetated after construction with a native seed mix; therefore, those areas would be available to be used as habitat again after construction. Bush seepweed is within the project impact area near the middle segment of the project. There may be 0.28 acre of potential temporary impacts, which would be 4.7 percent of the bush seepweed found within the Biological Study Area.

Most project impacts are expected to be temporary. Replacing existing headwalls and flared end sections would cause temporary impacts because there would be no additional loss of habitat, and the area of ground disturbance would remain the same. A native seed mix would be placed on soil that has been disturbed. Reptiles would use new rock slope protection as habitat after a short time. Graded drainage ditches would remain available as habitat after a recovery period of one or two seasons.

The vegetation communities and estimated impacts are shown in Table 2.2. The Biological Study Area impacts are based on a 200-foot buffer around the project area, and the Project Impact Area was generally evaluated using a 50-foot buffer from the culvert end points.

Table 2.2 Vegetation Communities

Vegetation Community Common Name	Vegetation Community Scientific Name	Total Acreage Within the Biological Study Area	Estimated Potential Permanent Impacts Square Feet	Estimated Potential Permanent Impacts Acre	Estimated Potential Temporary Impacts Square Feet	Estimated Potential Temporary Impacts Acre
Bush Seepweed	*Suaeda Moquinii* Shrubland Alliance	6	0	0.00	12,223	0.28
Allscale Scrub	*Atriplex Polycarpa* Shrubland Alliance	640	601	0.01	242,609	5.57
Red Brome /Mediterranean Grass Grasslands	*Bromus Rubens Schismus (Arabicus, Barbatus)* Herbaceous Semi-Natural Alliance	12	0	0.00	6,409	0.15
Ruderal	Not Available	91	0	0.00	155,113	3.56
Disturbed/Developed	Not Available	123	0	0.00	104,311	2.39
Total Biological Study Area	Not Available	872	0	0.00	0.00	0.00
Total Project Impact Area	Not Available	0	601	0.01	520,665	11.95

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented to protect the natural communities in the project footprint:

- Environmentally sensitive area fencing would be placed along the perimeter of the project impact area, so no additional impacts—temporary or permanent—would occur beyond the planned impact area.
- A biological monitor approved by Caltrans would be onsite to oversee and direct the installation and removal of the environmentally sensitive area fencing.
- A biological monitor would provide Worker Environmental Awareness Training to all construction personnel before starting work on the project; the training would include information about the environmentally sensitive area fencing.
- A native seed mix would be applied to areas of soil disturbance.

Compensatory Mitigation

Compensatory mitigation is not expected for natural communities.

c) Affected Environment

Wetlands and Other Waters

A Natural Environment Study was completed for the project in June 2021. The Biological Study Area includes 61 water features—two creeks, Buena Vista Creek and Broad Creek, and 59 flowlines/features. All channels in the Biological Study Area are ephemeral features. Ephemeral features that flow only in direct response to precipitation, including ephemeral streams, swales, gullies, rills, and pools, are excluded from the definition of Waters of the U.S. This suggests that all water features in the Biological Study Area are most likely not in the U.S. Army Corps of Engineers' jurisdiction under the Clean Water Act. Water features in the Biological Study Area may be California Department of Fish and Wildlife jurisdictional channels under Section 1600 of the California Fish and Game Code.

None of the streams in the Biological Study Area have surface or subsurface flows that support or have supported riparian vegetation or have sufficient flow to support fish or other aquatic life. Wetlands, riparian, or other aquatic habitats or associated vegetation have not been seen in the Biological Study Area.

Wetlands, riparian, or other aquatic habitats or associated vegetation have not been observed in the BSA. All of the proposed culvert locations are located within ephemeral features such as dry washes. Only one culvert location is located within a named channel which is Broad Creek. The only time waters flows through any of these culverts is if they receive water from precipitation and/or rainfall. None of these channels flow into any Traditionally Navigable Waterways that would be considered jurisdictional by US Army Corps of Engineers.

Environmental Consequences

Wetlands and Other Waters

Approximately 0.01 acres of permanent impacts to waters of the state are proposed. A General Order from the Regional Water Quality Control Board and a Lake and Streambed Alteration agreement from the California Department of Fish and Wildlife will be required.

No Jurisdictional Determination is needed Wetlands because no Waters of the U.S. occur within the Biological Study Area.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented to protect waterways in the Biological Study Area.

- Best Management Practices would be implemented downstream of the culverts to contain such contaminants as mud and debris before they enter downstream waters.
- The project would conform to the requirements of the Caltrans National Pollutant Discharge Elimination System Statewide Stormwater Permit.
- The project would comply with the Stormwater Pollution Prevention Plan developed for the project. The Stormwater Pollution Prevention Plan shall address all state and federal water control requirements and regulations. The Stormwater Pollution Prevention Plan shall also address all construction-related activities, equipment, and materials that have the potential to impact water quality. It shall include Best Management Practices to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts.

Compensatory Mitigation

No compensatory mitigation is proposed. Temporary impacts will be recontoured to pre-project conditions and erosion control measures will be in place.

Affected Environment

Fish Habitat

Essential fish habitat does not occur within or near the project area; therefore, consultation is not required. There are no project effects on essential fish habitat. This project is outside the jurisdiction of the National Oceanic and Atmospheric Administration Fisheries; therefore, a National Oceanic and Atmospheric Administration Fisheries species list is not required, and no effects to National Oceanic and Atmospheric Administration Fisheries' species are expected. The project is also outside the National Fisheries Area. There would not be project impacts on critical habitat for fish species in the Biological Study Area.

Migratory Birds

A Natural Environment Study was prepared for the project in June 2021. The California Natural Diversity Database and the U.S. Fish and Wildlife Service's Information for Planning and Consultation species queries identified seven migratory bird species with the potential to occur within the Biological Study Area. Some of these species have already been analyzed in Table 2.1 because they have special status beyond the protections required under the Migratory Bird Treaty Act. Others, such as the California condor do not have any potential to occur within the Biological Study Area even though they show up on the query list.

