I-5 GRADE RAISE PROJECT

INITIAL STUDY

with Proposed Negative Declaration



SACRAMENTO COUNTY, CALIFORNIA

DISTRICT 3 – SAC – 5 — Post Miles 0.21 to 4.63

EA 03-4J470 / EFIS 0323000171

Prepared by the
State of California Department of Transportation

February 2026



General Information About This Document

What is in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study with proposed Negative Declaration (IS/ND) which examines the potential environmental impacts of the I-5 Grade Raise Project on Interstate 5 in Sacramento County, California.

Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This document tells you why the project is being proposed, how the existing environment could be affected by the project, the potential impacts of the project, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.
- Additional copies of this document and related technical studies are available upon request at: Franklin Community Library, 10055 Franklin High Road, Elk Grove, CA 95757. This document may be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-3/d3-projects/d3-sac5-i5-grade-raise-03-4j470
- We'd like to hear what you think. If you have any comments about the proposed project, please send your written comments to Caltrans by the deadline.
- Please send comments via U.S. mail to:

  California Department of Transportation
  North Region Environmental–District 3
  Attention: Jennifer Jones
  703 B Street
  Marysville, CA 95901
- Send comments via e-mail to: 03_4J470_Project_Inbox@dot.ca.gov
- Be sure to send comments by the deadline: March 27, 2026

What happens after this?

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

Alternate Formats

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attention: Sergio Ochoa Sanchez, Public Information Officer, 703 B Street, Marysville, CA 95901; (916) 826-3093 Voice, or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.

I-5 GRADE RAISE PROJECT

Rehabilitate pavement and raise the roadway, upgrade drainage facilities, install Transportation Management Systems, and construct Maintenance Vehicle Pullouts on Interstate 5 in Sacramento County,

from Post Miles 0.21 to 4.63 north of the Sacramento County/San Joaquin County border.

INITIAL STUDY

with Proposed Negative Declaration

Submitted Pursuant to:

State: Division 13, California Public Resources Code

Federal: 42 USC 4332(2)(C)

THE STATE OF CALIFORNIA
Department of Transportation

02/02/2026
Date of Approval

Erin Dwyer
Erin Dwyer, Office Chief
North Region Environmental–District 3
California Department of Transportation
CEQA Lead Agency

The following person may be contacted for more information about this document:

Caltrans North Region Environmental–District 3
Environmental Branch Chief, Unit M5
703 B Street
Marysville, CA 95901
(530) 812-4371

or use the California Relay Service TTY number, 711, or 1-800-735-2922



PROPOSED NEGATIVE DECLARATION

Pursuant to: Division 13, California Public Resources Code

State Clearinghouse Number: Pending

Project Description

The California Department of Transportation (Caltrans) proposes the Interstate 5 (I- 5) Grade Raise Project in Sacramento County on I-5 between Post Miles PM 0.21 and 4.63. This project proposes to rehabilitate pavement and raise the roadway profile, upgrade drainage facilities, add electrical components, install Transportation Management Systems, and construct Maintenance Vehicle Pullouts.

Determination

This proposed Negative Declaration (ND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt an ND for this project. This does not mean that Caltrans' decision regarding the project is final. This ND is subject to change based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the proposed project would have *No Impact* on the following resources:

- Aesthetics
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services

- Recreation
- Tribal Resources
- Utilities and Service Systems
- Wildfire

The proposed project would have *Less than Significant Impacts* to:

- Agricultural and Forest Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Transportation
- Mandatory Findings of Significance

Erin Dwyer

Erin Dwyer, Office Chief
North Region Environmental–District 3
California Department of Transportation

02/02/2026

Date

TABLE OF CONTENTS

Table of Contents ..... **i**

List of Appendices ..... **iii**

List of Figures ..... **v**

List of Tables ..... **v**

Acronyms and Abbreviated Terms ..... **vii**

CHAPTER 1. PROPOSED PROJECT **1**

1.1 Introduction/Project History 1

1.2 Purpose and Need 1

1.3 Project Description 2

1.4 Proposed Alternatives 5

1.5 Permits and Approvals Needed 7

1.6 Standard Measures and Best Management Practices Included in All Alternatives 8

1.7 Discussion of the NEPA Categorical Exclusion 19

CHAPTER 2. CEQA ENVIRONMENTAL CHECKLIST **21**

2.1 Aesthetics 26

2.2 Agriculture and Forest Resources 28

2.3 Air Quality 33

2.4 Biological Resources 36

2.5 Cultural Resources 60

2.6 Energy 63

2.7 Geology and Soils 64

2.8 Greenhouse Gas Emissions 66

2.9 Hazards and Hazardous Materials 88

2.10 Hydrology and Water Quality 91

2.11 Land Use and Planning 97

2.12 Mineral Resources 98

2.13 Noise 99

2.14 Population and Housing 101

2.15 Public Services 102
2.16 Recreation 104
2.17 Transportation 105
2.18 Tribal Cultural Resources 108
2.19 Utilities and Service Systems 110
2.20 Wildfire 112
2.21 Mandatory Findings of Significance 114
2.22 Cumulative Impacts 117
CHAPTER 3. AGENCY AND PUBLIC COORDINATION 118
CHAPTER 4. LIST OF PREPARERS 120
CHAPTER 5. DISTRIBUTION LIST 122
CHAPTER 6. REFERENCES 124

LIST OF APPENDICES

APPENDIX A. **Project Layouts**

APPENDIX B. **Title VI Policy Statement**

APPENDIX C. **USFWS, NMFS, CDFW–CNDDB, and CNPS Species Lists**

APPENDIX D. **SHPO Concurrence Letter**



LIST OF FIGURES

Figure 1. Project Vicinity 3

Figure 2. Project Location Map 4

Figure 3. Culvert Locations for Temporary Impacts to Waters of U.S. and State 43

Figure 4. U.S. 2022 Greenhouse Gas Emissions 70

Figure 5. California 2021 Greenhouse Gas Emissions by Economic Sector.....71

Figure 6. Change in California Gross Domestic Product (GDP), Population, and GHG Emissions since 2000 71

Figure 7. Project Located Outside the Coastal Zone 85

Figure 8. Project Located Outside the Area Subject to Sea Level Rise 86

Figure 9. CAL FIRE Fire Hazard Severity Zone Map.....87

LIST OF TABLES

Table 1. Agency, Permit/Approval Needed and Status..... 8

Table 2. Temporary Construction Easements 30

Table 3. Impacts to Waters of the U.S. and State 42

Table 4. Findings of Special Status Plant Species that May Potentially Occur within the Environmental Study Limits.....44

Table 5. Findings of Special Status Animal Species that May Potentially Occur within the Project Study Limits 46

Table 6. Regional and Local Greenhouse Gas Reduction Plans.....73

Table 7. Estimate of Total GHG Emissions during Construction 75



ACRONYMS AND ABBREVIATED TERMS

Acronym/Abbreviation	Description
AB	Assembly Bill
APCS	Automated Pavement Condition Survey
APE	Area of Potential Effects
BMPs	Best Management Practices
BSA	Biological Study Area
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CAL-CET	Caltrans Construction Emissions Tool
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAPTI	Climate Action Plan for Transportation Infrastructure
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH4	methane
CIA	Cumulative Impact Analysis
CMS	Changeable Message Sign
CNPS	California Native Plant Society
CO2	carbon dioxide
CO2e	carbon dioxide equivalent
CTP	California Transportation Plan
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
Delta	Sacramento-San Joaquin Delta
Department	Caltrans
DP	Director's Policy
DPS	Distinct Population Segment
ECL	Environmental Construction Liaison
EFH	Essential Fish Habitat
EO(s)	Executive Order(s)
EPA	Environmental Protection Agency

Acronym/Abbreviation	Description
ESA	Endangered Species Act
ESA(s)	Environmentally Sensitive Area(s)
ESL	Environmental Study Limits
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FR	Federal Register
GHG	greenhouse gas
GPI	Geosynthetic Pavement Interlayer
GWP	Global Warming Potential
H&SC	Health & Safety Code
HFCs	hydrofluorocarbons
HMA-A	Hot Mix Asphalt – Type A
I-5	Interstate 5
I-80	Interstate 80
IS	Initial Study
IS/ND	Initial Study / Negative Declaration
L/R	Left/Right
LSAA	Lake and Streambed Alteration Agreement (CDFW)
MASH	Manual for Assessing Safety Hardware
MBTA	Migratory Bird Treaty Act
MGS	Midwest Guardrail System
MLD	Most Likely Descendent
MMT	million metric tons
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
N2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NAHC	Native American Heritage Commission
NB	Northbound
ND	Negative Declaration
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NHTSA	National Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O3	ozone

Acronym/Abbreviation	Description
OC	overcrossing
OHW	Ordinary High Water
OPC	Ocean Protection Council
OPR	Governor's Office of Planning and Research
PA	Programmatic Agreement
PDT	Project Development Team
PLACs	Permits, Licenses, Agreements & Certifications
PM	Particulate Matter
PM(s)	Post Mile(s)
Project	I-5 Grade Raise Project
PRC	(California) Public Resources Code
RHMA-O	Rubberized Hot Mix Asphalt – Open Graded
RTL	Ready-to-List
RTP	Regional Transportation Plan
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SB	Southbound
SCS	Sustainable Communities Strategy
SF6	sulfur hexafluoride
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Officer
SHS	State Highway System
SJCOG	San Jose Council of Governments
SLR	Sea Level Rise
SMAQMD	Sacramento Metropolitan Air Quality Management District
SNC(s)	Sensitive Natural Community(ies)
SO2	sulfur dioxide
SRA	State Responsibility Area
SS	Standard Specifications
SSHCP	South Sacramento Habitat Conservation Plan
SSP	Standard Special Provision
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCE	Temporary Construction Easement
THVF	Temporary High Visibility Fencing
TMDLs	Total Maximum Daily Loads
TMP	Transportation Management Plan
TMS	Transportation Management System
UC	Undercrossing
U.S. or US	United States

Acronym/Abbreviation	Description
US 50	U.S. Highway 50
USACE	United States Army Corps of Engineers
USC	United States Code
U.S. DOT	U.S. Department of Transportation
U.S. EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VMT	Vehicle Miles Traveled
WOTUS	Waters of the U.S.
WPCP	Water Pollution Control Program

CHAPTER 1. PROPOSED PROJECT

Introduction/Project History

Caltrans proposes the I-5 Grade Raise Project. The project is located on I-5 in Sacramento County, between PM 0.21 and 4.63. The total length of the project is 4.42 miles. Within the limits of the proposed project, I-5 is a four-lane highway. This project was programmed for Pavement Rehabilitation.

Caltrans is the lead agency under the California Environmental Quality Act (CEQA).

In Sacramento County, I-5 serves the cities of Elk Grove and Sacramento, neighboring communities via U.S. Highway 50 (US 50) and Interstate 80 (I-80), and the Sacramento International Airport, which draws traffic from much of Northern California.

Purpose and Need

Purpose

The purpose of this project is to restore and improve the existing pavement condition and extend the life of transportation infrastructure. The project aims to preserve and sustain the I-5 corridor and its structures, while enhancing safety, reliability, rideability, and existing drainage systems.

Need

Existing pavement within the project limits exhibits signs of distress. Based on the pavement assessment, in flexible pavement sections, Alligator B Cracking will rise from the 2021 Automated Pavement Condition Survey (APCS) measurement of 0.00 percent to 12.20 percent within the project limits by Ready To List (RTL) year 2030/2031. The third stage cracking for the rigid pavement sections will increase from 1.57 percent in 2021 to 4.35 percent by RTL year 2030/2031. If pavement conditions are not addressed, the existing pavement is expected to further deteriorate which would result in higher maintenance costs.

Drainage assessment indicates that multiple culvert systems within the project limits are in fair to poor condition.

Lighting Systems: Asset Condition is Poor, life expectancy exceeded for all, two have damaged foundations, Maintenance unable to replace pole.

Transportation Management System (TMS): Transportation data collection is inadequate within the project limits. Replace CMSs and CCTVs that are out of life-cycle.

Project Description

The proposed project is located in Sacramento County along I-5 from approximately the Sacramento/San Joaquin County line to the Lambert Road Undercrossing (UC) (Bridge No. 24 0287L/R) between PM 0.21 and 4.63 (Figures 1 and 2).

The project includes pavement rehabilitation strategies for both rigid and flexible pavement sections to address pavement conditions within the project limits; while also raising the roadway profile by 0.5 feet to 1.5 feet between PM 0.21 and 3.9. The project would also replace or rehabilitate drainage facilities in substandard condition. Supplementary improvements would include bringing roadside features up to current standards and installing additional safety features, electrical components, TMS elements such as Changeable Message Signs/Closed Circuit Television/Automatic Vehicle Classification System, vertical raises for freeway overcrossing (OC) structures, maintenance vehicle pullouts (MVP), signage, and striping.

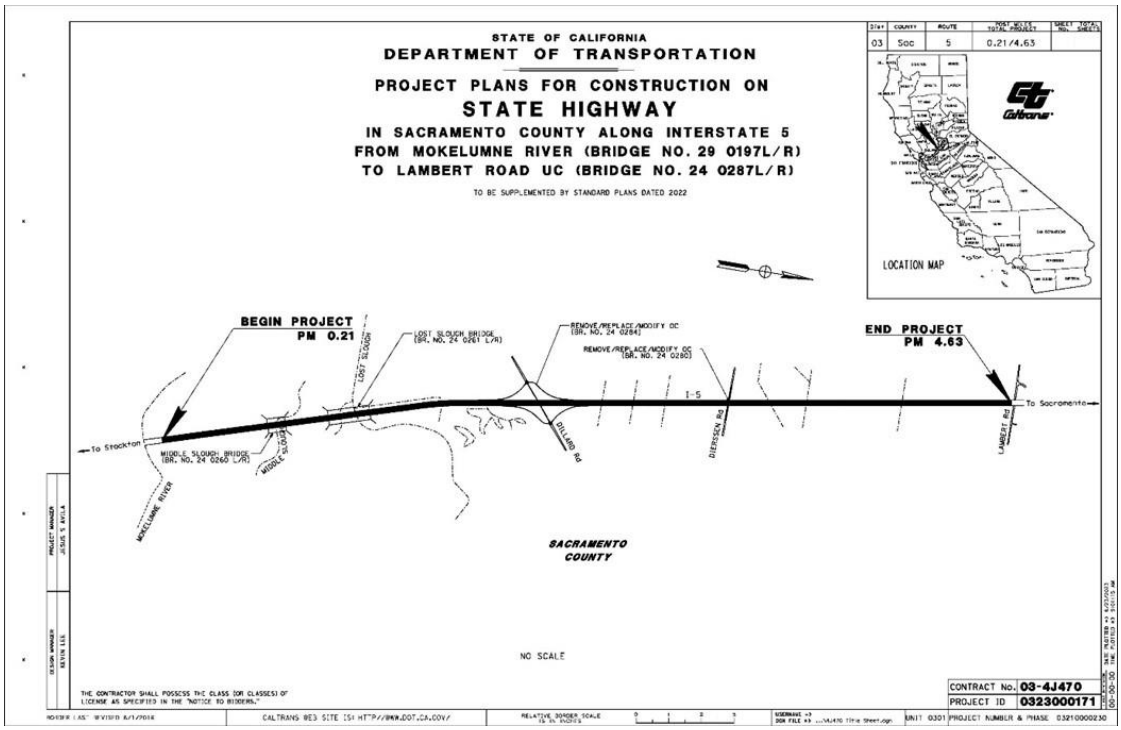


Figure 1. Project Vicinity



Figure 2. Project Location Map

Proposed Alternatives

No-Build (No-Action) Alternative

The No-Build Alternative would maintain the facility in its current condition and would not meet the purpose and need of the project. For each potential impact area discussed in Chapter 2, the No-Build Alternative has been determined to have no impact. Under the No-Build Alternative, no alterations to the existing conditions would occur and the proposed improvements would not be implemented.

Proposed Build Alternative

Structures

- Raise the following structures to accommodate minimum vertical clearance in consideration of overlay strategy (Figure 1).
    - Twin Cities Road OC (Bridge No. 24 0284)
    - Dierssen Road OC (Bridge No. 24 0280)
- Replace structure approach railing and bridge railing to accommodate new roadway mainline profile height and/or upgrade to current MASH standards.
- Note: The current strategy is to raise both Twin Cities Road OC and Dierssen Road OC. If the OCs are replaced, 8-foot-wide concrete footpaths along Twin Cities Road OC (Bridge No. 24 0284) and Dierssen Road OC (Bridge No. 24 0280) should be considered.

Drainage

- Remove and replace drainage inlets and culverts in poor conditions.

Safety

- Remove/replace non-MASH standard guardrail with Midwest Guardrail System with metal posts, MASH end treatments, and transition railing at various locations.
- Provide shoulder rumble strips along outside shoulders.

- Maintenance Vehicle Pullouts (MVP) to be constructed for culvert access pending further investigation from hydraulics and maintenance on culvert systems and ideal access points.

Pavement

- Crack, Seat, and Overlay (Rigid Pavement - Mainline (I-5 at PM 0.21/0.70, 0.74/1.03, 1.22/3.508)
    - Crack and seat pavement
    - 0.10-foot Rubberized Hot Mix Asphalt–Open Graded (RHMA-O)
    - 0.90-foot Hot Mix Asphalt–Type A (HMA-A)
    - Geosynthetic Pavement Interlayer (GPI)
    - 0.10-foot HMA-A (Leveling Course)
- Cold Plane and Overlay (Flexible Pavement – Mainline (I-5-PM 3.508/3.9) and shoulders throughout project limits))
    - Cold plane 0.25'
    - Overlay
    - 0.10-foot RHMA-O
    - 1.15-foot HMA-A
    - 0.10-foot HMA-A (Leveling Course)
- Cold Plane and Overlay (Flexible Pavement – Mainline (I-5-PM 3.9/4.63)
    - Cold plane 0.20-foot
    - Overlay
    - 0.1-foot RHMA-O
    - 0.2-foot RHMA-G
    - Place imported soil material at outside shoulders for embankment (2:1 or flatter)
    - Place pavement edge treatment

Transportation Management System

- Remove and replace the following items which will be beyond lifecycle by RTL
    - Two Changeable Message System (CMS) (message signs) located at I- 5: PM 1.55 Northbound (NB) and PM 1.49 Southbound (SB)
    - Closed-Circuit Television located at I-5: PM 1.55 NB and 1.49 SB
- Repair and/or replace census stations located at I-5-PM 1.913 and SAC-5-PM 2.523
- Incorporate fiber optic system for the modified Intelligent Transportation Systems

Electrical

- Remove and replace 12 freeway luminaries at the Twin Cities Road OC
- Modify electrical systems and bridge conduits for bridge-mounted signs and overhead signs

Signs and Striping

- Replace and upgrade ground-mounted signages at various locations
- Upgrade 1 bridge mounted and 2 overhead signs
- Restripe lanes and shoulders with new standard 6-inch enhanced wet night visibility thermoplastic traffic stripe

Permits and Approvals Needed

The following permits, licenses, agreements, and certifications (PLACs) are required for project construction (Table 1 below).

Table 1. Agency, Permit/Approval Needed and Status

Agency	PLACs	Status
California Department of Fish and Wildlife (CDFW)	Section 1602 Lake and Streambed Alteration Agreement	Application for permit expected after Final Environmental Document approval
Central Valley Regional Water Quality Control Board (CVRWQCB)	Section 401	Application for permit expected after Final Environmental Document approval
U.S. Army Corps of Engineers (USACE)	Section 404	Application for permit expected after Final Environmental Document approval
U.S. Fish and Wildlife Service (USFWS)	Section 7 Consultation	Application for permit expected after Final Environmental Document approval
State Historic Preservation Officer (SHPO)	Finding of No Adverse Effect	Concurrence received on April 10, 2025

Standard Measures and Best Management Practices Included in All Alternatives

Under CEQA, “mitigation” is defined as avoiding, minimizing, rectifying, reducing/ eliminating, and compensating for an impact. In contrast, Standard Measures and Best Management Practices (BMPs) are prescriptive and sufficiently standardized to be generally applicable, and do not require special tailoring for a project. These are measures that typically result from laws, permits, agreements, guidelines, resource management plans, and resource agency directives and policies. For this reason, the measures and practices are not considered “mitigation” under CEQA; rather, they are included as part of the project description in environmental documents.

The project contains a number of standardized project features, standard practices (measures), and BMPs which are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project and, as such, are included as part of the project description. Any project-specific avoidance, minimization, or mitigation measures that would be applied to reduce the effects of project impacts are listed further below as Additional Measures or in the respective species discussion in Section 2.4.–Biological Resources.

Aesthetics Resources

AR-1: Temporary access roads, construction easements, and staging areas that were previously vegetated would be restored to a natural contour and revegetated with regionally-appropriate native vegetation.

AR-2: Where feasible, guardrail terminals would be buried; otherwise, an appropriate terminal system would be used, if appropriate.

AR-3: Where feasible, construction lighting would be temporary, and directed specifically on the portion of the work area actively under construction pursuant to California Division of Occupational Safety and Health (Cal/OSHA) regulations.

AR-4: Where feasible, the removal of established trees and vegetation would be minimized. To demarcate areas where vegetation would be preserved and root systems of trees protected, Temporary High Visibility Fencing (THVF) would be installed in Environmentally Sensitive Areas (ESAs) before start of construction.

AR-5: To ensure that the vegetation control will be visually compatible with the scenic corridor, provide integral colored or stained Vegetation Control (Minor Concrete), preferably black or dark grey, at all Midwest Guardrail System (MGS) replacement locations. The color and application method will be determined during the final design phase of the project.

Air Quality

AQ-1: Water or a dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions.

AQ-2: All construction equipment will use low sulfur fuel as required by California Code of Regulations (CCR) Title 17, Section 93114.

AQ-3: Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.

AQ-4: All transported loads of soils and wet materials will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize emission of dust during transportation.

AQ-5: Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to reduce particulate matter emissions.

Biological Resources

BR-1: General

Before start of work, as required by permit or consultation conditions, a Caltrans biologist or Environmental Construction Liaison (ECL) would meet with the contractor to brief them on environmental permit conditions and requirements relative to each stage of the proposed project, including, but not limited to, work windows, drilling site management, and how to identify and report regulated species within the project areas.

BR-2: Animal Species

A. To protect migratory and nongame birds (occupied nests and eggs), if possible, vegetation removal would be limited to the period outside of the bird breeding season (removal would occur between September 16 and January 31). If vegetation removal is required during the breeding season, a nesting bird survey would be conducted by a qualified biologist within five days prior to vegetation removal. If an active nest is located, the biologist would coordinate with CDFW to establish appropriate species-specific buffer(s) and any monitoring requirements. The buffer would be delineated around each active nest and construction activities would be excluded from these areas until birds have fledged, or the nest is determined to be unoccupied.

B. A *Bird Exclusion Plan* would be prepared by a qualified biologist prior to construction. Exclusion devices would be designed so they would not trap or entangle birds or bats. Exclusion devices would be installed outside of the breeding season (October 1 through January 31) to eliminate the re-occupancy of existing structures by migratory bird species that may attempt to nest on the structure during construction. On structures or parts of structures where it is not feasible to install bird exclusion devices, partially constructed and unoccupied nests within the construction area would be removed and disposed of on a regular basis throughout the breeding season (February 1 through September 30, with biologist discretion) to prevent their occupation. Nest removal would be repeated weekly under guidance of a qualified biologist to ensure nests are inactive prior to removal.

C. Pre-construction surveys for active raptor nests within one-quarter mile of the construction area would be conducted by a qualified biologist within one week prior to initiation of construction activities. Areas to be surveyed would be limited to those areas subject to increased disturbance due to construction activities (i.e., areas where existing traffic or human activity is greater than or equal to construction-related disturbance need not be surveyed). If any active raptor nests are identified, appropriate conservation measures (as determined by a qualified biologist) would be implemented. These measures may include, but are not limited to, establishing a construction-free buffer zone around the active nest site, biological monitoring of the active nest site, and delaying construction activities near the active nest site until the young have fledged.

D. To prevent attracting corvids (birds of the Corvidae family which include jays, crows, and ravens), no trash or foodstuffs would be left or stored on-site. All trash would be deposited in a secure container daily and disposed of at an approved waste facility at least once a week. Also, on-site workers would not attempt to attract or feed any wildlife.

E. An *Aquatic Species (Western Pond Turtle) Relocation Plan*, or equivalent, would be prepared by a qualified biologist and include provisions for pre-construction surveys and the appropriate methods or protocols to relocate any species found. If previously unidentified threatened or endangered species are encountered or anticipated incidental take levels are exceeded, work would either be stopped until the species is out of the impact area, or the appropriate regulatory agency would be contacted to establish steps to avoid or minimize potential adverse effects.

F. A Limited Operating Period would be observed, whereby all construction activities would occur during daytime hours and between October 1 and April 1, which is the time of year when giant garter snake would not be expected to have dependent young.

BR-3: Invasive Species

Invasive non-native species control would be implemented. Measures would include:

- Straw, straw bales, seed, mulch, or other material used for erosion control or landscaping would be free of noxious weed seed and propagules.

- All equipment would be thoroughly cleaned of all dirt and vegetation prior to entering the job site to prevent importing invasive non-native species. Project personnel would adhere to the latest version of the *California Department of Fish and Wildlife Aquatic Invasive Species Decontamination Protocol* (CDFW 2022) for all field gear and equipment in contact with water.

