# I-5 GRADE RAISE PROJECT

## INITIAL STUDY

**with 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**

**July 2026**



## General Information About This Document

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study with Negative Declaration (IS/ND) for the proposed I-5 Grade Raise Project located 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.

*The following text has been added since the draft environmental document was circulated.].*

The Initial Study circulated to the public for 44 days between February 11, 2026, and March 27, 2026. Comments received during this period are included in Appendix E–Response to Public Comments. Elsewhere, language within brackets has been added throughout the document to indicate where a change has been made since the circulation of the draft environmental document. Minor editorial changes and clarifications have not been so indicated.

Additional copies of this document and the related technical studies are available for review at Caltrans District 3 office located at 703 B Street, Marysville, CA 95901. This document may be downloaded at the following website:

https://dot.ca.gov/caltrans-near-me/district-3/d3-programs/d3-environmental/d3-environmental-docs/d3-sacramento-county

### *Alternate Formats*

For individuals with sensory disabilities, this document can be made available in Braille, in large print, or digital format. 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 profile, upgrade drainage facilities, add electrical components, 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 Negative Declaration

**Submitted Pursuant to:**

Division 13, California Public Resources Code

**THE STATE OF CALIFORNIA**

**Department of Transportation**

07/30/2026

Date of Approval

Erin Dwyer

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# NEGATIVE DECLARATION

Pursuant to: Division 13, California Public Resources Code

## *Project Description*

The California Department of Transportation (Caltrans) proposes the I-5 Grade Raise Project in Sacramento County on Interstate 5 between Post Miles 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*

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

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 Cultural 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

07/30/2026

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

Date

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# ACRONYMS AND ABBREVIATED TERMS

| Acronym/Abbreviation | Description |
|---|---|
| AB | Assembly Bill |
| APE | Area of Potential Effects |
| BMPs | Best Management Practices |
| BRIP | Biological Resource Information Program |
| 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 |
| CCTVs | Closed-Circuit Television |
| CDFW | California Department of Fish and Wildlife |
| 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 |
| CH | Critical Habitat |
| $CH_4$ | methane |
| CIA | Cumulative Impact Analysis |
| CMS | Changeable Message Sign |
| CNPS | California Native Plant Society |
| $CO_2$ | carbon dioxide |
| CRHR | California Register of Historical Resources |
| CTP | California Transportation Plan |
| CVRWQCB | Central Valley Regional Water Quality Control Board |
| CWA | Clean Water Act |
| Delta | Sacramento-San Joaquin Delta |
| DPS | Distinct Population Segment |
| ECL | Environmental Construction Liaison |
| EO(s) | Executive Order(s) |
| EPA | Environmental Protection Agency |
| ESA | Endangered Species Act |
| ESA(s) | Environmentally Sensitive Area(s) |
| ESL | Environmental Study Limits |

| Acronym/Abbreviation | Description |
|---|---|
| FEMA | Federal Emergency Management Agency |
| FESA | Federal Endangered Species Act |
| FHWA | Federal Highway Administration |
| FIRM | Flood Insurance Rate Map |
| FP | Fully Protected (Species listing status) |
| 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 |
| MOU | Memorandum of Understanding |
| MPO | Metropolitan Planning Organization |
| MTP | Metropolitan Transportation Plan |
| MVP | Maintenance Vehicle Pullouts |
| $N_2O$ | 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 |
| OC | overcrossing |
| OPC | Ocean Protection Council |

| Acronym/Abbreviation | Description |
|---|---|
| OPR | Governor's Office of Planning and Research |
| 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 |
| RTP | Regional Transportation Plan |
| RWQCB | Regional Water Quality Control Board |
| SACOG | Sacramento Area Council of Governments |
| SB | Senate Bill |
| SB | Southbound |
| SCS | Sustainable Communities Strategy |
| SER | Standard Environmental Reference |
| $SF_6$ | 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 |
| US 50 | U.S. Highway 50 |
| USACE | United States Army Corps of Engineers |
| USC | United States Code |

| Acronym/Abbreviation | Description |
|---|---|
| U.S. EPA | U.S. Environmental Protection Agency |
| USFWS | U.S. Fish and Wildlife Service |
| VMT | Vehicle Miles Traveled |
| WPCP | Water Pollution Control Program |

# CHAPTER 1. PROPOSED PROJECT

## 1.1 Introduction/Project History

The California Department of Transportation (Caltrans) proposes the I-5 Grade Raise Project. The project is located on Interstate 5 (I-5) in Sacramento County, between Post Miles 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.

The Department of Transportation (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.

## 1.2 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 measurement of 0.00% to 12.20% 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% in 2021 to 4.35% 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, Caltrans Maintenance unable to replace pole.

Transportation Management System (TMS): Transportation data collection is inadequate within the project limits. Replace Changeable Message Signs (CMSs) and Closed-Circuit Televisions (CCTVs) that are out of lifecycle.

