Merced Interstate 5 Pavement Anchor Project

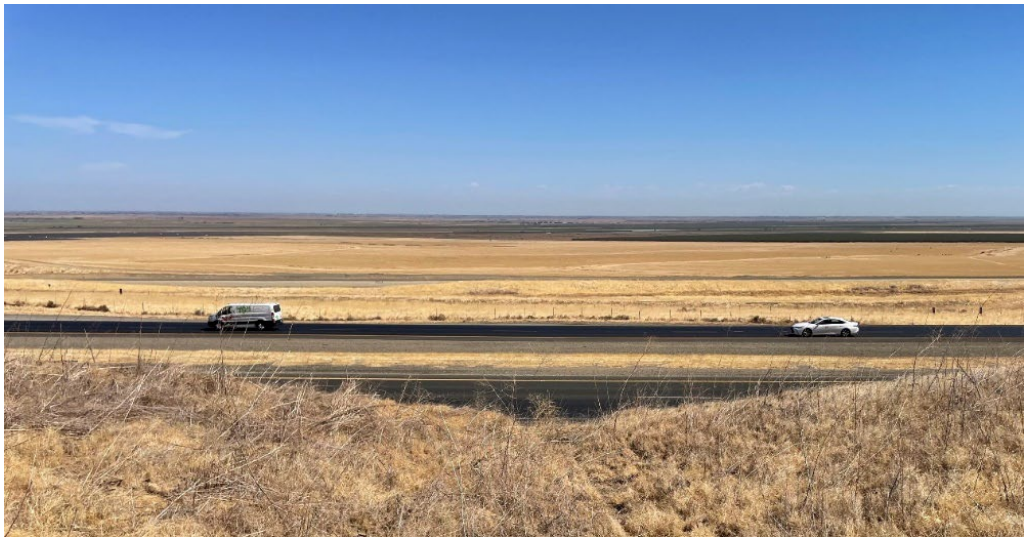
Interstate 5 in Merced County, 4 miles west of the City of Los Banos

10-MER-5-0.00/32.48

10-1E880/1021000197

Initial Study with Proposed Mitigated Negative Declaration

Volume 1 of 2



Prepared by the

State of California Department of Transportation

February 2026

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 Merced 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 following locations:
    - Caltrans District 10 Office at 1976 Doctor Martin Luther King Junior Boulevard, Stockton, California 95205, from 8:00 a.m. to 5:00 p.m. from Monday through Friday.
    - Los Banos Branch Library at 1312 Seventh Street, Los Banos, California 93635, from 10:00 a.m. to 6:00 p.m. on Tuesday and Thursday, 10:00 a.m. to 8:00 p.m. on Wednesday, and 10:00 a.m. to 5:00 p.m. on Friday and Saturday.
- This document may be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-10/district-10-current-projects/10-1e880.
- Tell us what you think. If you have any comments regarding the proposed project or would like to request a public meeting, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Laura Cook, District 10 Environmental Division, California Department of Transportation, 1976 Doctor Martin Luther King Junior Boulevard, Stockton, California 95205. Submit comments via email to: Laura.Cook@dot.ca.gov.
- Submit comments by the deadline: June 2, 2026.

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: Laura Cook, District 10 Environmental Division, 1976 Doctor Martin Luther King Junior Boulevard, Stockton, California 95205; phone number 209-662-2261 (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.

10-MER-5-0.00/32.48
10-1E880/1021000197

Drainage and pavement rehabilitation on Interstate 5 from post miles 0.00 to 32.48 in Merced 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

C. Scott Guidi
C. Scott Guidi
Office Chief, District 10 Environmental
California Department of Transportation
CEQA Lead Agency

02/23/2026
Date

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

Laura Cook, 1976 Doctor Martin Luther King Junior Boulevard, Stockton, California 95205; 209-662-2261; Laura.Cook@dot.ca.gov

DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: 10-MER-5-0.00/32.48

EA/Project Number: 10-1E880/1021000197

Project Description

The California Department of Transportation (Caltrans) proposes to resurface pavement, rehabilitate drainage systems and bridge structures, upgrade and install Transportation Management System elements, construct Maintenance Vehicle Pullouts, and replace guardrails and signage from post mile 0.00 to post mile 32.48 of Interstate 5 through Merced County.

Determination

An Initial Study has been prepared by Caltrans District 10. On the basis of this study, it is determined that the proposed action would not have a significant effect on the environment for the following reasons:

The project would have no effect on air quality, cultural resources, energy, geology and soils, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, or wildfire.

The project would have less than significant effects to aesthetics, agriculture and forestry resources, greenhouse gas emissions, and hazards and hazardous materials.

With the following mitigation measures incorporated, the project would have less than significant effects to biological resources:

- **BIO-1: Compensate for Permanent Impacts on Waters of the U.S. and Waters of the State**. Caltrans would demonstrate that there is no net loss of wetlands and other waters of the United States and state-protected waters/wetlands from construction. Caltrans would acquire a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers and a Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board prior to the fill of any wetlands that qualify as waters of the United States or State. Caltrans would acquire a Streambed Alteration Agreement from the California Department of Fish and Wildlife prior to work in any channels. Caltrans would mitigate for impacts to the aquatic resources at a minimum ratio of 1:1. The actual compensation ratios

would be determined through coordination with the Central Valley Regional Water Quality Control Board and U.S. Army Corps of Engineers as part of the permitting process.

- **BIO-8: Compensate for the Permanent and Temporary Loss of California Tiger Salamander Upland Habitat and Temporary Loss of Aquatic Habitat**. To compensate for the permanent loss of 0.018-acre and the temporary loss 0.158-acre of suitable California tiger salamander upland habitat (annual and perennial grassland within 1.3 miles of aquatic habitat), Caltrans would purchase credits at an approved mitigation bank or contribute to an agency-approve in-lieu fee program to ensure no net loss of special-status species habitat. The compensation ratio would be a minimum of 3:1 (3 acres of California tiger salamander upland habitat credit for every 1 acre of impact) for permanent impacts and a minimum of 1:1 for temporary impacts to ensure no net loss of habitat. The purchase of California tiger salamander compensatory mitigation would be sufficient to compensate for the loss of western spadefoot upland habitat because they share the same habitat.

_____

Scott Guidi
Office Chief, District 10 Environmental Compliance
California Department of Transportation
CEQA Lead Agency

_____

Date

Table of Contents

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (known as CEQA) and the lead agency under the National Environmental Policy Act (known as NEPA). The proposed Merced Interstate 5 Pavement Anchor project would take place along Interstate 5 in Merced County, from the Fresno County line (post mile 0.00) to the State Route 140 Interchange (post mile 32.48). Within the project limits, Interstate 5 is a divided four-lane freeway.

This project was programmed into the 2024 State Highway Operation and Protection Program with funding under the 201.121 Program for delivery in the 2027/2028 fiscal year.

This is a pilot program project for Assembly Bill 1282, for which Caltrans initiated early engagement and coordination with permitting agencies during the initial scoping phase of the project. The United States (U.S.) Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Central Valley Regional Water Quality Control Board provided comments during the project's initial scoping phase in relation to Federal and State-protected species, as well as potentially jurisdictional waters. Additional information on agency coordination is included in Chapter 3 of this environmental document.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of this multi-objective project is to improve pavement condition, drainage systems, structure rideability, guardrails, end treatments, and signage on Interstate 5 in Merced County.

1.2.2 Need

The project is needed to address deficiencies identified in the following technical reports:

- The 2023 Pavement Condition Report identified significant pavement distress, including cracking and poor ride quality, which requires rehabilitation to prevent further roadway failure.

- The Culvert Inspection Report and Hydraulic Report documented corroded, perforated, and damaged culverts that are no longer functioning effectively and risk undermining the roadway.

- The Structure Maintenance & Investigations Reports identified bridge deck deterioration and approach slab settlement that negatively impacted rideability and structural integrity.

- The Traffic Safety Analysis indicated that existing guardrails and end treatments do not meet current Manual for Assessing Safety Hardware standards, and signage is degraded.

1.3 Project Description

The California Department of Transportation (Caltrans) proposes to resurface pavement, rehabilitate drainage systems and bridge structures, upgrade and install Transportation Management System elements, construct Maintenance Vehicle Pullouts, and replace guardrails and signage from post mile 0.00 to post mile 32.48 of Interstate 5 through Merced County.

