

Maricopa 166 Culvert and Roadway Rehabilitation Project

State Route 166 in Kern County

06-KER-166-PM 0.0-10.2

Project Number 0618000060

Initial Study with Proposed Mitigated Negative Declaration

Volume 1 of 2



Prepared by the
State of California Department of Transportation

April 2022



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, the Taft Library at 27 Cougar Court, Taft, California 93268, and online at <https://dot.ca.gov/caltrans-near-me/district-6>.
- 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: G. William "Trais" Norris III, District 6 Environmental Division, 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: July 14, 2022.

What happens next:

After comments are received from the public and the 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.

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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: G. William "Trais" Norris III, District 6 Environmental Division, 2015 East Shields Avenue, Suite 100, Fresno, California 93726; 209-601-3521 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

Culvert repair and roadway rehabilitation on State Route 166
from post miles 0.0 to 10.2 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
Environmental Office Chief, District 6
California Department of Transportation
CEQA Lead Agency

4/14/2022

Date

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

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DRAFT

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: 06-KER-166-PM 0.0-10.2

EA/Project Number: 06-0X380/0618000060

Project Description

The California Department of Transportation (Caltrans) proposes to repair failing drainage systems by replacing and extending 26 deteriorated culverts at 22 locations. Erosion at existing slopes and swales would also be repaired, followed by preserving and resurfacing State Route 166. The existing pavement would have dig-out repairs of failed areas, followed by cold-planing (scraping off) 0.20 foot of hot mix asphalt pavement and sealing visible cracks larger than 1/8-inch. A new surface of hot mix asphalt would then be placed to a depth of 0.20 foot and capped with 0.10 foot of rubberized hot mix asphalt. In addition, 300 feet of the westbound lane of the State Route 166 intersection junction with State Route 33 would be replaced with jointed plain concrete pavement. Americans with Disabilities Act-compliant crosswalks with curb ramps would be installed at the State Route 33/166 intersection.

Determination

An Initial Study has been prepared by 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 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 will be obtained through the purchase of credits from a mitigation bank, preservation of habitat, or enhancement or restoration of habitat per coordination with the California Department of Fish and Wildlife.

Jennifer H. Taylor
Environmental Office Chief, District 6
California Department of Transportation

Date

Table of Contents

| | | |
|-------------------|---|----|
| Chapter 1 | Proposed Project | 1 |
| 1.1 | Introduction | 1 |
| 1.2 | Purpose and Need | 1 |
| 1.2.1 | Purpose | 1 |
| 1.2.2 | Need | 1 |
| 1.3 | Project Description | 2 |
| 1.4 | Project Alternatives | 5 |
| 1.4.1 | Build Alternative | 5 |
| 1.4.2 | No-Build (No-Action) Alternative | 9 |
| 1.5 | Standard Measures and Best Management Practices Included in Build Alternative | 9 |
| 1.6 | Discussion of the NEPA Categorical Exclusion | 10 |
| 1.7 | Permits and Approvals Needed | 10 |
| Chapter 2 | CEQA Evaluation | 11 |
| 2.1 | CEQA Environmental Checklist | 11 |
| 2.1.1 | Aesthetics | 11 |
| 2.1.2 | Agriculture and Forest Resources | 12 |
| 2.1.3 | Air Quality | 13 |
| 2.1.4 | Biological Resources | 14 |
| 2.1.5 | Cultural Resources | 21 |
| 2.1.6 | Energy | 22 |
| 2.1.7 | Geology and Soils | 22 |
| 2.1.8 | Greenhouse Gas Emissions | 24 |
| 2.1.9 | Hazards and Hazardous Materials | 25 |
| 2.1.10 | Hydrology and Water Quality | 26 |
| 2.1.11 | Land Use and Planning | 27 |
| 2.1.12 | Mineral Resources | 28 |
| 2.1.13 | Noise | 28 |
| 2.1.14 | Population and Housing | 28 |
| 2.1.15 | Public Services | 29 |
| 2.1.16 | Recreation | 29 |
| 2.1.17 | Transportation | 30 |
| 2.1.18 | Tribal Cultural Resources | 30 |
| 2.1.19 | Utilities and Service Systems | 31 |
| 2.1.20 | Wildfire | 32 |
| 2.1.21 | Mandatory Findings of Significance | 33 |
| Appendix A | Title VI Policy Statement | 35 |
| Appendix B | Federal Endangered Species Act Determinations | 37 |

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to repair failing drainage systems by replacing and extending 26 deteriorated culverts at 22 locations along State Route 166 in Kern County. Erosion at existing slopes and swales would also be repaired, followed by preserving and resurfacing State Route 166. The existing pavement would have dig-out repairs of failed areas, followed by cold-planing (scraping off) 0.20 foot of hot mix asphalt pavement and sealing visible cracks larger than 1/8-inch. A new surface of hot mix asphalt would then be placed to a depth of 0.20 foot and capped with 0.10 foot of rubberized hot mix asphalt. In addition, 300 feet of the westbound lane of the State Route 166 intersection junction with State Route 33 would be replaced with jointed plain concrete pavement. Americans with Disabilities Act-compliant crosswalks with curb ramps would be installed at the State Route 33/166 intersection.

The preliminary estimated construction cost of the project is \$10,000,000. The project is to be funded from the 2020 State Highway Operation and Protection Program's Pavement Preservation Program in the 2022/2023 fiscal year.

Construction is scheduled to begin in November 2023 and would take 240 working days to complete. No night work is planned for this project.