## 1.3 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 0287Left/Right [L/R]) between Post Miles 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 Post Miles 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**

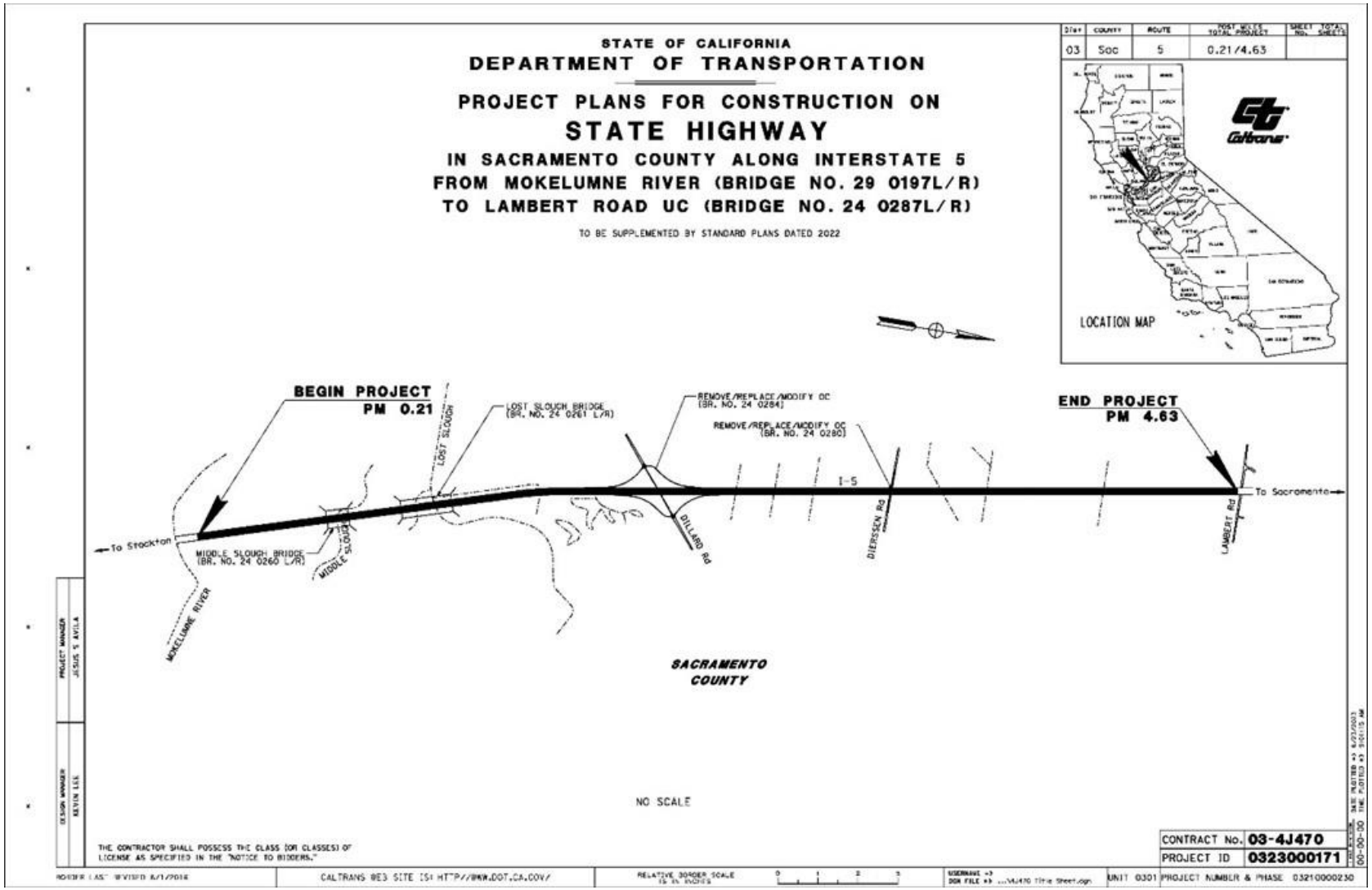


**Figure 2. Project Location Map**



## 1.4 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 improvements would not be implemented.

### *Build Alternative*

#### *Structures*

- Raise the following structures to accommodate minimum vertical clearance in consideration of overlay strategy (Figure 1).
    - Twin Cities Road Overcrossing (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 Manual for Assessing Safety Hardware (MASH) standards.

Note: The current strategy is to raise both the Twin Cities Road OC and Dierssen Road OC. If the OCs are replaced, 8' wide concrete footpaths along Twin Cities Road OC (Bridge No. 24 0284) and Dierssen Road OC (Bridge No. 24 0280) would be considered.

#### *Drainage*

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

#### *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 Caltrans Hydraulics and Maintenance on culvert systems and ideal access points.