Figure 1-1 Project Vicinity Map

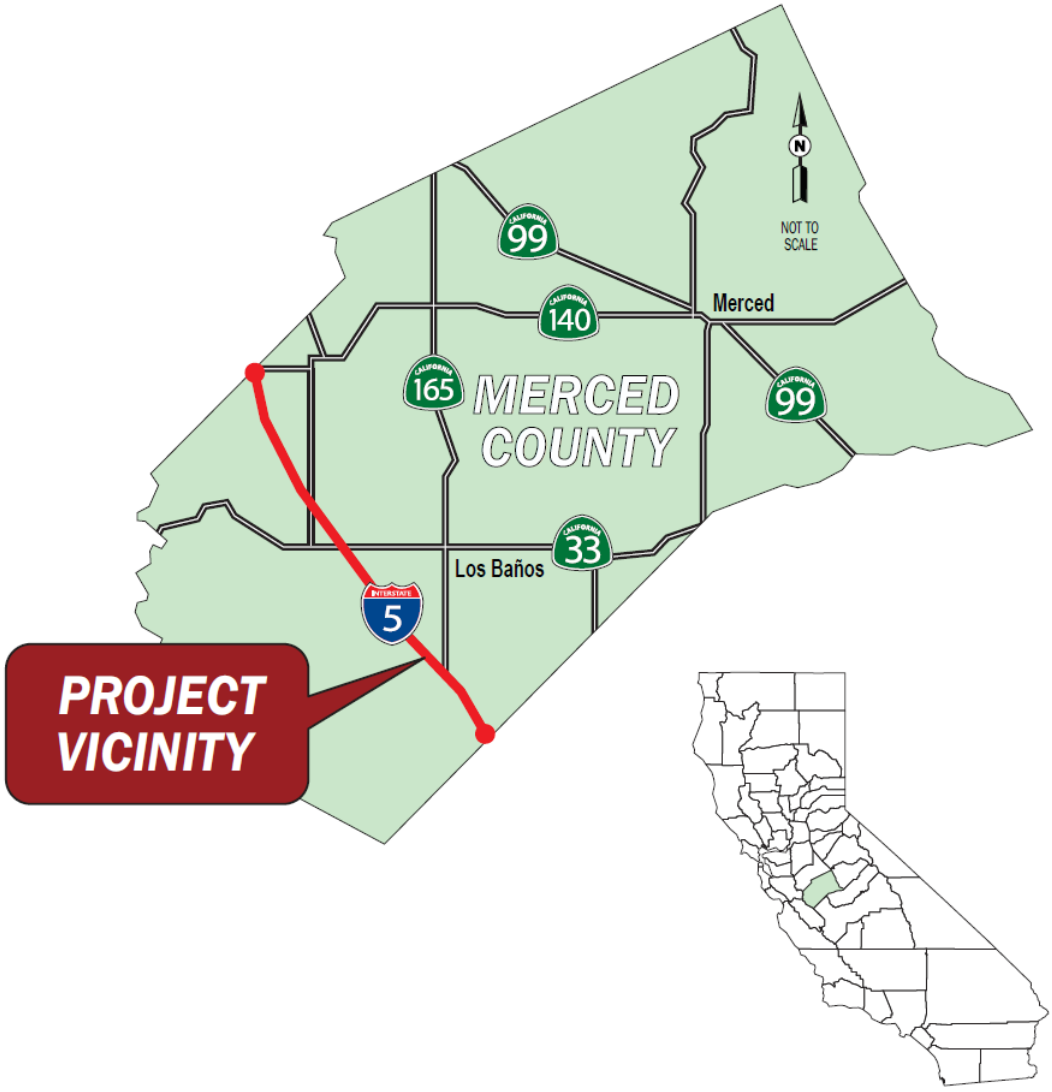
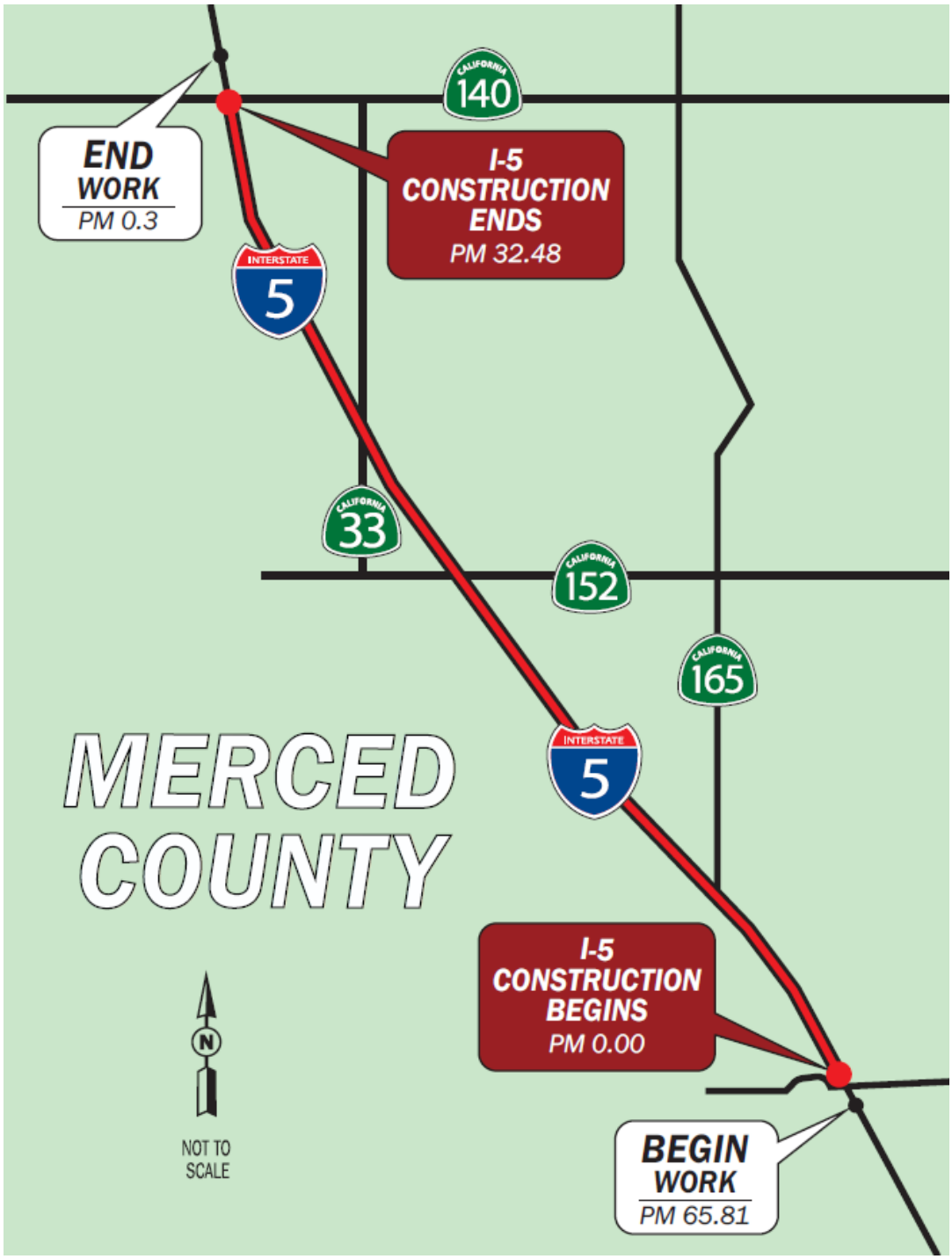


Figure 1-2 Project Location Map



1.4 Project Alternatives

The Merced Interstate 5 Pavement Anchor Project is located on Interstate 5 in Merced County, from the Fresno County line (post mile 0.00) to the State Route 140 Interchange (post mile 32.48). Within the project limits, Interstate 5 is a divided four-lane freeway. The project has two alternatives—a Build Alternative and a No-Build Alternative—under consideration.

1.4.1 Build Alternatives

This pavement anchor project has multiple objectives, and would include pavement, structure, electrical, and drainage work.

The Build Alternative would involve resurfacing Interstate 5 with hot mix asphalt (Type A) and replacing concrete slabs as needed. Additionally, the project would include replacement of approach and departure slabs, joint seals, or bridge deck resurfacing at the following four bridges.

- Bridge Number: 39-0151L, Bridge Name: Laguna Seca Undercrossing, Location: post mile 2.86.
- Bridge Number: 39-0161L, Bridge Name: Route 5/12 Separation, Location: post mile 17.55.
- Bridge Number: 39-0162L, Bridge Name: California Aqueduct, Location: post mile 18.46.
- Bridge Number: 39-0171, Bridge Name: Whitworth Road Overcrossing, Location: post mile 23.84

Two Maintenance Vehicle Pullouts would be constructed at post miles 5.75 and 30.22, and 114 outdated sign panels would be replaced at a minimum depth of two feet through the project limits. All nonstandard guardrails would be replaced, and shoulder backing and concrete vegetation is also proposed under the existing thrie-beam and new guardrail for erosion control.

Eleven (11) new Transportation Management System elements would be installed at various locations. Two existing Transportation Management System elements and three existing lighting systems would also be upgraded. The new Transportation Management System elements would be located at post miles 5.67, 30.325, 31.22, and 31.684. The existing Transportation Management System elements that would be upgraded are located at post miles 6.51 and 32.1. The existing lighting systems that would be upgraded are located at post miles 6.15, 17.85, and 21.82

Eighteen (18) culverts would also be replaced or rehabilitated through the project length. Temporary construction easements are anticipated for the

culvert work at locations 1, 6, 10, 12, and 16. The culverts are located at the following post miles on Interstate 5.

- Location 1: post mile 0.02
- Location 2: post mile 6.21
- Location 3: post mile 6.21
- Location 4: post mile 6.21
- Location 5: post mile 9.73
- Location 6: post mile 10.37
- Location 7: post mile 11.08
- Location 8: post mile 11.08
- Location 9: post mile 12.12
- Location 10: post mile 12.27
- Location 11: post mile 15.72
- Location 12: post mile 15.97
- Location 13: post mile 16.29
- Location 14: post mile 16.43
- Location 15: post mile 19.19
- Location 16: post mile 19.19
- Location 17: post mile 19.51
- Location 18: post mile 31.24

No permanent right-of-way acquisition is anticipated for the proposed project. Temporary construction easements would be required to replace culverts at six locations and install new Transportation Management System elements at one location, totaling approximately 0.28-acre.

- Parcel 090-220-045-000 at post mile 0.02: 0.02-acre for culvert.
- Parcel 090-220-047-000 at post mile 0.02: 0.02-acre for culvert.
- Parcel 088-090-038-000 at post mile 10.37: 0.03-acre for culvert.

- Parcel 088-070-065-000 at post mile 12.27: 0.03-acre for culvert.
- Parcel 078-200-055-000 at post mile 15.97: 0.03-acre for culvert.
- Parcel 078-390-014-000 at post mile 19.19: 0.05-acre for culvert.
- Parcel 069-100-019-000 at post mile 31.684: 0.05-acre for Transportation Management System elements.

Outside of this small acreage of temporary construction easements, all work would occur from the existing developed roadway, disturbed road shoulder, or bridges. All construction equipment for each location would be staged and vehicles parked on existing roadways or previously disturbed pullouts, to the extent feasible. It is currently anticipated that construction would be completed through a combination of daytime and nighttime work, with the majority performed during nighttime. To keep the road open to traffic, the project is expected to use single-lane closures.

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. in this chapter under “Standard Measures and Best Management Practices Included in All Build Alternatives”.

1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative would leave Interstate 5 in its current condition, and would not address deficiencies in the pavement, guardrails, signage, Transportation Management Systems, drainage, or bridge structures through Merced County. As such, the No-Build Alternative would not address the purpose or need of the project.

1.5 Standard Measures and Best Management Practices Included in All Build Alternatives

The following Best Management Practices are anticipated to be implemented on the project, where applicable. The final list of Best Management Practices would be submitted by the contractor and approved for inclusion in the construction contract by Caltrans later in the project design phase as part of the preparation of a Stormwater Pollution Prevention Plan or Water Pollution Control Plan.