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 this project is to repair and maintain the drainage systems and pavement structural section on State Route 166 between post mile 0.0 and post mile 10.2 in Kern County.

1.2.2 Need

Replacing or repairing the pavement structural section and deteriorating drainage systems is necessary to maintain the operational integrity of State Route 166 and would minimize maintenance worker exposure to traffic from repeated visits to repair damaged or flooded facilities. Improving Americans with Disabilities Act facilities to current standards complies with existing Caltrans policies and guidelines.

1.3 Project Description

This project would repair failing drainage systems by replacing and extending 26 deteriorated culverts at 22 locations. Erosion at existing slopes and swales would also be repaired, followed by preserving and resurfacing State Route 166. The existing pavement would have dig-out repairs of failed areas, followed by cold-planing (scraping off) 0.20 foot of hot mix asphalt pavement and sealing visible cracks larger than 1/8-inch. A new surface of hot mix asphalt would then be placed to a depth of 0.20 foot and capped with 0.10 foot of rubberized hot mix asphalt. In addition, 300 feet of the westbound lane of the State Route 166 intersection junction with State Route 33 would be replaced with jointed plain concrete pavement. Americans with Disabilities Act-compliant crosswalks with curb ramps would be installed at the State Route 33/166 intersection.

See Figure 1-1 for the project vicinity map and Figure 1-2 for the project location map.

Figure 1-1 Project Vicinity Map

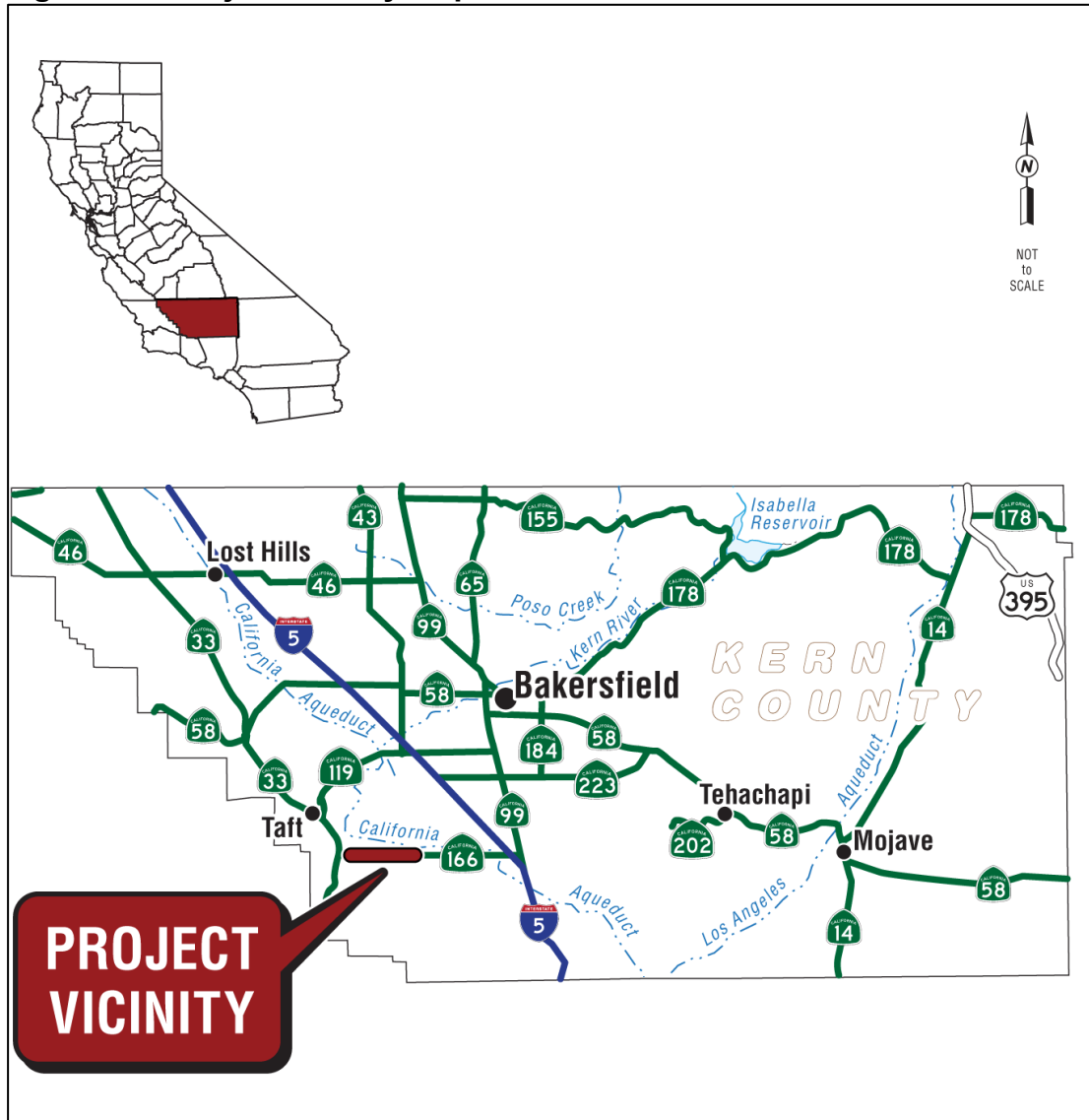
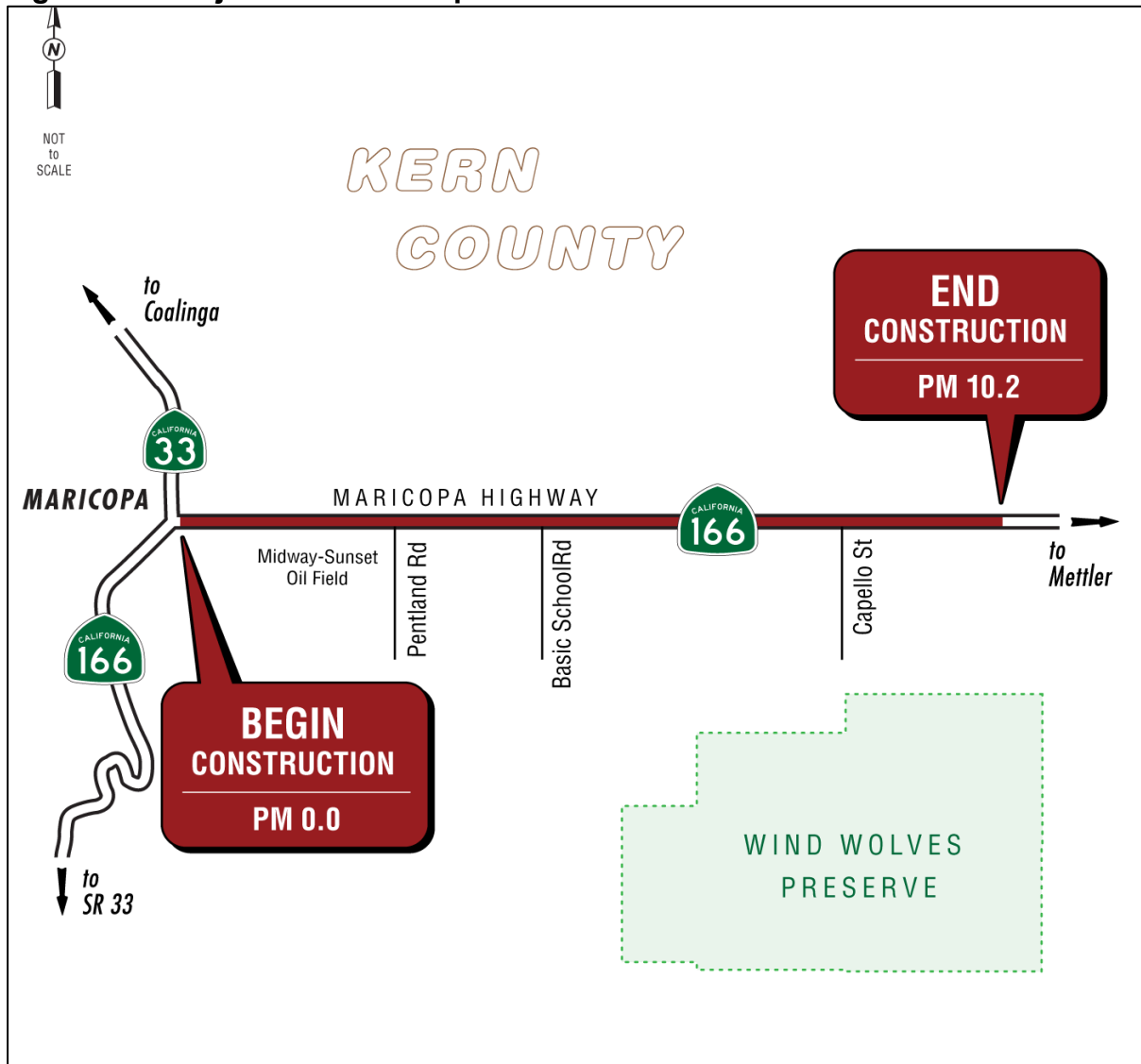