### *Pavement*

- Crack, Seat, and Overlay (Rigid Pavement - Mainline (on I-5 at PMs 0.21 to 0.70, 0.74 to 1.03, and 1.22 to 3.508)
    - Crack and seat pavement
    - 0.10' Rubberized Hot Mix Asphalt–Open Graded (RHMA-O)
    - 0.90' Hot Mix Asphalt–Type A (HMA-A)
    - Geosynthetic Pavement Interlayer (GPI)
    - 0.10' HMA-A (Leveling Course)

- Cold Plane and Overlay (Flexible Pavement – Mainline [on I-5 between PMs 3.508 and 3.9] and shoulders throughout project limits)
    - Cold plane 0.25'
    - Overlay
    - 0.10' RHMA-O
    - 1.15' HMA-A
    - 0.10' HMA-A (Leveling Course)

- Cold Plane and Overlay (Flexible Pavement – Mainline [on I-5 between PMs 3.9 and 4.63])
    - Cold plane 0.20'
    - Overlay
    - 0.1' RHMA-O
    - 0.2' 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 Signs (CMS) located on I-5 at PM 1.55 Northbound (NB) and PM 1.49 Southbound (SB)
    - Closed-Circuit Television located on I-5 at PM 1.55 NB and PM 1.49 SB
- Repair and/or replace census stations located on I-5 between PM 1.913 and 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" enhanced wet night visibility thermoplastic traffic stripe

## 1.5 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 |

## 1.6 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 Best Management Practices (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 (PM) 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.

*[The following text (BR-2 F) has been updated since the draft environmental document was circulated.]*

F. A Limited Operating Period would be observed, whereby all construction activities would occur during daytime hours and between May 1 and October 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, Temporary High Visibility Fencing (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 Temporary High Visibility Fencing (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 Provision (SSP) 14-11.10 Naturally Occurring Asbestos and SSP 14–11.16 Asbestos-containing Construction Materials in Bridges".

### *Traffic and Transportation*

**TT-1:** A Transportation Management Plan (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 Interstate 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 Best Management Practices (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.

## 1.7 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation supporting a Categorical Exclusion determination will be prepared in accordance with the National Environmental Policy Act (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 Best Management Practices [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 post miles for a project. This is different than the Environmental Study Limits 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 Environmental Study Limits (ESL) the project is anticipated to impact, both temporarily and permanently. This includes staging and disposal areas.

***Environmental Study Limits (ESL):*** 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.

## 2.1 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 project, as well as the Visual Impact Assessment Memo dated September 20, 2024 (Caltrans 2024).

Potential impacts to visual characteristics of the environmental setting are not anticipated as the 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 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 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.

## 2.2 Agriculture and Forest Resources

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

| Question | Significant and Unavoidable Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **Would the project:**<br>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:**<br>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | No | No | No | Yes |

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

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

## Affected Environment

The determinations in this section are based on the scope, description, and location of the 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 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 project limits and around the project vicinity. Properties near the project limits include various farmlands and farmlands with Williamson Act Contracts. Multiple culverts along I-5 are located on these farmlands.

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

## 2.3 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 |
| **Would the project:** 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 Clean Air Act is its corresponding state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (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 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 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 project is not a capacity-increasing transportation project. The 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 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 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 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 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.

## 2.4 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 |

| Question | Significant and Unavoidable Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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 |
| **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:

- California Environmental Quality Act
- 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 project nears Phase 1. Phase 1 would be the next phase of the project; it is the phase when the plans, specifications, and estimates are developed for contract bidding.

The 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 Post Miles 1.20 and 2.00, located outside of the project limits on the southwest section of the project vicinity. The Mokelumne River is also located outside of the project limits, approximately 0.2 miles south of the ESL. However, Middle Slough and Lost Slough are both within the project limits.

## SENSITIVE NATURAL COMMUNITIES

Within the 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 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.