- SS-1 Scheduling
- SS-2 Preservation of Existing Vegetation
- SS-4 Hydroseeding

- SS-5 Soil Binders
- SS-7 Temporary Cover and Rolled Erosion Control Products
- NS-1 Water Conservation Practices
- NS-6 Illegal Connection and Illicit Discharge Detection and Reporting
- NS-8 Vehicle and Equipment Cleaning
- NS-9 Vehicle and Equipment Fueling
- NS-10 Vehicle and Equipment Maintenance
- WM-1 Material Delivery and Storage
- WM-2 Material Use
- WM-3 Stockpile Management
- WM-4 Spill Prevention and Control
- WM-5 Solid Waste Management
- WM-6 Hazardous Waste Management

The following measures from the 2025 Caltrans Standard Specifications would also be implemented in the project, where applicable:

- Section 4-1.13: Scope of Work—Cleanup
- Section 5-1.36: Property and Facility Preservation
- Section 5-1.36E: Landscape
- Section 7-1.02M(2): Fire Protection
- Section 7-1.04: Public Safety
- Section 10-5: Dust Control
- Section 13: Water Pollution Control
- Section 13-4.03B: Spill Prevention and Control
- Section 13-4.03E(3): Vehicle and Equipment Cleaning
- Section 14-6.03A: Species Protection
- Section 14-6.10: Exclusionary Devices

- Section 14-6.03B: Bird Protection
- Section 14-8: Noise Control
- Section 14-9.02: Air Pollution Control
- Section 14-10: Solid Waste Disposal and Recycling
- Section 14-11.03: Hazardous Waste Management
- Section 17-2.03: Construction Clearing, Grubbing, and Disposal
- Section 20-1.03C(3): Weed Control

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, would 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
Central Valley Regional Water Quality Control Board	Clean Water Act Section 401: Water Quality Certification	The permit would be obtained during the design phase of the project.
U.S. Army Corps of Engineers	Clean Water Act Section 404: Permit for Placement of Fill Materials into Waters of the U.S.	The permit would be obtained during the design phase of the project.

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	California Fish and Game Code Section 1602: Lake and Streambed Alteration Agreement	The permit would be obtained during the design phase of the project.
U.S. Fish and Wildlife Service	Endangered Species Act Section 7 Informal Consultation: Letter of Concurrence	Approval would be obtained prior to environmental approval of the project.
U.S. Fish and Wildlife Service	Endangered Species Act Section 7 Formal Consultation: Biological Assessment	Approval would be obtained prior to environmental approval 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 would 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 in the Visual Impact Assessment dated September 15, 2025, 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**

Question—Would the project:	CEQA Significance Determinations for Aesthetics
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	**Less Than Significant Impact**
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**

Affected Environment

The project is located within the central San Joaquin Valley, bounded by the Diablo Mountain range to the west and the valley to the east. The surrounding area consists primarily of low rolling hills and flat, open agricultural lands with a small portion including urban environments. In Merced County, the Interstate 5 corridor contains few significant manmade elements that adversely affect the visual quality of the region. The northern portion of the project is located on an Officially Designated State Scenic Highway.

Environmental Consequences

The proposed work would mostly involve rehabilitation of existing facilities, including work on culverts, structures, pavement, and lighting. The project would also include installation of Transportation Management System elements and Maintenance Vehicle Pullouts. However, the industrial nature of these visual elements would not cause significant change to the visual character of the area or any key viewpoints along the corridor, and it would seamlessly integrate with existing conditions. Some minor vegetation removal would be required for work off the paved way, including temporary construction easements for culvert replacements and minor right-of-way acquisition for Transportation Management System elements. However, these would not constitute a significant change in visual character for the State Scenic Highway.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measure would be implemented for less than significant visual impacts along an Officially Designated State Scenic Highway.

- BIO-5: Avoid and Minimize the Spread of Invasive Plant Species during Project Construction and Revegetate Disturbed Areas.

2.1.2 Agriculture and Forestry 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 information in the Community Impact Memorandum dated February 6, 2026, 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?	**Less Than Significant 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**

Affected Environment

The 2020 Farmland Mapping and Monitoring Program categorizes the majority of the adjacent area east of Interstate 5 in the project area as Prime Farmland, totaling approximately 9.5 miles of the project length. This Prime Farmland includes commercial row orchards, growing crops such as almonds and cherries. A smaller proportion of the area is categorized as Farmland of Local or Statewide importance. The majority of the adjacent area west of Interstate 5 in the project area is categorized as grazing land.

Nearly all work for the proposed project would be conducted within Caltrans right-of-way, though seven temporary construction easements anticipated for work directly adjacent to the roadway. Of these seven temporary construction easements, only five would be required from agricultural parcels. These would include the following:

- Parcel 090-220-047-000 at post mile 0.02: temporary construction easement of 0.02-acre in Semi-Agricultural and Rural Commercial land.
- Parcel 088-090-038-000 at post mile 10.37: temporary construction easement of 0.03-acre in Farmland of Local Importance.
- Parcel 078-200-055-000 at post mile 15.97: temporary construction easement of 0.03-acre in Grazing Land.
- Parcel 078-390-014-000 at post mile 19.19: temporary construction easement of 0.05-acre in Farmland of Local Importance.

- Parcel 069-100-019-000 at post mile 31.684: temporary construction easement of 0.05-acre in Prime Farmland.

None of the above parcels where temporary construction easements would be required are under Williamson Act Contract.

Environmental Consequences

The project area does not include timberland, and the impacts to surrounding agricultural uses are considered less than significant. The temporary construction easements required for Transportation Management System installation and culvert replacements are minimal in scale, between 0.02-acre to 0.05-acre. They are not expected to directly damage or displace any trees, field crops, or orchards within the affected parcels, as they would only involve work at the margins of the parcels, adjacent to the disturbed shoulder of the roadway. Impacts to grazing land and Farmland of Local Importance are also anticipated to be marginal and temporary in nature. As such, the proposed project is not expected to result in permanent conversion of farmland.

The project would also not have any reasonably foreseeable potential to encourage future land use conversion. The work is intended to only maintain existing facilities or install Maintenance Vehicle Pullouts and Transportation Management System elements to improve the performance of existing facilities. No permanent right-of-way acquisition or new travel lanes are included in the project scope, and as such it is not anticipated to increase capacity or encourage long-term growth.

Temporary, less than significant impacts from the proposed project would also be further minimized with the implementation of the following measures.

Avoidance, Minimization, and/or Mitigation Measures

Impacts to agricultural resources would be avoided and minimized with the use of the following measures. Full descriptions of the measures are included in Appendix B of this document.

- BIO-5: Avoid and Minimize the Spread of Invasive Plant Species during Project Construction and Revegetate Disturbed Areas.

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 November 17, 2025, 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 December 18, 2025, the Aquatic Resources Delineation Report dated June 5, 2025, and the No Effect Memorandum for Blunt-Nosed Leopard Lizard dated July 22, 2025, 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?	**Less Than Significant Impact**

Question—Would the project:	CEQA Significance Determinations for Biological Resources
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 With Mitigation Incorporated**
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

The proposed project is located within the San Joaquin Valley in a primarily developed area that has a Mediterranean climate characterized by warm, dry summers and cool, wet winters. The project area contains natural land cover, as well as non-natural agricultural, disturbed, and ruderal land cover. Natural land cover types in the area include a eucalyptus grove on the east side of the project between post miles 13.80 to 13.90, as well as annual or perennial grasslands.

Interstate 5 in the project area spans from post mile 0.00 to post mile 32.48 in Merced County, with elevations ranging between 151 to 518 feet above mean sea level. For the majority of the project length, the California Aqueduct runs parallel to the west side, and the Delta-Mendota Canal runs parallel to the east side. In total, the project area contains 143 drainage features, 10 ponds, and 4 detention basins, with seasonal wetlands occurring in nearby natural depressions and disturbed areas. The project area is crossed by 3 large drainages: Garzas Creek, Quinto Creek, and the San Luis Waterway. Most of the drainages that pass through the project area begin on the west side of Interstate 5 and terminate on the east side in agricultural fields, orchards, or at the Delta-Mendota Canal. Three (3) vernal pools were also identified in the project vicinity.

The biological study area evaluated for the project encompassed the full project footprint, as well as a 50-foot buffer around the project footprint. Surveys were conducted to delineate aquatic resources and take inventory of spring and summer botanical species. Targeted surveys were also conducted for special-status amphibian habitat and blunt-nosed leopard lizard hatchlings and adults.

Potentially Jurisdictional Waters

An Aquatic Resources Delineation Report was prepared to map the aquatic resources in the biological study area. The seasonal wetlands, vernal pools, creeks, drainages, and ponds observed in the area are considered natural communities of special concern. Seasonal wetlands and vernal pools in the project area are considered wetland waters, while irrigation canals, detention basins, creeks, drainages, and ponds are considered non-wetland waters.

Some or all these aquatic resources may be jurisdictional Waters of the U.S. or Waters of the State. The results of the aquatic resources delineation are preliminary and subject to change pending an official review and verification in writing by the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and/or the California Department of Fish and Wildlife.

Special-Status Plants

Spring botanical inventory surveys were conducted between April 14 and April 18, 2025, and summer botanical inventory surveys were performed from July 14 to July 17, 2025.

California Department of Fish and Wildlife, California Native Plant Society, and U.S. Fish and Wildlife databases indicate that up to 51 special-status plant species have the potential to occur in the region. Of those species, 12 were ruled out due to the biological study area lacking suitable habitat or occurring outside their known elevation range. See the biological studies in Volume 2 for additional details.

While the area provides suitable habitat for 1 state-endangered plant (Delta button-celery) and 36 non-listed special-status plants, these species were not observed during botanical surveys. However, 2 special-status plants were observed during surveys, including spiny sepaled button celery and Idria buckwheat.

Idria buckwheat was observed between post miles 4.70 and 4.80 during the 2025 botanical surveys. This species is native and endemic to the region, often found on clay soils within annual grasslands. Nine (9) populations of spiny-sepaled button-celery totaling 761 individual plants were also detected in the northern 0.7-mile of the biological study area during the 2025 botanical surveys, within seasonal wetlands and grasslands. The species is native and endemic to California and is considered a facultative wetland indicator that

typically grows in vernal pools, swales, and roadside ditches within annual grasslands.