BR-4: Plant Species and Sensitive Natural Communities

A. A *Revegetation Plan* would be prepared which would include a plant palette, establishment period, watering regimen, monitoring requirements, and invasive plant species control measures.

B. Prior to the start of work, THVF and/or flagging would be installed around sensitive natural communities, environmentally sensitive habitat areas, rare plant occurrences, intermittent streams and wetlands and other waters, where appropriate. No work would occur within fenced/flagged areas.

C. Upon completion of construction, all superfluous construction materials would be completely removed from the site. The site would then be restored by regrading and stabilizing with a hydroseed mixture of native species along with fast growing sterile erosion control seed, as required by the Erosion Control Plan.

BR-5: Wetlands and Other Waters

A. The contractor would be required to prepare and submit a *Temporary Creek Diversion System Plan* to Caltrans for approval prior to any creek diversion. Depending on site conditions, the plan may also require specifications for the relocation of sensitive aquatic species Water generated from the diversion operations would be pumped and discharged according to the approved plan and applicable permits.

B. See **BR-4** for THVF information.

Cultural Resources

CR-1: If cultural materials are discovered during construction, work activity within a 60-foot radius of the discovery would be stopped and the area secured until a qualified archaeologist can assess the nature and significance of the find in consultation with the State Historic Preservation Officer (SHPO).

CR-2: If human remains and related items are discovered on private or State land, they would be treated in accordance with State Health and Safety

Code (H&SC) § 7050.5. Further disturbances and activities would cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to California Public Resources Code (PRC) § 5097.98, if the remains are thought to be Native American, the coroner would notify the Native American Heritage Commission (NAHC) who would then notify the Most Likely Descendent (MLD).

Human remains and related items discovered on federally-owned lands would be treated in accordance with the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (23 USC 3001). The procedures for dealing with the discovery of human remains, funerary objects, or sacred objects on federal land are described in the regulations that implement NAGPRA 43 CFR Part 10. All work in the vicinity of the discovery shall be halted and the administering agency's archaeologist would be notified immediately. Project activities in the vicinity of the discovery would not resume until the federal agency complies with the 43 CFR Part 10 regulations and provides notification to proceed.

Energy

E-1: Use recycled and energy-efficient building materials, energy-efficient tools and construction equipment, and renewable energy sources in construction and operation of the project.

E-2: Improve operations and maintenance practices by regularly checking and maintaining equipment to ensure it is functioning efficiently.

E-3: Optimize start-up time, power-down time, and equipment sequencing.

E-4: Educate employees about how their behaviors affect energy use.

E-5: Ensure that team members are trained in the importance of energy management and basic energy-saving practices. Hold staff meetings on energy use, costs, objectives, and employee responsibilities.

Greenhouse Gas Emissions

GHG-1: Caltrans Standard Specification "Air Quality" requires compliance by the contractor with all applicable laws and regulations related to air quality (Caltrans Standard Specification [SS] 14-9).

GHG-2: Compliance with Title 13 of the California Code of Regulations (CCR), which includes restricting idling of diesel-fueled commercial motor vehicles and equipment with gross weight ratings of greater than 10,000 pounds to no more than 5 minutes.

GHG-3: Caltrans Standard Specification “Emissions Reduction” ensures that construction activities adhere to the most recent emissions reduction regulations mandated by the California Air Resources Board (CARB) (Caltrans SS 7-1.02C).

GHG-4: Use of a Transportation Management Plan (TMP) to minimize vehicle delays and idling emissions. As part of this, construction traffic would be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along the highway during peak travel times.

GHG-5: All areas temporarily disturbed during construction would be revegetated with appropriate native species, as appropriate. Landscaping reduces surface warming and, through photosynthesis, decreases CO_2. This replanting would help offset any potential CO_2 emissions increase.

Hazardous Waste and Material

HW-1: Per Caltrans requirements, the contractor(s) would prepare a project-specific *Lead Compliance Plan* (CCR Title 8, § 1532.1, the “Lead in Construction” standard) to reduce worker exposure to lead-impacted soil. The plan would include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of materials containing lead.

HW-2: If treated wood waste (such as removal of sign posts or guardrail) is generated during this project, it would be disposed of in accordance with Standard Specification 14-11.14 “Treated Wood Waste.”

HW-3: If asbestos-containing material is removed during this project, it would be removed and disposed of in accordance with Standard Special Provisions (SSP) 14-11.10 Naturally Occurring Asbestos and SSP 14–11.16 Asbestos-containing Construction Materials in Bridges”.

Traffic and Transportation

TT-1: A TMP would be prepared for the project. The contractor would be required to schedule and conduct work to avoid unnecessary inconvenience to the public and to maintain access to driveways, houses, and buildings within the work zones. Pedestrian and bicycle access would be maintained during construction.

Utilities and Emergency Services

UE-1: All emergency response agencies in the project area would be notified of the project construction schedule and would have access to I-5 throughout the construction period.

Water Quality and Stormwater Runoff

WQ-1: The project would comply with the provisions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Permit (Order 2022-0033-DWQ), effective January 1, 2023. If the project results in a land disturbance of one acre or more, coverage under the Construction General Permit (CGP) (Order 2022-0057-DWQ) is also required.

Before any ground-disturbing activities, the contractor would prepare a Stormwater Pollution Prevention Plan (SWPPP) (per the Construction General Permit Order 2022-0057-DWQ) or Water Pollution Control Program (WPCP) (projects that result in a land disturbance of less than one acre) that includes erosion control measures and construction waste containment measures to protect Waters of the State during project

construction. For SWPPP projects (which are governed according to both the Caltrans NPDES permit and the Construction General Permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES and CGP and the corresponding requirements of those permits are adhered to.
For WPCP projects (which are governed according to the Caltrans NPDES permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES permit is adhered to.

The SWPPP or WPCP would identify the sources of pollutants that may affect the quality of stormwater; include construction site BMPs to control sedimentation, erosion, and potential chemical pollutants; provide for construction materials management; include non-stormwater BMPs; and include routine inspections and a monitoring and reporting plan. All construction site BMPs would follow the latest edition of the *Caltrans Storm Water Quality Handbooks: Construction Site BMPs Manual* to control and reduce the impacts of construction-related activities, materials, and pollutants on the watershed.

The project SWPPP or WPCP would be continuously updated to adapt to changing site conditions during the construction phase.

Construction may require one or more of the following temporary construction site BMPs:

- Any spills or leaks from construction equipment (e.g., fuel, oil, hydraulic fluid, and grease) would be cleaned up in accordance with applicable local, state, and/or federal regulations.
- Accumulated stormwater, groundwater, or surface water from excavations or temporary containment facilities would be removed by dewatering.
- Water generated from the dewatering operations would be discharged on-site for dust control and/or to an infiltration basin, or disposed of offsite.
- Temporary sediment control and soil stabilization devices would be installed.

- Existing vegetated areas would be maintained to the maximum extent practicable.
- Clearing, grubbing, and excavation would be limited to specific locations, as delineated on the plans, to maximize the preservation of existing vegetation.
- Vegetation reestablishment or other stabilization measures would be implemented on disturbed soil areas, per the Erosion Control Plan.
- For SWPPP projects (which are governed according to both the Caltrans NPDES permit and the Construction General Permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES and CGP and the corresponding requirements of these permits are adhered to. For WPCP projects (which are governed according to the Caltrans NPDES permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES permit is adhered to.

WQ-2: The project would incorporate pollution prevention and design measures consistent with the *2016 Caltrans Storm Water Management Plan* (Caltrans 2016). This plan complies with the requirements of the Caltrans Statewide NPDES Permit (Order 2022-0033-DWQ).

The project design may include one or more of the following:

- Vegetated surfaces would feature native plants, and revegetation would use the seed mixture, mulch, tackifier, and fertilizer recommended in the Erosion Control Plan prepared for the project.
- Where possible, stormwater would be directed in such a way as to sheet flow across vegetated slopes, thus providing filtration of any potential pollutants.

Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with CEQA and other state laws and regulations. Separate environmental documentation supporting a Categorical Exclusion determination will be prepared in accordance with the National Environmental Policy Act (NEPA). 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 National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (USFWS)—in other words, species protected by the Federal Endangered Species Act (FESA)).



CHAPTER 2. CEQA ENVIRONMENTAL CHECKLIST

Environmental Factors Potentially Affected

The environmental factors noted below would be potentially affected by this project. Please see the CEQA Environmental Checklist topics on the following pages for additional information.

Potential Impact Area	Impacted: Yes / No
Aesthetics	No
Agriculture and Forest Resources	**Yes**
Air Quality	**Yes**
Biological Resources	**Yes**
Cultural Resources	**Yes**
Energy	No
Geology and Soils	No
Greenhouse Gas Emissions	**Yes**
Hazards and Hazardous Materials	No
Hydrology and Water Quality	**Yes**
Land Use and Planning	No
Mineral Resources	No
Noise	No
Population and Housing	No
Public Services	No
Recreation	No
Transportation	**Yes**
Tribal Cultural Resources	No
Utilities and Service Systems	No
Wildfire	No
Mandatory Findings of Significance	**Yes**

The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the project will indicate there are no impacts to a particular resource. A “NO IMPACT” answer in the last column of the checklist reflects this determination. The words “significant” and “significance” used throughout the CEQA Environmental Checklist are only related to potential impacts pursuant to CEQA. The questions in the CEQA Environmental 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, as well as standardized measures that are applied to all or most Caltrans projects (such as BMPs and measures included in the Standard Plans and Specifications or as Standard Special Provisions [Section 1.4]), are considered to be an integral part of the project and have been considered prior to any significance determinations documented in the checklist or document.

Project Impact Analysis Under CEQA

CEQA broadly defines “project” to include *“the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment”* (14 California Code of Regulations [CCR] § 15378). Under CEQA, normally the baseline for environmental impact analysis consists of the existing conditions at the time the environmental studies began. However, it is important to choose the baseline that most meaningfully informs decision-makers and the public of the project’s possible impacts. Where existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project’s impacts, a Lead Agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence. In addition, a Lead Agency may also use baselines consisting of both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record. The CEQA Guidelines require a “statement of the objectives sought by the proposed project” (14 CCR § 15124(b)).

CEQA requires the identification of each potentially "significant effect on the environment" resulting from the project, and ways to mitigate each significant effect. Significance is defined as *"Substantial or potentially substantial adverse change to any of the physical conditions within the area affected by the project"* (14 CCR § 15382). CEQA determinations are made prior to and separate from the development of mitigation measures for the project.

The legal standard for determining the significance of impacts is whether a "fair argument" can be made that a "substantial adverse change in physical conditions" would occur. The fair argument must be backed by substantial evidence including facts, reasonable assumption predicated upon fact, or expert opinion supported by facts. Generally, an environmental professional with specific training in an area of environmental review can make this determination.

Though not required, CEQA suggests Lead Agencies adopt thresholds of significance, which define the level of effect above which the Lead Agency will consider impacts to be significant, and below which it will consider impacts to be less than significant. Given the size of California and it's varied, diverse, and complex ecosystems, as a Lead Agency that encompasses the entire State, developing thresholds of significance on a state-wide basis has not been pursued by Caltrans. Rather, to ensure each resource is evaluated objectively, Caltrans analyzes potential resource impacts in the project area based on their location and the effect of the potential impact on the resource as a whole. For example, if a project has the potential to impact 0.10 acre of wetland in a watershed that has minimal development and contains thousands of acres of wetland, then a "less than significant" determination would be considered appropriate. In comparison, if 0.10 acre of wetland would be impacted that is located within a park in a city that only has 1.00 acre of total wetland, then the 0.10 acre of wetland impact could be considered "significant."

If the action may have a potentially significant effect on any environmental resource (even with mitigation measures implemented), then an Environmental Impact Report (EIR) must be prepared. Under CEQA, the Lead Agency may adopt a Negative Declaration (ND) if there is no substantial evidence that the project may have a potentially significant effect on the environment (14 CCR § 15070(a)). A proposed Negative Declaration must be circulated for public review, along with a document known as an Initial Study.

CEQA also allows for a “Mitigated Negative Declaration” in which mitigation measures are proposed to reduce potentially significant effects to less than significant (14 CCR § 15369.5). Although the formulation of mitigation measures shall not be deferred until some future time, the specific details of a mitigation measure may be developed after project approval when it is impractical or infeasible to include those details during the project’s environmental review. The Lead Agency must (1) commit itself to the mitigation, (2) adopt specific performance standards the mitigation will achieve, and (3) identify the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure. Compliance with a regulatory permit or other similar processes may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards (§ 15126.4(a)(1)(B)).

Per CEQA, measures may also be adopted, but are not required, for environmental impacts that are not found to be significant (14 CCR § 15126.4(a)(3)). Under CEQA, mitigation is defined as avoiding, minimizing, rectifying, reducing, and compensating for any potential impacts (CEQA 15370). Regulatory agencies may require additional measures beyond those required for compliance with CEQA. Though not considered “mitigation” under CEQA, these measures are often referred to in an Initial Study as “mitigation”, Good Stewardship, or Best Management Practices. These measures can also be identified after the Initial Study/Negative Declaration is approved.

CEQA documents must consider direct and indirect impacts of a project (California Public Resources (CPR) Code § 21065.3). They are to focus on significant impacts (14 CCR § 15126.2(a)). Impacts that are less than significant need only be briefly described (14 CCR § 15128). All potentially significant effects must be addressed.

No-Build (No-Action) Alternative

For each of the following CEQA Environmental Checklist questions, the “No-Build” Alternative has been determined to have "No Impact”. Under the “No-Build” Alternative, no alterations to the existing conditions would occur and no proposed improvements would be implemented. The “No-Build” Alternative will not be discussed further in this document.

Definitions of Project Parameters

When determining the parameters of a project for potential impacts, the following definitions are provided:

Project Area: This is the general area where the project is located. This term is mainly used in the *Affected Environment* section (e.g., watershed, climate type, etc.).

Project Limits: This is the beginning and ending PM for a project. This is different than the Environmental Study Limits (ESL) in that it sets the beginning and ending limits of a project along the highway. It is the limits programmed for a project, and every report, memo, etc., associated with a project should use the same post mile limits. In some cases, there may be areas associated with a project that are outside of the project limits, such as staging and disposal locations.

Project Footprint: The area within the ESL the project is anticipated to impact, both temporarily and permanently. This includes staging and disposal areas.

Environmental Study Limits : The project engineer provides the Environmental team the ESL as an anticipated boundary for potential impacts. The ESL is *not* the project footprint. Rather, it is the area *encompassing* the project footprint where there could *potentially* be direct and indirect disturbance by construction activity. The ESL is larger than the project footprint in order to accommodate any future scope changes. The ESL is also used for identifying the various Biological Study Areas (BSAs) needed for different biological resources.

Biological Study Area (BSA): The BSA encompasses the ESL plus any areas outside of the ESL that could be potentially affected by a project (e.g., noise, visual, Coastal Zone, etc.). Due to lack of buffer requirements for potentially impacted species and habitats, the BSA for this project does not include buffers or extend outside the ESL; therefore, the BSA and ESL are considered the same for this project.

Aesthetics

Except as provided in Public Resources Code Section 21099:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Have a substantial adverse effect on a scenic vista?	No	No	No	Yes
Would the project: b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No	No	No	Yes
Would the project: 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	No	No	Yes
Would the project: d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Visual Impact Assessment dated September 20, 2024 (Caltrans 2024a).

Potential impacts to visual characteristics of the environmental setting are not anticipated as the proposed project would be visually compatible with the existing infrastructure and would not degrade the public traveler's experience along I-5.

Located within the project limits are Lost Slough and Middle Slough which are recognized by Sacramento County as scenic resources. Additionally, I-5, within the project limits, is designated a scenic corridor. The proposed project scope of work, which includes pavement rehabilitation, raising the roadway profile, repairing/upgrading drainage systems, and updating roadside elements, would not adversely impact any scenic resources. The proposed project site, located in a non-urbanized area, is surrounded by open agricultural farmlands. The existing MGS guardrail is not up to standard, and the new MGS guardrail may initially create minimal glare. However, this glare would not be distractive and would diminish as the guardrail weathers and ages. Based on this information, there would be no impacts to Aesthetics.

Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project; the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by CARB.

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No	No	Yes	No
Would the project: b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No	No	No	Yes
Would the project: c) Conflict with existing zoning for, or cause rezoning of forest land (as defined by 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	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: d) Result in the loss of forest land or conversion of forest land to non-forest use?	No	No	No	Yes
Would the project: 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	No	No	Yes

Regulatory Setting

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

Affected Environment

The determinations in this section are based on the scope, description, and location of the proposed project, as well as the California Department of Conservation Farmland Maps (California Department of Conservation 2020) and Sacramento County General Map (County of Sacramento 2023a).

The proposed project is located within an area zoned for agricultural use in Sacramento County. Agricultural fields are located on both sides of I-5 throughout the entire proposed project limits and around the project vicinity. Properties near the proposed project limits include various farmlands and farmlands with Williamson Act Contracts. Multiple culverts along I-5 are located on these farmlands. Many of these culverts were considered for drainage work but, are not included in the scope of work.

While most construction activities would occur within the existing Caltrans right of way, four temporary construction easements (TCEs) would be needed to access and repair culverts located outside of the existing Caltrans right of way.

Table 2. Temporary Construction Easements

Location	Type of Land	Square Feet of TCE
TCE #1 at PM 1.6	Grazing Land	565 sq feet
TCE #2 at PM 1.6	Prime Farmland	515 sq feet
TCE #3 at PM 2.3	Farmland of Local Importance	310 sq feet
TCE #4 at PM 2.3	Farmland of Local Importance	340 sq feet

Environmental Consequences

Construction activities would be limited to the area inside the TCEs with work consisting of repairing and replacing culverts. Therefore, temporary impacts to farmland would occur only within the area of the TCE. These temporary impacts would be less than significant because farmland would be restored and returned to agricultural use upon completion of construction. Additionally, the proposed project would not require the permanent acquisition of land nor would it result in any permanent conversion.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize impacts from construction activities.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

Discussion of CEQA Environmental Checklist Question 2.2—Agriculture and Forest Resources

a) Would the project 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. The proposed project would temporarily convert Prime Farmland to non-agricultural use during the construction and repairs of poor condition culverts located on the farmland property. This conversion would not be permanent as the temporary construction easement would cease upon completion of construction. Therefore, the impacts would be less than significant.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The proposed project would not conflict with existing zoning for agricultural use as the scope of work for the project is addressing pavement repair, raising the roadway less than 2 feet, and repairing drainage along the existing I-5 roadway. There is no Williamson Act Contract inside the proposed project limits.

c) Would the project 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. There is no timberland or forest land within the proposed project limits.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. There is no timberland or forest land within the proposed project limits.

e) Would the project 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. The proposed project limits are along the roadway of I-5 and at four culverts located outside of the existing Caltrans right of way. The proposed project's scope of work would not result in other changes to the existing environment or farmland to non-agricultural use.

Air Quality

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

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Conflict with or obstruct implementation of the applicable air quality plan?	No	No	No	Yes
Would the project: 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	No	No	Yes
c) Expose sensitive receptors to substantial pollutant concentrations?	No	No	No	Yes
Would the project: d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No	No	Yes	No

Regulatory Setting

The federal Clean Air Act (CAA), as amended, is the primary federal law that governs air quality, while the California CAA is its corresponding state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and CARB, set standards for the concentration of pollutants in the air.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under NEPA. In addition to this analysis, a parallel "Conformity" requirement under the federal CAA also applies. U.S. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for National

Ambient Air Quality Standards (NAAQS) and do not apply at all for state standards regardless of the status of the area.

Affected Environment

The *Air Quality, Greenhouse Gas, and Energy* Analysis was prepared on October 31, 2024 (Caltrans 2024b). This proposed project is exempt from all air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) § 93.126, subsection “Safety” (“Pavement resurfacing and/or rehabilitation”) and no further air quality analysis is required under NEPA. The proposed project is located within the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). SMAQMD is the primary agency responsible for writing the Air Quality Management Plan, in cooperation with the Sacramento Area Council of Governments, local agencies, and the private sector. This plan provides the blueprint for meeting state and federal ambient air quality standards.

Environmental Consequences

The proposed project is not a capacity-increasing transportation project. The proposed modifications would not result in changes to the traffic volume, fleet mix, speed, location of existing facility or any other factor that would cause an increase in emissions relative to the No-Build Alternative; therefore, this project would not cause an increase in operational emissions. During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other construction-related activities. Construction activities are expected to increase traffic congestion in the area, resulting in increases in emissions from traffic during the delays. However, these emissions would be temporary and limited to the immediate area surrounding the construction site.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize air quality impacts from construction activities.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

Discussion of CEQA Environmental Checklist Question 2.3—Air Quality

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The proposed project's scope of work is to provide resiliency to the transportation system by raising the roadway profile, rehabilitating pavement and drainage systems, and improving highway signs, Transportation Management Systems, and safety elements. This scope of work and type of project does not conflict or obstruct implementation of the applicable air quality plans.

b) Would the project 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. The proposed scope of work would not result in the increase of criteria pollutants as the project is exempt from all project-level conformity per 40 CFR 93.126.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

No Impact. The proposed project is not adjacent to any sensitive receptors (e.g., schools, residential, hospitals). Therefore, no impacts from substantial pollutant concentrations would occur.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. Temporary impacts may occur during construction activities; however, these emissions would be limited to the immediate area surrounding the construction site. Upon completion of construction, the proposed project would not induce additional emissions. Caltrans Standard Measures (Section 1.6) would minimize air impacts from construction activities. Therefore, there would be less than significant impacts.

Biological Resources

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: 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 NOAA Fisheries?	No	No	Yes	No
Would the project: b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	No	No	Yes	No
Would the project: 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?	No	No	No	Yes
Would the project: 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	No	No	Yes
Would the project: e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: 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	No	No	Yes

Regulatory Setting

Within this section of the document (2.4. Biological Resources), the topics are separated into Natural Communities, Wetlands and Other Waters, Plant and Animal Species, including Threatened and Endangered Species, and Invasive Species. Threatened and endangered special status plant and animal species include USFWS, NMFS and CDFW candidate species and CDFW Fully Protected (FP) species. CDFW Species of Special Concern (SSC) and California Native Plant Society (CNPS) rare plants are covered in their respective Plant and Animal sections.

The following sections rely on Chapter 4 of the project Natural Environment Study (NES) (Caltrans 2024c).

NATURAL COMMUNITIES

This section of the document discusses Natural Communities of Special Concern. The focus is on biological communities, not individual plant or animal species. CDFW maintains a list of sensitive natural communities (SNCs). SNCs are those natural communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special status taxa or their habitat. This section also includes information on wildlife corridors, fish passage, and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat (CH) under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section.

WETLANDS AND OTHER WATERS

Wetlands and Waters of the United States and State are protected under several laws and regulations. The primary laws and regulations governing wetlands and other waters include:

- Federal: Clean Water Act (CWA)–33 United States Code (USC) 1344 (USACE–Section 404 Permits)
- Federal: Executive Order for the Protection of Wetlands (Executive Order [EO] 11990)
- State: California Fish and Game Code (CFGC)–Sections 1600–1607
- State: Porter-Cologne Water Quality Control Act–Section 3000 et seq.

PLANT SPECIES

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special status plant species. “Special status” species are selected for protection because they are rare and/or subject to population and habitat declines. The primary laws governing plant species include:

- Federal Endangered Species Act (FESA)–USC 16 Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402
- California Endangered Species Act (CESA)–California Fish and Game Code (CFGC) Section 2050, et seq.
- Native Plant Protection Act–California Fish and Game Code Sections 1900–1913
- National Environmental Policy Act (NEPA)–40 CFR Sections 1500 through 1508
- California Environmental Quality Act (CEQA)–California Public Resources Code (PRC) Sections 21000–21177

ANIMAL SPECIES

The USFWS, NMFS, and CDFW have regulatory responsibility for the protection of special status animal species. The primary laws governing animal species are indicated below:

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act–40 CFR Sections 1500 through 1508
- Migratory Bird Treaty Act–16 USC Sections 703–712
- Fish and Wildlife Coordination Act–16 USC Section 661

State laws and regulations relevant to wildlife include the following:

- CEQA
- Sections 1600–1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

The primary laws governing threatened and endangered species include:

- FESA–16 USC Section 1531, et seq. See also 50 CFR Part 402
- CESA–California Fish and Game Code Section 2050, et seq.
- CESA–California Fish and Game Code Section 2080
- CEQA–California Public Resources Code, Sections 21000–21177
- Magnuson-Stevens Fishery Conservation and Management Act, as amended–16 USC Section 1801

INVASIVE SPECIES

The primary laws governing invasive species are Executive Order (EO) 13112 and NEPA.

Affected Environment

A *Natural Environment Study* (Caltrans 2024c) was prepared on December 26, 2024. Caltrans will coordinate with agency personnel from U.S. Army Corps of Engineers (USACE), USFWS, CDFW, and CVRWQCB when the proposed project nears Phase 1. Phase 1 would be the next phase of the proposed project; it is the phase when the plans, specifications, and estimates are developed for contract bidding.