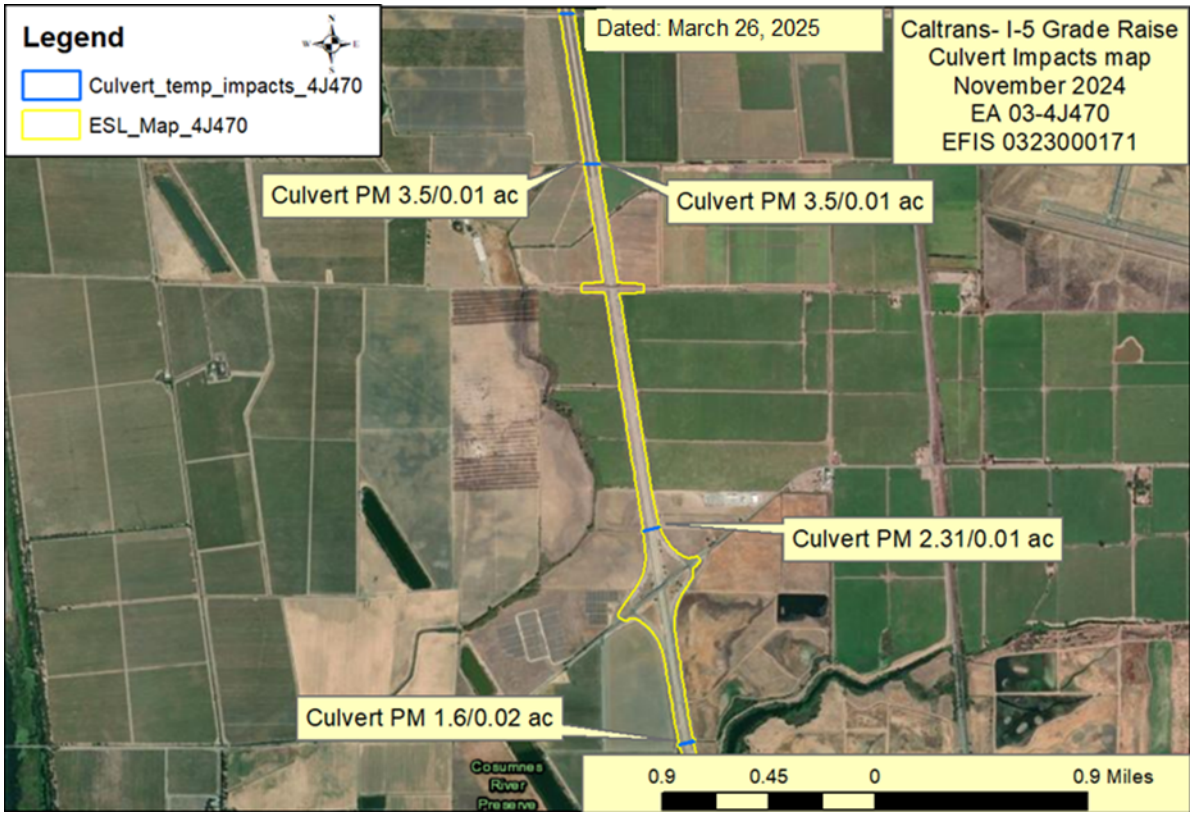
### Environmental Consequences

During construction, temporary fill would be placed within agricultural canals at five culvert locations. All temporary fill associated with the culvert work would occur within Waters of the U.S. and State due to the clear bed and channel of these agricultural canals. Due to the temporary and minimal construction that would occur in the canal, these temporary impacts would result in less than significant impacts. 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 |

| Common Name | *Scientific Name* | Status Federal/State[1] CRPR[2] | Habitat/ Critical Habitat | Effect/ Impact Determination |
|---|---|---|---|---|
| Delta tule pea | *Lathyrus jepsonii* var. *jepsonii* | --/--/1B.2 | Present/-- | No Impact |
| Dwarf downingia | *Downingia pusilla* | --/--/2B.2 | Present/-- | No Impact |
| Ferris' goldfields | *Lasthenia ferrisiae* | --/--/4.2 | Absent | 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 |
| Parry's rough tarplant | *Centromadia parryi* ssp.*rudis* | --/--/4.2 | Absent | 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: FE = Federal Endangered

State Status: SE = State Endangered; 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 |
|---|---|---|---|
| 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 |
| Green sturgeon–Southern Distinct Population Segment (DPS) | FT/SSC | Present CH Absent | No Effect/No Impact |
| Delta smelt–San Francisco Bay-Delta DPS | FT/SE | Present CH Present | No Effect/No Take |
| Longfin smelt | FE/ST | Present CH Absent | No Effect/No Take |
| Steelhead–California Central Valley (CCV) DPS | FT/SSC | Present CH Present | No Effect/No Impact |
| Giant garter snake | FT/ST | Present CH Absent | May affect, not likely to adversely affect/No Take |
| Northwestern pond turtle | FPT/SSC | Present CH Absent | May affect, not likely to adversely affect/No Impact |
| Burrowing owl | --/SC, SSC | Present -- | No Take/Impact |

| Common Name | Status Federal/State | Habitat Present/Absent Critical Habitat Present/Absent | Effect/Impact Finding |
|---|---|---|---|
| California black rail | --/ST | Absent/-- | No Take |
| Song sparrow ("Modesto" population) | --/SSC | Absent/-- | No Impact |
| Swainson's hawk | --/ST | Absent/-- | No Take |
| Tricolored blackbird | --/ST, SSC | Absent/-- | No Take/Impact |
| Yellow-billed cuckoo–Western U.S. DPS | FT/SE | Absent CH Absent | No Effect/No Take |
| Western spadefoot | FPT/-- | Absent CH Absent | No Effect |
| Crotch's bumble bee | --/SCE | Absent/-- | No Take |
| Monarch butterfly | FPT/-- | Absent CH Absent | No Effect |
| Valley elderberry longhorn beetle | FT/-- | Absent CH Absent | No Effect |
| American badger | --/SSC | Absent/-- | No Impact |
| Vernal pool fairy shrimp | FT/-- | Absent CH Absent | No Effect |
| Vernal pool tadpole shrimp | FE/-- | Absent CH Absent | No Effect |

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 either not observed, there are no records of these species being active within the ESL, 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. As astate Species of Special Concern, no impacts are anticipated to burrowing owl as it 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–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 Best Management Practices 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 a federal proposed 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 currently 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, the California 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.