Special-Status Wildlife

California Department of Fish and Wildlife and U.S. Fish and Wildlife databases indicate that up to 34 special-status wildlife species have the potential to occur in the region. Of those species, 12 were ruled out due to the project lacking suitable habitat in the area or occurring outside the species' known geographic or elevation ranges and are not discussed further in this environmental document. Wildlife species without suitable habitat in the project area include conservancy fairy shrimp, valley elderberry longhorn beetle, California red-legged frog, Northern California legless lizard, giant garter snake, bald eagle, golden eagle, yellow rail, California condor, Fresno kangaroo rat, Nelson's antelope squirrel, and Tulare grasshopper mouse. See the biological studies in Volume 2 for additional details.

The biological study area contains suitable habitat for 22 special-status wildlife species: longhorn fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, Crotch's bumblebee, monarch butterfly, California tiger salamander, western spadefoot, foothill yellow-legged frog, blunt-nosed leopard lizard, northwestern pond turtle, San Joaquin coachwhip, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, loggerhead shrike, American badger, San Joaquin kit fox, giant kangaroo rat, pallid bat, western mastiff bat, and western red bat. Of these species, two active Swainson's hawk nests were observed in the vicinity of the biological study area during the 2024 and 2025 biological surveys.

The affected environment and environmental consequences for these wildlife species are divided between invertebrates, amphibians, reptiles, birds, non-bat mammals, and bats in the following sections of this environmental document.

Special-Status Invertebrates

Vernal pool branchiopods, such as the longhorn fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp, have the potential to occur within vernal pools in the region surrounding the project area. However, only longhorn fairy shrimp have been observed within 2 miles of the project, according to records from the California Natural Diversity Database. Protocol-level vernal pool branchiopod surveys were not conducted for the project, as no project activities would occur within 250 feet of vernal pools.

Crotch's bumblebees nest underground within open grassland and scrub environments, but they are not known to nest within the San Joaquin Valley. The species' geographic range includes scattered areas along the Pacific coast, western desert, Great Valley, and adjacent foothills throughout southwestern California, and most are observed in coastal southern

California. There are no California Natural Diversity Database records of the species within 5 miles of the biological study area.

Monarch butterflies lay eggs on milkweed species, and their caterpillars rely on the plants for energy and protective toxins. There are no California Natural Diversity Database records for monarch butterflies within 5 miles of the biological study area, though suitable milkweed habitat was observed in isolated patches within annual and perennial grasslands in the project vicinity.

Special-Status Amphibians

Special-status amphibian habitat assessment occurred on September 11, 2024. Aquatic resources delineation surveys occurred on eight days between September 16 and September 27, 2024.

The project area contains suitable habitat for the Central California Distinct Population Segment of California tiger salamander. The species can use temporary or seasonal ponds, pools, or slow-moving streams as aquatic breeding habitat, and subterranean mammal burrows as upland habitat. There are also two California Natural Diversity Database records for the species within 5 miles and one within 2 miles of the biological study area.

Western spadefoot can use temporary rain pools, quiet streams, and stock tanks as aquatic breeding habitat, and open vegetation, short grasses, mammal burrows, and their own burrows as upland habitat. There are four California Natural Diversity Database records for the species within 5 miles and two within 2 miles of the biological study area.

Foothill yellow-legged frog can occupy lower elevation streams, rivers, and adjacent moist terrestrial habitats over the course of its life history. There are two California Natural Diversity Database records for the species within 5 miles of the biological study area. Marginally suitable dispersal habitat for the species occurs in three creeks in the area including the Garzas, Quinto, and Los Banos Creeks.

There is suitable aquatic habitat for both California tiger salamander and western spadefoot in the vernal pools, seasonal wetlands, detention basins, and ponds in the project vicinity. Creeks in the vicinity also provide potential habitat for western spadefoot and foothill yellow-legged frog. Small mammal burrows in the grasslands surrounding the aquatic habitat provide suitable upland habitat for both California tiger salamander and western spadefoot.

Special-Status Reptiles

Targeted survey efforts for blunt-nosed leopard lizard were conducted as part of the biological impact analysis for the proposed project. Surveys for blunt-nosed leopard lizard adults were performed on 30 days between May 29 and July 15, 2024, while surveys for hatchlings occurred on 15 days between August 15 and September 27, 2024. Surveys encompassed a 100-foot swath

spanning 52.92 miles, focused on areas where suitable habitat could occur and where access was safe and feasible. Survey methods for blunt-nosed leopard lizard followed the 2019 California Department of Fish and Wildlife approved survey methodology for the blunt-nosed leopard lizard.

The California Natural Diversity Database has five records for blunt-nosed leopard lizard within 5 miles and three records within 2 miles of the biological study area. However, no individuals were observed during any of the surveys. While they have the potential to occur in the future, the likelihood is considered low given the segmented land use and disturbance throughout the project area.

Northwestern pond turtles are a semi-aquatic habitat generalist species, occurring in a broad range of aquatic water bodies from remote to urban landscapes. They require aquatic habitat and upland habitat in close proximity to each other. The California Natural Diversity Database has four records for the species within 5 miles and one record within 2 miles of the biological study area.

The San Joaquin coachwhip occurs in grassland, riparian areas, native saltbush scrub, and other habitats. The species uses underground mammal burrows and shaded vegetation for refuge. The California Natural Diversity Database has eight records for the species within 5 miles and four records within 2 miles of the biological study area. Of these four records, two occur within the biological study area.

Nesting Birds

Bird nesting season typically extends from February 1 through September 30. The agricultural, annual and perennial grassland, eucalyptus, disturbed, and developed areas and aquatic habitat provide potential nesting habitat for several special-status bird species. These include tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, loggerhead shrike, and other non-special-status migratory birds and raptors. See the biological studies in Volume 2 for additional details.

There are no records of loggerhead shrike occurring within 5 miles of the biological study area, according to the California Natural Diversity Database. However, the rest of the bird species listed above all have records of multiple occurrences within 5 miles and 2 miles of the survey area. Furthermore, there are records of tricolored blackbird and burrowing owl occurrences within the survey area itself. Several bird species were also observed foraging or soaring over the biological study area during surveys in 2024 and 2025, along with two different trees occupied by Swainson's hawk nests.

The proposed project was also assessed for potential impacts to golden eagle and bald eagle habitat. Suitable nesting habitat for the species is not present

in the biological study area, though the area does contain potential foraging habitat.

Mammals (Excluding Bats)

The project biological study area contains potential habitat for special-status mammals, including American badger, San Joaquin kit fox, and giant kangaroo rat, as the area contains suitable vegetation and soils to support their burrows. While there are no California Natural Diversity Database records of giant kangaroo rat occurrences in the project vicinity within the past 100 years, there have been multiple occurrences of American badger and San Joaquin kit fox recorded within 5 miles. Additionally, there is one occurrence of American badger recorded within 2 miles of the biological study area.

Roosting Bats

The annual and perennial grassland in the biological study area provides foraging habitat for special-status and non-special-status bat species, including pallid bat, western mastiff bat, and western red bat. The weep holes and other spaces under bridges could also provide roosting habitat, which could potentially lead to indirect disturbances from proposed construction work on the four bridges.

Special-Status Fish

The biological study area has no connection to portions of the San Joaquin River that provide passage to anadromous fish species. As such, no special-status fish species have the potential to occur in the project area, and they would not be discussed further in this environmental document.

Critical Habitat for Special-Status Species

The biological study area contains no dedicated critical habitat for special-status species, and it would not be discussed further in this environmental document.

Essential Fish Habitat

The project's biological study area does not contain any Essential Fish Habitat, and it would not be discussed further in this environmental document.

Invasive Species

Several invasive plant species may occur in the project's biological study area, including some species rated by the California Invasive Plant Council as having "high" invasiveness. These include yellow star-thistle, stinknet, red brome, medusa head, and perennial pepperweed, which could potentially be propagated through uninfected areas as a result of construction activities.

Environmental Consequences

The proposed project's impacts to special-status plants, invertebrates, reptiles, birds, bats, and other mammals, as well as invasive species, are expected to be less than significant. Impacts to western spadefoot would also be less than significant. These less than significant impacts would be further minimized with appropriate environmental measures.

However, the project may result in potentially significant impacts to California tiger salamander aquatic and upland habitat, as well as potentially jurisdictional waters. These impacts would require compensatory mitigation.

Potentially Jurisdictional Waters

The proposed project would permanently impact approximately 0.01 acre of aquatic resources (less 0.01-acre of detention basin area and less than 0.01-acre of drainage area). It would also temporarily impact up to 0.02-acre of aquatic resources (less than 0.01-acre detention basin area and 0.01-acre drainage area).

These aquatic resources are considered potentially jurisdictional by the U.S. Army Corps of Engineers and Central Valley Regional Water Quality Control Board. The California Department of Fish and Wildlife may also consider the drainage area jurisdictional. As such, permits would be required under Clean Water Act Sections 401 and 404, and a Lake and Streambed Alteration Agreement would be required under California Fish and Game Code Section 1602. A full list of permits and approvals anticipated for the project are included in Section 1.7 of this environmental document.

Special-Status Plants

While Idria buckwheat was observed in the project vicinity between post miles 4.70 and 4.80 during the 2025 botanical surveys, it was found outside the project footprint. As such, no impacts to Idria buckwheat are anticipated.

The proposed project would impact one population of spiny-sepaled button-celery that occurs around 50 feet north of Sullivan Road, just east of the northbound on-ramp to Interstate 5. Permanent impacts of 0.02-acre and temporary impacts of 0.21-acre to spiny-sepaled button-celery habitat are anticipated from project activities.

However, the project is not anticipated to have significant impacts to special-status plants, with implementation of the below avoidance and minimization measures.

Special-Status Invertebrates

No project activities would occur within 250 feet of vernal pools used as habitat for vernal pool branchiopods, and the project is not anticipated to impact vernal pools. The project would also not have reasonably foreseeable

effects on these vernal pool branchiopods, because no habitat would be permanently impacted.

No impacts to nesting habitat for Crotch's bumblebee are anticipated since the project occurs outside of the known nesting range for the species. However, the proposed project is expected to permanently impact 0.02-acre and temporarily impact 0.21-acre of annual and perennial grassland habitat, which would potentially impact monarch butterfly milkweed habitat. Direct injury, mortality, or damage to food or nectar plants may also result from construction equipment.