The proposed project is located within the Sacramento Valley. The climate is characterized as Mediterranean, with hot, dry summers and cool, wet winters. The average yearly high temperature is 74 degrees Fahrenheit, and the average low temperature is 48.1 degrees Fahrenheit. Average high temperatures can reach over 100 degrees Fahrenheit in the summer. Average annual precipitation is 17 inches.

The topography is mostly flat and within the San Joaquin-Sacramento Delta. Land uses within and surrounding the ESL include public roadways, agricultural cropland, and a resource conservation area. The Consumnes River Preserve is between PM 1.20 and 2.00. It's located outside of the project limits on the southwest section of the project vicinity. The Mokelumne River is located outside of the proposed project limits, approximately 0.2 miles south of the ESL. However, Middle Slough and Lost Slough are both within the proposed project limits.

SENSITIVE NATURAL COMMUNITIES

Within the proposed project limits, the Natural Communities of Special Concern include riparian forest and Waters of the U.S. and State.

Essential Fish Habitat for Chinook salmon and groundfish is located outside the ESL; therefore, EFH will not be discussed further.

Riparian Forest

Affected Environment

Riparian forest within the ESL is found along Middle Slough and Lost Slough. The overstory of the riparian forest is predominately valley oak (*Quercus lobata*) and Fremont cottonwood (*Populus fremontii)*. Gooding's willow (*Salix gooddingii*) and other willow species (*Salix sp.*), Oregon white ash (*Fraxinus latifolia*), box elder (*Acer negundo*), and tree of heaven (*Ailanthus altissima*) are also present.

Environmental Consequences

No riparian impacts are expected as no riparian vegetation is anticipated to be removed during construction activities.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize any unanticipated impacts to riparian resources.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

Wetlands and Other Waters

Affected Environment

The terms "jurisdictional wetlands or waters" or Waters of the U.S. and State refer to areas that are regulated by federal and/or state agencies, such as the U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (U.S. EPA), and the California Regional Water Quality Control Board (RWQCB).

Jurisdictional Waters of the United States are defined as those waters that are currently used, or were used in the past, or may be susceptible to use in interstate commerce, including all waters subject to the ebb and flow of the tide and all interstate waters including interstate wetlands. This definition also includes interstate lakes, rivers, streams (including intermittent and ephemeral), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds where the use, degradation, or destruction of which could affect interstate or foreign commerce.

During surveys conducted in May and September 2024, aquatic resources within the ESL were identified.

Middle Slough and Lost Slough are both considered Waters of the U.S. and State. Middle Slough conveys water under I-5 at PM 0.7 and Lost Slough conveys water under I-5 at PM 1.15. The proposed project does not include any work within Middle Slough or Lost Slough and no impacts to either of these features is anticipated.

Various agricultural canals convey water under I-5 through state-maintained culvert systems and either flow into agricultural fields or into the Cosumnes River Preserve. These agricultural canals are considered aquatic resources of Waters of the U.S. and State due to this connectivity with areas of the preserve.

There are no state or federally protected wetlands within the ESL.

Environmental Consequences

Temporary fill will be placed within agricultural canals at five culvert locations during construction. All temporary fill associated with the culvert work is occurring within Waters of U.S. and State due to the clear bed and channel of these agricultural canals. These temporary impacts would result in less than significant impacts due to the temporary and minimal construction that would occur in the canal. The impacts to Waters of the U.S. and State from this action are detailed below in Table 3 and Figure 4.

Table 3. Impacts to Waters of the U.S. and State

Culvert Location	Temporary Impacts	Permanent Impacts
PM 1.6	0.02 acres	0 acres
PM 2.31	0.01 acres	0 acres
PM 3.5	0.01 acres	0 acres
PM 3.5	0.01 acres	0 acres
Total	**0.05 acres**	**0 acres**

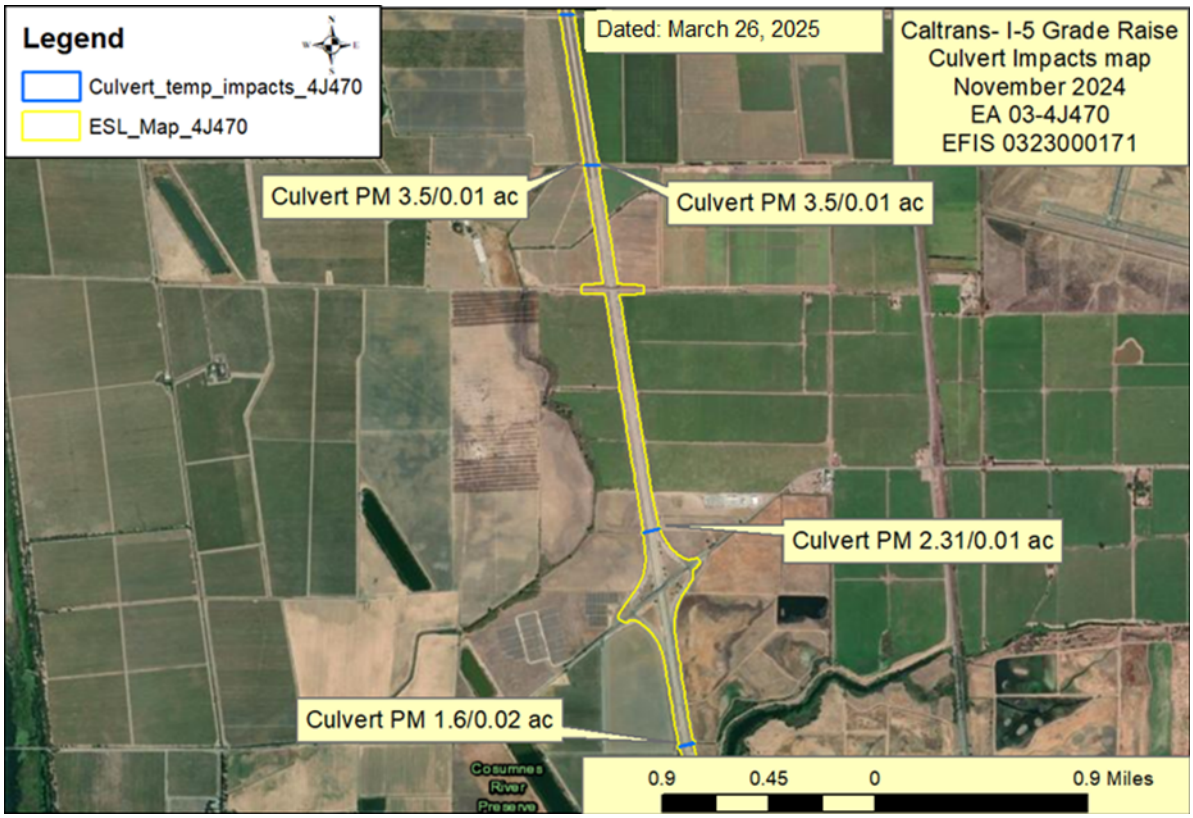


Figure 3. Culvert Locations for Temporary Impacts to Waters of U.S. and State

This project would require the following permits:

- USACE – Clean Water Act Section 404
- CVRWQCB – Clean Water Act Section 401
- CDFW - California Fish and Game Code Section 1602–Lake and Streambed Alteration Agreement

If water diversion structures become necessary, additional avoidance, minimization, and mitigation measures would need to be finalized. This may include measures for the contractor submitting a Water Diversion Plan to Caltrans.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize adverse effects to water quality, aquatic habitat, and aquatic species. In addition, the following measures and Standard Special Provision (SSP) will be enacted during project activities.

- SSP: 14-1.02 Environmentally Sensitive Area – All potentially sensitive biological resources, such as riparian forests, within the BSA have been identified as ESAs. The ESAs would be staked and flagged in a manner that easily identifies the area as an ESA in the field, and functions to limit any equipment access to non-construction areas.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

PLANT SPECIES

The following federal and/or state listed plant species (FESA/CESA) and California Rare Plant species were identified in USFWS, CDFW-CNDDB and CNPS queries for potential habitat occurring within the ESL (Table 4). No special status plant species were observed during botanical habitat assessment surveys in May and September 2024. There are no CNDDB occurrences for these species within the project vicinity. The surrounding area is largely agricultural fields and gravel-covered roadside shoulders (within the existing Caltrans right of way) that are heavily disturbed/mowed and maintained. These species would not be impacted by the project and are not discussed further.

Table 4. Findings of Special Status Plant Species that May Potentially Occur within the Environmental Study Limits

Common Name	*Scientific Name*	Status Federal/State[1] CRPR[2]	Habitat/ Critical Habitat	Effect/ Impact Determination
Bolander's water-hemlock	*Cicuta maculata* var. *bolanderi*	--/--/2B.1	Present/--	No Impact
Bristly sedge	*Carex comosa*	--/--/2B.1	Present/--	No Impact
Delta mudwort	*Limosella australis*	--/--/2B.1	Present/--	No Impact
Delta tule pea	*Lathyrus jepsonii* var. *jepsonii*	--/--/1B.2	Present/--	No Impact

Common Name	*Scientific Name*	Status Federal/State[1] CRPR[2]	Habitat/ Critical Habitat	Effect/ Impact Determination
Dwarf downingia	*Downingia pusilla*	--/--/2B.2	Present/--	No Impact
Large flowered fiddleneck	*Amsinckia grandiflora*	FE/SE/1B.1	Absent/Absent	No Effect No Impact
Legenere	*Legenere limosa*	--/--/1B.1	Absent/--	No Impact
Mason's lilaeopsis	*Lilaeopsis masonii*	--/SR/1B.1	Present/--	No Impact
Marsh skullcap	*Scutellaria galericulata*	--/--2B.2	Present/--	No Impact
Sanford's arrowhead	*Sagittaria sanfordii*	-/-/1B.2	Present/--	No Impact
Saline clover	*Trifolium hydrophilum*	-/-/1B.2	Present/--	No Impact
Side-flowering skullcap	*Scutellaria lateriflora*	--/--/2B.2	Present/--	No Impact
Watershield	*Brasenia schreberi*	--/--/2B.3	Present/--	No Impact
Woolly rose-mallow	*Hibiscus lasiocarpos* var. *occidentalis*	--/--/1B.2	Present/--	No Impact

[1]Federal Status: FT = Federal Threatened; FE = Federal Endangered; FPT = Federal Proposed Threatened; FC = Federal Candidate; FP = Fully Protected

State Status: ST = State Threatened; SE = State Endangered; SCE = State Candidate Endangered; FP = Fully Protected; SSC = CDFW Species of Special Concern; SR = State Rare

[2]CRPR = California Rare Plant Rank

ANIMAL SPECIES

The following federal and/or state listed animal species were identified in USFWS, NMFS, and CDFW-CNDDB queries for potential habitat occurring within the ESL (Table 5). Giant garter snake, northwestern pond turtle, and burrowing owl have potential habitat present within the ESL; therefore, any potential impacts to these species from project activities are discussed in more detail further below.

Table 5. Findings of Special Status Animal Species that May Potentially Occur within the Project Study Limits

Common Name	Status Federal/State	Habitat Present/Absent Critical Habitat Present/Absent	Effect/Impact Finding
American badger	--/SSC	Absent/--	No Impact
Burrowing owl	--/SC, SSC	Present --	No Take/Impact
California black rail	--/ST	Absent/--	No Take
Chinook salmon–Central Valley Spring Run Evolutionarily Significant Unit (CVSR ESU)	FT/SE	Present CH Absent	No Effect/No Take
Chinook salmon–Sacramento River Winter Run Evolutionarily Significant Unit (SRWR ESU)	FE/SE	Present CH Absent	No Effect/No Take
Crotch's bumble bee	--/SCE	Absent/--	No Take
Delta smelt–San Francisco Bay-Delta DPS	FT/SE	Present CH Present	No Effect/No Take
Giant garter snake	FT/ST	Present CH Absent	May affect, not likely to adversely affect/No Take
Green sturgeon–Southern Distinct Population Segment (DPS)	FT/SSC	Present CH Absent	No Effect/No Impact
Longfin smelt	FE/ST	Present CH Absent	No Effect/No Take

Common Name	Status Federal/State	Habitat Present/Absent Critical Habitat Present/Absent	Effect/Impact Finding
Monarch butterfly	FC/--	Absent CH Absent	No Effect
Northwestern pond turtle	FPT/SSC	Present CH Absent	May affect, not likely to adversely affect/No Impact
Song sparrow ("Modesto" population)	--/SSC	Absent/--	No Impact
Steelhead–California Central Valley (CCV) DPS	FT/SSC	Present CH Present	No Effect/No Impact
Swainson's hawk	--/ST	Absent/--	No Take
Tricolored blackbird	--/ST, SSC	Absent/--	No Take/Impact
Valley elderberry longhorn beetle	FT/--	Absent CH Absent	No Effect
Vernal pool fairy shrimp	FT/--	Absent CH Absent	No Effect
Vernal pool tadpole shrimp	FE/--	Absent CH Absent	No Effect
Western spadefoot	FPT/--	Absent CH Absent	No Effect
Yellow-billed cuckoo–Western U.S. DPS	FT/SE	Absent CH Absent	No Effect/No Take

Based on queries to the USFWS, NMFS, and CDFW-CNDDB, the fish species listed below were identified as having suitable habitat within the project vicinity. While suitable and critical habitat is found nearby in the Sacramento River and Mokelumne River, both rivers are located outside of the ESL. There are also no records of these species being active in Middle Slough or Lost Slough. Because these species were not observed and there are no records of these species being active within the ESL, and as the species are outside the geographic range of the ESL or there is no suitable or critical habitat within the ESL, they are not discussed further.

- Chinook salmon (*Oncorhynchus tshawytscha*)–Central Valley spring run ESU – federal threatened, state endangered

- Chinook salmon (*Oncorhynchus tshawytscha*)–Sacramento River winter run ESU – federal and state endangered
- Green Sturgeon (*Acipenser Medirostris*)–sDPS (Pop. 1) – federal threatened, state Species of Special Concern
- Delta smelt (*Hypomesus transpacificus*)–San Francisco Bay-Delta DPS – federal threatened, state endangered
- Longfin smelt (*Spirinchus thaleichthys*) – federal endangered, state threatened
- Steelhead (*Oncorhynchus mykiss irideus*)–California Central Valley (CCV) DPS (Pop. 11) – federal threatened, state Species of Special Concern

Because burrowing owl, giant garter snake, and northwestern pond turtle have potential habitat present within the ESL, discussion for potential impacts to these species is provided below.

Burrowing Owl

Affected Environment

Burrowing owl (*Athene cunicularia*) is a designated state Species of Special Concern. (This species was granted Candidate listing on October 10, 2024, but the CNDDB has not yet been updated to reflect that listing.) This species is a year-round resident typically wintering in the same locations as their breeding territory. They nest in dry grassland, desert, and ruderal habitats. They often nest on the banks of canals and levees. They inhabit small mammal burrows or other suitable underground cavities for nesting. Breeding typically takes place from March to August. The nearest CNDDB occurrence is over 2 miles away from the ESL.

Environmental Consequences

No existing mammal burrows were observed during surveys conducted in May and September 2024. No impacts are anticipated to this state Species of Special Concern as burrowing owl is unlikely to inhabit the ESL during project activities.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize impacts to burrowing owl. In addition, the following measures and Standard Special Provisions (SSPs) will be enacted during project activities.

- A minimum of one pre-construction survey for occupied burrowing owl burrows within the ESL in suitable habitat (e.g., grasslands) will be conducted by a qualified biologist within 15 days prior to the initiation of construction activities, regardless of the timing of construction. If any occupied burrows are identified, appropriate conservation measures (as determined by a qualified biologist) will be implemented. If an active nest is located, appropriate working buffers will be determined through consultation with CDFW. Appropriate measures may also include establishing a construction-free buffer zone around the active nest site in coordination with CDFW, biological monitoring of the active nest site, and delaying construction activities in the vicinity of the active nest site until the young have fledged.
- If burrowing owls are detected within the ESL during the non-breeding season and maintaining a disturbance buffer is not practicable, a qualified biologist will submit an Exclusion Plan to CDFW.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Giant Garter Snake

Affected Environment

The giant garter snake (*Thamnophis gigas*) (GGS) is a federal and state threatened species. GGS inhabit marshes, sloughs, ponds, small lakes, low gradient streams, and other waterways. This species also frequents agricultural wetlands such as irrigation and drainage canals, rice fields, and their adjacent uplands. Essential habitat components consist of the following:

- adequate flowing water during the snake's active period (i.e., early spring through mid-fall) to provide a prey base and cover

- emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat
- upland habitat for basking, cover, and retreat sites
- and higher elevation uplands for cover and refuge from flood waters as upland habitat for the giant garter snake includes upland areas within 200 feet of aquatic habitat.

GGS inhabits small mammal burrows and other soil crevices above prevailing flood elevations throughout its winter dormancy period (approximately October 1 to April 1). GGS typically selects burrows with sunny exposure along south- and west-facing slopes. The breeding season extends through March and April, and females give birth to live young from late July through early September. Young immediately scatter into dense cover and absorb their yolk sacs, after which they begin feeding on their own. GGS feed primarily on small fishes, tadpoles, and frogs.

The nearest CNDDB GGS occurrence is 1,000 feet east of the ESL, located within the Cosumnes River Preserve. No GGS were observed within the ESL during reconnaissance-level biological surveys conducted in May, August, and September 2024.

Environmental Consequences

The agricultural canals contain sparse aquatic vegetation as well as an upland region. The upland region of the canals has a relatively vertical slope and would present difficulties for GGS emergence.

However, the canals that are conveyed under I-5 within the ESL may provide low-quality potential GGS habitat as GGS utilizes the canals as travel corridors underneath I-5. The established Caltrans right of way fence would act as a barrier to GGS' ability to emerge onto the shoulders and roadways of I-5.

Additionally, the potential habitat within the ESL is of poor quality, contains areas of high disturbance, and has areas of agricultural practices that aren’t conducive to GGS inhabitation, such as corn fields and paved access roads.

All construction activities would occur during the GGS active period (May 1 to October 1). If GGS happens to be near the project area, GGS would be able to move away from construction, which would reduce the likelihood of injury or

mortality. Once project activities are complete and excess vibrations related to construction activity have stopped, GGS would be able to move back into the project area. No GGS are anticipated to be present during construction activities.

Per FESA, with implementation of the Standard Measures and BMPs identified in Section 1.6, and avoidance and minimization measures indicated below, Caltrans has determined the project may affect, is not likely to adversely affect GGS.

Per CESA, Caltrans has determined the project would have “no take” of giant garter snake.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize effects to GGS. In addition, the following measures and Standard Special Provisions (SSPs) will be enacted during project activities.

- Hazardous materials, such as fuels, oils, and solvents, will be stored in sealable containers in a designated location that is at least 100 feet from wetted areas and aquatic habitats.
- On-site monitoring during initial ground disturbance activities of the project will be conducted by a USFWS/CDFW-approved biologist. If GGS is encountered during construction, activities will cease until appropriate corrective measures have been completed or it has been determined that the GGS will not be harmed.
- Twenty-four hours prior to construction activities, the project area will be surveyed for GGS by a USFWS/CDFW-approved biologist. Surveys of the project area should be repeated if a two-week or greater lapse in construction activity occurs.
- Upon completion of the project, all disturbed areas within the action area will be revegetated using native plant species, and post-monitoring work and photographs will be reported to USFWS and CDFW showing that temporary impacts have been restored to pre-construction conditions.
- At the end of each work day, an escape ramp would be placed at each end of the open trench. This will allow any animals that may have been entrapped in the trench overnight to climb out. The escape ramp may be constructed of dirt

fill, wood planking, or other suitable material and placed at an angle no greater than 30 degrees.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Northwestern Pond Turtle

Affected Environment

The northwestern pond turtle (NWPT) (*Actinemys marmorata)* is currently proposed to be listed as a threatened species. Should federal listing status change, Caltrans will initiate consultation with USFWS. Additionally, NWPT is a state Species of Special Concern.

Essential habitat components consist of:

- permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, unlined irrigation canals, and reservoirs.
- aquatic habitat includes muddy bottoms, under-water refugia, and basking sites such as logs, mud banks, or cattail mats with sunny exposure.
- basking in sunshine is a method of raising and maintaining body temperature and lack of basking sites may affect suitability of aquatic habitat.

Nesting habitat needs good solar exposure with little or no tree canopy cover and is usually in sparse vegetation consisting of grass and forbs, with compact soil comprising clay or silt fraction or sandy loam, and sometimes gravel/cobble mixed with soil. Breeding generally occurs from March to August. Eggs are typically laid during May and June, but can be laid from late April through early August. Eggs are incubated for about 73 to 80 days.

There is one CNDDB occurrence for NWPT within 0.5 miles of the ESL. No NWPT were observed during Caltrans field reconnaissance in May and September 2024. BLM staff mentioned to Caltrans staff that there were sightings of NWPT in culverts within the ESL. Due to the proximity to the Cosumnes River Preserve, it is anticipated the species would utilize the culverts during construction.

Environmental Consequences

Most of the ESL consists of the paved shoulders and roadways of I-5. The culverts are barricaded due to fencing, which provides poor quality habitat for NWPT. The project is not anticipated to result in mortalities of NWPT based on lack of recent occurrences and lack of NWPT access to the I-5 roadways and shoulders. However, because the culverts within the ESL could be utilized as a travel corridor by NWPT adults and young, there is a potential risk of construction-related death. With implementation of the avoidance and minimization measures indicated below, these potential impacts could be avoided.

Work on the culverts would result in direct temporary impacts to the agricultural canals. The project would temporarily impact 0.06 acres of potential NWPT aquatic habitat. However, these impacts are to agricultural canals, which are not primary habitats for NWPT. Therefore, impacts to rearing, foraging and resting habitat are anticipated to be negligible. Additionally, travel of NWPT through the culverts would resume after completion of construction activities.

Per FESA, take of NWPT is not anticipated to occur during project activities. However, this possibility has yet to be discussed with regulatory agencies. Section 7 consultation would be required for NWPT and level of effects may be amended during the Section 7 consultation process. As a result of project activities, Caltrans has determined the project may affect and is likely to adversely affect NWPT.

As a state Species of Special Concern, the project is not anticipated to impact Northwestern pond turtle.

If water diversion is used, additional avoidance, minimization, and mitigation measures would be added. This may include measures for water pumps being screened with wire mesh screens no larger than 0.2 inches to prevent sub-adults and adults from entering the pump system.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize effects to NWPT. In addition, the following measures and Standard Special Provisions (SSPs) would be enacted during project activities.

- SSP 14-1.02 Environmental Sensitive Area - All potentially sensitive biological resources, such as riparian forests, within the BSA have been identified as ESAs. The ESAs would be staked and flagged in a manner that easily identifies the area as an ESA in the field, and functions to limit any equipment access to non-construction areas.
- SSP 14-6.03D(3) Biological Resource Information Program - The Biological Resource Information Program (BRIP) requires the Contractor-Supplied Biologist to prepare and present a Biological Resource Information Program to familiarize personnel with regulated species and habitats, related laws and regulations, and species protection measures and protocols.
- SSP: 14-6.03D(1) Contractor Supplied Biologist – A contractor-supplied biologist would monitor work activities that could potentially impact sensitive biological resources.
- If NWPT are encountered at any time during project activities, work would cease in the immediate area per an agreed consultation with Section 7 and NWPT would be relocated by a qualified biologist to suitable habitat.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed. However, upon the conclusion of Section 7 consultation, mitigation measures could be required. If required, Caltrans would seek another form of compensatory mitigation as currently no mitigation banks exist for NWPT.

Migratory and Non-game Birds

Affected Environment

The Federal Migratory Bird Treaty Act (MBTA) (15 USC 703-711), Title 50 Code of Federal Regulations (CFR) Part 21 and 50 CFR Part 10, and the California Department of Fish and Game Code (CFGC) Sections 3503, 3513, 3800, and AB-2627 protect migratory birds, their occupied nests, and their eggs from disturbance or destruction. The MBTA provides protection in part by restricting the disturbance of nests during the bird nesting season.

There are native birds protected under the MBTA (and similar provisions under California Fish and Game Code) that currently nest or have the potential to nest within the ESL. During biological surveys conducted in September 2024, habitat was

determined to be favorable to canopy, cavity, and structural nesting birds. Evidence of swallow (*Hirundo rustica*) nesting was present under the Dierssen Road Overcrossing structure.

Environmental Consequences

Construction work at the Dierssen Road Overcrossing would potentially occur during the nesting season (February 1 to September 30), when active nests may be impacted. To facilitate culvert and grade raise work, vegetation would be removed throughout construction activities.

With implementation of the Standard Measures and BMPs indicated in Section 1.6 and the following avoidance and minimization measures, it is anticipated there would be no impacts to migratory and non-game birds.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize impacts to those species potentially affected by the project. In addition, the following measures and Standard Special Provisions (SSPs) would be enacted during project activities.