Measures and standard special provisions are proposed to comply with the Migratory Bird Treaty Act by ensuring project-related activities do not result in harmful impacts to nesting birds or their nests, eggs, and young. This may include one or more of the following actions, as appropriate: preconstruction

surveys, biological monitoring during initial ground-disturbing activities, seasonal restrictions on the removal of suitable nest trees or brush, and placement of environmentally sensitive area buffers around nests or burrows, as required.

Caltrans' Standard Special Provisions typically employed on projects similar to this include:

- Caltrans' Standard Special Provisions Section 14-1.01 Environmental Stewardship, including Environmentally Sensitive Areas
- Caltrans' Standard Special Provisions Section 14-6.02 Species Protection (buffers, work stoppage areas)
- Caltrans' Standard Special Provisions Section 14-6.03 Bird Protection (nest protection buffers)

The actual implementation of any Caltrans Standard Special Provision would depend on specific project circumstances and/or contractual requirements, such as those listed in various environmental permits, which may or may not be applicable to this project.

Invasive Species

A Natural Environment Study was prepared for the project in June 2021. Table 2.3 presents the 14 noxious, invasive plant species that were identified in the Biological Study Area. Seeds of invasive species can be transported to natural open areas through a variety of mechanisms, including vehicles. Recurring fires and some forms of routine land maintenance (disking) can encourage the establishment of invasive species. The impact invasive species have on Central California's native vegetation communities and the plants and animals that are found within these areas is often detrimental to native habitats. Measures that reduce and/or avoid further transport of invasive species into natural open space areas are often required.

Environmental Consequences

Invasive Species

Invasive species occur within the limits of the Biological Study Area. During construction activities, construction vehicles and equipment could transport invasive plant species from past worksites to the Biological Study Area or between work areas within the Biological Study Area. After construction is complete, areas left as bare ground could create favorable conditions for invasive plants and promote the spread of these species. Invasive plant species could also spread to open space areas. The potential exists for biologically significant effects on natural open space from the introduction of invasive species. Invasive plant species seen within the Biological Study Area are listed in Table 2.3.

Table 2.3 Invasive Plant Species Seen Within the Biological Study Area

Scientific Name	Common Name	California Invasive Plant Council Rating
Ailanthus Altissima	Tree-of-Heaven	Moderate
Avena Fatua	Wild Oats	Moderate
Brassica Nigra	Black Mustard	Moderate
Brome Diandrus	Ripgut Brome	Moderate
Brome Rubens	Red Brome	High
Centaurea Melitensis	Tocalote	Moderate
Erodium Cicutarium	Redstem Filaree	Limited
Hirschfeldia Incana	Mediterranean Mustard	Moderate
Hordeum Jubatum	Foxtail Barley	Moderate
Marrubium Vulgare	White Horehound	Limited
Salsola Tragus	Russian Thistle	Limited
Schismus Arabicus	Arabian Mediterranean grass	Limited
Sisymbrium Irio	London Rocket	Limited
Tamarix Sp.	Tamarisk	High

The following are definitions of the California Invasive Plant Council's ratings for invasive plant species, as shown in Table 2.3.

- **High—**These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.
- **Moderate—**These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent on ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
- **Limited—**These species are invasive, but their ecological impacts are minor on a statewide level, or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Avoidance, Minimization, and/or Mitigation Measures

- During construction activities, construction vehicles and equipment could transport invasive plant species from past worksites to the Biological Study Area or between work areas within the Biological Study Area. After construction is complete, areas left as bare ground could create favorable

conditions for invasive plants and promote the spread of these species. Invasive plant species could also spread to open space areas. The potential exists for biologically significant effects on natural open space from the introduction of invasive species.

- In compliance with Executive Order 13112 on invasive species and guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as invasive. Caltrans does not use species on the California list of invasive species for erosion control or landscaping. All equipment and materials would be inspected for the presence of invasive species and cleaned, if necessary. In areas of particular sensitivity, extra precautions would be taken if invasive species are found in or next to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.
- A Caltrans Standard Special Provision would be included in the construction contract that requires construction equipment and vehicles to be cleaned before entering and exiting the project area.
- To prevent the further spread of these species and the introduction of new invasive species, the following measures would be implemented for the project:
    - All areas disturbed by project construction would be reestablished with compost and a native mix hydroseed.
    - Additional specifications to prevent the spread of, or to eradicate, invasive species may be included in the construction contract.

Compensatory Mitigation

With the incorporation of the avoidance and minimization measures listed above, no compensatory mitigation is expected.

2.1.5 Cultural Resources

Considering the information included in the Cultural Screening Memorandum dated April 7, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	**No Impact**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**No Impact**

2.1.6 Energy

Considering the project would only repair or replace existing culverts that are failing, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Energy
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	**No Impact**
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	**No Impact**

2.1.7 Geology and Soils

Considering the information included in the Paleontological Identification Report dated June 14, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: 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.	**No Impact**
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: ii) Strong seismic ground shaking?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: iii) Seismic-related ground failure, including liquefaction?	**No Impact**
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: iv) Landslides?	**No Impact**
b) Result in substantial soil erosion or the loss of topsoil?	**No Impact**
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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	**No Impact**
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?	**No Impact**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	**No Impact**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**Less Than Significant Impact**

f) Affected Environment

Build Alternative

A Paleontological Identification Report was prepared for the project on June 14, 2021. The project is within the foothills east of the Temblor Range/Little Signal Hills area along the eastern edge of the Coast Range Geomorphic Province. (California Geological Survey, 2002) In accordance with Dibblee and Minch (2005), sediments (presented from youngest to oldest) underlying the project segment consist of:

- Holocene and Pleistocene surficial sediments; alluvial gravel and sand, detritus of the McLure Shale Member.