Special-Status Amphibians

The annual and perennial grassland habitat surrounding the project contains suitable aquatic and upland habitat for California tiger salamander and western spadefoot. The proposed project may permanently impact 0.018-acre and temporarily impact 0.158-acre of grassland and mammal burrows that serve as upland habitat for both species. However, no impacts are anticipated to suitable aquatic habitat for any special-status amphibian species. See the biological studies in Volume 2 for additional details.

The project would not impact creeks that serve as aquatic habitat for foothill yellow-legged frog, and the project is anticipated to have no effect on the species. Temporary impacts would potentially occur to 0.007-acre of detention basin serving as suitable aquatic habitat for California tiger salamander and western spadefoot as a result of the culvert replacement at Location 12. However, the culvert would be replaced in its existing location and work would be performed during the dry season. As the work would occur when the basin is dry, the work is anticipated to avoid permanent or temporary direct impacts to the species or suitable aquatic habitat in the detention basin.

Direct harm or take of California tiger salamander and western spadefoot may occur from vehicle and construction equipment operation, open trench entrapment, reduction of prey or forage items, obstruction of movement corridors, displacement from construction disturbance, and increased risk of predation from wildlife inadvertently drawn to the project area. Indirect impacts may occur if nearby construction activities cause sediment or contaminant movement into aquatic habitat.

Impacts to western spadefoot would be less than significant with implementation of the avoidance and minimization measures listed below. Compensatory mitigation measures would also be required for potentially significant impacts to California tiger salamander upland and aquatic habitat. The proposed project may affect, and is likely to adversely affect the federally threatened Central California Distinct Population Segment of California tiger salamander.

Special-Status Reptiles

The proposed project would permanently impact 0.018-acre and temporarily impact 0.158-acre of upland habitat for northwestern pond turtle. It would also permanently impact 0.03-acre and temporarily impact 0.21-acre of upland habitat for San Joaquin coachwhip, northwestern pond turtle, and blunt-nosed leopard lizard associated with annual or perennial grassland.

The proposed project would permanently impact less than 0.01-acre (drainage, detention basin, and canal), temporarily impact less than 0.02 acre (drainage and detention basin), and indirectly impact 0.64-acre (downstream of drainage) of suitable aquatic habitat for northwestern pond turtle. Direct harm of reptile species from construction equipment, or indirect impacts from siltation or runoff to northwestern pond turtle aquatic habitat, may also occur, but would be avoided and minimized using the measures listed below.

Nesting Birds

Permanent impacts to 0.02-acre of annual and perennial grassland would affect foraging habitat for burrowing owl, Swainson's hawk, tricolored blackbird, golden eagle, and bald eagle, as well as nesting habitat for the burrowing owl.

However, the net loss of this habitat is not considered significant, as it is located adjacent to the existing disturbed roadway in disjunct areas along the entire alignment. Furthermore, no trees would be removed as part of the proposed project. Impacts would only be anticipated if burrowing owls or other ground-nesting birds were present and nesting in the project footprint, or if noise and vibration impacts from construction occurred during the nesting season from February 1 to September 30.

Mammals (Excluding Bats)

Direct impacts to American badger, San Joaquin kit fox, or giant kangaroo rat may occur if harmed by construction vehicles, disturbed by construction lighting, or by occupied burrows that may be crushed during construction. The proposed project may affect but is not likely to adversely affect the federally listed giant kangaroo rat and San Joaquin kit fox.

Roosting Bats

The project would not permanently impact habitat for special-status bat species. However, noise and vibration from bridge work may disturb roosting bats if present, and construction lighting during night work may impact foraging opportunities for bats in and adjacent to the project area.

Invasive Species

The project may potentially introduce or spread invasive plant species to uninfected areas within and adjacent to the project area during construction. The project would also create additional disturbed areas during construction,

which would become more susceptible to colonization or spread by invasive plants. With implementation of construction best management practices and standard specifications, as noted in Section 1.5 of this environmental document, no impact is anticipated from invasive species propagation.

Reasonably Foreseeable Effects

The proposed project would potentially add to the cumulative loss of potential Waters of the U.S. and Waters of the State, suitable plant habitat, and suitable habitat for the monarch butterfly, California tiger salamander, western spadefoot, blunt-nosed leopard lizard, northwestern pond turtle, San Joaquin coachwhip, nesting birds and raptors, San Joaquin kit fox, American badger, giant kangaroo rat, and roosting bats in the region. It would also potentially contribute to the cumulative introduction and spread of invasive plant species. However, project-specific impacts would be avoided, minimized, and mitigated to less than significant levels.

Avoidance, Minimization, and/or Mitigation Measures

Full descriptions of the following avoidance, minimization, and mitigation measures are included in Appendix B of this document.

Potentially Jurisdictional Waters

The following compensatory mitigation measures would be required for potentially significant impacts to jurisdictional waters.

- BIO-1: Compensate for Permanent Impacts on Waters of the United States and Waters of the State.

The following avoidance and minimization measures would be required for less than significant impacts to potentially jurisdictional waters.

- BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel.
- BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources.
- BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities.

Special-Status Plants

The following avoidance and minimization measures would be required for less than significant impacts to sensitive plant species.

- BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel.

- BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources.
- BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities.
- BIO-5: Avoid and Minimize the Spread of Invasive Plant Species during Project Construction and Revegetate Disturbed Areas.
- BIO-6: Prepare and Implement a Plant Mitigation and Monitoring Plan for Impacts on Spiny-Sepaled Button Celery.

Special-Status Invertebrates

The following avoidance and minimization measures would be required for less than significant impacts to vernal pool branchiopods.

- BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel.
- BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources.
- BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities.

The following avoidance and minimization measures would be required for less than significant impacts to Crotch's bumblebee, monarch butterflies, and habitat for monarch butterflies.

- BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel.
- BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources.
- BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities.
- BIO-7: Retain a Designated Biologist to Conduct Preconstruction Surveys for Milkweed Plants and Crotch's Bumblebee and Monster Butterfly Nectar Plants.

Special-Status Amphibians

The following compensatory mitigation measures would be required for potentially significant impacts to California tiger salamander.

- BIO-8: Compensate for the Permanent and Temporary Loss of California Tiger Salamander Upland Habitat and Temporary Loss of Aquatic Habitat.

The following avoidance and minimization measures would be required for less than significant impacts to California tiger salamander and western spadefoot.

- BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel.
- BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources.
- BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities.
- BIO-9: Retain a Qualified Biologist to Conduct Preconstruction Surveys for Amphibians and Reptiles.
- BIO-10: Restrict Work During Rain Events.
- BIO-11: Provide Escape Ramps or Cover Open Trenches.
- BIO-12: Check for Animals under Construction Equipment and Vehicles Prior to Moving.
- BIO-13: Limit the Use of Artificial Lighting.
- BIO-14: Properly Dispose of Food-Related Trash and Remove from Project Site Daily.
- BIO-15: Prohibit Pets and Firearms from Being Brought to the Project Site.

Special-Status Reptiles

The following avoidance and minimization measures would be required for less than significant impacts to northwestern pond turtle, San Joaquin coachwhip, and blunt-nosed leopard lizard.

- BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel.
- BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources.
- BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities.
- BIO-9: Retain a Qualified Biologist to Conduct Preconstruction Surveys for Amphibians and Reptiles.
- BIO-11: Provide Escape Ramps or Cover Open Trenches.

- BIO-12: Check for Animals under Construction Equipment and Vehicles Prior to Moving.
- BIO-13: Limit the Use of Artificial Lighting.
- BIO-14: Properly Dispose of Food-Related Trash and Remove from Project Site Daily.
- BIO-15: Prohibit Pets and Firearms from Being Brought to the Project Site.

Nesting Birds

The following avoidance and minimization measures would be required for less than significant impacts to nesting birds.

- BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel.
- BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources.
- BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities.
- BIO-12: Check for Animals under Construction Equipment and Vehicles Prior to Moving.
- BIO-13: Limit the Use of Artificial Lighting.
- BIO-14: Properly Dispose of Food-Related Trash and Remove from Project Site Daily.
- BIO-15: Prohibit Pets and Firearms from Being Brought to the Project Site.
- BIO-16: Conduct Preconstruction Surveys for Nesting Migratory Birds and Raptors, Including Special-Status Species, and Establish Protective Buffers.

Mammals (Excluding Bats)

The following avoidance and minimization measures would be required for less than significant impacts to American badger, San Joaquin kit fox, and giant kangaroo rat.

- BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel.
- BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources.

- BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities.
- BIO-12: Check for Animals under Construction Equipment and Vehicles Prior to Moving.
- BIO-13: Limit the Use of Artificial Lighting.
- BIO-14: Properly Dispose of Food-Related Trash and Remove from Project Site Daily.
- BIO-15: Prohibit Pets and Firearms from Being Brought to the Project Site.
- BIO-17: Retain a Qualified Biologist to Conduct Preconstruction Surveys for Mammals and Monitor Ground Disturbing Activities in Suitable Habitat.

Roosting Bats

The following avoidance and minimization measures would be required for less than significant impacts to roosting bats.

- BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel.
- BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources.
- BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities.
- BIO-13: Limit the Use of Artificial Lighting.
- BIO-18: Retain a Qualified Biologist to Conduct Preconstruction Surveys for Roosting Bats.

2.1.5 Cultural Resources

Considering the information in the Screened Undertaking Memorandum dated November 18, 2025, 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**

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
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 the information in the Energy Analysis Technical Memorandum dated November 17, 2025, 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 in the Preliminary Geotechnical Design Report dated September 25, 2025, and the Paleontological Identification Report dated December 17, 2025, 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**

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
ii) Strong seismic ground shaking?	**No Impact**
iii) Seismic-related ground failure, including liquefaction?	**No Impact**
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 waste water disposal systems where sewers are not available for the disposal of waste water?	**No Impact**
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 and Greenhouse Gas Non-Capacity Increasing Memorandum dated December 3, 2025, 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

The proposed project is located on Interstate 5 in a primarily agricultural area of Merced County. The project extends across Merced County, between the border of Fresno County and Stanislaus County. The Annual Average Daily Traffic count in the project area falls within the average for Interstate 5 in the region, with similar traffic counts reported for Interstate 5 throughout the adjacent Fresno and Stanislaus Counties. The percentage of traffic designated as truck traffic ranges between 24.8% at the State Route 140 interchange, and 28.52% at the State Route 165 interchange further to the south.