- To ensure compliance with MBTA and California Fish and Game Codes, vegetation removal and initiation of construction activities should not occur during the nesting season (defined as February 1 to September 30). If this is not possible and vegetation removal or initiation of work is to occur during the nesting season, a pre-construction survey will be required.
- The pre-construction survey would be performed by a qualified biologist to determine the presence of nesting birds and ensure active nests are not directly or indirectly impacted during construction. The pre-construction survey area will include the limits of the project impact area plus a 500-foot buffer. If work is planned to begin during the nesting season (February 1 to September 30), all vegetation removal would be completed within 7 to 10 days of the nesting survey where the survey determines no active nests are present. If the nest of a protected bird is found, the perimeter shall be flagged, and a qualified biologist will coordinate with USFWS and CDFW to determine an appropriate buffer distance from construction to ensure protection of the nest. The contractor would stop work in the nesting area and is prohibited from conducting work that could disturb the nesting birds until the buffer is

established (as determined by the project biologist in coordination with wildlife agencies). The buffer shall remain in the protected area until the biologist has determined that nesting activities are complete.

- Construction activities would not disturb nesting swallows. A qualified biologist shall coordinate with USFWS and CDFW to determine what construction activities, if any, can occur once nesting activities commence.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Discussion of CEQA Environmental Checklist Question 2.4a)—Biological Resources

a) Would the project 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 NOAA Fisheries/NMFS?

Burrowing Owl

No Impact. The conditions within the ESL and ambient noise from I-5 traffic would not provide suitable habitat. There was a lack of any mammal burrows observed and no CNDDB occurrence within 2 miles of the ESL.

Giant Garter Snake

Less Than Significant Impact. Only low-quality potential habitat is present within the ESL. There were no species observed during surveys and the nearest CNDDB GGS occurrence is 1,000 feet outside the ESL. While there is a possibility of the species being present within the ESL, if giant garter snakes happen to be near the project area, they likely would move away from the construction, thus reducing any likelihood of impacts.

Per FESA, Caltrans has determined this project may affect, but is not likely to adversely affect giant garter snake.

Per CESA, based on the rationale provided above, as well as implementation of the Standard Measures and BMPs (Section 1.6) and avoidance and minimization measures indicated above, Caltrans has determined there would be no take of giant garter snake.

Northwestern Pond Turtle

Less Than Significant Impact. While no species were observed during surveys, it is anticipated NWPT could be present in all the culverts within the ESL. While this would be poor quality habitat, it could be used as a travel corridor by NWPT adults and young. Construction in the culverts and temporary impacts to the agricultural canals may result in impacts to 0.05 acres of NWPT aquatic habitat. The project is not expected to result in direct impacts to NWPT. With implementation of Caltrans Standard Measures and Best Management Practices (Section 1.6), as well as the avoidance and minimization measures indicated above, less than significant impacts are anticipated.

Per FESA, Caltrans has determined the project may affect and is likely to adversely affect northwestern pond turtle. Section 7 consultation with USFWS would be required for northwestern pond turtle and level of effects may be amended during the Section 7 process.

No impacts to northwestern pond turtle are anticipated to occur during project activities; however, this possibility has yet to be discussed with regulatory partners.

Migratory Birds

No Impact. During construction some migratory birds may be present within the proposed project limits. However, the proposed project's construction activities and scope of work to rehabilitate pavement and drainage would not have a substantial adverse effect on migratory birds. Implementation of Caltrans Standard Measures and Standard Special Provisions would provide avoidance and minimization commitments to ensure protection of these birds and anticipate any potential impacts.

Discussion of CEQA Environmental Checklist Question 2.4b)—Biological Resources

b) Would the project 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?

Riparian Forest

No Impact. The scope of work does not include any removal of riparian vegetation during construction; therefore, there would be no impact to riparian habitat.

Waters of the U.S. and State

Less Than Significant. The proposed scope of work would result in temporary fill placed within agricultural canals during the construction at five culvert locations. Impacts to 0.05 acres of agricultural canals would not be permanent; thus, the proposed project would not result in a substantial adverse effect. Implementation of Caltrans Standard Measures and BMPs (Section 1.6) and avoidance and minimization measures, would ensure less than significant impacts to any Waters of the U.S. and State.

Discussion of CEQA Environmental Checklist Question 2.4c)—Biological Resources

c) Would the project 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?

No Impact. The proposed scope of work does not include removal, filling, hydrological interruption, or other means which would affect state or federally protected wetlands. Therefore, there would be no impact.

Discussion of CEQA Environmental Checklist Question 2.4d)—Biological Resources

d) Would the project 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. As there are no migratory wildlife corridors or use of native wildlife nursery sites present within the ESL, the proposed project would not substantially interfere with wildlife movement.

Discussion of CEQA Environmental Checklist Question 2.4e)—Biological Resources

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The proposed project scope of work does not involve any tree removal; therefore, would not conflict with any policy or ordinance.

Discussion of CEQA Environmental Checklist Question 2.4f)—Biological Resources

f) Would the project 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. The proposed project is within the South Sacramento Habitat Conservation Plan (SSHCP) designated area, and the project's proposed scope of work would be under SSHCP's Covered Activities. Covered activities under the SSHCP include pavement maintenance and resurfacing, grading shoulders and other areas within the right of way; repair, replacement, and maintenance of culverts and drop inlet structures; and other routine road operation and maintenance activities (County of Sacramento 2018). While avoidance and minimization measures are a condition of all covered activities, these SSHCP measures are in compliance with Caltrans own required avoidance and minimization measures. Therefore, the proposed project would not be in conflict.

Cultural Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	No	No	Yes	No
Would the project: b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	No	No	No	Yes
Would the project: c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No	No	No	Yes

Regulatory Setting

The term "cultural resources," as used in this document, refers to the built environment (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under California state laws, cultural resources that meet certain criteria of significance are referred to by various terms including *archaeological resources, historic resources, historic districts, historical landmarks, and tribal cultural resources* as defined in PRC § 5020.1(j) and PRC § 21074(a). The primary state laws and regulations governing cultural resources include:

- California Historical Resources–PRC § 5020 et seq.
- California Register of Historical Resources (CRHR)–PRC § 5024 et seq. (codified 14 CCR § 4850 et seq.)
    - PRC § 5024, Memorandum of Understanding (MOU): The MOU between Caltrans and the State Historic Preservation Officer streamlines the PRC § 5024 process.

- California Environmental Quality Act–PRC § 21000 et seq. (codified 14 CCR § 15000 et seq.)
- Native American Historic Resource Protection Act–PRC § 5097 et seq.
- Assembly Bill (AB) 52, amends California Environmental Quality Act and the Native American Historic Resource Protection Act:
    - An effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined in PRC § 21074(a), is a project that may have a significant effect on the environment
    - Additional consultation guidelines and timeframes
- California Native American Graves Protection and Repatriation Act–California Health and Safety Code §§ 8010-8011

Affected Environment

An *Archaeological Survey Report* dated February 11, 2025, was prepared for this proposed project (Caltrans 2025a). A *Finding of Effect* dated March 6, 2025, (Caltrans 2025b) was submitted to the Office of Historic Preservation.

The Area of Potential Effects (APE) was established to encompass the existing and proposed right of way along I-5.

It has been determined that the project may impact one (1) built environment resource, P-34-005806. This historic-era water conveyance channel is located outside of Caltrans right-of-way and a small portion of the resource is included in the work area required for construction on a nearby culvert.

Caltrans has identified eleven (11) historic-era cultural resources in the APE but these resources all qualify as exempt from evaluation as described in Section 106 Programmatic Agreement under Stipulation VIII.C.1 and Appendix 4.

Environmental Consequences

Caltrans has determined a Finding of No Adverse Effect (without Standard Conditions) and received SHPO concurrence on April 10, 2025. The proposed project may impact one (1) considered eligible built environmental resource. This linear feature is located outside the existing Caltrans Right-of-Way but a small portion of the feature is included in the 565 sq feet TCE required for drainage repair. The portion located within the area of direct impact would represent a small fraction

of the overall linear resource and would not affect any character-defining features. The proposed scope of work would have No Adverse Effect on historic properties. During cultural studies there were no burial sites were identified within the ESL and the proposed project is not anticipated to disturb any human remains.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize impacts from construction activities.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

Discussion of CEQA Environmental Checklist Question 2.5—Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

Less Than Significant. The proposed project would not cause a substantial adverse change in the significance of a historical resources. During construction on a culvert the proposed project would impact a less than significant portion of an considered eligible built environment resource. Caltrans has consulted with SHPO on this determination.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

No Impact. As there are no archaeological resources qualifying for evaluation located within the ESL, the proposed project would not cause substantial adverse change in the significance of any archaeological resources

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

No Impact. During studies, no burial sites were identified in the ESL and the proposed project is not anticipated to disturb any human remains.

Energy

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	No	No	No	Yes
Would the project: b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Air Quality, Greenhouse Gas, and Energy Analysis prepared on October 31, 2024 (Caltrans 2024b).

Potential impacts are not anticipated as the proposed project's scope of work would not increase capacity or provide congestion relief when compared to the No-Build Alternative, making it unlikely energy consumption from mobile sources would occur. Construction-related energy consumption would be temporary. The proposed project's scope of work does not include activities that would result in long-term energy consumption by equipment required to operate and maintain within the roadway. This proposed project to rehabilitate pavement, raise the roadway profile, and repair drainage systems would not conflict with nor obstruct a state or local plan for renewable energy or energy efficiency.

Geology and Soils

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: 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	No	No	Yes
ii) Strong seismic ground shaking?	No	No	No	Yes
iii) Seismic-related ground failure, including liquefaction?	No	No	No	Yes
iv) Landslides?	No	No	No	Yes
Would the project: b) Result in substantial soil erosion or the loss of topsoil?	No	No	No	Yes
Would the project: c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No	No	No	Yes
Would the project: 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	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No	No	No	Yes
Would the project: f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, the Earthquake Shaking Potential for California (California Department of Conservation 2016) as well as the Preliminary Geotechnical Report dated December 13, 2024 (Caltrans 2024h).

Potential impacts to geology and soil resources are not anticipated as much of the proposed project's work would occur on already constructed roadway. The proposed project location is not near any known earthquake faults, not located in a liquefaction zone or landslide zone, and would not result in substantial soil erosion or loss of topsoil. The proposed project's scope of work would not cause potential adverse effects or result in strong seismic ground shaking. The proposed project is not located on a geologic unit or soil that is unstable or would become unstable due to the project. There are no substantial risks to life or property as the proposed project is not located on expansive soil. The proposed project would not construct septic tanks or alternative wastewater disposal systems. There has been no unique paleontological resource or unique geologic feature identified within the proposed project limits.

Greenhouse Gas Emissions

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

Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over millennia, or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to GHG emissions generated from the production and use of fossil fuels.

Human activities generate GHGs consisting primarily of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), and various hydrofluorocarbons (HFCs). CO_2 is the most abundant GHG. While it is a naturally occurring and necessary component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO_2 that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO_2.

The impacts of climate change are already being observed in the form of sea level rise, drought, extended and severe fire seasons, and historic flooding from changing

storm patterns. The most important strategy to address climate change is to reduce GHG emissions. Additional strategies are necessary to mitigate and adapt to these impacts. In the context of climate change, “mitigation” involves actions to reduce GHG emissions to lessen adverse impacts that are likely to occur. “Adaptation” is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis will include a discussion of both in the context of this transportation project.

Regulatory Setting

For a full list of laws, regulations, and guidance related to climate change (GHGs and adaptation), please refer to Caltrans’ Standard Environmental Reference (SER), Chapter 16, Climate Change.

FEDERAL

To date, no nationwide numeric mobile-source GHG reduction targets have been established; however, federal agencies are mandated to consider the effects of climate change in their environmental reviews.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) is the basic national charter for protection of the environment which establishes policy, sets goals, and provides direction for carrying out the policy. NEPA requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

Early efforts by the federal government to improve fuel economy and energy efficiency to address climate change and its associated effects include The Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. The U.S. Department of Transportation’s National Highway Traffic and Safety Administration (NHTSA) sets and enforces CAFE standards for on-road motor vehicles sold in the United States. The U.S. Environmental Protection Agency (U.S. EPA) calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards for vehicles under the CAA. These standards are periodically updated and published through the federal rulemaking process.

STATE

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills (SB and AB) and executive orders (EOs).

In 2005, EO S-3-05 initially set a goal to reduce California's GHG emissions to 80 percent below year 1990 levels by 2050, with interim reduction targets. Later EOs and Assembly and Senate bills refined interim targets and codified the emissions reduction goals and strategies.

CARB was directed to create a climate change scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Ongoing GHG emissions reduction was also mandated in Health and Safety Code (H&SC) Section 38551(b). In 2022, the California Climate Crisis Act was passed, establishing state policy to reduce statewide human-caused GHG emissions by 85 percent below 1990 levels, achieve net zero GHG emissions by 2045, and achieve and maintain negative emissions thereafter.

Beyond GHG reduction, the State maintains a climate adaptation strategy to address the full range of climate change stressors, and passed legislation requiring state agencies to consider protection and management of natural and working lands as an important strategy in meeting the state's GHG reduction goals.

Environmental Setting

The proposed project is in a rural area of Sacramento County. Through Sacramento, Yolo, Colusa, and Glenn counties, I-5 extends 127 miles. I-5 is designated as part of the "National Network" for trucks and as the primary north-south route in California, serving interregional and interstate travel. The segment of the I-5 corridor within the project limits also serves as a major connection between Sacramento, Elk Grove, Stockton, and rural communities. I-5 plays a critical role in California's economy by supporting a high volume of commuter and interregional traffic, as well as trucks moving goods to destinations in and out of the state. I-5 serves as the main transportation route to and through the area for both passenger and commercial vehicles. The Sacramento Area Council of Governments (SACOG) is the Metropolitan Planning Organization (MPO) that guides transportation development in the project area. The Sacramento County General Plan Circulation, Safety, and Traffic elements address GHGs in the project area.

GHG INVENTORIES

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals.

U.S. EPA is responsible for documenting GHG emissions nationwide, and CARB does so for the state of California, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

NATIONAL GHG INVENTORY

The annual GHG inventory submitted by the U.S. EPA to the United Nations provides a comprehensive accounting of all human-produced sources of GHGs in the United States. Total national GHG emissions from all sectors in 2022 were 5,489.0 million metric tons (MMT), factoring in deductions for carbon sequestration in the land sector. (Land Use, Land Use Change, and Forestry provide a carbon sink equivalent to 15 percent of total U.S. emissions in 2022 [U.S. EPA 2024a].) While total GHG emissions in 2022 were 17 percent below 2005 levels, they increased by 1 percent over 2021 levels. Of these, 80 percent were CO_2, 11 percent were CH_4, and 6 percent were N_2O; the balance consisted of fluorinated gases. From 1990 to 2022, CO_2 emissions decreased by only 2 percent (U.S. EPA 2024a).

The transportation sector's share of total GHG emissions remained at 28 percent in 2022 and continues to be the largest contributing sector (Figure 4). Transportation activities accounted for 37 percent of U.S. CO_2 emissions from fossil fuel combustion in 2022. This is a decrease of 0.5 percent from 2021 (U.S. EPA 2024a, 2024b)).

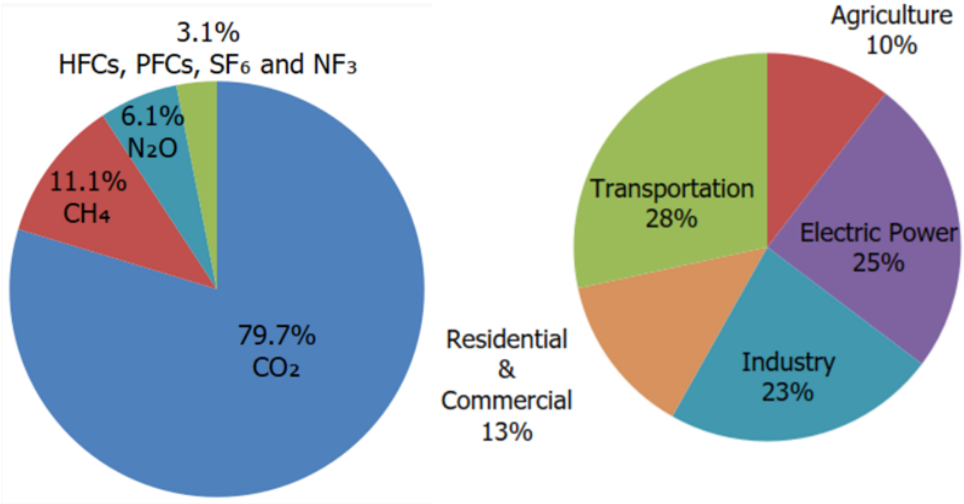


Figure 4. U.S. 2022 Greenhouse Gas Emissions

Source: U.S. EPA 2024b

STATE GHG INVENTORY

CARB collects GHG emissions data for transportation, electricity, commercial and residential, industrial, agricultural, and waste management sectors each year (Figure 5). It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. Overall statewide GHG emissions declined from 2000 to 2021 despite growth in population and state economic output (Figure 6). Transportation emissions remain the largest contributor to GHG emissions in the state (Figure 6) (CARB 2023).

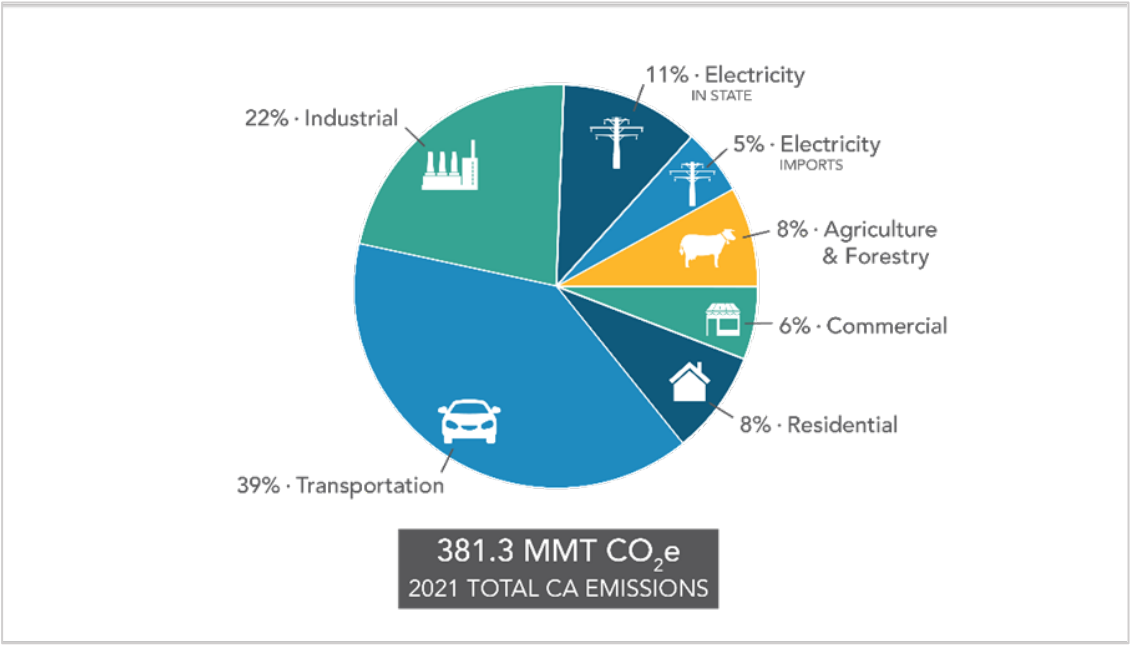


Figure 5. California 2021 Greenhouse Gas Emissions by Economic Sector

Source: CARB 2023

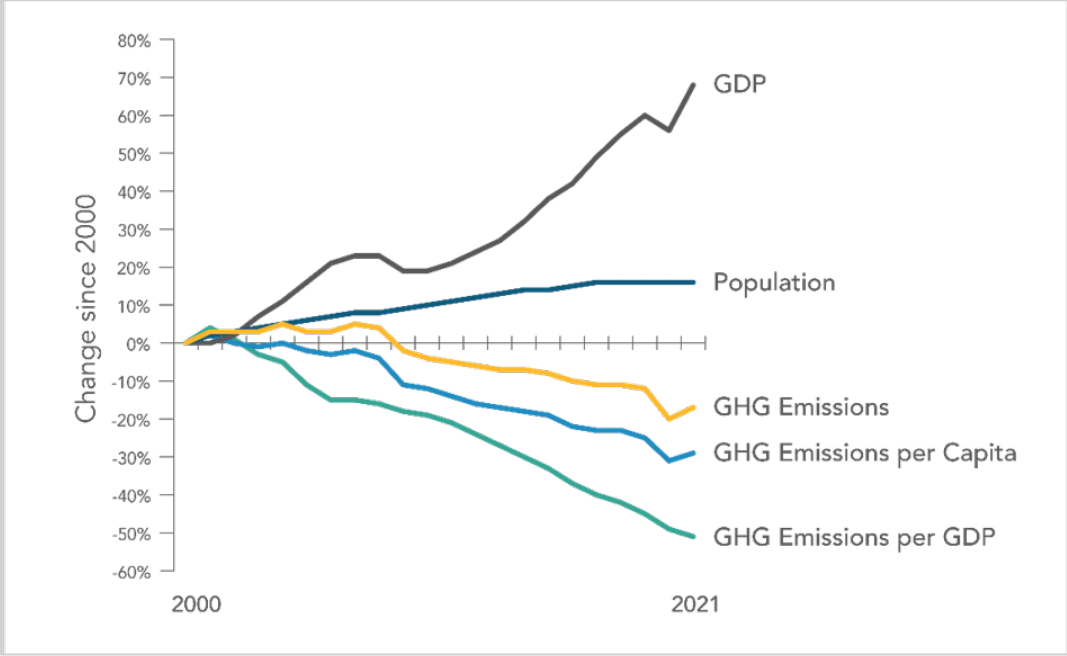


Figure 6. Change in California Gross Domestic Product (GDP), Population, and GHG Emissions since 2000

Source: CARB 2023

AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. The *AB 32 Scoping Plan*, and the subsequent updates, contain the main strategies California will use to reduce GHG emissions. CARB adopted the first scoping plan in 2008 (CARB 2008). The second updated plan, *California's 2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The *2022 Scoping Plan for Achieving Carbon Neutrality*, adopted September 2022, assesses progress toward the statutory 2030 reduction goal and defines a path to reduce human-caused emissions to 85 percent below 1990 levels and achieve carbon neutrality no later than 2045, in accordance with AB 1279 (CARB 2022a).

REGIONAL PLANS

As required by The Sustainable Communities and Climate Protection Act of 2008, CARB sets regional GHG reduction targets for California's 18 Metropolitan Planning Organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals, and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for SACOG. The regional reduction target for SACOG is 19 percent percent by 2035 (CARB 2021).

The proposed project limits are within Sacramento County and under the jurisdiction of SACOG. SACOG is designated by the federal government as the Metropolitan Planning Organization (MPO) for the Sacramento region. San Joaquin County is less than a half a mile from the proposed project limit (PM 0.21). San Joaquin Council of Governments (SJCOG) share similar proposals as SACOG to address GHG reduction in their jurisdictions. Transportation-related goals for these GHG reduction measures are referenced below in Table 6.

Table 6. Regional and Local Greenhouse Gas Reduction Plans

Title	GHG Reduction Policies or Strategies
Sacramento Area Council of Governments (SACOG) Sacramento County Climate Action Plan (adopted August 2022)(SACOG 2022)	• Low and Zero Emissions Vehicles and Equipment. • Natural and Working Lands. • Encourage use of electric or sustainably fueled construction equipment.
San Joaquin County 2022 RTP/SCS & EIR (adopted June 24, 2022) (County of San Joaquin 2022)	• GHG emission reduction measures for offroad construction vehicles during construction and perform periodic site inspections. Current GHG-reducing measures include the following: • Minimizing idling time (e.g., five-minute maximum). • Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the five-minute idling limit

Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation and use of the State Highway System (SHS) (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH_4 and N_2O. A small amount of HFC emissions related to refrigeration is also included in the transportation sector. (GHGs differ in how much heat each traps in the atmosphere, called global warming potential, or GWP. CO_2 is the most important GHG, so amounts of other gases are expressed relative to CO_2, using a metric called “carbon dioxide equivalent”, or CO_2e. The global warming potential of CO_2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO_2.)

CEQA Guidelines generally address GHG emissions as a cumulative impact due to the global nature of climate change (Public Resources Code § 21083(b)(2)). As the California Supreme Court explained, “because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself.” (Cleveland National Forest Foundation *v.* San Diego Assn. of Governments (2017) 3 Cal. App.

5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

The proposed project would repair damaged pavement and raise the roadway, repair drainage systems, and install Transportation Management Systems. The project would not increase capacity or change travel demands or traffic patterns when compared to the No-Build Alternative. The proposed project would not increase the vehicle capacity of the roadway. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on I-5, no increase in vehicle miles traveled (VMT) would occur. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

Construction Emissions

Construction GHG emissions would result from material processing and transportation, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. While construction GHG emissions are only produced for a short time, they have long-term effects in the atmosphere, so cannot be considered "temporary" in the same way as criteria pollutants that subside after construction is completed.

Use of long-life pavement, improved Transportation Management Plans, and changes in materials can also help offset GHG emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities.

Construction is anticipated to begin in 2028 and occur over approximately 300 working days. The Caltrans Construction Emissions Tool (CAL-CET) 2021 v1.0.2 was used to estimate emissions from construction activities. Table 7 below summarizes estimated GHG emissions generated by on-site equipment for the project. The total CO_2e produced during construction is estimated to be 804 metric tons.