- Pleistocene/Pliocene valley alluvial sediments (Tulare Formation); gravel, sand, and clay, and pebbles almost entirely of Monterey Shale detritus.
- Pliocene marine clastic sediments (Etchegoin Formation); sandstone, light gray, medium-grained, massive, friable, arkosic, locally impregnated with black tarry oil.
- Miocene marine, biogenetic sediments (Monterey Shale); the upper (younger) layer of these sediments are identified as the Belridge Diatomite Member (white, soft, faintly laminated sediments), the older portions of this formation consist of the McLure Shale Member (siliceous shale, white, thin-bedded, platy, hard, cherty, brittle, includes Antelope and McDonald shale). Of particular note is the Etchegoin Formation, which crops out just south of McKittrick as thin linear belts of tar-saturated sandstone. With respect to the project, strata of oily sandstone are exposed in a cut slope at and around post miles 32.2 and 33.3. The sandstone is visible for an approximately 950-foot-long section of roadway. The tar-saturated deposits are historically associated with a localized area known as the McKittrick Tar Pits or seeps. The seeps result from the migration of naturally occurring oil along an area of intense faulting in the vicinity of McKittrick.

Environmental Consequences

Build Alternative

The project segment is underlain by Holocene and Pleistocene surficial sediments of low paleontological potential and by sediments of high paleontological potential, consisting of the Pleistocene/Pliocene Tulare Formation, Pliocene Etchegoin Formation, and Miocene Monterey Shale Formation. Excavation activities extending into undisturbed portions of high paleontological potential formations would impact paleontological resources.

Table 2.4 presents culverts that would likely disturb native materials and paleontological resources.

Table 2.4 Culverts That Would Likely Disturb Native Materials and Paleontological Resources

Structure	Post Mile	Sensitivity	Construction Details
Culvert 6	23.0	low	Replace the existing 2-foot and 2-foot by 1.5-foot diameter culvert with a 6-foot by 4-foot box culvert. Replace headwall at the inlet, replace headwall at the outlet, new reinforced steel pipe at the outlet, and ditch grading.
Culvert 8	23.91	low	Replace a 1-foot culvert with a 2-foot culvert with concrete backfill. Replace a flared end section at the inlet and the outlet, new reinforced steel pipe at the outlet, and ditch grading.
Culvert 10	24.21	low	Replace a 1-foot culvert with a 2-foot culvert with concrete backfill and ditch grading.
Culvert 11	24.42	low	Replace a 1-foot culvert with a 2-foot culvert. Replace a flared end section at the inlet and the outlet, new reinforced steel pipe at the outlet, and ditch grading.
Culvert 12	24.94	low	Replace a 1.25-foot culvert with a 2-foot culvert. Install new reinforced steel pipe at the outlet and ditch grading.
Culvert 13	25.12	low	Replace two 1.25-foot culverts with two 2-foot culverts.
Culvert 14	25.43	low	Replace a 1-foot culvert with a 2-foot culvert. Replace a flared end section at the inlet and the outlet, new reinforced steel pipe at the outlet, and ditch grading.
Culvert 17	26.52	low	Replace a 1-foot culvert with a 2-foot culvert. Ditch grading.
Culvert 18	25.43	low	Replace a 1-foot culvert with a 2-foot culvert. Replace headwall at the inlet and ditch grading.
Culvert 21	27.33	low	Replace a 1-foot culvert with a 2-foot culvert with concrete backfill. New reinforced steel pipe at the outlet and ditch grading.
Culvert 26	28.88	low	Replace a 0.7-foot culvert with a 2-foot culvert with concrete backfill. Ditch grading.
Culvert 27	29.05	low	Replace a 1-foot culvert with a 1.5-foot culvert and concrete backfill. Ditch grading.
Culvert 29	29.82	low	Replace a 1.25-foot culvert with a 2-foot culvert. Replace headwall at the outlet and ditch grading.

Source: Caltrans Design Division, June 2021

Avoidance, Minimization, and/or Mitigation Measures

Build Alternative

- Paleontological mitigation is not recommended at this time. The Paleontological Identification Report needs to be updated throughout each project phase and/or if there are any changes to the project description and/or excavation details are further defined, such as proposed culvert diameters are upscaled throughout the project area.

- If unexpected fossil discovery were to occur during construction, Caltrans' 2018 Standard Specifications Section 14-7.03 would be required to identify the procedures required to protect the resource.

No-Build Alternative

There would be no impacts to geology or soils under the No-Build Alternative.

2.1.8 Greenhouse Gas Emissions

Considering the information included in the Climate Change and Greenhouse Gas Emissions analysis dated May 2021 and the Air Quality Memorandum dated May 15, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**Less Than Significant Impact**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	**Less Than Significant Impact**

a, b) Affected Environment

Build Alternative

The project is on State Route 33 in rural Kern County. The area primarily consists of undeveloped land, oil fields, oil and gas pipelines, rural residential, and light industrial uses. State Route 33 within the project limits is a two-lane conventional highway with paved shoulders and a speed limit of 55 miles per hour. The 40 culverts would be at various locations along State Route 33, passing through the census-designated town of McKittrick, from 0.9 mile south of Henry Road to 0.2 mile north of Cymric Road (North).

The purpose of the project is to repair, replace, and/or rehabilitate failing culverts to improve drainage and prevent flooding.

Environmental Consequences

Build Alternative

Greenhouse gas emissions impacts of non-capacity increasing projects like the Kern 33 Culvert Rehab project are considered less than significant under CEQA because there would be no increase in operational emissions.

However, construction equipment and material process and delivery may generate short-term greenhouse gas emissions during construction.

Construction greenhouse gas emissions for the project are calculated using Caltrans' Construction Emissions Tool v1.1.

Project construction is expected to generate about 236 tons of carbon dioxide during 100 working days. While some construction greenhouse gas emissions would be unavoidable, implementing standard conditions or Best Management Practices designed to reduce or eliminate emissions as part of the project would reduce impacts to less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Build Alternative

Measures to reduce greenhouse gas emissions include:

- The contractor would maximize fuel efficiency from construction equipment by maintaining equipment in proper working condition, using the right-size equipment for the job, and using equipment with new technologies.
- Construction Environmental Training—Caltrans would provide construction personnel with the knowledge to identify environmental issues and best practice methods to minimize impacts to the human and natural environment. Caltrans would supplement existing training with information regarding methods to reduce greenhouse gas emissions related to construction.
- The contractor would recycle existing project features onsite to the extent feasible (for example, medium beam guardrail, light standards, Subbase Granular Material, or native material that meets Caltrans' specifications for incorporation into new work).
- The contractor would use solar-powered equipment, when feasible, such as solar-powered portable changeable message signs.