Figure 1-2 Project Location Map



1.4 Project Alternatives

1.4.1 Build Alternative

The build alternative would restore the existing drainage system to good condition by repairing and/or replacing the identified 26 deteriorating culverts within the project limits.

All the existing culverts are corrugated steel pipe (also known by the abbreviation CSP).

There are 22 culvert locations between post miles 0.0 and 10.2 proposed for improvement. In general, there is one culvert per culvert location. The exceptions would be at culvert Locations 1 and 10. Location 1 has four culverts that would be replaced, and Location 10 has two culverts that would be replaced. In total, there are 25 culverts proposed for replacement and 1 culvert proposed for repair by invert paving at Location 12. Table 1.1 lists the proposed culvert locations and proposed improvements to be done at each location.

Table 1.1 Proposed Culvert Improvements on State Route 166

| Culvert Location | Post Mile | Proposed Work | Culvert Material | Existing Length (Feet) | Existing Diameter (Inches) |
|------------------|-----------|--|------------------|---|----------------------------|
| 1 | 0.24 | Four pipes at this location, each to be replaced with 18-inch reinforced concrete pipe | CSP | (one) 84 (two) 104 (three) 170 (four) 48 | 18 |
| 2 | 1.63 | Replace with 18-inch reinforced concrete pipe | CSP | 38 | 18 |
| 3 | 2.00 | Replace with reinforced concrete box culvert 8 feet by 6 feet and replace headwalls | CSP | 38 | 60 |
| 4 | 2.70 | Replace with 36-inch reinforced concrete pipe and replace headwalls | CSP | 95 | 36 |
| 5 | 3.46 | Replace with 36-inch reinforced concrete pipe and replace headwalls | CSP | 45 | 24 |
| 6 | 3.96 | Replace with 10-foot by 7-foot reinforced concrete box and replace headwalls | CSP | 50 | 108 |