Table 7. Estimate of Total GHG Emissions during Construction

Construction Year	CO_2 (tons)	CH_4 (ton)	N_2O (ton)	BC (ton)	HFC-134a (ton)	CO_2e^* (metric ton)
2028	436	0.012	0.020	0.017	0.008	419
2029	368	0.006	0.024	0.013	0.012	361
Total	**804**	**0.018**	**0.043**	**0.030**	**0.020**	**780**

Totals may not add due to rounding.

* Quantity of GHG is expressed as carbon dioxide equivalent (CO_2e) that can be estimated by the sum after multiplying each amount of CO_2, CH_4, N_2O, and HFC-134a by its global warming potential (GWP). Each GWP of CO_2, CH_4, N_2O, BC and HFC-134a is 1, 25, 298, 460 and 1,430, respectively.

All construction contracts include Caltrans Standard Specifications related to air quality. Sections 7-1.02A and 7-1.02C, Emissions Reduction, require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all CARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

Additional measures include:

- Utilizing a Transportation Management Plan to minimize vehicle delays
- Scheduling and routing construction traffic to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Maintaining equipment in proper tune and working condition

CEQA Conclusion

The proposed project's primary scope of work is to repair pavement, raise the grade of the roadway, and improve drainage. The proposed project would not increase capacity and would not change travel demands or change traffic patterns when compared to the No-Build Alternative. While the proposed project would result in GHG emissions during construction, the proposed project would not result in any increase in operational GHG emissions. Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize impacts. The proposed safety project would not result in operational GHG emissions being increased and therefore would not conflict with an applicable plan, policy or regulation adopted for the purpose reducing the emissions of greenhouse gases. The proposed project would result in a less than significant impact on generating greenhouse gas emissions.

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

STATEWIDE EFFORTS

In response to Assembly Bill 32, the Global Warming Solutions Act, California is implementing measures to achieve emission reductions of GHGs that cause climate change. Climate change programs in California are effectively reducing GHG emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation, industry, fuels, and other sectors to take California into a sustainable, cleaner, low-carbon future, while maintaining a robust economy (CARB 2022b).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research identified five sustainability pillars in a 2015 report: (1) Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030; (2) Reducing petroleum use by up to 50 percent by 2030; (3) Increasing the energy efficiency of existing buildings by 50 percent by 2030;

(4) Reducing emissions of short-lived climate pollutants; and (5) Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (California Governor's Office of Planning and Research [OPR] 2015).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of VMT. Reducing today's petroleum use in cars and trucks is a key state goal for reducing GHG emissions by 2030 (California Governor's OPR 2015).

In addition, SB 1386 (*in* Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency released *Natural and Working Lands Climate Smart Strategy* (California Natural Resources Agency 2022).

CALTRANS ACTIVITIES

Caltrans continues to be involved on the Governor's Climate Action Team as CARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 in 2016 set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

Climate Action Plan For Transportation Infrastructure

The California Action Plan for Transportation Infrastructure (CAPTI) builds on executive orders signed by Governor Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40 percent of all polluting emissions, to reach the state's climate goals. Under CAPTI, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate, health, and social equity goals (California State Transportation Agency 2021).

California Transportation Plan

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan’s climate goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021a).

Caltrans Strategic Plan

The Caltrans 2020–2024 Strategic Plan includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021b).

Caltrans Policy Directives And Other Initiates

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a policy to ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities. Other Director's policies promote energy efficiency, conservation, and climate change, and commit Caltrans to sustainability practices in all planning, maintenance, and operations. Caltrans Greenhouse Gas Emissions and Mitigation Report (Caltrans 2020b) provides a comprehensive overview of Caltrans' emissions and current Caltrans procedures and activities that track and reduce GHG emissions. It identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Caltrans and State goals.

Project-Level Greenhouse Gas Reduction Strategies

The following measures will also be implemented to reduce GHG emissions and potential climate change impacts from the project.

- Caltrans Standard Specification "Air Quality" requires compliance by the contractor with all applicable laws and regulations related to air quality (Caltrans Standard Specification [SS] 14-9).
- Compliance with Title 13 of the California Code of Regulations, which includes restricting idling of diesel-fueled commercial motor vehicles and equipment with gross weight ratings of greater than 10,000 pounds to no more than 5 minutes.
- Caltrans Standard Specification "Emissions Reduction" ensures that construction activities adhere to the most recent emissions reduction regulations mandated by CARB (Caltrans SS 7-1.02C).
- Use of a TMP to minimize vehicle delays and idling emissions. As part of this, construction traffic would be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along the highway during peak travel times.
- All areas temporarily disturbed during construction would be revegetated with appropriate native species, as appropriate. Landscaping reduces surface warming and, through photosynthesis, decreases CO_2. This replanting would help offset any potential CO_2 emissions increase.

Adaptation Strategies

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges, combined with a rising sea level, can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require a facility be relocated or redesigned. Furthermore, the combined effects of transportation projects and climate stressors can exacerbate the impacts of both on vulnerable communities in a project area. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

FEDERAL EFFORTS

Under NEPA Assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The Fifth National Climate Assessment, published in 2023, presents the most recent science and "analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; [It] analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years … to support informed decision-making across the United States." Building on previous assessments, it continues to advance "an inclusive, diverse, and sustained process for assessing and communicating scientific knowledge on the impacts, risks, and vulnerabilities associated with a changing global climate" (U.S. Global Change Research Program 2023).

The National Oceanic and Atmospheric Administration (NOAA) provides sea level rise projections for all U.S. coastal waters to help communities and decision makers assess their risk from sea level rise. Updated projections through 2150 were released in 2022 in a report and online tool (NOAA 2022).

STATE EFFORTS

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

California's Fourth Climate Change Assessment (Fourth Assessment–2018) provides information to help decision makers across sectors and at state, regional, and local levels protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The Fourth Assessment reported that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience an up to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures; a two-thirds decline in water supply from snowpack resulting in water shortages; a 77 percent increase in average area burned by wildfire; and large-scale erosion of up to 67 percent of Southern California beaches due to sea level rise. These effects will have profound impacts on infrastructure,

agriculture, energy demand, natural systems, communities, and public health (State of California 2018).

Sea level rise is a particular concern for transportation infrastructure in the Coastal Zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

To help actors throughout the state address the findings of California's Fourth Climate Change Assessment, AB 2800's multidisciplinary Climate-Safe Infrastructure Working Group published *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. This report provides guidance on assessing risk in the face of inherent uncertainties still posed by the best available climate change science. It also examines how state agencies can use infrastructure planning, design, and implementation processes to respond to the observed and anticipated climate change impacts (Climate-Safe Infrastructure Working Group 2018).

EO S-13-08, issued in 2008, directed state agencies to consider sea level rise scenarios for 2050 and 2100 during planning to assess project vulnerabilities, reduce risks, and increase resilience to sea level rise. It gave rise to the *2009 California Climate Adaptation Strategy*, the *Safeguarding California Plan*, and a series of technical reports on statewide sea level rise projections and risks, including the *State of California Sea-Level Rise Guidance Update* in 2018.

The reports addressed the full range of climate change impacts and recommended adaptation strategies. The current *California Climate Adaptation Strategy* incorporates key elements of the latest sector-specific plans such as the *Natural and Working Lands Climate Smart Strategy*, *Wildfire and Forest Resilience Action Plan*, *Water Resilience Portfolio*, and the *CAPTI* (described above). Priorities in the *2023 California Climate Adaptation Strategy* include acting in partnership with California Native American tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, implementing nature-based climate solutions, using best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2023).

EO B-30-15 recognizes that effects of climate change threaten California's infrastructure and requires state agencies to factor climate change into all planning and investment decisions. Under this EO, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies*, to encourage a uniform and systematic approach to building resilience.

SB 1 Coastal Resources: Sea Level Rise (Atkins 2021) established statewide goals to "anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise within the Coastal Zone." As the legislation directed, the Ocean Protection Council collaborated with 17 state planning and coastal management agencies to develop the *State Agency Sea-Level Rise Action Plan for California* in February 2022. This plan promotes coordinated actions by state agencies to enhance California's resilience to the impacts of sea level rise (California Ocean Protection Council 2022).

CALTRANS ADAPTATION EFFORTS

Caltrans Vulnerability Assessments

Caltrans completed climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea level rise.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

Caltrans Sustainability Programs

The Director's Office of Equity, Sustainability and Tribal Affairs supports implementation of sustainable practices at Caltrans. The *Sustainability Roadmap* is a periodic progress report and plan for meeting the Governor's sustainability goals related to EOs B-16-12, B-18-12, and B-30-15. The Sustainability Roadmap includes designing new buildings for climate change resilience and zero-net energy, and replacing fleet vehicles with zero-emission vehicles (Caltrans 2023b).

PROJECT ADAPTATION EFFORTS

The adaptation analysis is intended to demonstrate how the proposed project will be adapted for resiliency to future climate change effects. Future changes in precipitation, flooding, wildfires, and temperature were considered in the planning and design decisions for the proposed project.

The project proposes to rehabilitate existing drainage systems that are in need of repair; while also extending culverts to accommodate the rising of the roadway. The new drainage features would be designed to perpetuate flow in the existing direction and would have similar or greater capacity than what currently exists. The upgraded and rehabilitated culverts would better facilitate runoff during precipitation events. This would increase resiliency of the drainage systems against flooding from changing precipitation.

The facilities and assets located within the Delta, including those with the highest vulnerabilities to sea level rise, have been identified in the *Caltrans Adaption Priority Report* for District 3 (Caltrans 2020a). The drainage located at PM 1.6 in the proposed project was identified as Priority 3 Climate Vulnerable Asset. The pavement throughout the proposed project limits was categorized in the Priority 1 Climate Vulnerable Asset listing for "pavement vulnerable to temperature impacts on pavement binder grades, sea level rise, storm surge threats, and network criticality".

The project proposes to preserve and sustain the I-5 corridor while improving user safety, rideability, and reliability by raising the roadway less than 2 feet. Additional

pavement repairs would occur at locations of existing severe asphalt pavement failures. Improvements to damaged pavements would prevent further deterioration. Precipitation can result in damage to pavements. Repairing pavement before any further deterioration occurs would provide better resiliency to any future increases in precipitation.

The proposed project's purpose is to preserve and sustain the I-5 corridor and its structures, while enhancing safety, reliability, rideability, and existing. The proposed project would not exacerbate the effects of climate change related to CEQA topics such as sea level rise, riverine flooding, hazards, and wildfire. Climate-change risk analysis involves uncertainties as to the timing and intensity of potential risks, although the analysis uses the best available science.

Sea Level Rise

The proposed project is outside the Coastal Zone (Figure 7) and outside of any area which is subject to sea level rise (Figure 8). Accordingly, direct impacts to transportation facilities due to projected sea level rise are not expected.

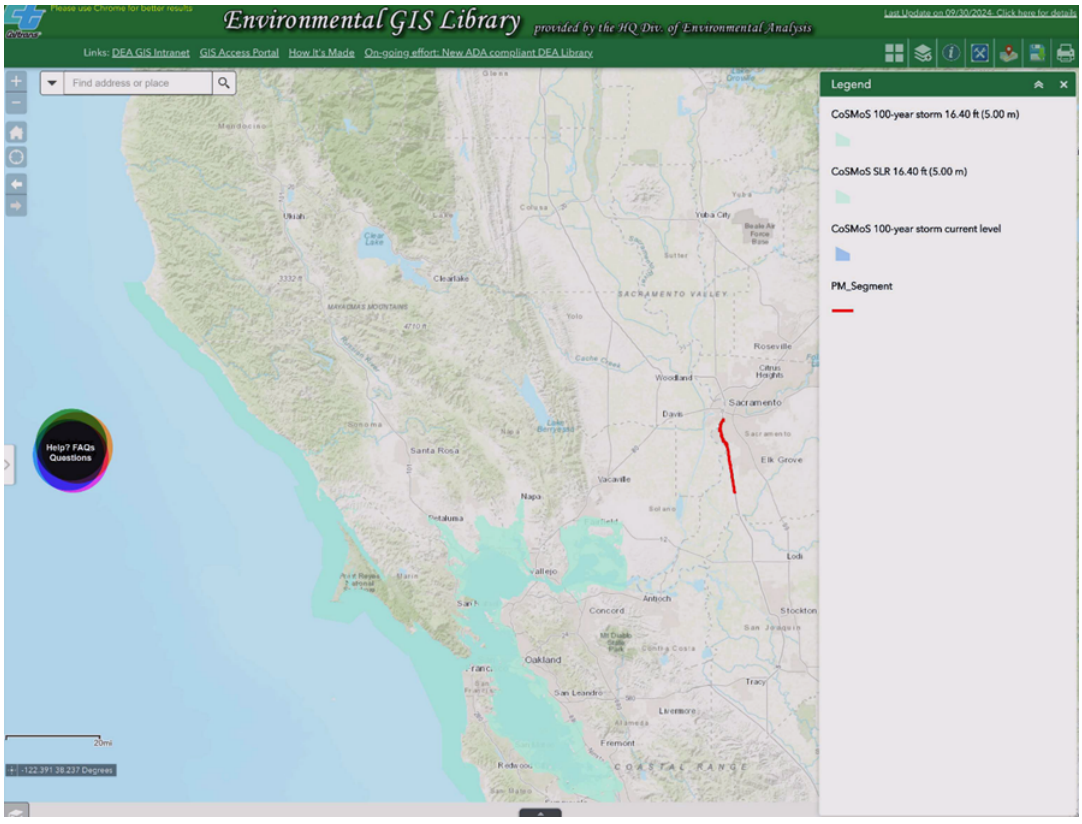


Figure 7. Project Located Outside the Coastal Zone

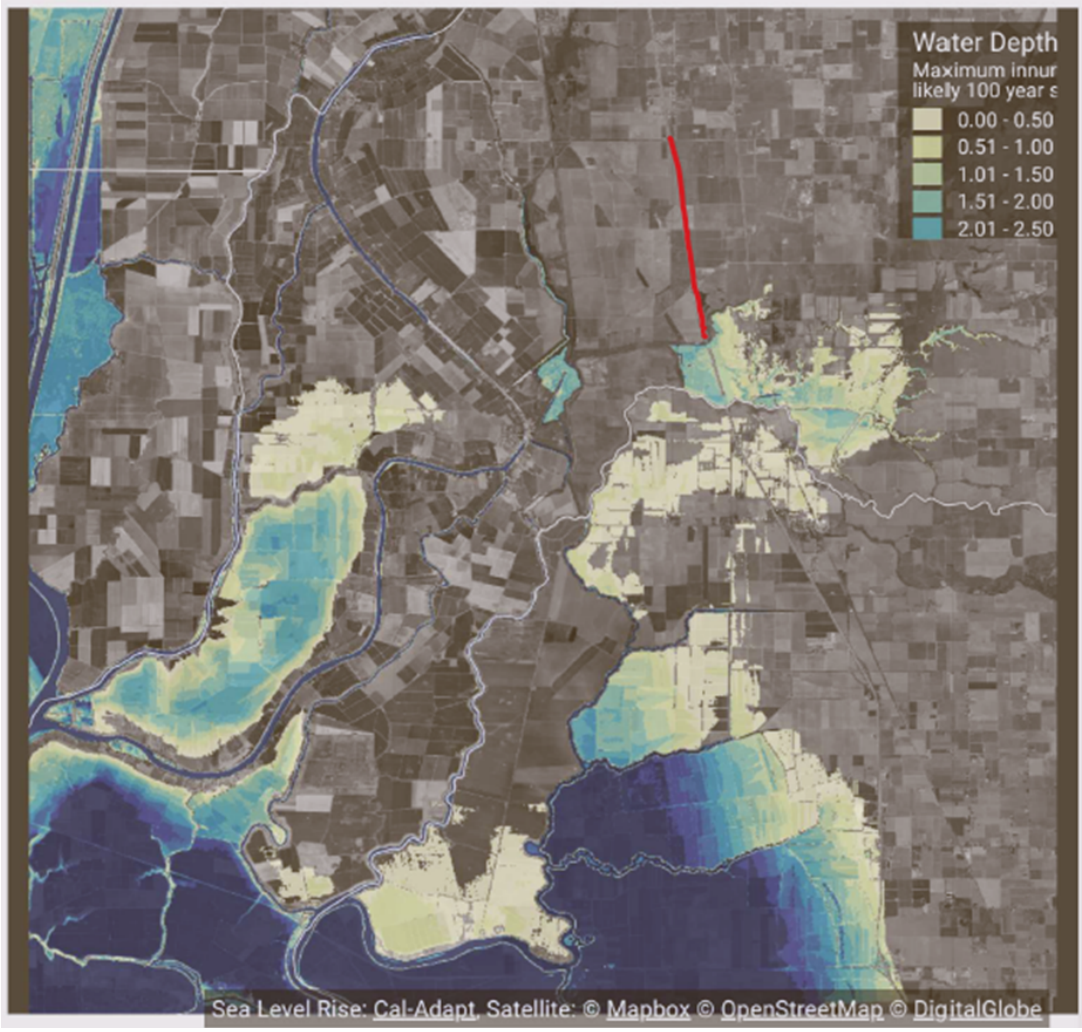


Figure 8. Project Located Outside the Area Subject to Sea Level Rise

Precipitation and Flooding

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) labels the proposed project area as Zone AE and Zone A. FEMA defines Zone AE as a Special Flood Hazard Area (SFHA). SFHAs are areas that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. Zone A is the flood insurance rate zone that corresponds to the 1 percent annual chance floodplains.

The *Caltrans Climate Change Vulnerability Assessment Report* for District 3 predicts the proposed project's vicinity to have an 0.0 percent – 4.9 percent increase in 100-

year precipitation depth by 2055. This increase in precipitation would cause greater potential impact on drainage facilities and damaged pavement within this flood hazard area.

Drainage systems in good condition can reduce the risk of localized flooding and protect the integrity of the roadbed during precipitation events. The rehabilitated drainage system would be more resilient to any changes in water flow from increases precipitation or flooding.

Wildfire

The *Caltrans Climate Change Vulnerability Assessment Report* for District 3 (Caltrans 2019) classifies the risk for wildfires occurring within the project location to be *below moderate* which is supported in CAL FIRE's Fire Hazard Severity Zone mapping (Figure 9). The mapping displays the proposed project area is not in a location vulnerable to wildfire.

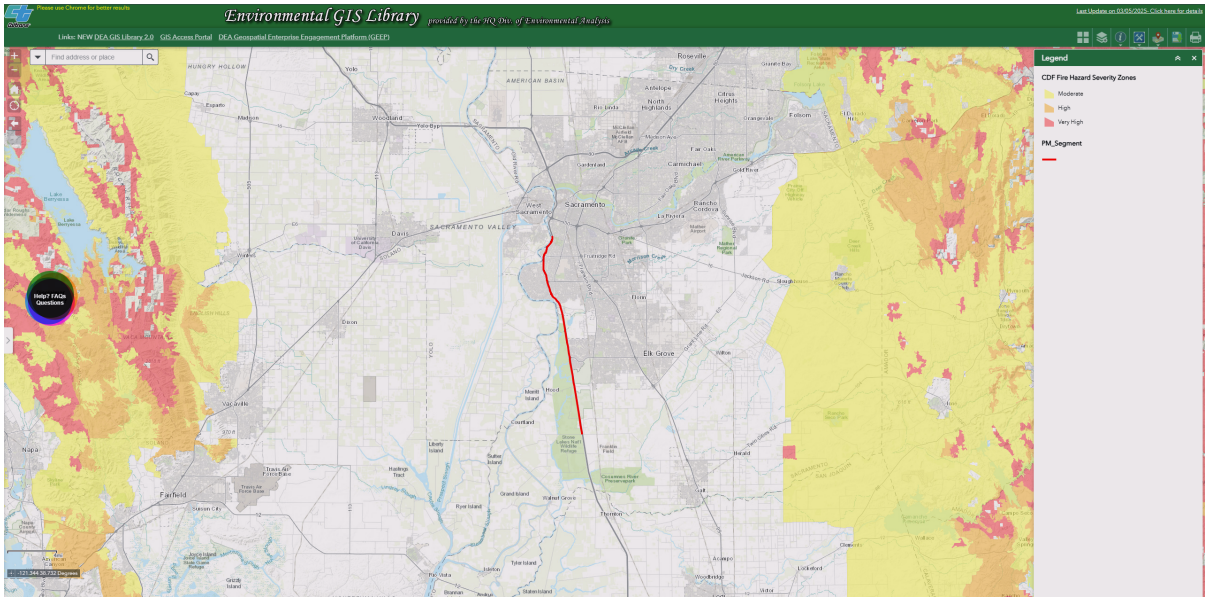


Figure 9. CAL FIRE Fire Hazard Severity Zone Map

Temperature

The District *Climate Change Vulnerability Assessment* does not indicate temperature changes during the project's design life that would require adaptive changes in pavement design or maintenance practices.

Hazards and Hazardous Materials

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No	No	No	Yes
Would the project: 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	No	No	Yes
Would the project: 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	No	No	Yes
Would the project: d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: 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	No	No	Yes
Would the project: f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No	No	No	Yes
Would the project: g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Initial Site Assessment dated November 4, 2024 (Caltrans 2024d).

Potential impacts are not anticipated as no significant hazardous waste/material issues for the proposed project have been identified. The proposed project is in an area zoned for agriculture and is not located near schools, airports, or Cortese list sites. During the proposed project's Phase 1, a preliminary site investigation will be required for determining asbestos-containing material and lead-containing paint. This investigation is needed on all the existing bridge structures that are to be renovated/demolished. A preliminary site investigation is also needed to determine the aerially deposited lead concentration in the soil. Based on results of the preliminary site investigation, avoidance, minimization, and mitigation measures will be finalized.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize impacts to hazardous materials. The following Standard Special Provisions may also be implemented:

- Caltrans Standard Special Provision (SSP) 7-1.02K(6)(j)(iii) and/or SSP 14-11.08 for Aerially Deposited Lead will be applied to address disturbed soils with potentially elevated concentration of lead. A preliminary site investigation for the concentration of aerially deposited lead is needed. Based on the results, the applicable SSPs will be provided.
- If removal of traffic striping occurs, SSP 36-4, regarding lead from paint and thermoplastic striping, and/or SPP 84-9.03B, to specify non-hazardous levels of lead residue, would be implemented.
- During construction, treated wood waste may be present within the area. If treated wood waste is present, SSP 14-11.14 would allow treated wood waste for disposal as hazardous waste.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

Hydrology and Water Quality

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	No	No	Yes	No
Would the project: b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No	No	Yes	No
Would the project: 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 on- or off-site;	No	No	Yes	No
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	No	No	Yes	No
(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	No	Yes	No
(iv) impede or redirect flood flows?	No	No	Yes	No

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No	No	Yes	No
Would the project: e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No	No	Yes	No

Regulatory Setting

The primary laws and regulations governing hydrology and water quality include:

- Federal: Clean Water Act (CWA)–33 USC 1344
- Federal: Executive Order for the Protection of Wetlands–EO 11990
- State: California Fish and Game Code (CFGC)–Sections 1600–1607
- State: Porter-Cologne Water Quality Control Act– Sections 13000 et seq.

Affected Environment

A *Water Quality Assessment* dated October 15, 2024, and Floodplain Hydraulics Study dated October 29, 2024, were prepared for this project (Caltrans 2024e and 2024f, respectively).

The proposed project occurs along I-5 and is near the Mokelumne River. Within the proposed project limits, elevation ranges from 5 to 15 feet. The nearest receiving waters are Delta Waterways Eastern and Sacramento River (Sacramento City Marina to Suisun Marsh). The proposed project resides in a Total Maximum Daily Load (TMDL) watershed as the Delta Waterways are impaired for methylmercury. The proposed project is not located within a high-risk receiving watershed boundary.

The proposed project is in an area designated as FEMA Flood Zone AE and Zone A. Zone AE classification implies the 1 percent annual flood, also known as the base flood, is the flood that has a 1 percent chance of being equaled or exceeded in any given year. Zone A is the flood insurance rate zone that corresponds to the 1 percent chance of annual floods.

Environmental Consequences

The proposed project scope of work to rehabilitate pavement, raise the roadway, and improve drainage systems would not result in significant floodplain encroachment. The project is not expected to increase the water depth within the project limits.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize impacts to hydrology and water quality.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

Discussion of CEQA Environmental Checklist Question 2.10—Hydrology and Water Quality

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. Discharges from stormwater runoff from construction sites could have the potential to affect water quality standards, water quality objectives, and beneficial uses. Potential pollutants and sources include sediment; non-stormwater (groundwater, waters from cofferdams, dewatering, water diversions) discharges; vehicle and equipment cleaning agents, fueling, and maintenance; waste materials and materials handling; and storage activities. The proposed project would be required to follow the conditions of Caltrans' Statewide NPDES Permit (Stormwater Permit) issued by the State Water Resources Control Board. This statewide permit defines waste discharge requirements for stormwater and non-stormwater discharges from Caltrans' properties and facilities, and discharges associated with operation and maintenance of the State Highway

System. In addition, Caltrans' Stormwater Permit requires Caltrans follow strict and robust guidelines and protocols for implementing approved minimization and avoidance measures and BMPs meant to protect environmental resources, groundwater, and receiving waters for the duration of project activities. Therefore, these impacts would be considered less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The proposed project's scope of work would include raising of the roadway and repairing or replacing culverts. The intended use of the facility and potential pollutants encountered in stormwater runoff after the project is constructed are not anticipated to change from their current condition. Additionally, due to excavation occurring on a temporary and short-term basis during the construction period, it is not likely groundwater resources would be affected. It is not anticipated that work being performed would negatively impact regional sustainable groundwater management within the project vicinity. Therefore, these impacts would be considered less than significant.

c) Would the project 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 result in substantial erosion or siltation on- or off-site, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, 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, impede or redirect flood flows?