The Merced County Association of Governments is the Metropolitan Planning Organization for Merced County, and guides transportation development in the area. The 2022 Regional Transportation Plan for Merced County sets the regional greenhouse gas reduction target of 14 percent by 2035.

Environmental Consequences

The proposed project is non-capacity increasing, as it would not add any travel lanes. As such, it would not lead to any operational increases in greenhouse gas emissions that would conflict with greenhouse emission reduction goals outlined in the 2022 Regional Transportation Plan or General Plan for Stanislaus County.

Greenhouse gas emissions would be unavoidable during construction. Project construction is expected to generate approximately 2,308 tons of carbon dioxide during the 270 working days duration. However, these temporary construction emissions would be minimized with the use of the measures listed below.

Furthermore, the proposed project would address pavement and structural deterioration, extending the roadway's service life and improving the resilience of Interstate 5 to climate stressors such as high temperatures and increased precipitation. The proposed drainage rehabilitation and concrete vegetation control would also enhance the roadway's resilience to storm flows and flood risks exacerbated by climate change.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented for the project to reduce greenhouse emissions and potential climate change impacts from the project. Full descriptions of the measures are also included in Appendix B of this document.

- GHG-1: Balancing Cut and Fill Quantities.
- GHG-2: Recycling Project Features.
- GHG-3: Long-Life Pavement.

- GHG-4: Warm-Mix Technology.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Initial Site Assessment dated January 29, 2026, 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 one-quarter 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?	**Less Than Significant Impact**
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard 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**

Affected Environment

The proposed project is located in a primarily rural, agricultural area in Merced County, approximately 4 miles west of the City of Los Banos. The surrounding area was assessed for its potential to include remediation sites, aerially deposited lead, asbestos-containing material, lead-based paint, naturally occurring asbestos, yellow thermoplastic or painted striping, pavement markings, and treated wood waste. Information on the site and the surrounding area was obtained through mapping and records from Caltrans, the State Water Resources Control Board, and the Department of Toxic Substances Control.

Environmental Consequences

The project would involve work within approximately 100 feet of a leaking underground storage tank site (Global ID Number SLT5FT554530), located near post mile 16.73 on Interstate 5. However, the site has been closed and remediated and was granted No Further Action status from the Central Valley Regional Water Quality Control Board. Additionally, the proposed work is limited to replacing existing asphalt, culverts, and lighting systems, and minor excavation to a maximum depth of 2 feet to replace signage and guardrails, as well as install Transportation Management System equipment. As such, the project is not anticipated to encounter petroleum-contaminated soils.

However, the project would involve work in unpaved areas adjacent to Interstate 5 that may contain aerially deposited lead, as well as work on structures that may contain asbestos or lead-based paint. As such, project-specific surveys of aerially deposited lead, asbestos containing material, and lead based paint shall be conducted prior to construction activities.

Additionally, the project would require removal of yellow thermoplastic striping and pavement markings that potentially contain high concentrations of lead. Disposal of treated wood waste, such as that found in guardrails or roadway signage, may also occur as a result of the proposed project. A lead compliance plan must also be prepared by a Certified Industrial Hygienist.

The proposed project also includes areas with geologic formations containing serpentine and ultramafic rock, which may contain naturally occurring asbestos or heavy metals. The project would require a soil survey for naturally occurring asbestos prior to project construction, a dust control plan, and an asbestos compliance plan prepared by a Certified Industrial Hygienist.

Best management practices and standard specifications pertaining to hazardous materials are listed in Section 1.5 of this environmental document. Additional avoidance and minimization measures are also included below.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be required for the project unless otherwise indicated after conclusion of project-specific surveys. Full descriptions of the measures are also included in Appendix B of this document.

- HW-1: Lead Compliance Plan.
- HW-2: Hazardous Materials on Bridge Structures.
- HW-3: Asbestos Compliance Plan.
- HW-4: Striping Debris.
- HW-5: Treated Wood Waste.

2.1.10 Hydrology and Water Quality

Considering the information in the Water Compliance Memorandum dated November 18, 2025, and the Floodplain Analysis dated November 17, 2025, 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**

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
(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 the information in the Community Impact Memorandum dated February 6, 2026, 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 information in the Preliminary Geotechnical Design Report dated September 25, 2025, and the Paleontological Identification Report dated December 17, 2025, 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 Compliance Study dated November 14, 2025, 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 two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	**No Impact**

2.1.14 Population and Housing

Considering the information in the Community Impact Memorandum dated February 6, 2026, 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 information in the Community Impact Memorandum dated February 6, 2026, 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 information in the Community Impact Memorandum dated February 6, 2026, 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**
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 information in the Community Impact Memorandum dated February 6, 2026, 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 (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?	**No Impact**
d) Result in inadequate emergency access?	**No Impact**

2.1.18 Tribal Cultural Resources

Considering the information in the Screened Undertaking Memorandum dated November 18, 2025, 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 information in the Water Compliance Memorandum dated November 18, 2025 and the scope of the proposed project, 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 storm water 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**

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
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**
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 Climate Change and Greenhouse Gas Non-Capacity Increasing Memorandum dated December 3, 2025, 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**

Question—Would the project:	CEQA Significance Determinations for Wildfire
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 Impact With Mitigation Incorporated**
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.)	**Less Than Significant Impact**
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**Less Than Significant Impact**

Affected Environment

The project would affect aesthetics, agricultural resources, biological resources, greenhouse gas emissions, and hazardous materials. These impacts would occur primarily during the construction period, as the project would not result in substantial addition of new operational impacts from the roadway. No permanent right-of-way acquisition is anticipated for the project,

but a total of 0.28-acre of temporary construction easements adjacent to Caltrans right-of-way would be required.

Environmental Consequences

The proposed project is expected to result in less than significant impacts to aesthetics, agricultural resources, greenhouse gas emissions, and hazardous materials. The avoidance and minimization measures discussed in Chapter 2 and Appendix B of this environmental document would be required.

The project may result in potentially significant impacts to biological resources and would require the avoidance, minimization, and mitigation measures discussed in Chapter 2 and Appendix B of this environmental document. Impacts to biological resources would be less than significant with mitigation incorporated.

Avoidance, Minimization, and/or Mitigation Measures

With the implementation of avoidance, minimization, and mitigation measures, the project would have a less than significant impact on the environment. All other impacts would be minimized through the implementation of Caltrans best management practices, Standard Specifications, and Standard Special Provisions.

Chapter 3 Coordination

Coordination with the following agencies and interested parties was conducted as part of the preparation of technical studies for this environmental document.

This project is part of the pilot program for Assembly Bill 1282, which established the Transportation Permitting Task Force. This bill identified poor early agency coordination as a primary contributor to delays in transportation project delivery. As part of this pilot program, the environmental staff of Caltrans initiated agency outreach and coordination during the preliminary scoping phase of the project in 2021 and 2022. This process involved initial email outreach, as well as virtual meetings and electronic reviews of project materials with agency representatives from the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board, and California Department of Fish and Wildlife. Early agency coordination was focused on permits for biological resources, as initial scoping analysis indicated that the project would only have potentially significant impacts to biological resources.

After initial email outreach on January 16, 2022, a Project Development Team virtual meeting was held on February 22, 2022. The meeting was attended by a multidisciplinary group of Caltrans staff, including environmental, design, and project management staff, as well as representatives from the above four permitting agencies. The purpose of the meeting was to formally introduce the project, explain the schedule and scope of work to the agencies, and request preliminary feedback on anticipated risks and permit needs. Caltrans solicited feedback from the agency representatives and incorporated their input into the initial environmental scoping analysis for biological resources.

The Preliminary Environmental Analysis Report summarizing the preliminary environmental findings for the project was approved March 23, 2022. The Preliminary Environmental Analysis Report and the Project Initiation Report were both emailed to representatives of the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board, and California Department of Fish and Wildlife for additional comment on June 20, 2022. No additional comments were received.

Biological Resources Coordination

During the scoping phase of the project, the Caltrans biologist initiated early communications with the above State and Federal permitting agencies as part of the pilot program for Assembly Bill 1282. Coordination was initiated over email on January 16, 2022.

The initial coordination emails each provided preliminary information about the proposed project in its early scoping phase, as well as a list of biological resources that the Caltrans biologist identified through desktop review of the proposed project area. The emails also requested input from permitting agencies on what special-status species, potentially jurisdictional waters, and other biological resources may be of potential concern in the project area. Email responses were received from representatives of the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Wildlife.

The U.S. Fish and Wildlife Service response confirmed the results of the Caltrans biologist's preliminary desktop review of biological resources and identified two additional species for consideration in biological studies. These included giant kangaroo rat and giant garter snake.

The U.S. Army Corps of Engineers response indicated that the project would likely not impact a substantial area of wetland. The response also stated that the project may require no permit from U.S. Army Corps of Engineers, or if it did, would likely qualify for a non-reporting Nationwide Permit under Section 404 of the Clean Water Act. The agency representative also stated that Caltrans could send an early draft copy of the Aquatic Resources Delineation Report for more detailed agency feedback.

The Central Valley Regional Water Quality Control Board response included links to four mapping resources to preliminarily identify potential Waters of the State. The agency representative also provided additional resources and explanation about the definition of Waters of the State, which is broader than the definition of Waters of the U.S. The definition includes riparian zones above the ordinary high-water mark as long as they provide beneficial uses for the surrounding area.

The California Department of Fish and Wildlife response mentioned that the California Natural Diversity Database indicated the potential for golden eagle, tricolored blackbird, and Crotch's bumblebee occurrence in the project area. The agency representative also reminded the Caltrans biologist to address the possibility of nightwork in their studies.

Cultural and Tribal Cultural Resources Coordination

Native American outreach was conducted by the District Native American Coordinator on the project. It consisted of email outreach sent to representatives of the Chicken Ranch Rancheria, Southern Sierra Miwuk Nation, and Table Mountain Rancheria on May 20, 2024. No response was received from the three Native American Tribes.

Appendix A Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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September 2024

TITLE VI/NON-DISCRIMINATION POLICY STATEMENT

It is the policy of the California Department of Transportation (Caltrans), in accordance with Title VI of the Civil Rights Act of 1964 and the assurances set forth in the Caltrans' Title VI Program Plan, to ensure that no person in the United States shall on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Related non-discrimination authorities, remedies, and state law further those protections, including sex, disability, religion, sexual orientation, age, low income, and Limited English Proficiency (LEP).