| Culvert Location | Post Mile | Proposed Work | Culvert Material | Existing Length (Feet) | Existing Diameter (Inches) |
|-------------------------|------------------|---|-------------------------|-------------------------------|-----------------------------------|
| 7 | 4.24 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 45 | 12 |
| 8 | 4.54 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 47 | 12 |
| 9 | 4.63 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 42 | 18 |
| 10 | 4.99 | Two pipes at this location, each to be replaced with 18-inch reinforced concrete pipe | CSP | (one) 103 (two) 55 | 12 |
| 11 | 5.31 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 46 | 18 |
| 12 | 6.20 | Pave invert with concrete and replace headwalls | CSP | 56 | 108 |
| 13 | 6.28 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 49 | 18 |
| 14 | 6.43 | Replace with 30-inch reinforced concrete pipe and replace headwalls | CSP | 41 | 18 |
| 15 | 6.70 | Replace with 10-foot by 7-foot reinforced concrete box culvert and replace headwalls | CSP | 60 | 108 |
| 16 | 6.79 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 46 | 18 |
| 17 | 6.82 | Replace with 30-inch reinforced concrete pipe and replace flared end sections | CSP | 47 | 24 |
| 18 | 7.39 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 49 | 18 |
| 19 | 7.46 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 48 | 18 |

| Culvert Location | Post Mile | Proposed Work | Culvert Material | Existing Length (Feet) | Existing Diameter (Inches) |
|-------------------------|------------------|---|-------------------------|-------------------------------|-----------------------------------|
| 20 | 8.20 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 47 | 24 |
| 21 | 8.49 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 48 | 18 |
| 22 | 10.13 | Replace with 24-inch reinforced concrete pipe and replace flared end sections | CSP | 47 | 18 |

As stated in Table 1.1, all culverts would be upgraded with either similar or larger diameter reinforced concrete pipe (also known by the abbreviation RCP). The line and grade of the new culvert would match that of the existing culvert unless the culvert needs to be lowered to maintain the minimum cover over the pipe, or if a change in the profile or alignment of the culvert is needed to install it properly. Existing inlets and headwalls would be replaced as well.

The existing slopes at the culvert outlets would be restored by stabilizing the slope with rock slope protection and erosion control; embankment stabilization would also be done at culvert replacement locations.

Replacing culverts requires excavation of the overlying road asphalt and digging a trench along the culvert alignment. Once the culvert has been replaced, 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 prior to culvert replacement.

One culvert location, culvert Location 12, is proposed for repair by invert paving. The existing culvert at Location 12 is a 9-foot-diameter concrete pipe. To repair this culvert, the bottom of the culvert would be paved with either hot mix asphalt or concrete slurry to a depth to be determined by hydraulics.

Culvert end treatments (headwalls or flared end sections) would be replaced on culverts that have existing end treatments. Existing headwalls would be removed by excavation at the same time the existing culverts are removed. Once the new culvert is installed, forms made from wood or metal would be installed at the end of the culvert in the shape of the new headwall. Concrete would be poured into the forms and allowed to dry to the point where the forms can be removed. Existing flared end sections would be removed at the same time the existing culverts are removed. Once the new culvert is installed, new

metal flared end sections are attached to the culvert by hand. Approximately 3.5 cubic yards of rock slope protection are anticipated at each culvert location.

Paving maintenance would occur the year after culvert work is completed. Pavement maintenance is proposed from post miles 0.0 to 9.0. The top 0.20 foot of existing asphalt concrete pavement would be removed by cold-planing. Localized areas that have failed would be repaired, and all cracks wider than 0.25 inch would be sealed. Once pavement repairs and culvert work are completed, pavers would overlay the asphalt concrete pavement with a layer of hot mix asphalt Type A followed by a 0.10-foot layer of gap graded bonded wearing course of rubberized hot mix asphalt. Finally, a pavement edge treatment would be applied. All paving work outside the Maricopa city limits would be within the existing Caltrans right-of-way.

Shoulder backing would be installed on both sides of State Route 166 from the edge of pavement to 3 feet out from the edge of pavement. Existing dirt shoulders and shoulder backing areas would be cleared and grubbed before new shoulder backing is installed. Grading of the new shoulder backing would give it the tapered edge.

For all culvert repair and replacement and paving maintenance, the work would be confined mostly to the roadway, the roadway shoulders, and small areas around the inlets and outlets of existing culverts. The use of k-rail is not proposed; however, due to the contractor's preferred methods and means, limited use of k-rail at spot locations is a possibility. Temporary construction easements are anticipated. Temporary construction signs would be placed off the roadway and are typically hammered into the ground adjacent to the paved road. Daytime lane closures with alternate one-way (reversing) traffic control are anticipated.

Potential staging areas exist within Caltrans' right-of-way along State Route 166 between post miles 0.0 and 10.2. Along this section of the project are areas that have little to no vegetation and would be suitable as potential staging areas for the contractor. No staging would be permitted in waterways.

This project contains several 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 later in this chapter under "Standard Measures and Best Management Practices Included in Build Alternative."

The preliminary estimated construction cost of the project is \$10,000,000. The project is to be funded from the 2020 State Highway Operation and Protection Program's Pavement Preservation Program in the 2022/2023 fiscal year.

Construction is scheduled to begin in November 2023 and would take 240 working days to complete. No night work is planned for this project.