Less Than Significant Impact. The proposed project's drainage work is anticipated to perpetuate the existing stormwater drainage conditions to the maximum extent feasible. New drainage features would be designed to meet current standards and would flow in the existing direction and have similar or greater capacity than what currently exists. Drainage would be designed to accommodate any anticipated changes in flow resulting from the addition of new impervious surface area.

The proposed project does not reside in a segment identified as being prone to erosion and work on the existing drainage system would not substantially alter the existing drainage pattern of the area.

As more than one acre of land disturbance would occur; the proposed project would require coverage under the Construction General Permit (CGP). Compliance with the CGP is anticipated to address the implementation of minimization and avoidance measures, Standard Measures and BMPs, and field implementation strategies outlined in the Contractor-prepared and Caltrans-approved Stormwater Pollution Prevention Plan (SWPPP). These would likely include temporary soil stabilization measures, linear sediment barriers (e.g., silt fence, gravel bag berms, fiber rolls), and construction site waste management (e.g., concrete washout, construction materials storage, litter/waste management), among other approved controls meant to prevent erosion and siltation for the duration of project activities. In compliance with Caltrans' MS4 Permit, permanent treatment BMPs would be incorporated into the project design, where applicable and feasible, to treat stormwater runoff from the aggregated quantity of new impervious surface areas that reach or exceed the required threshold. Therefore, any impacts that may occur would be considered less than significant.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less Than Significant Impact. The proposed project is located in an area designated by the Federal Emergency Management Agency (FEMA) as a Special Flood Hazard Area (SFHA). The proposed project occurs within a Total Maximum Daily Load (TMDL) watershed. The proposed project is required to follow the conditions of the Caltrans-approved Water Pollution Control Program (WPCP) or SWPPP to address onsite pollutants and the proper storage and containment of deleterious material that may impact receiving waters in the event of a flood threat. These impacts would be considered less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The proposed project location is under the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB) and the project is expected to be in compliance with all applicable NPDES regulatory permits, including the Regional Basin Plan. The implementation of Caltrans Standard Measures and BMPs are anticipated to protect water quality resources within the proposed project limits. Therefore, impacts would be considered less than significant.

Land Use and Planning

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Physically divide an established community?	No	No	No	Yes
Would the project: 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	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Sacramento County General Map Viewer (County of Sacramento 2023a).

Potential impacts to land use and planning are not anticipated as the proposed project would not involve land acquisition and therefore would not divide an established community. The proposed project does not cause a significant environmental impact and the scope of work to rehabilitate pavement, raise the roadway, repair drainage systems, install Transportation Management Systems, bringing roadway signs and safety elements up to current standards would comply with the goals of the Sacramento County General Plan (County of Sacramento 2022).

Mineral Resources

Question:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: 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	No	No	Yes
Would the project: 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	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Mineral Resource maps from the California Department of Conservation (California Department of Conservation 2024).

Potential impacts to Mineral Resources are not anticipated as the project's scope of work does not include mineral resource extraction. Additionally, there are no known economically viable or locally-important mineral resources within the proposed project limits.

Noise

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in: 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	No	No	Yes
Would the project result in: b) Generation of excessive groundborne vibration or groundborne noise levels?	No	No	No	Yes
Would the project result in: 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	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Noise Analysis dated October 31,2024. (Caltrans 2024g)

Potential impacts to noise resources are not anticipated due to the proposed project location and its scope of work. The proposed project would not result in permanent increases in ambient noise levels in the vicinity of the project. Temporary increases in noise levels during construction would be in compliance with Sacramento County General Plan (County of Sacramento 2022).

The proposed project is not expected to generate excessive groundborne vibration or groundborne noise. Vibration levels could be perceptible at residences near the proposed project area during operation of heavy equipment; however, these effects would be short-term and intermittent and would cease once use of heavy equipment is completed.

The nearest residence is approximately 2,000 feet away from the roadway. The project area is surrounded by a mix of pasture, agricultural, commercial, and vacant residential land uses. The proposed project is not located within the vicinity of a private, public, or public use airport.

Population and Housing

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: 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	No	No	Yes
Would the project: b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project.

Potential impacts to Population and Housing are not anticipated as the proposed project would not induce population growth or cause displacement. The proposed project scope of work is mainly pavement and drainage work. The proposed project does not add new homes or businesses and would not extend any roads or other infrastructure. There are no residences within the proposed project area and no land acquisition or displacement would occur.

Public Services

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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	No	No	Yes
Police protection?	No	No	No	Yes
Schools?	No	No	No	Yes
Parks?	No	No	No	Yes
Other public facilities?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project.

Potential impacts to Public Services are not anticipated due to the proposed project work primarily occurring within the existing Caltrans right of way. The scope of work includes drainage work, pavement work, and upgrades to highway signs and safety

features. There would be no adverse impact to government facilities (fire, police, school, park, or other public facilities); therefore, there would be no need to provide new or altered facilities in order for them to maintain their services.

Recreation

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No	No	No	Yes
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	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project.

Potential impacts to Recreation are not anticipated as there are no neighborhood parks, regional parks or other recreational facilities present within the proposed project limits. The proposed scope of work involves rehabilitating pavement, raising the roadway profile, and improving drainage systems. The proposed project scope of work would not increase the population of the area and does not include recreational facilities or their expansion.

Transportation

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

Regulatory Setting

The primary laws and regulations governing transportation and traffic are CEQA, 23 CFR 652, 49 CFR 27, 29 USC 794, and the Americans with Disabilities Act (42 USC § 12101).

Affected Environment

The proposed project is located on I-5 in Sacramento County, between PM 0.21 and 4.63. The total length of the proposed project is 4.42 miles. Within the limits of the proposed project, I-5 is a four-lane highway. There is one on-ramp at Twin Cities Road and one overcrossing at Dierssen Road.

Environmental Consequences

The project proposes to rehabilitate pavement, raise the roadway, perform drainage work, and install TMS elements with construction occurring both on and off the roadway. The proposed project anticipates lane closures during construction. Work would be limited to nighttime off-peak hours and no lane closures would be allowed during daytime and peak commute hours. Closing an adjacent lane would be required for public safety when working on the gore areas, shoulders and conforming at the ramps. The maximum length of any lane closure would be limited to 1 mile.

Avoidance, Minimization and Mitigation Measures

Caltrans Standard Measures and BMPs outlined in Chapter 1, Section 1.6 would be implemented to avoid and minimize impacts to transportation.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

Discussion of CEQA Environmental Checklist Question 2.17—Transportation and Traffic

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact. The purpose of the proposed project is maintenance of the highway system by repairing pavement, improving drainage systems, and raising the roadway profile along I-5 by less than 2 feet. This scope of work is consistent with Sacramento County's General Plan (County of Sacramento 2022). Therefore, there would be no impact.

b) Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Less Than Significant Impact. The purpose of this project is to provide resiliency to the transportation system by raising the roadway less than 2 feet and repairing drainage systems along I-5. The proposed project would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) because the project

has been screened as a type of project unlikely to lead to a measurable and substantial increase in VMT (Caltrans 2020c). Therefore, impacts to Transportation would be less than significant.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project is repairing existing features and does not contain concentrations or patterns of hazardous geometrical design elements or require geometrical improvements. Therefore, there would be no impact.

d) Would the project result in inadequate emergency access?

No Impact. The proposed project scope of work would not result in inadequate emergency access. During construction all emergency vehicles would be accommodated through the work area. Therefore, there would be no impact.

Tribal Cultural Resources

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, or 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: 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 § 5020.1(k), or	No	No	No	Yes
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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as cultural resources studies by Caltrans staff, which included background research, literature review, in-person field surveys, and consultation with local Native American tribes.

Potential impacts to tribal resources are not anticipated. Consultation letters were sent to:

- Buena Vista Rancheria of Me-Wuk Indians
- Calaveras Band of Mi-Wuk Indians
- California Valley Miwok Tribe
- Chicken Ranch Rancheria of Me-Wuk Indians
- Ione Band of Miwok Indians
- Jackson Rancheria Band of Miwuk Indians
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe
- Pakan'yani Maidu of Strawberry Valley Rancheria
- Shingle Springs Band of Miwok Indians
- Tsi Akim Maidu
- United Auburn Indian Community of the Auburn Rancheria
- Wilton Rancheria

Pursuant to consultation with the tribes, Caltrans has not identified tribal resources within the project limits that would be significant to a California Native American tribe. Thus, the project would not have the potential to cause a substantial adverse change in the significance of a tribal cultural resource.

Utilities and Service Systems

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities—the construction or relocation of which could cause significant environmental effects?	No	No	No	Yes
Would the project: b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	No	No	No	Yes
Would the project: 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	No	No	Yes
Would the project: 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	No	No	Yes
Would the project: e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project.

Potential impacts to Utilities and System Services are not anticipated. Caltrans would verify the location of any underground gas, electric, water, or sewer lines within the project area before construction. The main scope of work of the project is repairing pavement and improving drainage systems. The proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, telecommunication facilities, water supply, wastewater treatment, or generate soil waste in excess of State or local standards. Caltrans Standard Specification 14-10 (Solid Waste Disposal and Recycling), along with other standards that govern the use of recycled materials, ensure that the proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, there would be no impact.

Wildfire

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near State Responsibility Areas (SRAs) or lands classified as *very high* Fire Hazard Severity Zones, would the project: a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No	No	No	Yes
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	No	No	Yes
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 may result in temporary or ongoing impacts to the environment?	No	No	No	Yes
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	No	No	Yes

Senate Bill 1241 required the Governor's Office of Planning and Research, the California Natural Resources Agency, and the California Department of Forestry and Fire Protection (CAL FIRE) to develop amendments to the "CEQA Environmental Checklist" for the inclusion of questions related to fire hazard impacts for projects located on lands classified as *very high* Fire Hazard Severity Zones. The 2018 updates to the CEQA Guidelines expanded this to include projects "near" these *very high* Fire Hazard Severity Zones.

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Fire Hazard Severity Zones indicated in the State Responsibility Area Map (California Department of Forestry and Fire Protection 2024). Potential impacts are not anticipated as the proposed project is not within a State Responsibility Area or area classified as *very high* Fire Hazard Severity Zone.

Mandatory Findings of Significance

Does the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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?	No	No	Yes	No
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	No	No	No	Yes
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No	No	No	Yes

Discussion of CEQA Environmental Checklist Question 2.21—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. Determinations are based on the Natural Environment Study, which was completed by a qualified Caltrans biologist in December 2024 (Caltrans 2024f). The proposed project would have a less than significant impact to biological resources and cultural resources. Culvert work may cause less than significant impacts to giant garter snake, northwestern pond turtle, and Waters of the U.S. and State. Implementation of Caltrans Standard Measures and BMPs (Section 1.6), along with species-specific avoidance and minimization measures, would ensure protection of biological resources. The studies and conclusions reached in Chapter 2, Section 2.4 (Biological Resources) of this report support this determination.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

No Impact. Currently, there are projects and proposed projects along I-5 in the vicinity of the proposed I-5 Grade Raise Project, including the Vision Zero Acceleration Lane Safety Project. The past, present, and foreseeable future actions of these individual projects would not have cumulatively considerable impacts leading to the degradation of habitat and species diversity, populations, disruption of migration corridors, water quality or other natural resources. The proposed project's scope of work would not result in any adverse effects that, when considered in connection with other projects, would be considered cumulatively considerable. Therefore, there would be no impact.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact. Based on studies completed for the proposed project to analyze potential impacts, the project would not cause substantial adverse effects to human beings, either directly or indirectly. Therefore, there would be no impact.

Cumulative Impacts

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this proposed project. A cumulative impact assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time (CEQA § 15355).

Cumulative impacts to resources may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

Per Section 15130 of CEQA, a Cumulative Impact Analysis (CIA) discussion is only required in "…situations where the cumulative effects are found to be significant." Cumulative effects for the proposed project were not found to be significant. Given this, an EIR and CIA were not required for this project.

CHAPTER 3. AGENCY AND PUBLIC COORDINATION

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization and/or mitigation measures and related environmental requirements. Agency and tribal consultation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings and interagency coordination meetings. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

The following agencies, organizations, and individuals were consulted in the preparation of this environmental document.

Coordination with Resource Agencies

Consultation packages were sent to representatives of the following tribes:

- Buena Vista Rancheria of Me-Wuk Indians
- Calaveras Band of Mi-Wuk Indians
- California Valley Miwok Tribe
- Chicken Ranch Rancheria of Me-Wuk Indians
- Ione Band of Miwok Indians
- Jackson Rancheria Band of Miwuk Indians
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe
- Pakan'yani Maidu of Strawberry Valley Rancheria
- Shingle Springs Band of Miwok Indians
- Tsi Akim Maidu
- United Auburn Indian Community of the Auburn Rancheria
- Wilton Rancheria

Caltrans consulted with the Native American Heritage Commission (NAHC) for a sacred lands file search. A Finding of Effects was submitted to the Office of Historic Preservation and concurrence from SHPO was received.

At the date of this document, neither USFWS nor CDFW have been contacted regarding this project. These agencies will be contacted by Caltrans Biologist Jonathan Edwards to discuss potential project impacts to federal and state listed species, as well as associated habitats, after Final Environmental Document approval.

CHAPTER 4. LIST OF PREPARERS

The following individuals performed the environmental work and contributed to the preparation of the Initial Study / Proposed Negative Declaration for this project:

California Department of Transportation, District 3

Erin Damm	Senior Environmental Scientist Contribution: Environmental Branch Chief
Jennifer Jones	Environmental Planner Contribution: Document Writer
Aaron Bali	Air Quality Specialist Contribution: Air, Noise, Energy, and Greenhouse Gas Emission Analysis
Danielle Claus	Archaeologist Contribution: Historical Properties, Archaeology Survey Report
Jonathan Edwards	Biologist Contribution: Natural Environmental Study
Keith Millard	Geologist Contribution: Preliminary Geotechnical Report
Alamjit Mangat	Hazardous Waste Specialist Contribution: Initial Site Assessment
Sung Ho Lee	Hydraulics Engineer Contribution: Floodplain Hydraulics Study
Sean Cross	Water Quality Specialist Contribution: Water Quality Assessment
Jeff Juarez	Landscape Architect Contribution: Visual Impact Assessment

Noor Alzireeni	Project Engineer Contribution: Project Design
Joshua Winchester	Project Engineer Contribution: Project Design
John Bamfield	Project Manager Contribution: Project Management

CHAPTER 5. DISTRIBUTION LIST

Federal and State Agencies

California Department of Fish and Wildlife
2825 Cordelia Road, Suite 100
Fairfield, CA 94534

Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

U. S. Army Corps of Engineers
1325 J Street, Room 1350
Sacramento, CA 95814

United States Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

California Highway Patrol–Valley Division
2555 1st Avenue
Sacramento, CA 95818

Regional/County/Local Agencies

Elk Grove Public Works Department
8401 Laguna Palms Way
Elk Grove, CA 95758

Sacramento County Department of Transportation
4100 Traffic Way
Sacramento, CA 95827

Sacramento Area Council of Governments
1415 L Street, Suite 300
Sacramento, CA 95814

Tribes

Buena Vista Rancheria of Me-Wuk Indians
1418 20th Street, Suite 200
Sacramento, CA 95811

Calaveras Band of Mi-Wuk Indians
PO Box 899
West Point, CA 95255

California Valley Miwok Tribe
PO Box 395
West Point, CA 95255

Chicken Ranch Rancheria of Me-Wuk Indians
PO Box 1159
Jamestown, CA 95327

Ione Band of Miwok Indians
9252 Bush Street
Plymouth, CA 95669

Jackson Rancheria Band of Miwuk Indians
PO Box 1090
Jackson, CA 95642

CHAPTER 6. REFERENCES

California Air Resources Board (CARB). 2008. *Climate Change Scoping Plan Appendices. Volume II: Analysis and Documentation*. Appendix I, p. I-19. December. https://ww3.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm. Accessed: June 14, 2024.

_____. 2021. *SB 375 Regional Plan Climate Targets.* https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed: June 14, 2024.

_____. 2022a. *2022 Scoping Plan for Achieving Carbon Neutrality.* Executive Summary. https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed: June 14, 2024.

_____. 2022b. *Climate Change.* https://ww2.arb.ca.gov/our-work/topics/climate-change. Accessed: June 14, 2024.

_____. 2023. *California Greenhouse Gas Emissions Inventory Data–2023 Edition, 2000-2021.* https://ww2.arb.ca.gov/ghg-inventory-data. Accessed: June 14, 2024.

California Department of Conservation. 2016. *Earthquake Shaking Potential for California*. https://maps.conservation.ca.gov/cgs/. Accessed August 5, 2024.

_____. 2020. *California Important Farmland Finder*. https://maps.conservation.ca.gov/dlrp/ciff/. Accessed July 30, 2024.

_____. 2024. *Mines Online*. https://maps.conservation.ca.gov/mol/index.html. Accessed July 19, 2024.

California Department of Fish and Wildlife. 2022. Aquatic Invasive Species Decontamination Protocol (Northern Region).

California Department of Forestry and Fire (CAL FIRE). 2024. *Fire Hazard Severity Zones in State Responsibility Area.* https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones. Accessed July 30, 2024.

California Department of Transportation (Caltrans). 2016. Caltrans Storm Water Management Plan.

_____. 2019. *Caltrans Climate Change Vulnerability Assessments. District 3 Technical Report.* Prepared by WSP. https://dot.ca.gov/programs/transportation-planning/2019-climate-change-vulnerability-assessments.

_____. 2020a. “Caltrans Adaption Priority Report”. https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/2020-adaption-priorities-reports/d3-adaptation-priorities-report-2020-a11y.pdf. December. Accessed September 23, 2024.

_____. 2020b. *Caltrans Greenhouse Gas Emissions and Mitigation Report*. Final. August. Prepared by ICF, Sacramento, CA. https://dot.ca.gov/programs/public-affairs/mile-marker/summer-2021/ghg. Accessed: June 14, 2024.

_____. 2020c. *Transportation Analysis under CEQA Evaluating Transportation Impacts of State Highway System Projects.* Transportation Analysis Framework, Caltrans. https://dot.ca.gov/-/media/dot-media/programs/transportationplanning/documents/sb-743/2020-09-10-1st-edition-tac-fnl-a11y.pdf.

_____. 2021a. *California Transportation Plan 2050.* February. https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/state-planning-equity-and-engagement/california-transportation-plan. Accessed: June 14, 2024.

_____. 2021b. *Caltrans 2020-2024 Strategic Plan.* https://storymaps.arcgis.com/stories/f190b9755a184b268719dac9a11153f7. Accessed: June 14, 2024

_____. 2023b. *Sustainable Operations at Caltrans.* https://dot.ca.gov/programs/esta/sustainable-caltrans. Accessed: June 14, 2024.

_____. 2024a. “Visual Impact Assessment”. Dated September 20, 2024.

_____. 2024b. “Air Quality, Greenhouse Gas, and Energy Analysis”. Dated October 31, 2024.

_____. 2024c. “Natural Environmental Study”. Dated December 26, 2024.

_____. 2024d. “Initial Site Assessment”. Dated November 4, 2024.

_____. 2024e. “Water Quality Assessment”. Dated October 15, 2024.

_____. 2024f. “Floodplain Hydraulics Study”. Dated October 29, 2024.

_____. 2024g. “Noise Analysis”. October 31, 2024.

_____. 2024h. “Preliminary Geotechnical Report”. Dated 13, 2024.

_____. 2025a. “Archaeological Survey Report”. Dated February 11, 2025.

_____. 2025b. “Finding of Effect”. Dated March 6, 2025.

California Governor’s Office of Planning and Research (OPR). 2015. *A Strategy for California @ 50 Million*. November. https://opr.ca.gov/planning/environmental-goals/. Accessed: June 14, 2024.

California Natural Resources Agency. 2022. *Nature-Based Climate Solutions: Natural and Working Lands Climate Smart Strategy.* https://resources.ca.gov/Initiatives/Expanding-Nature-Based-Solutions. Accessed: June 14, 2024.

_____. 2023. *California Climate Adaptation Strategy.* https://climateresilience.ca.gov/overview/index.html. Accessed: June 14, 2024.

California Ocean Protection Council. 2022. *State Agency Sea-Level Rise Action Plan for California.* February. https://www.opc.ca.gov/climate-change/sea-level-rise-2/. Accessed: June 14, 2024.

California State Transportation Agency. 2021. *Climate Action Plan for Transportation Infrastructure (CAPTI).* https://calsta.ca.gov/subject-areas/climate-action-plan. Accessed: June 14, 2024.

Climate-Safe Infrastructure Working Group. 2018. *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California.* September. https://resources.ca.gov/CNRALegacyFiles/docs/climate/ab2800/AB2800_Climate-SafeInfrastructure_FinalNoAppendices.pdf. Accessed: June 14, 2024.

County of Sacramento. 2018. "South Sacramento Habitat Conservation Plan." https://planning.saccounty.gov/PlansandProjectsIn-Progress/Pages/SSHCPPlan.aspx. Accessed: March 25, 2025.

_____. 2022. "General Plan". https://planning.saccounty.gov/PlansandProjectsIn-Progress/Pages/GeneralPlan.aspx. Accessed September 9, 2014.

_____. 2023a. *General Map Viewer*. https://planning.saccounty.gov/Pages/PlanningandCommunityMaps.aspx. Accessed July 30, 2024.

_____. 2023b. "2023-2026 Metropolitan Transportation Improvement Program". https://www.sacog.org/home/showpublisheddocument/1822/638376481651800000. Accessed September 23, 2024.

County of San Joaquin. 2022. "2022 RTP/SCS & EIR". https://www.sjcog.org/DocumentCenter/View/7201/49-GHG-and-Climate-Change. Accessed September 10, 2024.

Federal Highway Administration (FHWA). 2022. *Sustainability.* https://www.fhwa.dot.gov/environment/sustainability/resilience/. Last updated July 29, 2022. Accessed: June 14, 2024.

_____. No date. *Sustainable Highways Initiative.* https://www.fhwa.dot.gov/environment/sustainability/initiative/. Accessed: June 14, 2024.

National Oceanic and Atmospheric Administration (NOAA). 2022. *2022 Sea Level Rise Technical Report.* https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html. Accessed: November 13, 2023.

Sacramento Area Council of Governments (SACOG). 2022. *Sacramento County Climate Action Plan*. https://planning.saccounty.gov/PlansandProjectsIn-Progress/Documents/Climate%20Action%20Plan/Final%20Climate%20Action%20Plan.pdf. Accessed September 11, 2024.

State of California. 2018. *California's Fourth Climate Change Assessment.* http://www.climateassessment.ca.gov/. Accessed: June 14, 2024.

U.S. Department of Transportation (U.S. DOT). 2014. *Corporate Average Fuel Economy (CAFE) Standards.* https://www.transportation.gov/mission/sustainability/corporate-average-fuel-economy-cafe-standards. Accessed: June 14, 2024.

_____. 2023. *Climate Action*. January. https://www.transportation.gov/priorities/climate-and-sustainability/climate-action. Accessed: June 14, 2024.

U.S. Environmental Protection Agency (U.S. EPA). 2021. *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. December. https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed: June 14, 2024.