Caltrans is committed to complying with 23 C.F.R. Part 200, 49 C.F.R. Part 21, 49 C.F.R. Part 303, and the Federal Transit Administration Circular 4702.1B. 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 (including LEP). In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

The overall responsibility for this policy is assigned to the Caltrans Director. The Caltrans Title VI Coordinator is assigned to the Caltrans Office of Civil Rights Deputy Director, who then delegates sufficient responsibility and authority to the Office of Civil Rights' managers, including the Title VI Branch Manager, to effectively implement the Caltrans Title VI Program. Individuals with questions or requiring additional information relating to the policy or the implementation of the Caltrans Title VI Program should contact the Title VI Branch Manager at title.vi@dot.ca.gov or at (916) 639-6392, or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

TONY TAVARES
Director

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

Appendix B Avoidance, Minimization, and Mitigation Measures

The following avoidance and minimization measure would be required for less than significant impacts to aesthetics as discussed in Section 2.1.1 of this document.

- **BIO-5: Avoid and Minimize the Spread of Invasive Plant Species during Project Construction and Revegetate Disturbed Areas**. See the section below discussing Section 2.1.4 for a full description of this measure.

The following avoidance and minimization measure would be required for less than significant impacts to agricultural land uses as discussed in Section 2.1.2 of this document.

- **BIO-5: Avoid and Minimize the Spread of Invasive Plant Species during Project Construction and Revegetate Disturbed Areas.** See the section below discussing Section 2.1.4 for a full description of this measure.

The following compensatory mitigation measures would be required for potentially significant impacts to biological resources as discussed in Section 2.1.4 of this document.

- **BIO-1: Compensate for Permanent Impacts on Waters of the U.S. and Waters of the State**. Caltrans would demonstrate that there is no net loss of wetlands and other waters of the United States and state-protected waters/wetlands from construction. Caltrans would acquire a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers and a Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board prior to the fill of any wetlands that qualify as waters of the United States or State. Caltrans would acquire a Streambed Alteration Agreement from the California Department of Fish and Wildlife prior to work in any channels. Caltrans would mitigate for impacts to the aquatic resources at a minimum ratio of 1:1. The actual compensation ratios would be determined through coordination with the Central Valley Regional Water Quality Control Board and U.S. Army Corps of Engineers as part of the permitting process.

- **BIO-8: Compensate for the Permanent and Temporary Loss of California Tiger Salamander Upland Habitat and Temporary Loss of Aquatic Habitat**. To compensate for the permanent loss of 0.018-acre and the temporary loss 0.158-acre of suitable California tiger salamander upland habitat (annual and perennial grassland within 1.3 miles of aquatic habitat), Caltrans would purchase credits at an approved mitigation bank

or contribute to an agency-approve in-lieu fee program to ensure no net loss of special-status species habitat. The compensation ratio would be a minimum of 3:1 (3 acres of California tiger salamander upland habitat credit for every 1 acre of impact) for permanent impacts and a minimum of 1:1 for temporary impacts to ensure no net loss of habitat. The purchase of California tiger salamander compensatory mitigation would be sufficient to compensate for the loss of western spadefoot upland habitat because they share the same habitat.

The following avoidance and minimization measures would be required for less than significant impacts to biological resources.

- **BIO-2: Conduct Worker Environmental Awareness Training for Construction Personnel**. Prior to the start of work, a qualified biologist would conduct an environmental awareness training program for all construction personnel, including contractors, subcontractors, and contractor's representatives. The environmental awareness training would be provided to all project crew personnel to brief them on the need to avoid effects on sensitive biological resources (for example, natural communities of special concern and special-status species habitats in and adjacent to the project). The education program would include a brief review of the special-status species that are known to or could potentially occur in the project area (including their life history, habitat requirements, and photographs of the species). The environmental awareness training would identify the portions of the biological study area in which the species may occur, as well as their legal status and protection under Federal Endangered Species Act, California Endangered Species Act, and California Fish and Game Code.

  The program would also cover the restrictions and guidelines that must be followed by all project personnel to reduce or avoid effects on these species during project implementation. This would include the steps to be taken if a sensitive species is found within the project area (including notifying the crew supervisor who would locate the onsite designated biological monitor). In addition, project crew members would be educated about invasive plant identification and the importance of controlling and preventing the spread of invasive plant infestations. The crew supervisor would be responsible for ensuring that crew members adhere to the guidelines and restrictions. Environmental awareness training would be conducted for appropriate new personnel as they are brought on the job during the project period.

- **BIO-3: Install Environmentally Sensitive Area Fencing and/or Flagging to Protect Sensitive Biological Resources**. Prior to construction, Caltrans's contractor would install high-visibility orange construction fencing, silt fencing, and/or flagging, as appropriate, along the edge of the work area adjacent to Environmentally Sensitive Areas to be

avoided (for example, drainages, creeks, seasonal wetlands, special-status and uncommon plants, special-status wildlife habitat, and active bird nests). In addition, exclusion fencing would be followed by high visibility silt fencing, or similar, to be placed at the edge of the work areas when working within and adjacent to annual and perennial grassland to prevent potentially occurring special-status species from entering the work area. The exclusion fencing would also be installed immediately outside of the work areas associated with drainages and detention basins. Exclusion fencing would be at least 3 feet high and the lower 6 inches of the fence would be buried in the ground to prevent animals from crawling under. The remaining 2.5 feet would be left above ground to serve as a barrier for animals moving on the ground surface. The fence would be pulled taut at each support to prevent folds or snags. The fencing would be maintained throughout the duration of the construction period. If the fencing is removed, damaged, or otherwise compromised during construction, the fencing would be repaired or replaced. All temporary fencing would be removed upon completion of construction in that area along the alignment.

- **BIO-4: Retain a Designated Biologist to Conduct Monitoring during all Construction Activities**. To ensure that all construction personnel are trained, that avoidance and minimization measures are properly implemented, that required construction fencing, silt fencing, and/or straw wattles are installed around sensitive biological resources, and that sensitive habitats are avoided, a designated biologist would monitor all construction activities. If a special-status wildlife species is observed within the work area during construction, all activities within the immediate area of the animal would stop until the individual moves out of the work area on its own accord. The Caltrans biologist would notify the appropriate agencies within 48 hours of observing any state or federal listed species within the work area. The monitor would also conduct clearance surveys for special-status species within the work area prior to commencement or work as appropriate.

- **BIO-5: Avoid and Minimize the Spread of Invasive Plant Species during Project Construction and Revegetate Disturbed Areas**. Caltrans would be responsible for avoiding and minimizing the introduction of new invasive plants and the spread of invasive plants previously documented in the biological study areas. The following requirements would be written into the construction specifications and implemented during project construction.

    - Remove or disturb the minimum footprint of vegetation necessary to complete the project and limit the disturbance/removal to the defined work area.

- Retain all excavated soil material onsite or dispose of excess soil in a permitted offsite location to prevent the spread of invasive plants to uninfested areas adjacent to the project footprint.
- Use a weed-free source for project materials (for example, straw wattles for erosion control that are weed-free or contain less than 1% weed seed).
- Prevent invasive plant contamination of project materials during transport and when stockpiling (for example, by covering soil stockpiles with a heavy-duty, contractor-grade tarpaulin).
- Use sterile grass seed and native plant stock during revegetation.
- Restore temporarily disturbed areas to pre-project conditions or better. Revegetate or mulch disturbed soils within 30 days of completing ground-disturbing activities to reduce the likelihood of invasive plant establishment.

Detailed information about implementing these requirements can be found in the California Invasive Plant Council's 2012 guidance "Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors".

- **BIO-6: Prepare and Implement a Plant Mitigation and Monitoring Plan for Impacts on Spiny-Sepaled Button Celery**. A mitigation plan would be prepared for impacts on spiny-sepaled button celery. At a minimum, the plan would include locations where the plants would be transplanted or seeds would be collected and planted in suitable habitat adjacent to the project footprint, success criteria, and monitoring activities. The plan would need to be finalized prior to transplantation, seeding, and commencement of construction activities.

- **BIO-7: Retain a Designated Biologist to Conduct Preconstruction Surveys for Milkweed Plants and Crotch's Bumblebee and Monster Butterfly Nectar Plants**. A qualified biologist would conduct a survey for monarch butterfly milkweed host plants within a 20-foot buffer around the construction and staging area footprints. Any milkweed species and locations would be mapped and inspected for the presence of monarch butterfly eggs, larvae, and chrysalides and for signs of larvae such as chewed leaves and frass. All milkweed species would be avoided to the extent feasible. If infeasible, and if no eggs or larvae are observed on the milkweed, the plants may be removed under direct supervision of the biologist. If eggs, larvae, or chrysalides are present, a minimum 10-foot avoidance buffer would be established around the occupied plants with flagging or fencing. The buffer would remain in place and the plants would not be removed until the biologist confirms that the eggs or larvae are no longer occupying the plants, or the adult monarchs have emerged from their chrysalides.

A qualified biologist will conduct a preconstruction survey for Crotch's bumblebee and monarch butterfly nectar plants within a 20-foot buffer around the construction and staging area footprints. All nectar plants that are in bloom will be avoided to the extent feasible. If avoidance is infeasible, the plants will be removed within 7 days prior to construction under direct supervision of the biologist.

- **BIO-9: Retain a Qualified Biologist to Conduct Preconstruction Surveys for Amphibians and Reptiles**. Qualified biologist(s) would conduct preconstruction surveys within annual/perennial grassland within 14 days prior to the start of ground disturbing activities (including vegetation removal and equipment staging). The surveys would pay particular attention to detecting any burrows, crevices, and other cover sites that could be used as refugia by special-status amphibians and reptiles including California tiger salamander, western spadefoot, blunt-nosed leopard lizard, northwestern pond turtle, or San Joaquin coachwhip. If any burrows are discovered, they would be flagged or otherwise marked, and avoided, where feasible. The Caltrans biologist would notify the appropriate agencies within 48 hours of observing any sightings of special-status amphibians or reptiles and construction would not commence at that location until the species has moved out of the work area on its own accord.

  In addition, preconstruction surveys would be conducted within 7 days prior to construction involving impacts on drainages and detention basins. If California tiger salamander, western spadefoot, or northwestern pond turtle are observed within these aquatic features, no work would occur until the biologist determines that the species has left on its own accord.