1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative would mean that the culverts and roadway identified for repair or replacement by this project would continue to deteriorate, causing potential flood damage and pavement failure. The No-Build Alternative would not meet the purpose and need for the project.

1.5 Standard Measures and Best Management Practices Included in Build Alternative

The project may include, but would not be limited to, the following Standard Special Provisions:

- 7-1.02K(6)(j)(iii) Earth Material Containing Lead
- 13-2 Water Pollution Control Program
- 13-4 Job Site Management
- 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.
- 14-9.02 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.
- 14-11.04 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 (also 36-4 and/or 84-9.03B) 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.

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—that is, 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 | 1602 Lake and Streambed Alteration Agreement | Will be applied for during the design phase of the project. |
| California Department of Fish and Wildlife | 2081 Incidental Take Permit | Will be applied for during the design phase of the project. |
| U.S. Fish and Wildlife Service | Letter of Concurrence | Informal consultation initiated on February 27, 2022. Letter of concurrence anticipated before the completion of the final environmental document. |
| Central Valley Regional Water Quality Control Board | Section 401 Water Quality Certification | Will be applied for during the design phase of the project. |

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 Significant and Unavoidable Impact, Less Than Significant Impact 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

During the scoping phase of the project, it was determined, based on the type of project, that a Scenic Resources Evaluation did not need to be prepared; therefore, the following 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 that this project would not acquire any new right-of-way, the following 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 |

| Question—Would the project: | CEQA Significance Determinations for Agriculture and Forest Resources |
|--|---|
| 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 in the Air Quality Memorandum dated January 27, 2022, 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 |
| 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 in the Natural Environment Study dated January 14, 2022, 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 Impact 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? | No 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 |
| 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 |

Affected Environment

a) For details of biological studies, please refer to the Natural Environment Study in Volume 2 (also available upon request—see the last page of this document).

For a list of Federal Endangered Species Act determinations for the project, see Appendix B.

Special-Status Plant Species

The following special-status plant species have the potential to be in the study area, but were not observed and are not expected to be present within the action area (the area that would be directly affected by the project, plus adjacent areas that may be indirectly affected): Bakersfield cactus (*Opuntia basilaris* var. *treleasei*) (Federal Threatened, State Endangered, and California Native Plant Society List 1B.1) and Kern mallow (*Eremalche parryi* spp. *kernensis*) (Federally Threatened, California Native Plant Society List 1B.2).

None of the special-status plant species were observed during the several botanical surveys conducted throughout the growing season. However, these species could potentially be present within the action area.

Non-Listed Plant Species

Although the following species were not observed during botanical surveys, there is a moderate potential for these plants to grow in the project footprint.

Heartscale (Atriplex cordulata var. cordulata)

The heartscale is considered endangered but is not a listed species. The California Native Plant Society's rare and endangered plant inventory ranks this species as a List 1B.2 plant.

It is typically found in chenopod scrub, meadows and seeps, or valley and foothill grasslands. General microhabitat consists of alkaline flats and scalds in the Central Valley.

Hoover's eriastrum (Eriastrum hooveri)

Hoover's eriastrum is considered endangered but is not a listed species. The California Native Plant Society's rare and endangered plant inventory ranks this species as a List 1B.2 plant.

It is typically found in chenopod scrub, pinyon and juniper woodland, and valley and foothill grasslands. Hoover's eriastrum may be found in a microhabitat containing gravel soils.

Recurved larkspur (Delphinium recurvatum)

The recurved larkspur is considered endangered but is not a listed species. The California Native Plant Society's rare and endangered plant inventory ranks this species as a List 1B.2 plant.

It is typically found in chenopod scrub, cismontane woodland, and valley and foothill grasslands, preferably in alkaline soils.

Focused botanical surveys of the biological study area were completed in March and April 2021. Heartscale, Hoover's eriastrum, and recurved larkspur were not observed during these surveys. Based on the highly disturbed nature of the biological study area, in addition to Caltrans' routine maintenance activities of the biological study area roadway shoulders, it is unlikely for these species to be present in the project impact area.

Special-Status Animal Species

The following special-status animal species have the potential to be in the study area, but were not observed and are not expected to be present within the action area (the area that would be directly affected by the project, plus adjacent areas that may be indirectly affected): blunt-nosed leopard lizard (*Gambelia sila*) (Federal Endangered and State Endangered), giant kangaroo rat (*Dipodomys nitratoides exilis*) (Federal Endangered and State Endangered), and San Joaquin kit fox (*Vulpes macrotis mutica*) (State Threatened).

Protocol-level small mammal trapping was performed within the project impact area in September and October 2020. The blunt-nosed leopard lizard, giant kangaroo rat, and San Joaquin kit fox were not observed during these surveys. Based on the highly disturbed nature of the biological study area, in addition to Caltrans' routine maintenance activities of the biological study area roadway shoulders, it is unlikely for these species to be present in the project impact area.

Due to the habitat allscale scrub and annual grasslands provide in the biological study area, one state-listed species was observed: San Joaquin (Nelson's) antelope squirrel (*Ammospermophilus nelson*) (State Threatened).

Non-Listed Animal Species

Although the following species were not observed during surveys, the presence of allscale scrub and annual grasslands within the biological study area provides potential habitat for these non-listed special-status animal species to be present in the project footprint. The California glossy snake (*Arizona elegans occidentalis*), burrowing owl (*Athene cunicularia*), Le Conte's thrasher (*Toxostoma lecontei*), and Tulare grasshopper mouse (*Onychomys torridus tularensis*) are California Species of Special Concern.