No-Build Alternative

There would be no impacts to climate change under the No-Build Alternative.

2.1.9 Hazards and Hazardous Materials

Considering the information included in the Initial Site Assessment dated April 28, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**Less Than Significant Impact**

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
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?	**No Impact**
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	**No Impact**
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?	**No Impact**
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	**No Impact**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	**No Impact**
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	**No Impact**

a) Affected Environment

Build Alternative

An Initial Site Assessment was prepared for the project on April 28, 2021. The project area consists primarily of undeveloped land, oil fields, oil and gas pipelines, rural residential, and light industrial uses. There is little to no agricultural land within the project limits. Five California Environmental Protection Agency Data Resources, commonly referred to as the Cortese List, were reviewed. Although various hazardous waste locations were identified in the project area, those properties are expected to be a low risk since the work would be limited to the State right-of-way and temporary construction easement areas that are dirt and pavement.

Environmental Consequences

Build Alternative

Aerially deposited lead in surface soils next to the highway is a potential hazardous waste concern. Aerially deposited lead from the historical use of leaded gasoline exists along roadways throughout California. There is the likely presence of soils with elevated concentrations of lead due to aerially deposited lead on the State highway system right-of-way within the project limits. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, aerially deposited lead agreement between Caltrans and the California Department of Toxic Substances Control. This aerially deposited lead agreement allows such soils to be safely reused within the project limits if all requirements of the aerially deposited lead agreement are met. Excess soils requiring offsite disposal/relinquishment are not expected.

Temporary construction easements are required throughout the project limits. Of the hazardous waste facilities within the project limits, temporary construction easements are needed at Assessor's Parcel Numbers 198-020-21, 198-020-23, and 198-040-26. The hazardous waste risk at these locations is low because the temporary construction easement areas are in the dirt and pavement next to the State right-of-way.

The existing pipe culvert material that would be repaired, replaced, and/or rehabilitated is corrugated steel, steel, polyvinyl chloride, and concrete. There is a potential for regulated asbestos-containing materials due to the removal or replacement of concrete pipe culverts.

Removal of guardrail or road signs may involve the removal of treated wood guardrail and signposts. Treated wood waste is now considered a hazardous waste and must be treated as such.

Pavement paint, striping, and markings may contain high levels of lead. Should any striping be removed, it would likely be along pavement grindings resulting in a nonhazardous residue.

Avoidance, Minimization, and/or Mitigation Measures

Build Alternative

- If excess soil is generated such that soil would be relinquished to the contractor and/or disposed of at a landfill, a Preliminary Site Investigation would be required at the specific areas where the soil would be excavated. Soil, pending the results, could be disposed of offsite, used onsite per the California Department of Toxic Substances Control-Caltrans Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils, provided all conditions are met, or be considered nonregulated/nonhazardous material.

- If metal beam guardrails or roadway signs are removed, treated wood waste would be considered a hazardous waste and would be addressed through a Caltrans Standard Special Provision.
- An Asbestos Compliance Plan would be required for the project. A Caltrans Non-Standard Special Provision would be drafted to address asbestos hazards.
- A Lead Compliance Plan would also be required for the project.

No-Build Alternative

There would be no hazardous waste impacts with the No-Build Alternative.

2.1.10 Hydrology and Water Quality

Considering the information included in the Location Hydraulic Study dated May 19, 2021, and the Water Quality Compliance Memorandum dated February 12, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	**No Impact**
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	**No Impact**
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation onsite or offsite;	**No Impact**
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	**No Impact**
(iii) 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; or	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
(iv) impede or redirect flood flows?	**No Impact**
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	**No Impact**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	**No Impact**

2.1.11 Land Use and Planning

Considering the permanent project improvements would be entirely within the State right-of-way and only involves the repair, replacement, and/or rehabilitation of existing culverts, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
a) Physically divide an established community?	**No Impact**
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	**No Impact**

2.1.12 Mineral Resources

Considering the permanent project improvements would be entirely within the State right-of-way and only involves the repair, replacement, and/or rehabilitation of existing culverts, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
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?	**No Impact**
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?	**No Impact**

2.1.13 Noise

Considering the information included in the Technical Memorandum dated June 11, 2021, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**No Impact**
b) Generation of excessive groundborne vibration or groundborne noise levels?	**No Impact**
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 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?	**No Impact**

2.1.14 Population and Housing

Considering the project only involves the repair, replacement, and/or rehabilitation of existing culverts within the State right-of-way with small temporary construction easements that would be adjacent to these culverts, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Population and Housing
a) Induce substantial unplanned 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)?	**No Impact**
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	**No Impact**

2.1.15 Public Services

Considering the permanent project improvements would be entirely within the State right-of-way and only involves the repair, replacement, and/or rehabilitation of existing culverts, the following significance determinations have been made:

Question:	CEQA Significance Determinations for 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: Fire protection	**No Impact**
Police protection?	**No Impact**
Schools?	**No Impact**
Parks?	**No Impact**
Other public facilities?	**No Impact**

2.1.16 Recreation

Considering the permanent project improvements would be entirely within the State right-of-way and only involves the repair, replacement, and/or rehabilitation of existing culverts, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Recreation
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?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Recreation
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?	**No Impact**

2.1.17 Transportation

Considering the permanent project improvements would be entirely within the State right-of-way, only involves the repair, replacement, and/or rehabilitation of existing culverts, and the highway would remain open during construction, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Transportation
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	**No Impact**
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	**No Impact**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	**No Impact**
d) Result in inadequate emergency access?	**No Impact**

2.1.18 Tribal Cultural Resources

Considering the information included in the Cultural Screening Memorandum dated April 7, 2021, the following significance determinations have been made:

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:

Question:	CEQA Significance Determinations for Tribal Cultural Resources
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	**No Impact**
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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**No Impact**

2.1.19 Utilities and Service Systems

Considering the permanent project improvements would be entirely within the State right-of-way and only involves the repair, replacement, and/or rehabilitation of existing culverts, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	**Less Than Significant Impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	**No Impact**
c) 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?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	**No Impact**
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**No Impact**

a) Affected Environment

Build Alternative

The various parcels that would be affected by the acquisition of temporary construction easements and utility work are on both sides of State Route 33, passing through the census-designated town of McKittrick, from 0.9 mile south of Henry Road to 0.2 mile north of Cymric Road (North). State Route 33 through this location is a rural two-lane conventional highway. The utilities and temporary easement areas are generally unimproved and are on parcels that consist primarily of undeveloped land, oil fields, oil and gas pipelines, rural residential, and light industrial uses. There is little to no agricultural land within the project limits.