_____. 2024a. *Data Highlights.* Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed: June 14, 2024.

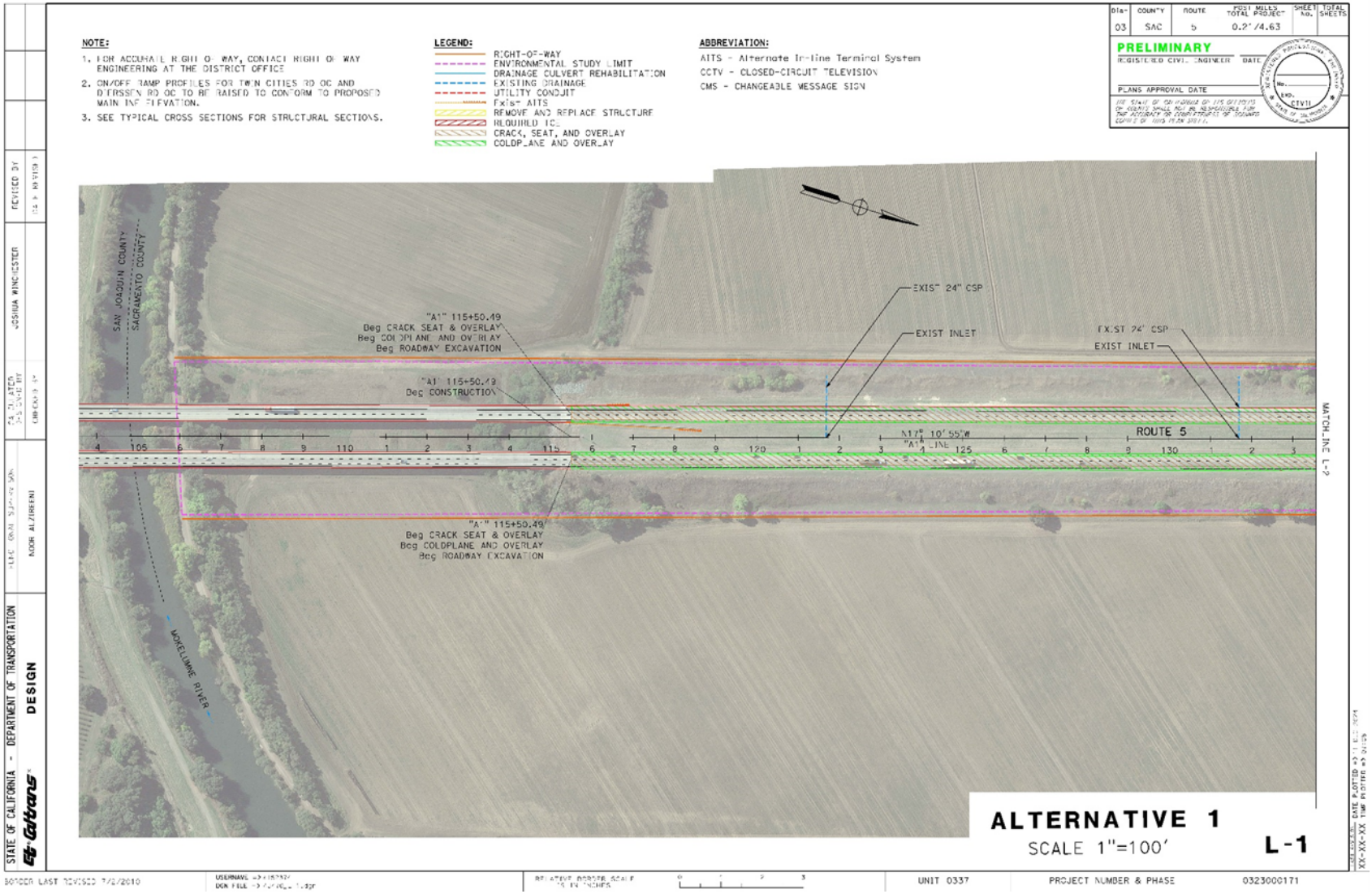
_____. 2024b. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022.* https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed: June 14, 2024.

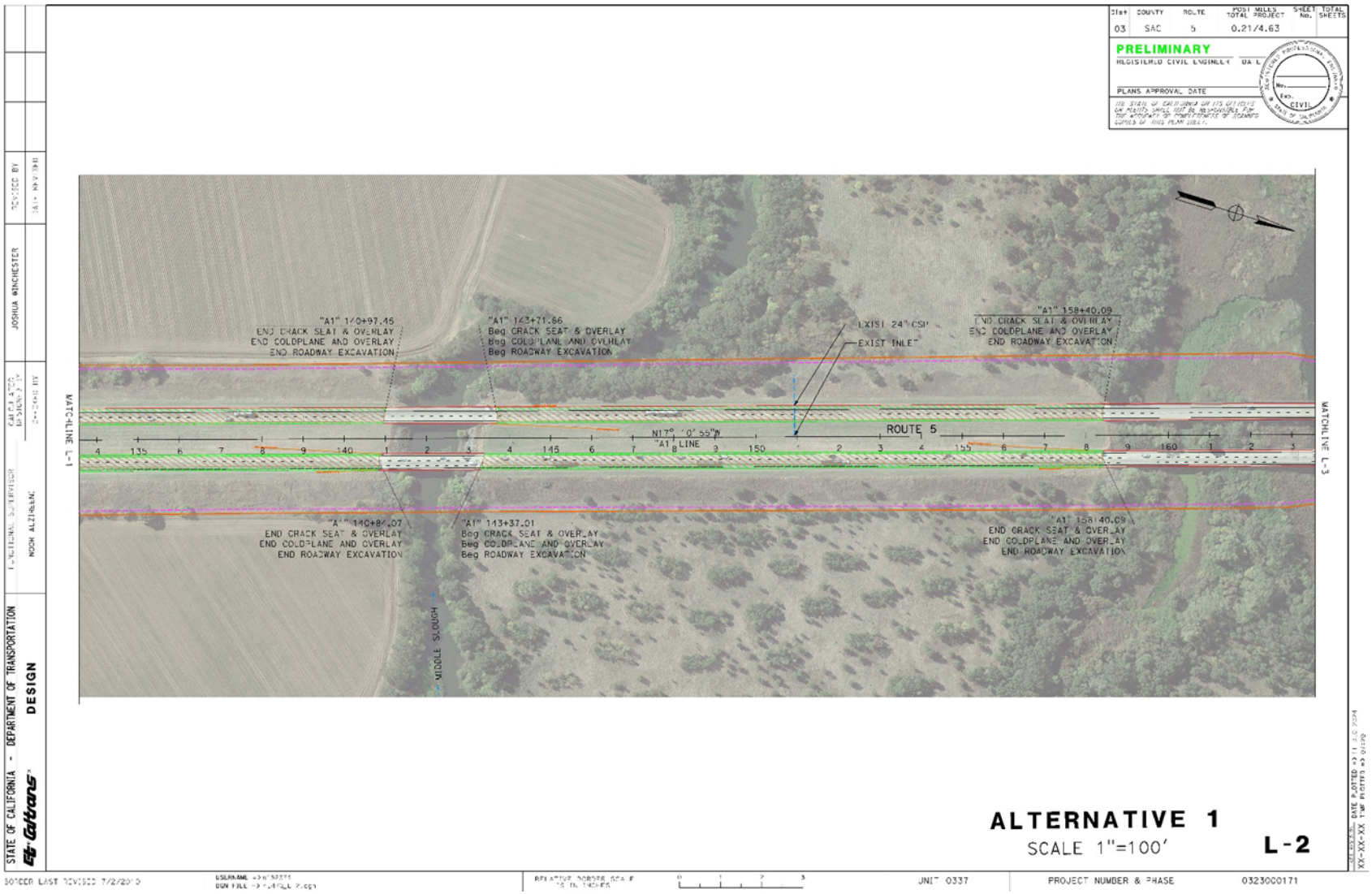
U.S. Global Change Research Program. 2023. *Fifth National Climate Assessment.* https://nca2023.globalchange.gov/chapter/front-matter/. Accessed: June 14, 2024.

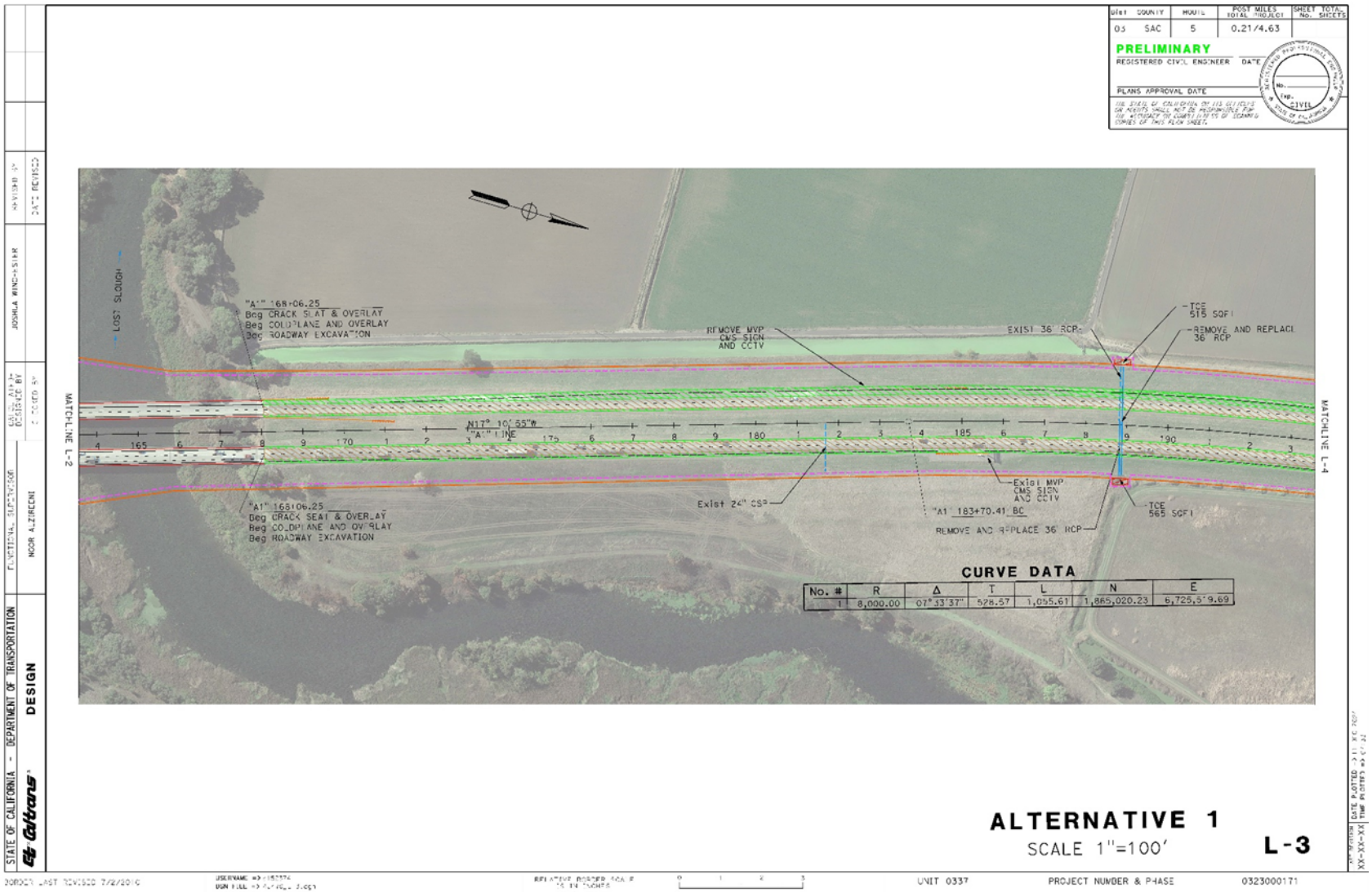


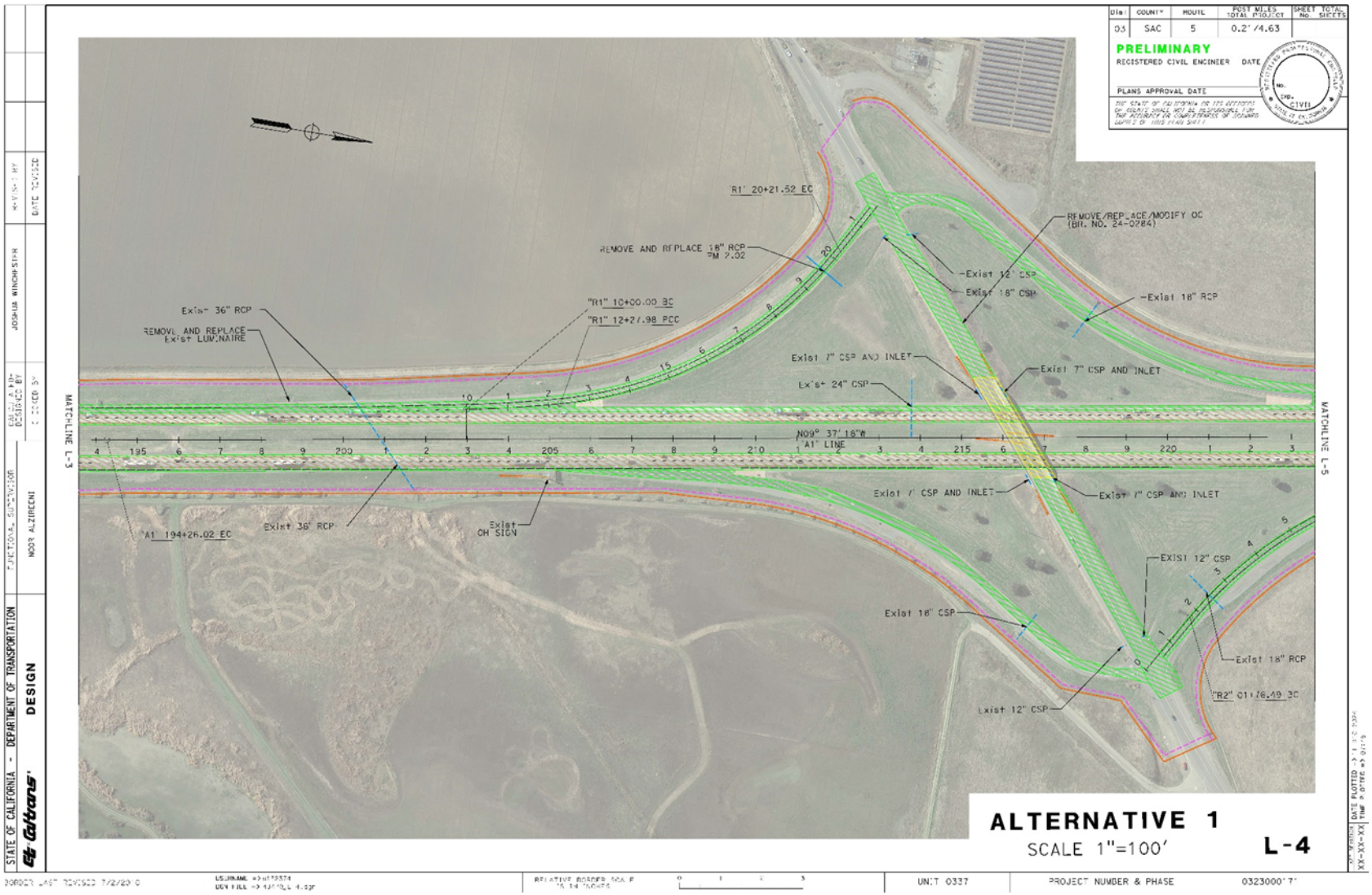
APPENDIX A. PROJECT LAYOUTS

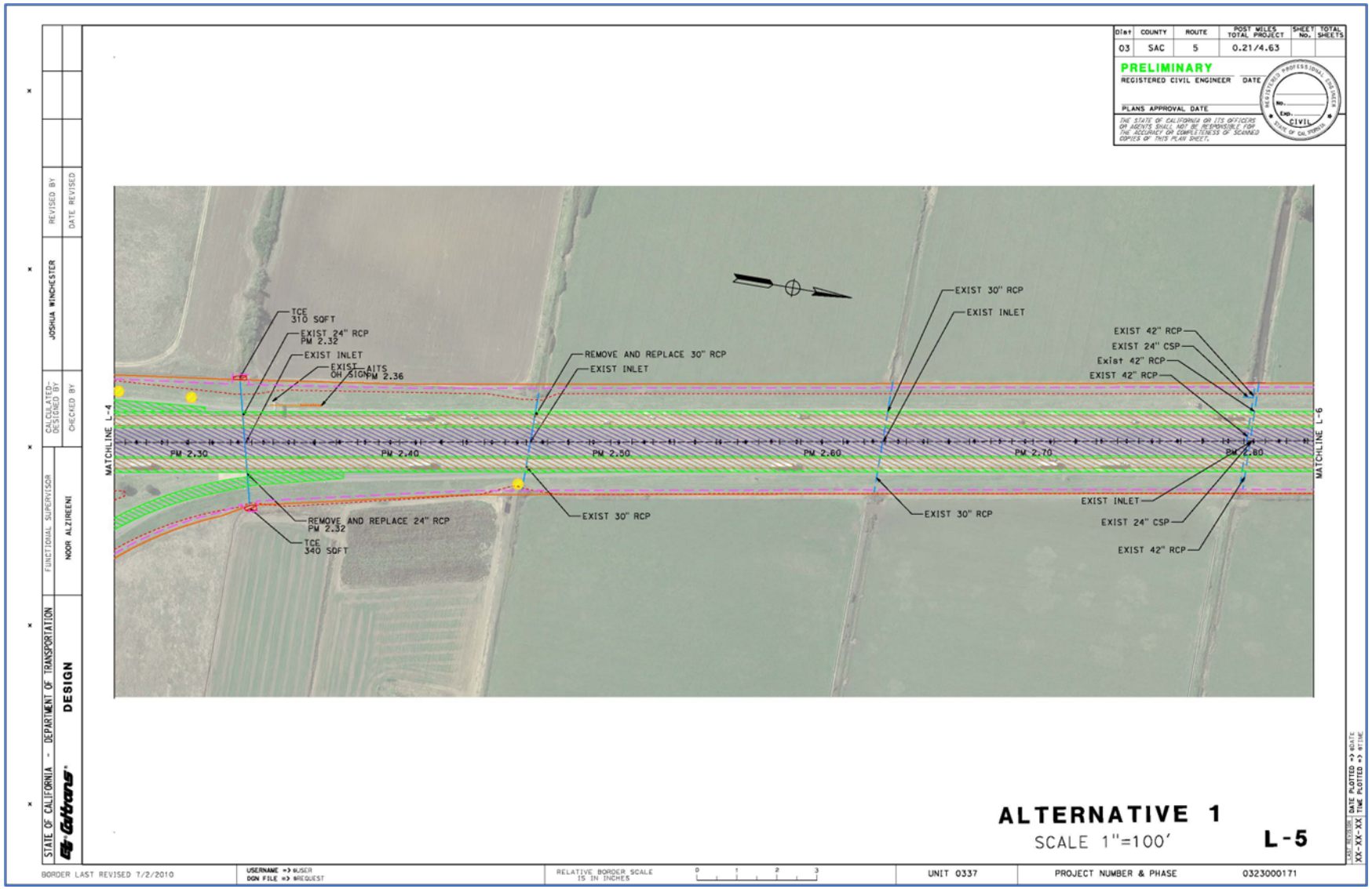


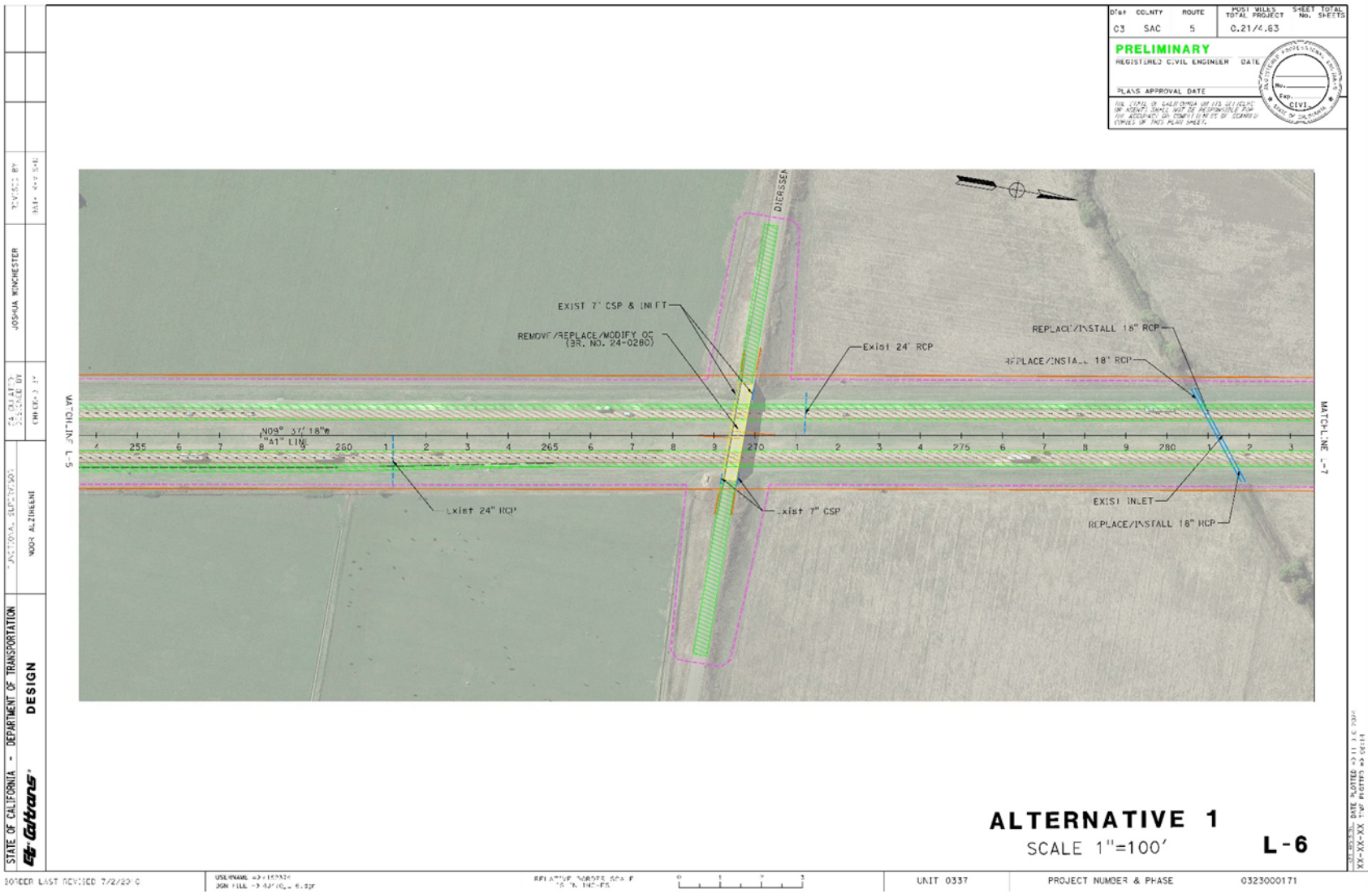

NOTE:
1. FOR ACCURATE RIGHT OF WAY, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE
2. ON/OFF RAMP PROFILES FOR TWIN CITIES RD OC AND DITRSEN RD OC TO BE RAISED TO CONFORM TO PROPOSED MAIN LINE ELEVATION.
3. SEE TYPICAL CROSS SECTIONS FOR STRUCTURAL SECTIONS.
LEGEND:
RIGHT-OF-WAY
ENVIRONMENTAL STUDY LIMIT
DRAINAGE CULVERT REHABILITATION
EXISTING DRAINAGE
UTILITY CONDUIT
Exist AITS
REMOVE AND REPLACE STRUCTURE
REQUIRED TC
CRACK, SEAT, AND OVERLAY
COLDPLANE AND OVERLAY
ABBREVIATION:
AITS - Alternate In-line Terminal System
CCTV - CLOSED-CIRCUIT TELEVISION
CMS - CHANGEABLE MESSAGE SIGN
Dist 03
COUNTY SAC
ROUTE 5
POST MILES TOTAL PROJECT 0.2/4.63
SHEET No.
TOTAL SHEETS
PRELIMINARY
REGISTERED CIVIL ENGINEER
DATE
PLANS APPROVAL DATE
SAN JOAQUIN COUNTY
SACRAMENTO COUNTY
"A" 115+50.49
Beg CRACK SEAT & OVERLAY
Beg COLDPLANE AND OVERLAY
Beg ROADWAY EXCAVATION
"A" 115+50.49
Beg CONSTRUCTION
EXIST 24" CSP
EXIST INLET
EXIST 24" CSP
EXIST INLET
ROUTE 5
"A" LINE
MOKELUMNE RIVER
MATCHLINE L-2
ALTERNATIVE 1
SCALE 1"=100'
L-1
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
JOSHUA WINCHESTER
ADOR ALIREENI
REVISED BY
BORDER LAST REVISED 7/2/2010
UNIT 0337
PROJECT NUMBER & PHASE
0323000171