Two non-listed special-status species were observed in the biological study area: short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*) and San Joaquin coachwhip (*Masticophis flagellum ruddocki*).

Short-nosed kangaroo rat (Dipodomys nitratoides brevinasus)

The short-nosed kangaroo rat is a California species of special concern. This species was present during small mammal trapping surveys within the biological study area in 2020.

San Joaquin coachwhip (Masticophis flagellum ruddocki)

The San Joaquin coachwhip is a California species of special concern. There were three incidental observations of this species within the biological study area in 2020 during blunt-nosed leopard lizard surveys.

c) Waters and Wetlands

All flowlines in the biological study area are ephemeral channels, receiving water from only precipitation or road runoff. All flowlines flow northward through the biological study area and head toward the California Aqueduct; but none of the flowlines exhibit a connection to the California Aqueduct. The flowlines end by dissipating as surface flow in agricultural fields, fallow fields, or saltbush habitat.

Environmental Consequences

a) Special-Status and Non-Listed Plant Species

No direct or indirect impacts to special-status and non-listed plant species are anticipated from this project. Work would be confined mostly to the paved road surface, compacted shoulder areas, and very small areas around the inlets and outlets of existing culverts. No special-status species are known to be currently occupying areas within or right next to proposed worksites. Preconstruction species surveys, environmentally sensitive area fencing, and biological monitoring, if necessary, would enable the project to avoid and minimize impacts to special-status species.

Special-Status Animal Species

Potential temporary impacts would occur during soil disturbance, but no permanent impacts are expected to these species or their habitat: blunt-nosed leopard lizard, giant kangaroo rat, and San Joaquin kit fox.

Due to the abundance of observations of San Joaquin (Nelson's) antelope squirrel onsite and near culvert locations, a Section 2081 incidental take permit from the California Department of Fish and Wildlife is anticipated to be needed. Compensation for loss of habitat would occur through the purchase of credits from a mitigation bank, preservation of habitat, or enhancement or restoration of habitat as identified through coordination with the California Department of Fish and Wildlife.

Work would be confined mostly to the paved road surface, compacted shoulder areas, and very small areas around the inlets and outlets of existing culverts. No special-status species are known to be currently occupying areas within or right next to proposed worksites. The most likely impacts would be from construction-related disturbances resulting from noise, vibration, vehicle activity, and the presence of work crews, which could cause animals to be displaced from the work area. Preconstruction species surveys, environmentally sensitive area fencing, and biological monitoring, if

necessary, would enable the project to avoid and minimize impacts to special-status species.

Before construction begins, a qualified biologist would conduct a Worker Environmental Awareness Training for all work personnel to inform them of the special-status species potentially within the work area, protective measures, reporting procedures, and consequences of violating environmental laws and permit requirements.

Non-Listed Animal Species

No impacts are expected to these non-listed special-status animal species or their habitat: California glossy snake, burrowing owl, Le Conte's thrasher, Tulare grasshopper mouse, short-nosed kangaroo rat, and the San Joaquin coachwhip.

Work would be confined mostly to the paved road surface, compacted shoulder areas, and very small areas around the inlets and outlets of existing culverts. No non-listed animal species are known to be currently occupying areas within or right next to proposed worksites. The most likely impacts would be from construction-related disturbances resulting from noise, vibration, vehicle activity, and the presence of work crews, which could cause animals to be displaced from the work area. Preconstruction species surveys, environmentally sensitive area fencing, and biological monitoring, if necessary, would enable the project to avoid and minimize impacts to special-status species.

Before construction begins, a qualified biologist would conduct a Worker Environmental Awareness Training for all work personnel to inform them of the special-status species potentially within the work area, protective measures, reporting procedures, and consequences of violating environmental laws and permit requirements.

With implementation of the avoidance and minimization measures, no cumulative effects would occur to these special-status species.

c) Waters and Wetlands

No riparian or wetland habitat was present in the biological study area or within the aquatic resource study area. No aquatic animals were observed in the biological study area. No trees were present within 10 feet of any of the culvert locations.

While several ephemeral drainages are present within the overall vicinity of the project, no impacts to these waterways are proposed or anticipated.

Work at drainages would be performed during no-flow conditions when possible. Culvert repair work would have very minor, temporary impacts to waterways that would not involve fill or result in alterations to flow. Culvert

replacement work would result in impacts to waterways due to soil disturbance and the excavation of the culvert trench. No proposed actions would result in diminished streamflow or altered flow patterns. Streamflow capacity would be increased where culverts are being enlarged.

Some locations proposed for work under this project are expected to fall under the jurisdiction of the California Department of Fish and Wildlife and the Regional Water Quality Control Board as ephemeral to intermittent natural drainages as Waters of the U.S.

The project would also obtain a 401 Water Quality Certification from the Regional Water Quality Control Board.

The project would obtain a 1602 Lake and Streambed Alteration Agreement because this permit is required for impacts to natural channels, including ephemeral drainages. However, mitigation under a 1602 permit is typically required only for permanent impacts to jurisdictional channels, and no permanent impacts are anticipated at this time.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures are proposed for plant species:

- Worker Environmental Awareness Training would be performed by a qualified biologist for all work personnel to inform them of the special-status plant species potentially within the work area, protective measures, reporting procedures, and consequences of violating environmental laws and permit requirements.
- Focused botanical preconstruction surveys would be performed the flowering season before work at all worksites where ground disturbance is anticipated and suitable habitat for listed species exists.
- If the Kern mallow or Bakersfield cactus is discovered during preconstruction botanical surveys or construction, Caltrans will coordinate with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife as needed to determine the best plan of action to avoid impacts.