Environmental Consequences

Build Alternative

The project would require the acquisition of temporary construction easements from various parcels next to State Route 33. The affected property locations are shown in Figure 1-2 Project Location Map and are listed in Table 2.5 below. Offers to purchase easements would be based on an approved appraisal that determines the fair market value of the property rights being acquired. All permanent culvert improvements would be within the existing State right-of-way.

The culvert locations are next to multiple utilities, buried and exposed, which include but are not limited to existing fiber-optic lines, petroleum lines, natural gas lines, and water lines. The project is not expected to impact these existing utilities, which would remain in place. In addition, illicit utility lines run through existing culverts at location numbers 8 and 13. These utilities would need to be removed before the beginning of construction. Permits for these utilities were not found, and the owners need to be determined.

Table 2.5 Parcles Affected by Temporary Construction Easements

Location Numbers	Post Mile	Assessor's Parcel Numbers	Total Parcel Size (Acres)	Temporary Construction Easement Area (Acre)
1	22.0	198-020-09	57.74	0.019
1	22.0	198-020-09	57.74	0.022
2	22.10	198-020-09	57.74	0.025
2	22.10	198-020-09	57.74	0.029
3	22.34	198-020-21	24.67	0.017
3	22.34	198-020-23	33.84	0.028
4	22.54	198-020-21	24.67	0.019
4	22.54	198-020-23	33.84	0.038
5	22.84	198-040-30	238.10	0.010
5	22.84	198-040-26	30.50	0.022
6	23.00	198-040-30	238.10	0.016
6	23.00	198-040-29	37.97	0.028
7	23.85	298-060-23	37.73	0.025
7	23.85	298-060-23	37.73	0.014
8	23.91	298-060-23	37.73	0.020
8	23.91	298-060-23	37.73	0.014
9	24.11	298-060-24	60.00	0.013
9	24.11	298-060-24	60.00	0.015
10	24.21	298-060-32	155.43	0.018
11	24.42	298-060-32	155.43	0.015
12	24.94	298-060-39	2.99	0.016
13	25.12	298-060-02	159.34	0.014
13	25.12	298-060-02	159.34	0.023
15	25.97	298-060-02	159.34	0.014
15	25.97	298-060-02	159.34	0.028
16	26.41	183-210-24	77.66	0.016
16	26.41	183-210-23	178.07	0.028
17	26.52	183-210-23	178.07	0.008
17	26.52	183-210-23	178.07	0.031
18	26.65	183-210-17	3.82	0.023
18	26.65	183-210-32	3.94	0.016
19	26.83	183-210-25	56.36	0.018
19	26.83	183-210-23	178.07	0.025
20	27.13	183-210-21	76.94	0.028
20	27.13	183-210-21	76.94	0.028
21	27.33	183-210-21	76.94	0.011
21	27.33	183-210-21	76.94	0.026
22	27.60	183-170-11	38.85	0.024
22	27.60	183-170-11	38.85	0.023
23	28.13	183-170-26	64.32	0.042
23	28.13	183-170-26	64.32	0.042
24	28.31	183-170-01	156.38	0.018
24	28.31	183-170-01	156.38	0.022
25	28.76	183-010-15	637.80	0.022
25	28.76	183-010-15	637.80	0.021
26	28.88	183-010-15	637.80	0.014
26	28.88	183-010-15	637.80	0.021
27	29.05	183-030-04	2.44	0.007

Location Numbers	Post Mile	Assessor's Parcel Numbers	Total Parcel Size (Acres)	Temporary Construction Easement Area (Acre)
27	29.05	183-130-22	5.70	0.014
28	29.57	183-082-03	1.00	0.014
28	29.57	183-061-12	1.02	0.021
29	29.82	183-010-16	3186.20	0.018
29	29.82	183-010-16	3186.20	0.015
30	30.08	183-010-01	293.85	0.011
30	30.08	183-010-01	293.85	0.014
31	32.06	157-260-14	314.68	0.024
35	34.17	157-190-04	10.27	0.005
36	34.17	157-190-04	10.28	0.004
38	36.49	157-040-04	153.56	0.013

Source: Caltrans Design Division, June 2021

No-Build Alternative

Under the No-Build Alternative, no temporary construction easements would be necessary.

Avoidance, Minimization, and/or Mitigation Measures

Build Alternative

- Caltrans would acquire the needed temporary construction easements in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Acquisitions for the construction easements would be temporary, and the land would be restored to a preconstruction condition and returned to the affected property owner after project completion.
- The project would protect in place all existing utilities that would be located before construction. This is required to determine utility conflicts or protect in place and measures to avoid certain design methods that might impact utilities. Locating utilities before construction would enhance worker safety and prevent interruptions in utility services during construction activities involving grading, excavation, and pipe installation.

No-Build Alternative

There would be no avoidance, minimization, and/or mitigation measures with the No-Build Alternative.

2.1.20 Wildfire

Considering the information found in the California Fire Hazard Severity Zones in State Responsibility Areas mapping that shows the project area is designated as moderate, the rural location of the project, and the flat topography within the project area, the following significance determinations have been made:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones:

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	**No Impact**
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	**No Impact**
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	**No Impact**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	**No Impact**

2.1.21 Mandatory Findings of Significance

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially 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?	**Less Than Significant with Mitigation Incorporated**

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
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)?	**No Impact**
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**No Impact**

a) Affected Environment

Build Alternative

A variety of habitats along with plant and animal species are found within the Biological Study Area. Habitats and species that have the potential to occur in the project area are listed in Tables 2.1 and 2.2.