- **BIO-10: Restrict Work During Rain Events**. No construction activities would be conducted in aquatic or upland habitat areas where the California tiger salamander or western spadefoot may occur if: 1) it is actively raining, 2) there is a greater than 70 percent chance of rain based on the National Oceanic and Atmospheric Administration's National Weather Service forecast on any given workday or worknight, or 3) a rain event greater than 0.25 inch has occurred within the past 48 hours.

- **BIO-11: Provide Escape Ramps or Cover Open Trenches**. To avoid entrapment of wildlife, all excavated steep-walled holes or trenches more than 6 inches deep would be provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each workday. If escape ramps cannot be provided, then holes or trenches would be covered with plywood or similar materials. Providing escape ramps or covering open trenches would prevent injury or mortality of wildlife resulting from falling into trenches and becoming trapped. The trenches would be thoroughly inspected for the presence of federally listed species at the beginning of each workday. Any species observed would be allowed

to voluntarily move outside of the work area on its own. If at any time a trapped listed animal is discovered, an escape ramp or other appropriate structures would be installed to allow the animal to escape, and the U.S. Fish and Wildlife Service or California Department of Fish and Wildlife, as appropriate for the species, would be contacted for further guidance if needed.

- **BIO-12: Check for Animals under Construction Equipment and Vehicles Prior to Moving**. Prior to being moved, vehicles and equipment located in the vicinity of suitable habitat would be checked for any special-status species or other sensitive wildlife sheltering underneath them. In the event that an animal is observed, the vehicles/equipment would not be moved until the individual has vacated the area on its own accord.

- **BIO-13: Limit the Use of Artificial Lighting**. The use of temporary artificial lighting on-site would be limited, except when necessary for construction, or for driver and pedestrian safety. Any artificial lighting used during construction would be confined to areas within the construction footprint and directed away from surrounding habitat.

- **BIO-14: Properly Dispose of Food-Related Trash and Remove from Project Site Daily**. All food-related trash items such as wrappers, cans, bottles, and food scraps generated by project-related activities and personnel would be disposed of in closed containers and removed daily from the project site to reduce the potential for attracting predator species.

- **BIO-15: Prohibit Pets and Firearms from Being Brought to the Project Site**. To eliminate the potential for disturbance or injury to, or death of, any species resulting from the presence of pets and firearms, neither (with the exception of firearms carried by authorized law enforcement officials) would be allowed in the work area.

- **BIO-16: Conduct Preconstruction Surveys for Nesting Migratory Birds and Raptors, Including Special-Status Species, and Establish Protective Buffers**. If project activities occur during the breeding season for migratory birds and raptors (generally February 1 through September 30), a qualified biologist would conduct a preconstruction nesting bird and raptor survey prior to the start of construction activities (including equipment staging), as described below.

  The preconstruction nesting bird and raptor surveys would be conducted between February 1 and September 30 within suitable habitat within 500 feet from the project work limits within 7 days prior the initiation of construction activities along the alignment. For surveys in inaccessible areas, the surveying biologist would use binoculars to scan any suitable nesting substrate for potential raptor nests. If no active nests are found during the preconstruction surveys, no additional measures are required

unless work halts for 7 days or more. If work halts for 7 days or more, additional preconstruction survey is required within 7 days prior to re-commencement of work.

If an active bird or raptor nest is identified within the construction work area or an active raptor nest is identified within 500 feet from the construction work area, a no disturbance buffer would be established around the nest to avoid disturbance of the nesting birds or raptors until a qualified biologist determines that the young have fledged and are foraging on their own. The extent of these buffers would be determined by the biologist and would depend on the species identified, level of existing surrounding noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. In addition to the establishment of buffers, other avoidance measures may include monitoring of the nest during construction and restricting the type of work that can be conducted near the nest site.

- **BIO-17: Retain a Qualified Biologist to Conduct Preconstruction Surveys for Mammals and Monitor Ground Disturbing Activities in Suitable Habitat**. No more than 30 days prior to the start of ground disturbing activities (including vegetation removal and equipment staging) within suitable habitat for San Joaquin kit fox, American badger, and giant kangaroo rat, qualified biologist(s) would conduct visual encounter preconstruction surveys to identify special-status mammals and dens within the biological study area. In addition, the surveys would be conducted to identify whether any vertical burrows occur within the work area that could be used by giant kangaroo rat. If such features are detected on-site, Caltrans would contact the U.S. Fish and Wildlife Service to discuss how to proceed.

  For surveys in inaccessible areas, the biologist would use binoculars to scan any suitable denning substrate for potential individuals or dens. The survey would pay particular attention to detecting dens or anthropogenic structures (such as pipes) potentially suitable for San Joaquin kit fox and would search for San Joaquin kit fox or sign of the species (such as prey remains). Any potential dens identified would be flagged or otherwise marked and avoided to the extent feasible. If avoidance of a potential den is not possible, a camera trap would be established and operated to determine if the den is occupied. If determined to be unoccupied, the den may be collapsed, and the buffer would be removed.

  A 100-foot exclusion buffer would be established around a known den. A 200-foot exclusion buffer would be established for natal dens. The Caltrans biologist may determine that the buffer zone may be reduced depending on the level of noise or construction disturbance, line-of-sight

between the den and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

If any special-status mammal species are observed in the active construction area, the individual(s) would be allowed to move out of harm's way on its own accord. The Caltrans biologist would notify the appropriate agencies within 48 hours of observing San Joaquin kit fox, American badger, or giant kangaroo rat within or near the work area.

- **BIO-18: Retain a Qualified Biologist to Conduct Preconstruction Surveys for Roosting Bats**. Between April and September before construction begins, a qualified biologist would survey trees within the proposed project work limits and identify any snags, hollow trees, or other trees with cavities that may provide suitable roosting habitat for sensitive or non-sensitive bats. If no suitable roosting trees are found, construction may proceed. If snags, hollow trees, or other trees with suitable cavities are found, they would be examined for roosting bats. If bats are not found and there is no evidence of use by bats, construction may proceed. If bats are found or evidence of use by bats is present, the California Department of Fish and Wildlife shall be consulted for guidance on measures to avoid or minimize disturbance to the colony. If necessary (for example, if an area would be physically disturbed or removed), bats may be excluded from the work area. Any bat exclusion would be coordinated with the California Department of Fish and Wildlife and would generally follow the guidance in H.T. Harvey and Associates' 2019 guidance in "California Bat Mitigation: A Guide to Developing Feasible and Effective Solutions".

The following avoidance and minimization measures would be required for less than significant impacts from construction greenhouse gas emissions as discussed in Section 2.1.8 of this document.

- **GHG-1: Balancing Cut and Fill quantities**. The construction contractor would reduce the need for transport of earthen materials by balancing cut and fill quantities.

- **GHG-2: Recycling Project Features**. The construction contractor would recycle existing project features on site where feasible and appropriate, including sub-base granular materials, native material, or other materials that meet Caltrans specifications for incorporation into new work.

- **GHG-3: Long-Life Pavement**. Caltrans would specify the use of long-life pavement to minimize life-cycle costs.

- **GHG-4: Warm-Mix Technology**. The construction contractor would produce hot-mix asphalt using warm mix technology.

The following avoidance and minimization measures would be required for less than significant impacts from hazardous materials as discussed in Section 2.1.9 of this document.

- **HW-1: Lead Compliance Plan**. Caltrans Standard Special Provision 7-1.02K(6)(j)(iii) (Unregulated Earth Material Containing Lead) shall be added to the construction contract. A lead compliance plan prepared by a Certified Industrial Hygienist is required.

- **HW-2: Hazardous Materials on Bridge Structures**. A preliminary site investigation survey for asbestos containing materials and lead-based paint would be required in these areas prior to construction. If significant asbestos or lead concentrations are detected, then Caltrans Standard Special Provision 14-11.16 (Asbestos Containing Construction Materials in Bridges) and Caltrans Standard Special Provision 14-11.13 (Disturbance of Existing Paint Systems on Bridges) shall be added to the contract.

- **HW-3: Asbestos Compliance Plan**. A naturally occurring asbestos soil survey must be conducted. If the results of this survey confirm the presence of naturally occurring asbestos, then Caltrans Non-Standard Special Provision 14-11.10 (Naturally Occurring Asbestos), shall be added to the construction contract pending management approval. A Dust Control Plan must be approved and implemented. An asbestos compliance plan prepared by a Certified Industrial Hygienist is required.

- **HW-4: Striping Debris**. Yellow thermoplastic or painted striping and pavement markings, which are assumed to have high concentrations of lead, are present in the project area. The scope of work proposes to cold plane the entire road surface. If calculations determine that the resulting cold planing residue would not contain hazardous concentrations of lead, then Caltrans Standard Special Provision 36-4 (Residue Containing Lead from Paint and Thermoplastic) shall be added to the construction contract, and all waste would be managed as construction debris.

- **HW-5: Treated Wood Waste**. As the project would involve removing existing metal beam guardrail treated wood posts along Interstate 5. The Caltrans Standard Special Provision 14-11.14 (Treated Wood Waste) shall be added to the construction contract to manage and dispose of treated wood waste.

List of Technical Studies Bound Separately (Volume 2)

Air Quality Memorandum

Biological Studies

- Aquatic Resources Delineation Report
- Natural Environment Study
- No Effect Memorandum for Blunt-Nosed Leopard Lizard

Climate Change and Greenhouse Gas Non-Capacity Increasing Memorandum

Community Impact Assessment Memorandum

District Preliminary Geotechnical Report

Energy Analysis Technical Memorandum

Floodplain Analysis

Initial Site Assessment

Noise Compliance Study

Paleontological Identification Report

Screened Undertaking Memorandum

Section 4(f) Memorandum

Visual Impact Assessment

Water Compliance Memorandum

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

Laura Cook
District 10 Environmental Division
California Department of Transportation
1976 Doctor Martin Luther King Junior Boulevard, Stockton, California 95205

Or send your request via email to: Laura.Cook@dot.ca.gov
Or call: 209-662-2261

Please provide the following information in your request:

Project title: Merced Interstate 5 Pavement Anchor Project
General location information: Interstate 5 in Merced County, 4 miles west of the City of Los Banos
District number-county code-route-post mile: 10-MER-5-0.00/32.48
Project ID number: 10-1E880/1021000197