The following avoidance and minimization measures are proposed for animal species:

- Worker Environmental Awareness Training would be performed by a qualified biologist for all work personnel to inform them of the special-status species potentially within the work area, protective measures, reporting procedures, and consequences of violating environmental laws and permit requirements.

- A qualified biologist will be present at the construction site during initial ground-disturbing activities and for activities in habitat that may contain the species.
- Active San Joaquin antelope squirrel burrows will be marked with a pin flag and avoided with a 50-foot-wide buffer area, where possible.
- If avoidance is not possible, then the burrow will be hand excavated by a biological monitor with a current San Joaquin antelope squirrel handling permit.
- Environmentally Sensitive Area fencing will be installed at the limit of the project impact area at all culverts that contain suitable San Joaquin antelope squirrel habitat prior to the start of ground-disturbing activities. Environmentally Sensitive Area fencing installation and removal will be monitored by a biological monitor or biologist approved by Caltrans, the U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife.
- A preconstruction visual survey would occur. All habitat within the project impact area that could support this species will be included in the preconstruction survey area. If any special-status species is present within the project impact area, work will cease, and the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife will be contacted. To the greatest extent practicable, efforts will be made to avoid the species' potential habitat.
- Preconstruction/pre-activity surveys will be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox. Camera stations will be set up at potential dens in the project impact area.
- Project-related vehicles will observe a daytime speed limit of 20 miles per hour throughout the site in all project areas, except on county roads and state and federal highways. Requiring low speed limits within the construction site will lessen the probability that special-status species could be run over by vehicles and equipment.
- All steep-walled trenches or excavations deeper than 12 inches will include escape ramps. At least one escape ramp will be provided in any onsite trenches or excavations at no more than a 2:1 slope. Such trenches or excavations will be inspected for wildlife immediately prior to backfilling.
- Any holes, trenches, or excavations without escape ramps that will not be filled within the working day must be covered overnight and inspected prior to beginning work on the following day.
- 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 will 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 will be thoroughly inspected for trapped animals.

- Food trash and other garbage that may attract wildlife to the work area will be disposed of in closed containers and removed at the end of each workday. Feeding of any wildlife will 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 will be thoroughly inspected for kit foxes before the pipe is used or moved in any way.
- Use of rodenticides and herbicides in project areas will be restricted.
- Firearms, except by qualified and permitted public safety agents, and pets will not be permitted on the work site.
- 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 will be immediately notified.
- Proposed buffers may include a 250-foot-wide no-disturbance buffer to be established around natal dens, a 150-foot-wide no-disturbance buffer around known dens, and a 50-foot-wide no-disturbance around potential or atypical dens. Disturbance to all San Joaquin kit fox dens will be avoided to the maximum extent possible.
- To the extent possible, a biologist will be available on-call during all construction periods when not present onsite.

The following mitigation measure is proposed for the San Joaquin (Nelson's) antelope squirrel.

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

Waters and Wetlands

The project would obtain a 401 Water Quality Certification from the Regional Water Quality Control Board.

The project would also obtain a 1602 Lake and Streambed Alteration Agreement because this permit is required for impacts to natural channels, including ephemeral drainages. However, because no permanent impacts to 1602 jurisdictional channels are anticipated, no compensatory mitigation is proposed.

2.1.5 Cultural Resources

Considering the information in the Historic Property Survey Report and Archaeological Survey Report dated December 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 |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | No Impact |

2.1.6 Energy

Considering that the project would repair drainage systems and require roadway rehabilitation, 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 Alquist-Priolo Earthquake Fault Zones Map viewed at <https://maps.conservation.ca.gov/cgs/EQZApp/> and <https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=landslides> on November 18, 2021, the information included in the Water Quality Memorandum dated March 16, 2022, and the Paleontological Identification Report dated January 31, 2022, the following significance determinations have been made:

| Question—Would the project: | CEQA Significance Determinations for Geology and Soils |
|---|--|
| <p>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>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.</p> | No Impact |
| <p>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>ii) Strong seismic ground shaking?</p> | No Impact |
| <p>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>iii) Seismic-related ground failure, including liquefaction?</p> | No Impact |
| <p>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>iv) Landslides?</p> | No Impact |
| <p>b) Result in substantial soil erosion or the loss of topsoil?</p> | No Impact |
| <p>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?</p> | No Impact |
| <p>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?</p> | No Impact |
| <p>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?</p> | No Impact |

| Question—Would the project: | CEQA Significance Determinations for Geology and Soils |
|---|--|
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | No Impact |

2.1.8 Greenhouse Gas Emissions

Considering the information in the Climate Change technical report dated March 15, 2022, 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 |

Affected Environment

a, b) This project would repair drainage systems and rehabilitate the existing roadway along a 10-mile stretch of State Route 166 in Kern County. The route’s main purpose is to serve local agricultural and petroleum production-related traffic needs, as well as provide a corridor for truck traffic.

Environmental Consequences

a, b) This project would not add capacity to the highway. There would be no increase in operational emissions because the project would repair drainage systems and rehabilitate the roadway. With the implementation of construction greenhouse gas reduction measures, impacts would be less than significant.