The San Joaquin (Nelson's) antelope squirrel, also known as the Nelson's antelope squirrel, is state-listed as threatened and is the only species that may require mitigation. There are 18 California Natural Diversity Database occurrences for the San Joaquin (Nelson's) antelope squirrel within the Biological Study Area, with observations ranging from 1975 to 2016. Protocol-level small mammal trapping was performed within the Project Impact Area in October and November 2020. No San Joaquin (Nelson's) antelope squirrels were captured, but two were seen within the Project Impact Area during the survey. Incidental observations of the species were also made during field surveys for other species. A total of 68 observations of San Joaquin (Nelson's) antelope squirrels were made within the Biological Study Area between April and September 2020. Eight San Joaquin (Nelson's) antelope squirrels were seen in the Biological Study Area during botanical surveys in April and May 2021.

Environmental Consequences

Build Alternative

Approximately 9.57 acres of potentially suitable habitat for the San Joaquin (Nelson's) antelope squirrel may be impacted by this project. Allscale scrub, bush seepweed, red brome/Mediterranean grass grassland, and ruderal habitat all provide potentially suitable habitat for the San Joaquin (Nelson's) antelope squirrel in the Biological Study Area. About 0.01 acre of permanent impacts to allscale scrub, 5.57 acres of temporary impacts to allscale scrub,

0.28 acre of temporary impacts to bush seepweed, 0.15 acre of temporary impacts to red brome/Mediterranean grass grassland, and 3.56 acres of temporary impacts to ruderal habitat are expected. Areas of temporary impacts would be recontoured and revegetated after construction; therefore, those areas would be available to be used as future habitat.

Avoidance, Minimization, and/or Mitigation Measures

Build Alternative

- Caltrans and the contractor would follow Standard Measures and Best Management Practices—discussed in Section 1.5 of this document—during construction. Additional measures may be identified in the expected U.S. Fish and Wildlife Service's Letter of Concurrence for the San Joaquin kit fox, which would be issued before approval of the final environmental document.
- An Incidental Take Permit from the California Department of Fish and Wildlife is expected for the San Joaquin (Nelson's) antelope squirrel. Mitigation measures proposed for impacts to the San Joaquin (Nelson's) antelope squirrel may include:
    - Compensation for loss of habitat through the purchase of credits from a mitigation bank, preservation of habitat, or enhancement or restoration of habitat.
    - A 2 to 1 ratio for permanent impacts and a 0.5 to 1 ratio for temporary impacts to suboptimal habitat.

With the implementation of the mitigation measures for the San Joaquin (Nelson's) antelope squirrel, habitat impacts would be less than significant.

No-Build Alternative

Avoidance, minimization, and/or mitigation measures are not required under the No-Build Alternative.

***b)* No Impact**—The project does not have cumulatively considerable impacts. There are various projects in proximity to the Biological Study Area; many projects are development projects by local agencies. Caltrans has various culvert projects programmed in proximity to the Biological Study Area, including culvert improvements on State Route 166 in southwest Kern County, from post mile 0.00 to post mile 9.00. Projects in the area that involve work at night may result in additional nighttime light spill into preserved areas. There is no nightwork proposed with this project. It is expected that other projects in the area would also include appropriate avoidance, minimization, and/or mitigation measures to address the effects of those projects.

With the implementation of the proposed avoidance, minimization, and/or mitigation measures, no cumulative effects would occur. Therefore, there is no impact.

***c)* No Impact**—The project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. The project is only proposing to repair, replace, and/or rehabilitate existing culverts that have deteriorated over time. All culverts and work would be within and/or next to the existing State Route 33 right-of-way. Therefore, there would be no impact on human beings.

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY — Gavin Newsom, 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.

August 2020

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."*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a nondiscriminatory manner.

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

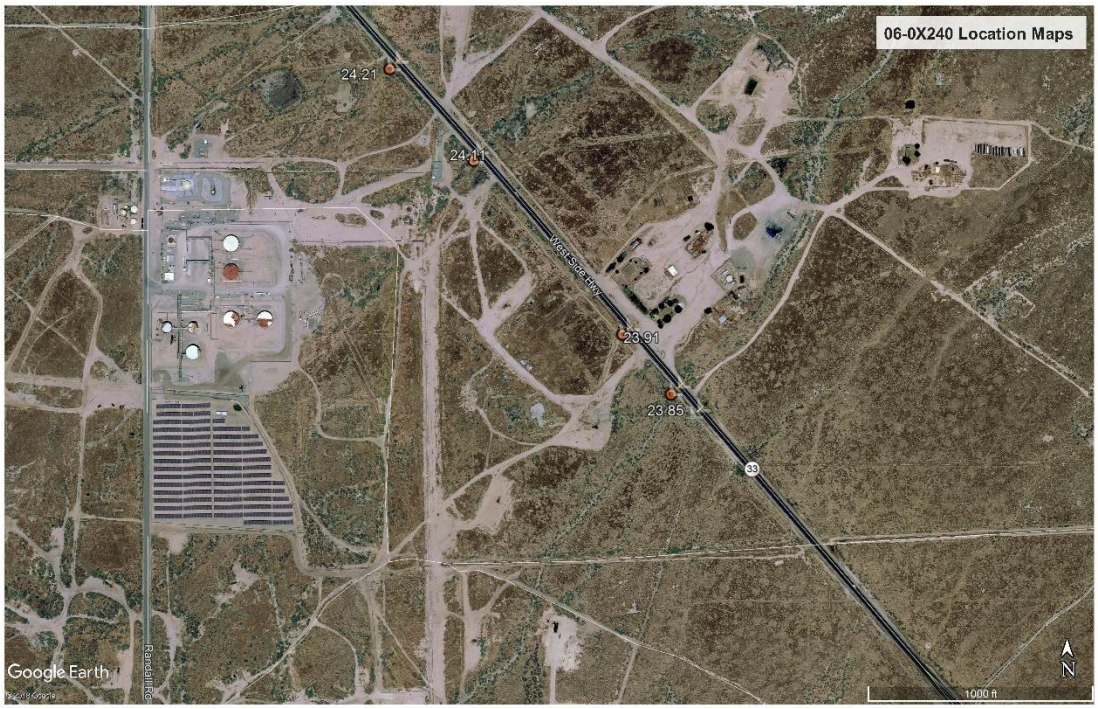
For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

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 Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at <Title.VI@dot.ca.gov>.