Native birds protected under the MBTA (and similar provisions under the California Fish and Game Code) 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–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–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 would 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–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 would be flagged, and a qualified biologist would 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 would be 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 would 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 would 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 Best Management Practices (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 affec*t 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.

As a state Species of Special Concern, 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 project limits. However, the 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 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 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 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 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 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 project is within the South Sacramento Habitat Conservation Plan (SSHCP) designated area, and the project's 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 project would not be in conflict.

## 2.5 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 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 right of way along Interstate 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 the existing 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 within the APE; however, 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 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 square feet temporary construction easement (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 scope of work would have No Adverse Effect on historic properties. During cultural studies, no burial sites were identified within the ESL and the 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 project would not cause a substantial adverse change in the significance of historical resources. During construction on a culvert, the project would impact a less than significant portion of one (1) 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 project would not cause a 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 within the ESL and the project is not anticipated to disturb any human remains.

## 2.6 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 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 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 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 project, which proposes 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.

## 2.7 Geology and Soils

| Question | Significant and Unavoidable Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **Would the project:**<br>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:<br>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:**<br>b) Result in substantial soil erosion or the loss of topsoil? | No | No | No | Yes |
| **Would the project:**<br>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 |

| Question | Significant and Unavoidable Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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 |
| **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 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 project's work would occur on already constructed roadway. The 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 project's scope of work would not cause potential adverse effects or result in strong seismic ground shaking. The 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 project is not located on expansive soil. The 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 project limits.

## 2.8 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 corporate average fuel economy (CAFE) standards for on-road motor vehicles sold in the United States (U.S. Department of Transportation 2014). 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 Clean Air Act (U.S. EPA 2021). 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.

The California Air Resources Board (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 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 (County of Sacramento 2023b).

### *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.

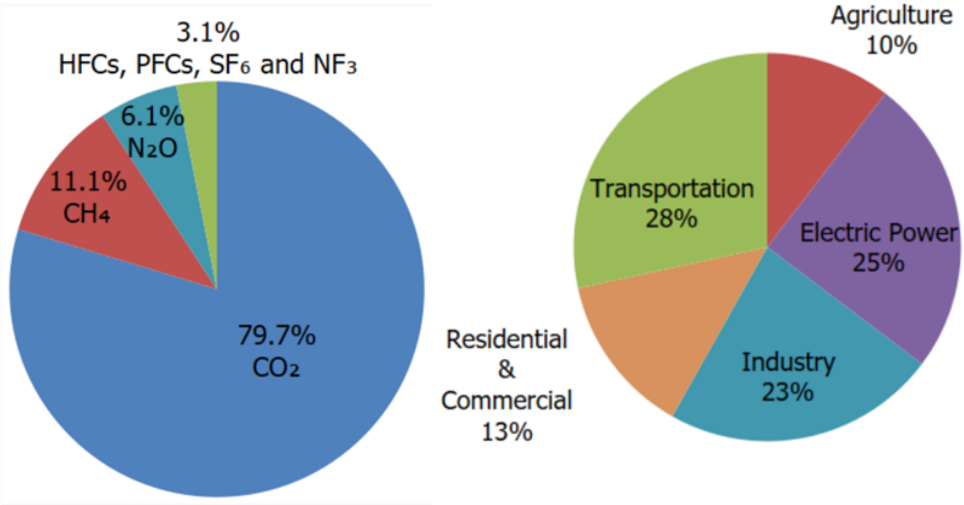
U.S. EPA is responsible for documenting GHG emissions nationwide, and the CARB does so for the state of California, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

### *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% of total U.S. emissions in 2022 [U.S. EPA 2024a].) While total GHG emissions in 2022 were 17% below 2005 levels, they increased by 1% over 2021 levels. Of these, 80% were $CO_2$, 11% were $CH_4$, and 6% were $N_2O$; the balance consisted of fluorinated gases (Figure 5). From 1990 to 2022, $CO_2$ emissions decreased by only 2% (U.S. EPA 2024a).