Construction greenhouse gas emissions for the project were calculated using Caltrans’ Construction Emissions Tool (CAL-CET) v1.1. Project construction is expected to generate approximately 335 tons of carbon dioxide (CO₂) during 240 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

Measures to reduce greenhouse gas emissions include the following:

- Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.
- Encourage improved fuel efficiency from construction equipment.
- Construction Environmental Training: Supplement existing training with information regarding methods to reduce greenhouse gas emissions related to construction.
- Lower the rolling resistance of highway surfaces as much as possible while still maintaining design and safety standards.
- Earthwork Balance: Reduce the need for transport of earthen materials by balancing cut and fill quantities.
- Reduce need for electric lighting by using ultra-reflective sign materials that are illuminated by headlights.

No mitigation is needed.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Initial Site Assessment dated March 17, 2022, the Noise Compliance Memorandum dated March 17, 2022, and the California Department of Forestry and Fire Protection’s Fire Hazard Severity Zone Maps, 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? | No Impact |
| 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 |

| Question—Would the project: | CEQA Significance Determinations for Hazards and Hazardous Materials |
|---|--|
| 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 |

2.1.10 Hydrology and Water Quality

Considering the information in the Water Quality Memorandum dated March 16, 2022, and the Location Hydraulic Study signed June 13, 2018, 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 |

| Question—Would the project: | CEQA Significance Determinations for Hydrology and Water Quality |
|---|--|
| 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 |
| (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 that the project would repair drainage systems and require roadway rehabilitation and the project improvements would not affect the land use of properties next to the highway, 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 that the project would not acquire any new right-of-way, 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 in the Noise Memorandum dated March 17, 2022, 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 that the project would not add capacity to the highway or acquire any new right-of-way, the following 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 that the project would not affect any government facilities or trigger the need for new facilities or government services, the following 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 that the project would not affect parks or recreational facilities or trigger the need for more recreational facilities to be constructed, the following 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 |
| 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 that this maintenance project would not add capacity to the highway or reconfigure the roadway, the following 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 in the Historic Property Survey Report dated September 9, 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 that the project is a highway maintenance project and would not trigger the need for utilities and service systems, 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? | No 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 |
| 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 |

| Question—Would the project: | CEQA Significance Determinations for Utilities and Service Systems |
|--|---|
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | No Impact |

2.1.20 Wildfire

Considering the information in the California Department of Forestry and Fire Protection’s Fire Hazard Severity Zone Maps and information in the Climate Change technical report dated March 15, 2022, the following significance determinations have been made:

| 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 |
|---|---|
| <p>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?</p> | <p>No Impact</p> |
| <p>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.)</p> | <p>No Impact</p> |
| <p>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p> | <p>No Impact</p> |

Appendix A Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION

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Making Conservation
a California Way of Life.

September 2021

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; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

A blue ink signature of Toks Omishakin, consisting of stylized cursive letters.

Toks Omishakin
Director

"Provide a safe and reliable transportation network that serves all people and respects the environment."

Appendix B Federal Endangered Species Act Determinations

| Species | Scientific Name | Status | Federal Endangered Species Act Determination |
|-------------------------------|---|--------------------|--|
| Buena Vista Lake ornate shrew | <i>Sorex ornatus relictus</i> | Federal Endangered | No effect |
| Giant kangaroo rat | <i>Dipodomys nitratoides exilis</i> | Federal Endangered | May affect, not likely to adversely affect |
| San Joaquin kit fox | <i>Vulpes macrotis mutica</i> | Federal Endangered | May affect, not likely to adversely affect |
| Tipton kangaroo rat | <i>Dipodomys nitratoides</i> | Federal Endangered | No effect |
| California condor | <i>Gymnogyps californianus</i> | Federal Endangered | No effect |
| Blunt-nosed leopard lizard | <i>Gambelia sila</i> | Federal Endangered | May affect, not likely to adversely affect |
| Giant garter snake | <i>Thamnophis gigas</i> | Federal Threatened | No effect |
| Green sea turtle | <i>Chelonia mydas</i> | Federal Threatened | No effect |
| California red-legged frog | <i>Rana draytonii</i> | Federal Threatened | No effect |
| Delta smelt | <i>Hypomesus transpacificus</i> | Federal Threatened | No effect |
| Monarch butterfly | <i>Danaus plexippus</i> | Candidate | No effect |
| Vernal pool fairy shrimp | <i>Branchinecta lynchi</i> | Federal Threatened | No effect |
| Bakersfield cactus | <i>Opuntia basilaris var. treleasei</i> | Federal Endangered | May affect, not likely to adversely affect |
| Kern mallow | <i>Eremalche parryi</i> spp. <i>kernensis</i> | Federal Endangered | May affect, not likely to adversely affect |

List of Technical Studies Bound Separately (Volume 2)

Air Quality Memorandum

Noise Memorandum

Water Quality Memorandum

Natural Environment Study

Location Hydraulic Study

Historical Property Survey Report

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

Hazardous Waste Memorandum

- Initial Site Assessment

Paleontological Identification Report

Climate Change Study

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

G. William "Trais" Norris III
District 6 Environmental Division
California Department of Transportation
2015 East Shields Avenue, Suite 100, Fresno, California 93726

Or send your request via email to: trais.norris@dot.ca.gov
Or call G. William "Trais" Norris III at 209-601-3521

Please provide the following information in your request:

Maricopa 166 Culvert Repair and Roadway Rehabilitation Project
State Route 166 in Kern County
06-KER-166-PM 0.0-10.2
Project ID number 0618000060