Original signed by
Toks Omishakin
Director

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

Appendix B Culvert Location Plans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06-0X240 Location Maps
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1000 ft
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Deleted from Scope of Project
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Location 15-
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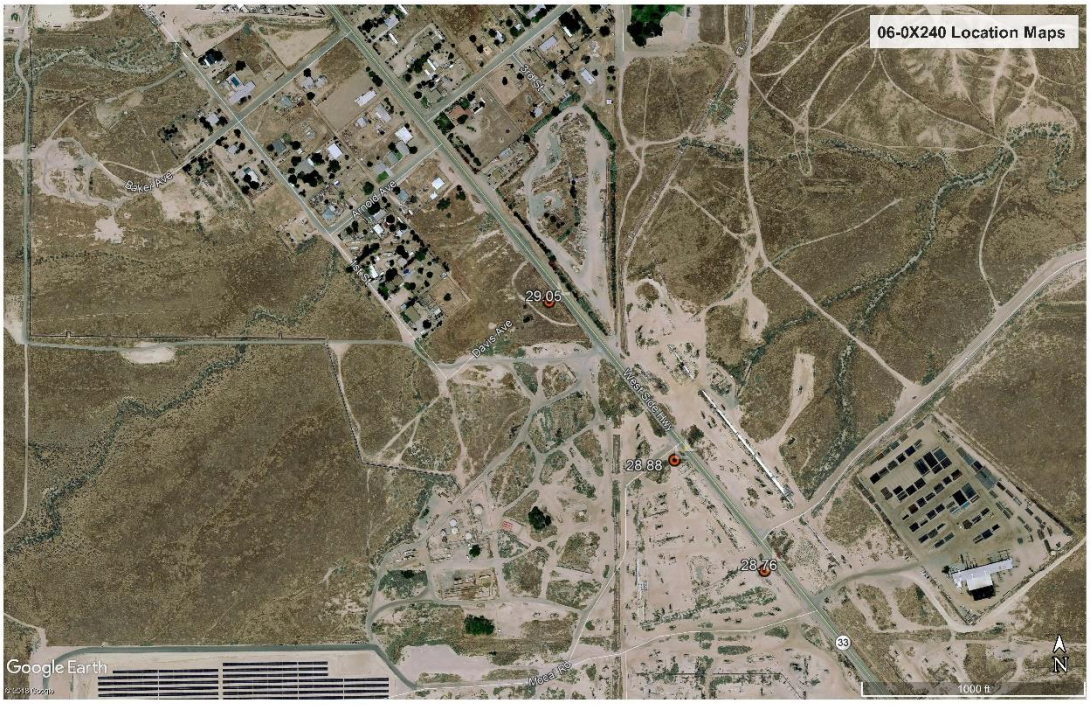
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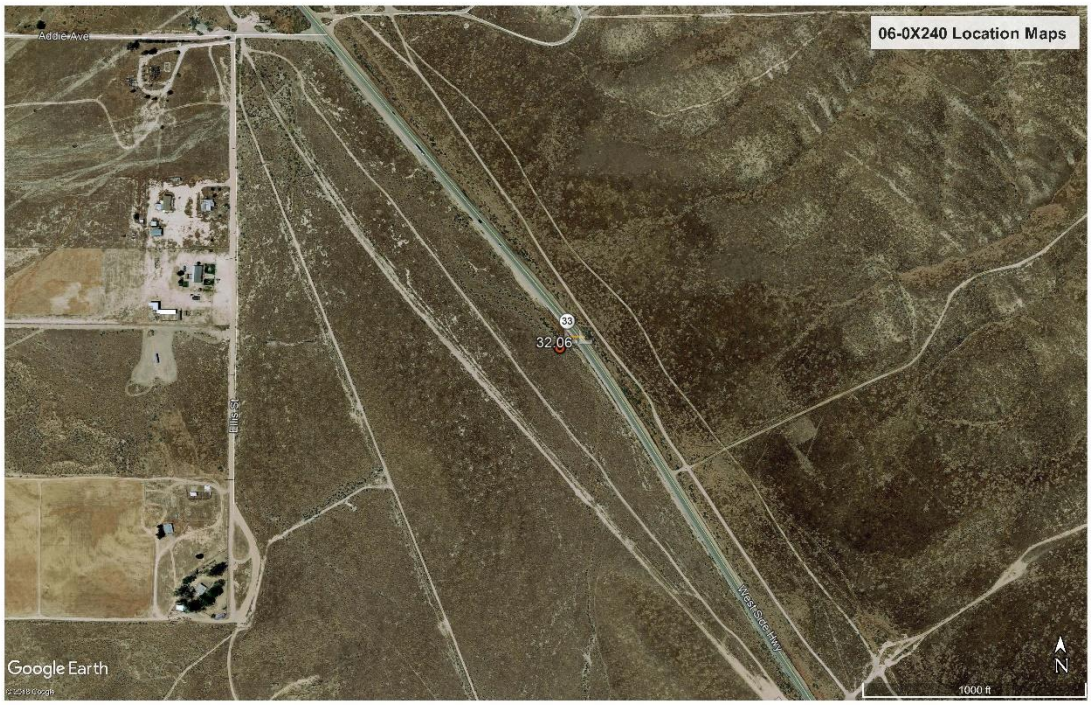
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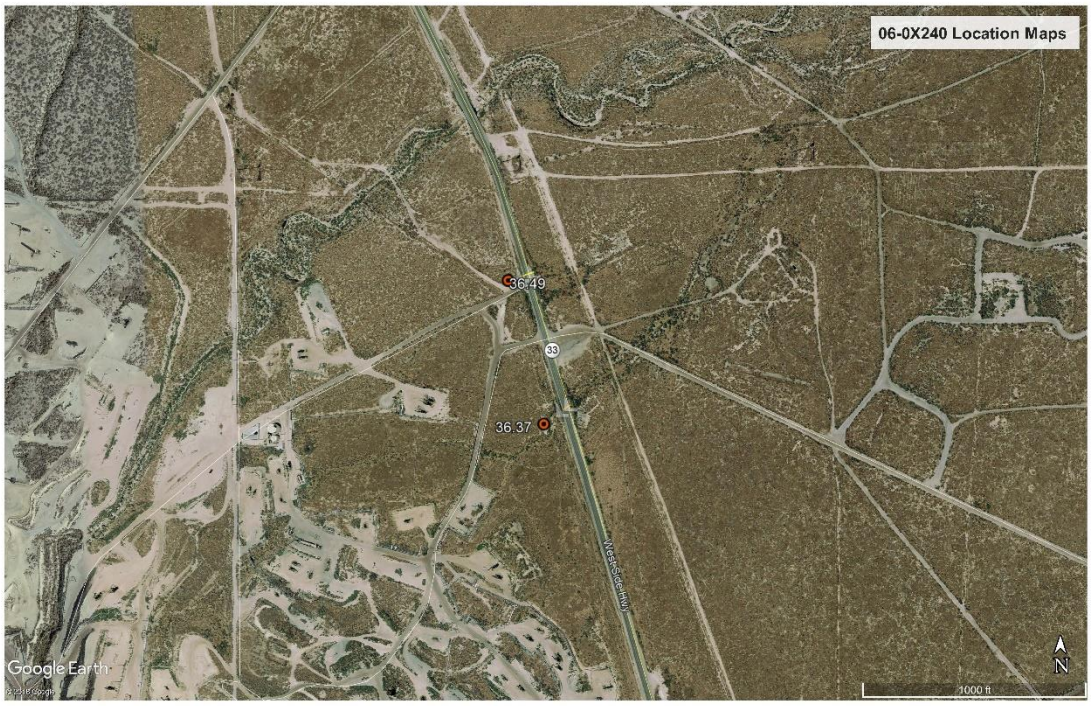
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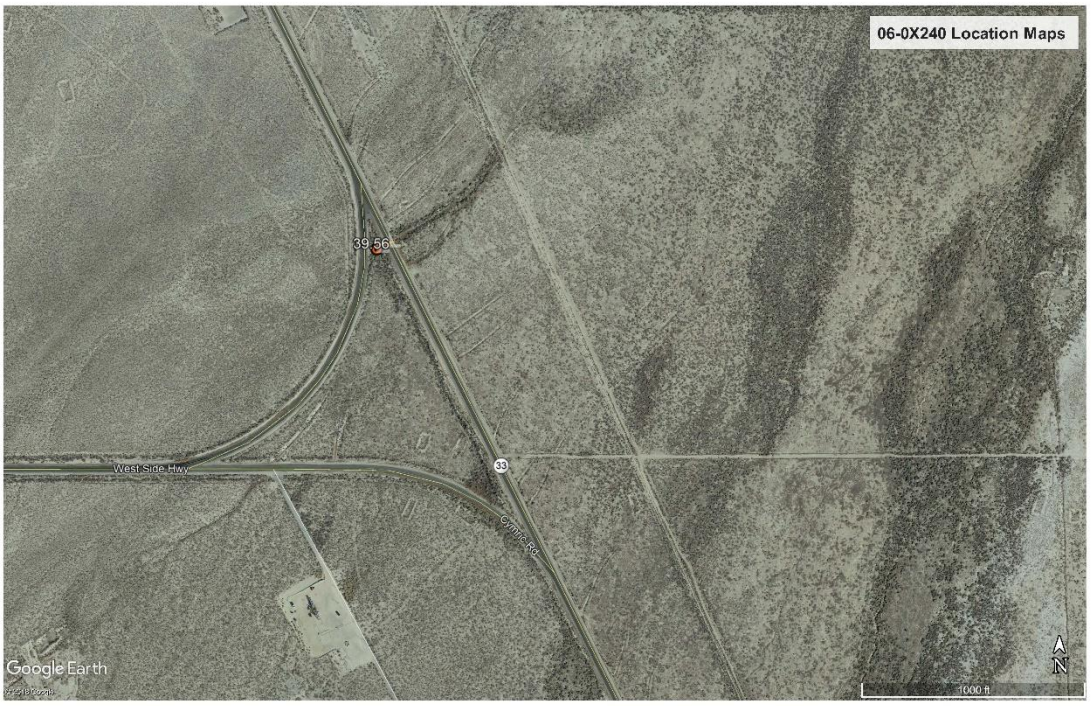
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West Side Hwy
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Google Earth
1000 ft
N