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

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

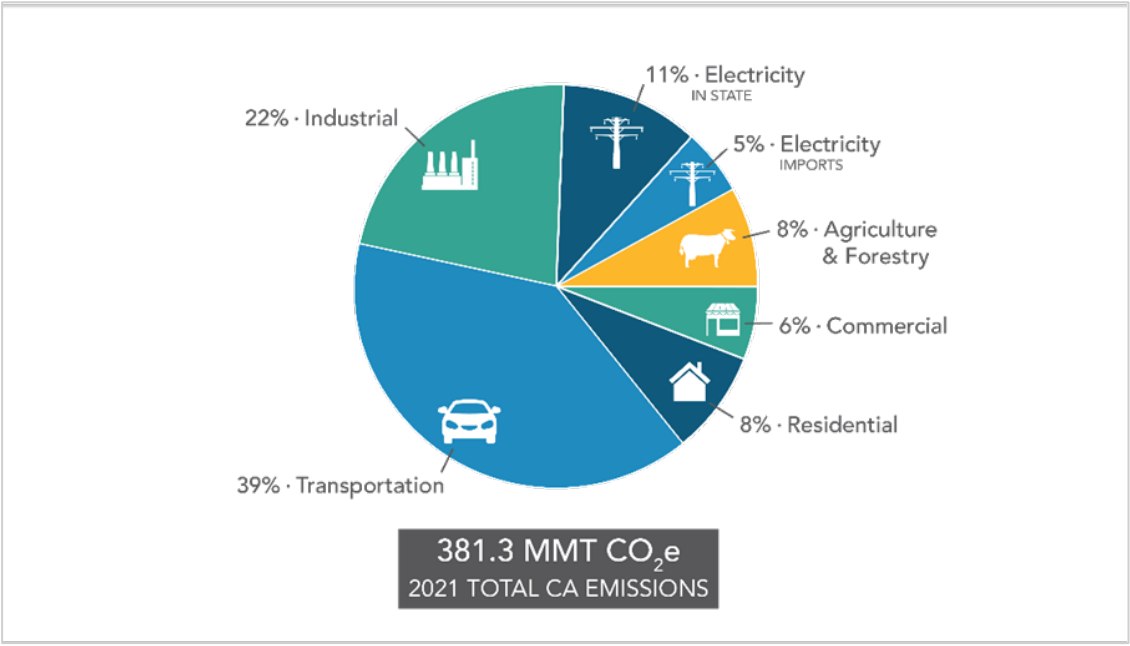



Source: U.S. EPA 2024b

### *STATE GHG INVENTORY*

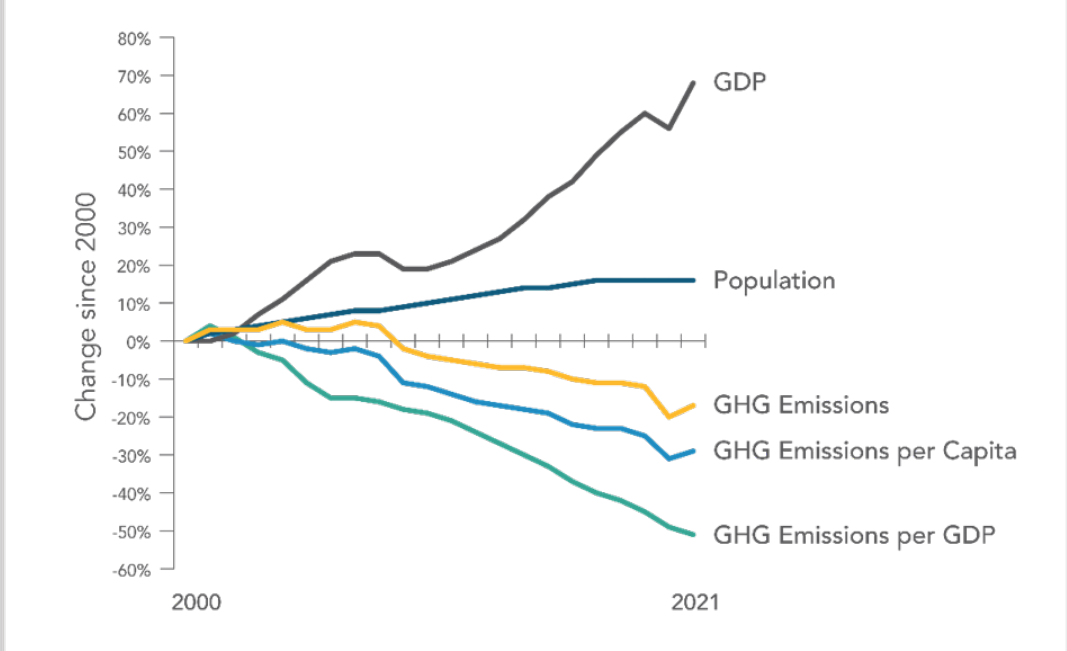
The CARB collects GHG emissions data for transportation, electricity, commercial and residential, industrial, agricultural, and waste management sectors each year (Figure 5). It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction 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 the 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. The 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, the 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 project is included in the RTP/SCS for SACOG (County of Sacramento 2023b). The regional reduction target for SACOG is 19% percent by 2035 (CARB 2021).