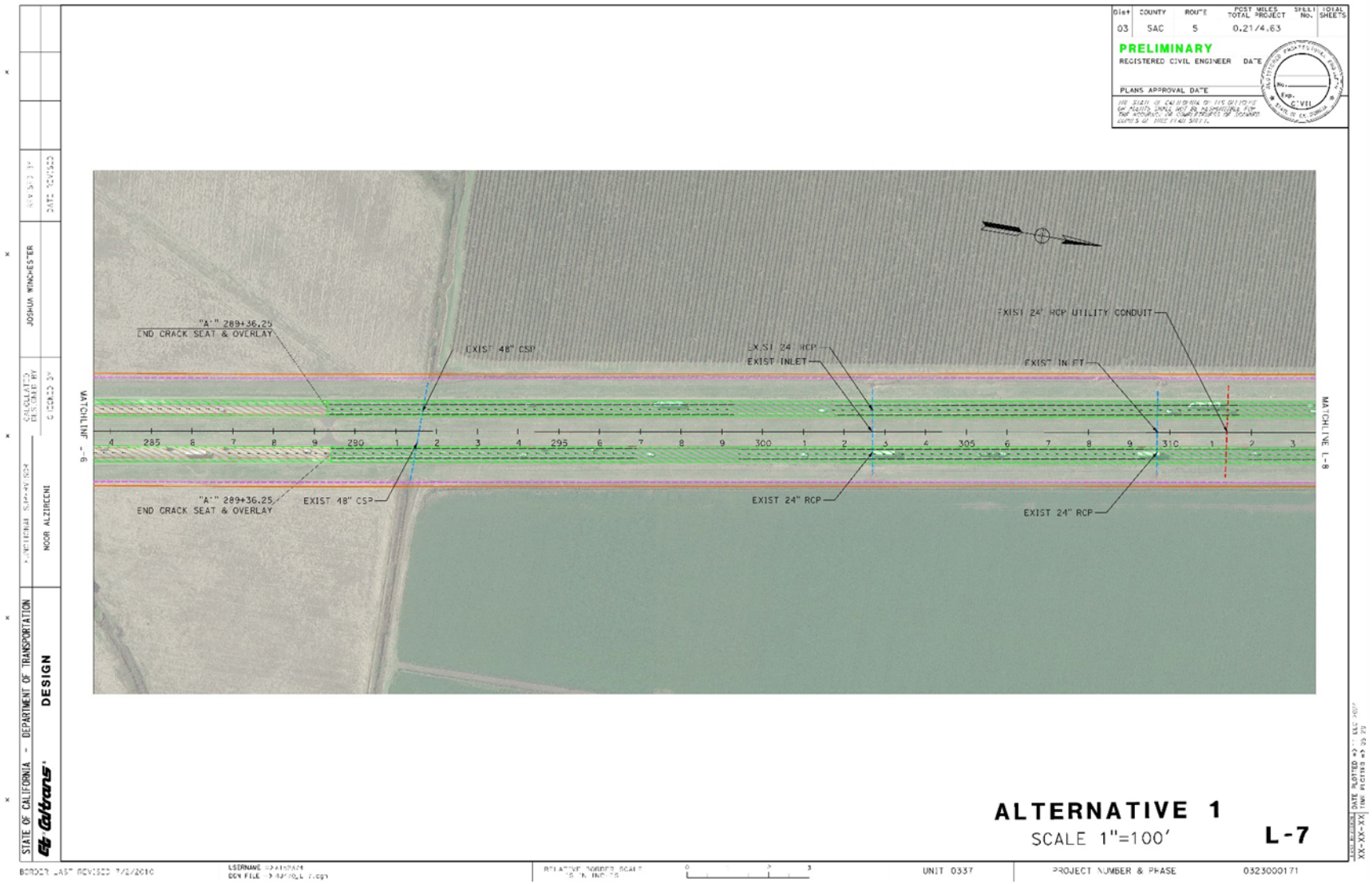

PRELIMINARY
"A1" 140+97.45
END CRACK SEAT & OVERLAY
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
"A1" 143+71.86
Beg CRACK SEAT & OVERLAY
Beg COLDPLANE AND OVERLAY
Beg ROADWAY EXCAVATION
EXIST 24" CSP
EXIST INLET
"A1" 158+40.09
END CRACK SEAT & OVERLAY
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
ROUTE 5
N17° 0' 55"W
"A1" LINE
"A" 140+84.07
END CRACK SEAT & OVERLAY
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
"A1" 143+37.01
Beg CRACK SEAT & OVERLAY
Beg COLDPLANE AND OVERLAY
Beg ROADWAY EXCAVATION
"A1" 158+40.09
END CRACK SEAT & OVERLAY
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
MIDDLE SLOUGH
ALTERNATIVE 1
SCALE 1"=100'
L-2

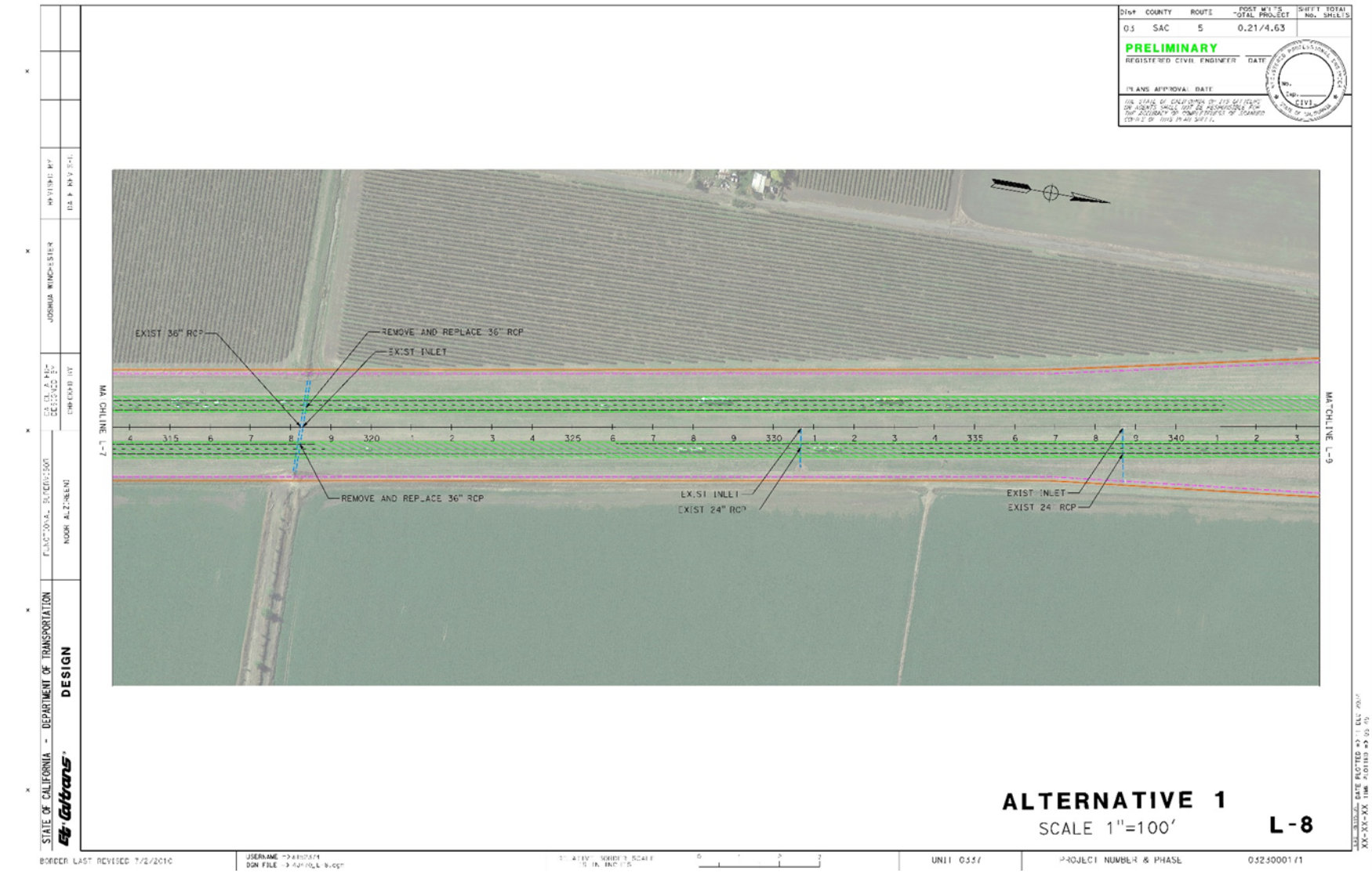

DIST COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL No. SHEETS
05 SAC 5 0.21/4.63
PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
LOST SLOUGH
"A" 168+06.25
Beg CRACK SEAT & OVERLAY
Beg COLDPLANE AND OVERLAY
Beg ROADWAY EXCAVATION
REMOVE MVP CMS SIGN AND CCTV
EXIST 36" RCP
TCE 515 SQFT
REMOVE AND REPLACE 36" RCP
MATCHLINE L-2
N17° 10' 55"W
"A" LINE
MATCHLINE L-4
"A1" 166+06.25
Beg CRACK SEAT & OVERLAY
Beg COLDPLANE AND OVERLAY
Beg ROADWAY EXCAVATION
Exist 24" CSP
Exist MVP CMS SIGN AND CCTV
"A1" 183+70.41 BC
REMOVE AND REPLACE 36" RCP
TCE 565 SQFT
CURVE DATA
No. # R Δ T L N E
1 8,000.00 07°33'37" 528.57 1,055.61 1,865,020.23 6,725,519.69
ALTERNATIVE 1
SCALE 1"=100'
L-3
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
NOOR ALZAREENI
JOSHUA WINDHAM
UNIT 0337
PROJECT NUMBER & PHASE
0323000171


PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
R1' 20+21.52 EC
REMOVE AND REPLACE 18" RCP
REMOVE/REPLACE/MODIFY OC
(BR. NO. 24-0284)
Exist 12" CSP
Exist 18" CSP
Exist 18" RCP
Exist 36" RCP
REMOVE AND REPLACE
Exist LUMINAIRE
"R1" 10+00.00 BC
"R1" 12+27.98 PCC
Exist 7" CSP AND INLET
Exist 24" CSP
N09° 37' 18"W
"A1" LINE
A1' 194+26.02 EC
Exist 36" RCP
Exist
CH SIGN
EXIST 12" CSP
Exist 18" CSP
Exist 18" RCP
"R2" 01+76.49 BC
Exist 12" CSP
MATCHLINE L-3
MATCHLINE L-5
ALTERNATIVE 1
SCALE 1"=100'
L-4
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
NOOR ALZUBEDI
JOSHUA WINCHESTER
UNIT 0337
PROJECT NUMBER & PHASE


Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS
03 | SAC | 5 | 0.21/4.63
PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.
REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR
NOOR ALZIREENI
CALCULATED-DESIGNED BY
CHECKED BY
JOSHUA WINCHESTER
REVISED BY
DATE REVISED
MATCHLINE L-4
MATCHLINE L-6
PM 2.30
PM 2.40
PM 2.50
PM 2.60
PM 2.70
PM 2.80
TCE
310 SQFT
EXIST 24" RCP
PM 2.32
EXIST INLET
EXIST AITS
OH SIGN PM 2.36
REMOVE AND REPLACE 24" RCP
PM 2.32
TCE
340 SQFT
REMOVE AND REPLACE 30" RCP
EXIST INLET
EXIST 30" RCP
EXIST 30" RCP
EXIST INLET
EXIST 42" RCP
EXIST 24" CSP
Exist 42" RCP
EXIST 42" RCP
EXIST INLET
EXIST 24" CSP
EXIST 42" RCP
ALTERNATIVE 1
SCALE 1"=100'
L-5
BORDER LAST REVISED 7/2/2010
USERNAME => $USER
DGN FILE => $REQUEST
RELATIVE BORDER SCALE IS IN INCHES
0 1 2 3
UNIT 0337
PROJECT NUMBER & PHASE
0323000171
DATE PLOTTED => $DATE
TIME PLOTTED => $TIME
XX-XX-XX


PRELIMINARY
EXIST 7' CSP & INLET
REMOVE/REPLACE/MODIFY DC (BR. NO. 24-0280)
Exist 24" RCP
REPLACE/INSTALL 18" RCP
REPLACE/INSTALL 18" RCP
Exist 24" RCP
Exist 7" CSP
EXIST INLET
REPLACE/INSTALL 18" RCP
MATCHLINE L-7
MATCHLINE L-5
ALTERNATIVE 1
SCALE 1"=100'
L-6
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
UNIT 0337
PROJECT NUMBER & PHASE
0323000171


Dist 03
COUNTY SAC
ROUTE 5
POST MILES TOTAL PROJECT 0.21/4.63
SHEET No.
TOTAL SHEETS
PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
"A" 289+36.25
END CRACK SEAT & OVERLAY
EXIST 48" CSP
EXIST 24" RCP
EXIST INLET
EXIST 24" RCP UTILITY CONDUIT
EXIST INLET
"A" 289+36.25
END CRACK SEAT & OVERLAY
EXIST 18" CSP
EXIST 24" RCP
EXIST 24" RCP
MATCH LINE L-6
MATCH LINE L-8
285
290
295
300
305
310
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
JOSHUA WINCHESTER
NOOR ALZIRCENI
ALTERNATIVE 1
SCALE 1"=100'
L-7
UNIT 0337
PROJECT NUMBER & PHASE
0323000171


Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL No. SHEETS
03 SAC 5 0.21/4.63
PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
EXIST 36" RCP
REMOVE AND REPLACE 36" RCP
EXIST INLET
REMOVE AND REPLACE 36" RCP
EXIST INLET
EXIST 24" RCP
EXIST INLET
EXIST 24" RCP
MATCHLINE L-7
MATCHLINE L-9
ALTERNATIVE 1
SCALE 1"=100'
L-8
BORDER LAST REVISED 7/2/2010
UNIT 0551
PROJECT NUMBER & PHASE
052300017


"A1" 344+99.17
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
"A1" 345+00.00
END CONSTRUCTION
"A1" 348+81.18
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
LAMBERT RD
ALTERNATIVE 1
SCALE 1"=100'
L-9
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
NOOR ALZIRKENI
JOSHUA WINCHESTER
PRELIMINARY
REGISTERED CIVIL ENGINEER
PLANS APPROVAL DATE
PROJECT NUMBER & PHASE
0323000171



APPENDIX B. TITLE VI–NON-DISCRIMINATION POLICY STATEMENT



CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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

September 2023

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
Director

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



APPENDIX C. USFWS, NMFS, CNDDB, AND CNPS SPECIES LISTS



United States Department of the Interior

FISH AND WILDLIFE SERVICE
San Francisco Bay-Delta Fish And Wildlife
650 Capitol Mall
Suite 8-300
Sacramento, CA 95814
Phone: (916) 930-5603 Fax: (916) 930-5654

In Reply Refer To: 02/04/2026 15:39:37 UTC
Project Code: 2025-0006418
Project Name: 03-4J470 I-5 Grade Raise

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed, and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (https://www.fws.gov/program/eagle-management/working-around-eagles). Additionally, wind energy projects should follow the wind energy guidelines (https://www.fws.gov/node/266177) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation; and http://www.towerkill.com.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

San Francisco Bay-Delta Fish And Wildlife
650 Capitol Mall
Suite 8-300
Sacramento, CA 95814
(916) 930-5603

PROJECT SUMMARY

Project Code: 2025-0006418
Project Name: 03-4J470 I-5 Grade Raise
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The proposed project is located in Sacramento County along Interstate 5 (I-5) from approximately the Sacramento / San Joaquin County line to the Lambert Road Undercrossing (UC) (Bridge No. 24 0287L/R). This project proposes to raise the roadway profile by 0.5' to 1.5' between postmiles SAC-5-PM 0.21/3.9 in order to accommodate a roadway elevation above a 10-year storm event water surface elevation (WSEL) and flooding patterns associated with Sea Level Rise (SLR). The project also includes pavement rehabilitation strategies for both rigid and flexible pavement sections within the project limits to address pavement conditions while also raising the roadway profile. The project will also incorporate new drainage facilities within the project limits, expand capacity of existing drainage facilities, and rehabilitate drainage facilities in substandard condition to facilitate stormwater runoff. Supplementary improvements include safety features, electrical components, traffic management systems (TMS), vertical raises for freeway overcrossing structures, safety features, maintenance vehicle pullouts (MVP), signage, and striping.
ALTERNATIVES:
Alternative 1, Programmable Project Alternative (Escalated Capital Construction Cost
Estimate = $110.7 M)
Alternative 1 brings the I-5 profile within the project limits above the 10-year storm event water surface elevation level by performing an approximate 0.5'-1.5' profile raise north of Lost Slough Bridge in the Mokelumne River Confluence with Cosumnes River.
Structures:
• Raise the following structures to accommodate minimum vertical clearance in consideration of overlay strategy
o Twin Cities Road OC (Br. No. 24 0284)
o Dierssen Road OC (Br. No. 24 0280)
• Replace structure approach railing and bridge railing to accommodate new roadway mainline profile height and/or upgrade to current MASH standards
• Note: The current strategy is to raise both Twin Cities Road OC and Dierssen Road OC. If the OCs are replaced, 8' wide concrete footpaths along Twin Cities Road OC (Br. No. 24 0284) and Dierssen Road OC (Br. No. 24 0280) should be considered.
Drainage:
• Remove and replace drainage inlets and culverts in poor conditions and incorporate additional drainage inlets, culverts, and/or upsize existing

culvert diameters as required to accommodate stormwater runoff and profile raise.
Safety:
• Remove/replace non-MASH standard guardrail with Midwest Guardrail System with metal posts, MASH end treatments, and transition railing at various locations
• Provide shoulder rumble strips along outside shoulders
• Maintenance Vehicle Pullouts (MVP) to be constructed for culvert access pending further investigation from hydraulics and maintenance on culvert systems and ideal access points.
Pavement:
• Crack, Seat, and Overlay (Rigid Pavement - Mainline (SAC-5-PM 0.21/0.70, 0.74/1.03, 1.22/3.50)
o Crack and seat pavement
o 0.10’ RHMA-O
o 0.90’ HMA-A
o Geosynthetic Pavement Interlayer (GPI)
o 0.10’ HMA-A (Leveling Course)
• Coldplane and Overlay (Flexible Pavement – Mainline (SAC-5-PM 3.50/3.9) and shoulders throughout project limits))
o Coldplane 0.25’
o Overlay
o 0.10’ RHMA-O
o 1.15’ HMA-A
o 0.10’ HMA-A (Leveling Course)
• Coldplane and Overlay (Flexible Pavement – Mainline (SAC-5-PM 3.9/4.63)
o Coldplane 0.20’
o Overlay
0.1’ RHMA-O
0.2’ RHMA-G
o Note: Existing profile of road is above the 10-year storm event water surface elevation level.
Place imported soil material at inside and outside shoulders for embankment (6:1 or flatter)
• Place pavement edge treatment
TMS:
• Remove and replace the following items which will be beyond lifecycle by RTL.
o Two Changeable Message System (CMS) located at SAC-5: PM 1.55 NB and PM 1.49 SB
o Closed-Circuit Television (CCTV) located at SAC-5: PM 1.55 NB and 1.49 SB
• Repair and/or replace census stations located at SAC-5-PM 1.913 and

SAC-5-PM 2.523 due to pavement strategy
• Incorporate fiber optic system for the modified Intellige

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.28833645,-121.4587497184458,14z



Counties: Sacramento County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QXMDTV4GY5DCREA5SKY6FGOPCA/documents/generated/11238.pdf	Threatened

REPTILES

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QXMDTV4GY5DCREA5SKY6FGOPCA/documents/generated/11238.pdf	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot *Spea hammondii* Population: Northern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QXMDTV4GY5DCREA5SKY6FGOPCA/documents/generated/11238.pdf	Proposed Threatened

FISHES

NAME	STATUS
Longfin Smelt *Spirinchus thaleichthys* Population: San Francisco Bay-Delta DPS There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9011 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QXMDTV4GY5DCREA5SKY6FGOPCA/documents/generated/11238.pdf	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QXMDTV4GY5DCREA5SKY6FGOPCA/documents/generated/11238.pdf	Proposed Threatened
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QXMDTV4GY5DCREA5SKY6FGOPCA/documents/generated/11238.pdf	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QXMDTV4GY5DCREA5SKY6FGOPCA/documents/generated/11238.pdf	Endangered

FLOWERING PLANTS

NAME	STATUS
Large-flowered Fiddleneck *Amsinckia grandiflora* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5558	Endangered

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* For information on why this critical habitat appears for your project, even though Delta Smelt is not on the list of potentially affected species at this location, contact the local field office. https://ecos.fws.gov/ecp/species/321#crithab	Final

IPAC USER CONTACT INFORMATION

Agency: California Department of Transportation District 3
Name: Jonathan Edwards
Address: 703 B street
City: Marysville
State: CA
Zip: 95901
Email jonathan.edwards@dot.ca.gov
Phone: 5307203945

From: Edwards, Jonathan@DOT
To: nmfs.wcrca.specieslist@noaa.gov
Subject: Project 03-4J470 needs updated NMFS species lists
Date: Wednesday, February 4, 2026 7:40:00 AM

Quad Name **Bruceville**

Quad Number **38121-C4**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) - **X**

SRWR Chinook Salmon ESU (E) - **X**

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

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

Eulachon (T) -

sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat - **X**

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -

Chinook Salmon EFH - **X**

Groundfish EFH - **X**

Coastal Pelagics EFH -

Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -

MMPA Pinnipeds -

Jonathan (John) Edwards
Associate Environmental Planner, N.S.
Jonathan.Edwards@dot.ca.gov
Caltrans Environmental M5
703 B Street
Marysville, CA 95901
(530) 720-3945 (Work Cell)

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Bruceville (3812134))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	SSC
Actinemys marmorata northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G3	S2	SSC
Athene cunicularia burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus pensylvanicus American bumble bee	IIHYM24260	None	None	G3G4	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Brasenia schreberi watershield	PDCAB01010	None	None	G5	S3	2B.3
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
Cicuta maculata var. bolanderi Bolander's water-hemlock	PDAPI0M051	None	None	G5T4T5	S2?	2B.1
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	
Great Valley Mixed Riparian Forest Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	S2.2	
Great Valley Valley Oak Riparian Forest Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
Hydrochara ricksecker Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S3	
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Limosella australis Delta mudwort	PDSCR10030	None	None	G5	S2	2B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Melospiza melodia pop. 1 song sparrow ("Modesto" population)	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	SSC
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Scutellaria galericulata marsh skullcap	PDLAM1U0J0	None	None	G5	S2	2B.2
Scutellaria lateriflora side-flowering skullcap	PDLAM1U0Q0	None	None	G5	S1S2	2B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Valley Oak Woodland Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	

Record Count: 35

CNPS Rare Plant Inventory

California Native Plant Society

Search Results

14 matches found. Click on scientific name for details

Search Criteria: , Quad is one of [3812134]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Brasenia schreberi	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	None	None	G5	S3	2B.3		2010-10-27	 ©2014 Kirsten Bovee
Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	None	None	G5	S2	2B.1		1994-01-01	 Dean Wm. Taylor 1997
Centromadia parryi ssp. *rudis*	Parry's rough tarplant	Asteraceae	annual herb	May-Oct	None	None	G3T3	S3	4.2	Yes	2007-05-22	 © 2019 John Doyen
Cicuta maculata var. *bolanderi*	Bolander's water-hemlock	Apiaceae	perennial herb	Jul-Sep	None	None	G5T4T5	S2?	2B.1		1974-01-01	 © 2007 Doreen L Smith
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	1974-01-01	 © 2020 Steven Perry

Lasthenia ferrisiae	Ferris' goldfields	Asteraceae	annual herb	Feb-May	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2009 Zoya Akulova
Lathyrus jepsonii var. *jepsonii*	Delta tule pea	Fabaceae	perennial herb	May-Jul(Aug-Sep)	None	None	G5T2	S2	1B.2	Yes	1974-01-01	 © 2003 Mark Fogiel
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01	 © 2025 Adam Searcy
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	None	CR	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
Limosella australis	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	May-Aug	None	None	G5	S2	2B.1		1994-01-01	 © 2020 Richard Sage
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
Scutellaria galericulata	marsh skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Sep	None	None	G5	S2	2B.2		1994-01-01	 © 2021 Scot Loring
Scutellaria lateriflora	side-flowering skullcap	Lamiaceae	perennial rhizomatous herb	Jul-Sep	None	None	G5	S1S2	2B.2		1994-01-01	No Photo Available

Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001-01-01	 © 2005 Dean Wm Taylor

Showing 1 to 14 of 14 entries

Go to top

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2026. Rare Plant Inventory (online edition, v9.5.1). Website https://www.rareplants.cnps.org [accessed 4 February 2026].

}

APPENDIX D. SHPO CONCURRENCE LETTER



State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Armando Quintero, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

April 9, 2025

VIA EMAIL

In reply refer to: FHWA-CATRA_2025_0324_001

Ms. Julia Prince-Buitenhuys
Cultural Studies Office
Division of Environmental Analysis
PO Box 942873, MS-27
Sacramento, CA 94273-0001

Subject: Finding No Adverse Effect for the Proposed Interstate 5 Grade Raise Project, Sacramento County, California

Dear Ms. Prince-Buitenhuys:

Caltrans is initiating consultation regarding the above project in accordance with the in accordance with the 2024 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, the United States Army Corps of Engineers' Sacramento District, San Francisco District, and Los Angeles District, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid Highway Program in California* (106 PA) and the 2024 *Memorandum of Understanding Between the California Department of Transportation and the State Historic Preservation Officer Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-29-92* (5024 MOU) . As part of your documentation, Caltrans submitted a Finding of No Adverse Effect Report (FNAE) for the above project.

Caltrans proposes to raise the roadway profile by 0.2 to 0.5 meters, rehabilitate pavement and drainage systems, construct maintenance vehicle pullouts, and upgrade various signs and facilities to meet standards.

Consultation and identification efforts for this project identified one historic property within the Area of Potential Effects, P-34-005806, an earthen water conveyance channel, that Caltrans is considering eligible for the National Register of Historic Places pursuant to Stipulation VIII.C.4 of the 106 PA.

Caltrans applied the Criteria of Adverse Effect set forth in 36 CFR § 800.5(a)(l) and found that the Undertaking will have no adverse effect on historic properties within the APE for the project. The undertaking proposes the relining of a culvert directly

upstream of the historic property, and a modification to the drainage inlet which would impact approximately 10 feet of the 700-foot channel. This proposed work will not alter nor discernably change the character of the historic property's setting.

Based on my review of the submitted documentation, I do not object to Caltrans' finding of no adverse effect for this undertaking.

If you have any questions, please contact Natalie Lindquist at natalie.lindquist@parks.ca.gov .

Sincerely,

Julianne Polanco
State Historic Preservation Officer