List of Technical Studies Bound Separately (Volume 2)

Aesthetics—Visual Impact Analysis February 25, 2021

Air Quality—Air Quality Memorandum—May 15, 2021

Biological Resources—Natural Environment Study—July 9, 2021

Cultural Resources—Section 106 and Public Resources Code 5024 Compliance Memorandum—April 7, 2021

Geology and Soils—Paleontological Identification Report—June 14, 2021

Greenhouse Gas Emissions—Greenhouse Gas Analysis—May 2021

Hazardous Waste—Initial Site Assessment—April 28, 2021

Hydrology—Location Hydraulics Study—May 19, 2021

Noise—Noise Compliance Study—June 11, 2021

Water Quality—Water Quality Memorandum—February 12, 2021

To obtain a copy of one or more of these technical studies/reports or the Initial Study, please send your request to:

Trais Norris, Senior Environmental Planner
Central Region Environmental, California Department of Transportation
2015 East Shields Avenue, Suite Number 100, Fresno, California 93726

Or send your request via email to: trais.norris@dot.ca.gov

Or call: 209-601-3521

Please provide the following information in your request:

Kern 33 Culvert Rehab
State Route 33 in Kern County from Henry Road to Cymric Road (North)
06-KER-33-21.8-39.8
Project Number: 0618000043