The 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 project limits (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.<br>• Natural and Working Lands.<br>• 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:<br>• Minimizing idling time (e.g., five-minute maximum).<br>• 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 $CO_2$.)

The CEQA Guidelines generally address greenhouse gas 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 project would repair damaged pavement and raise the roadway, repair drainage systems, and install Transportation Management Systems (TMS). The project would not increase capacity or change travel demands or traffic patterns when compared to the No-Build Alternative. The 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 project's primary scope of work is to repair pavement, raise the grade of the roadway, and improve drainage. The project would not increase capacity and would not change travel demands or change traffic patterns when compared to the No-Build Alternative. While the project would result in GHG emissions during construction, the 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 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 of reducing the emissions of greenhouse gases. The 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 greenhouse gas 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 the 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, issued in 2016, set an interim target to cut GHG emissions to 40% 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% 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; U.S. Department of Transportation Climate Action 2023).

### 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 Caltrans-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 greenhouse gas 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 the California Air Resource Board (CARB) (Caltrans SS 7-1.02C).

- 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.
- 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; and 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 (FHWA 2022).

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% increase in average area burned by wildfire; and large-scale erosion of up to 67% 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 within 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 (*in* 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 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 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 within the project limits was identified as a Priority 3 Climate Vulnerable Asset. The pavement throughout the 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 project’s purpose is to preserve and sustain the I-5 corridor and its structures, while enhancing safety, reliability, rideability, and existing. The 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 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**

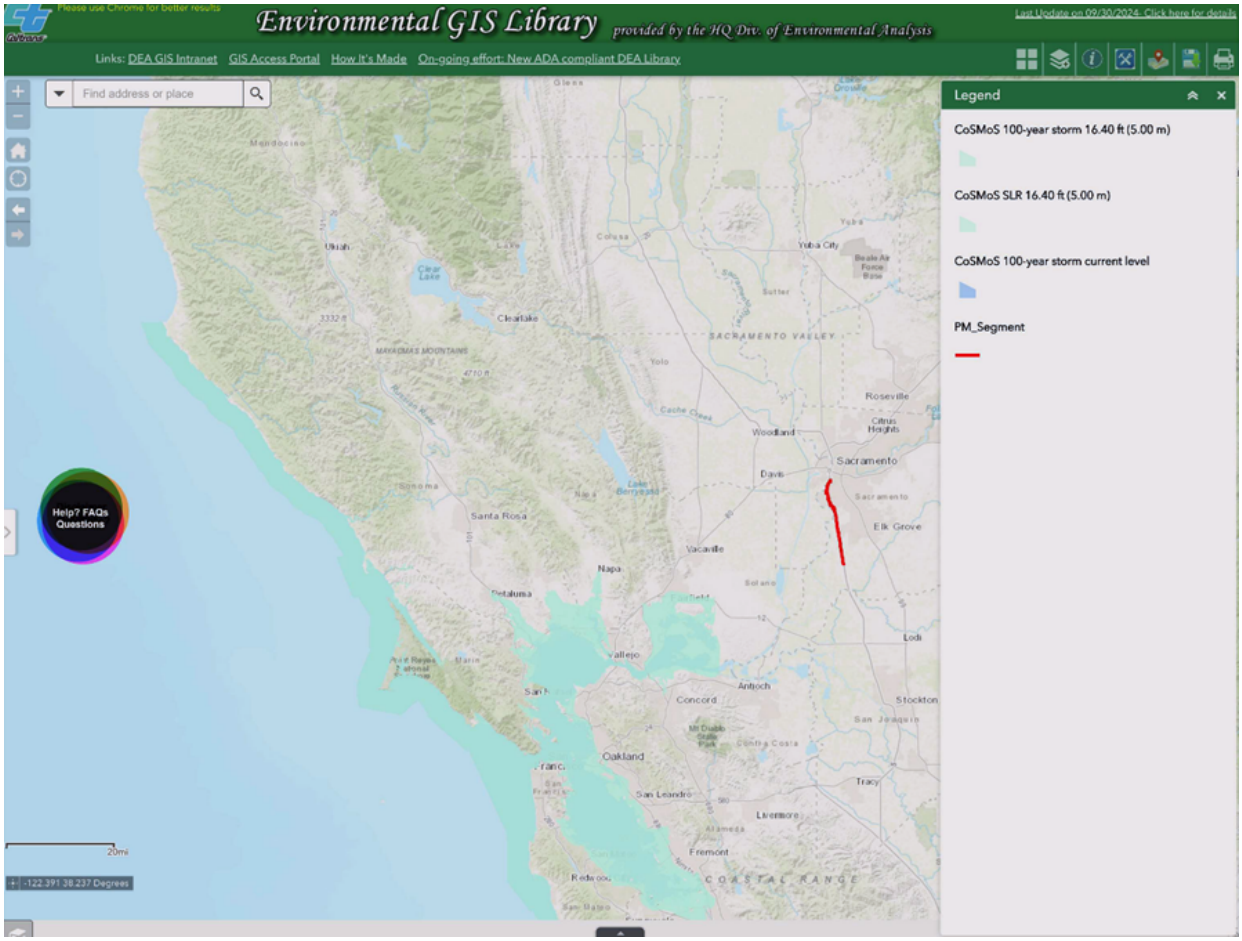
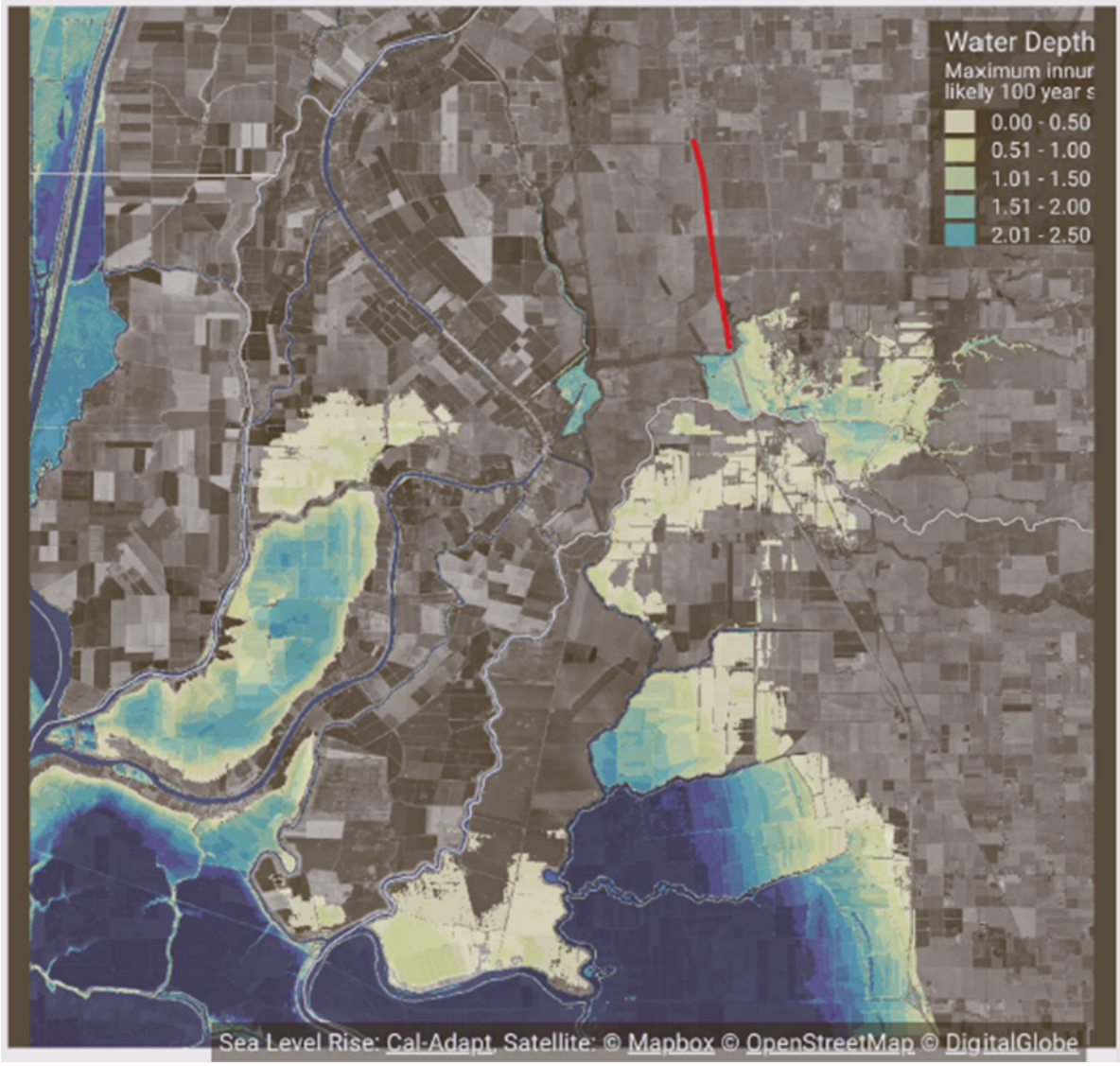


**Figure 8. Project Located Outside the Area Subject to Sea Level Rise**




## *Precipitation and Flooding*

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) labels the 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% annual chance floodplains.

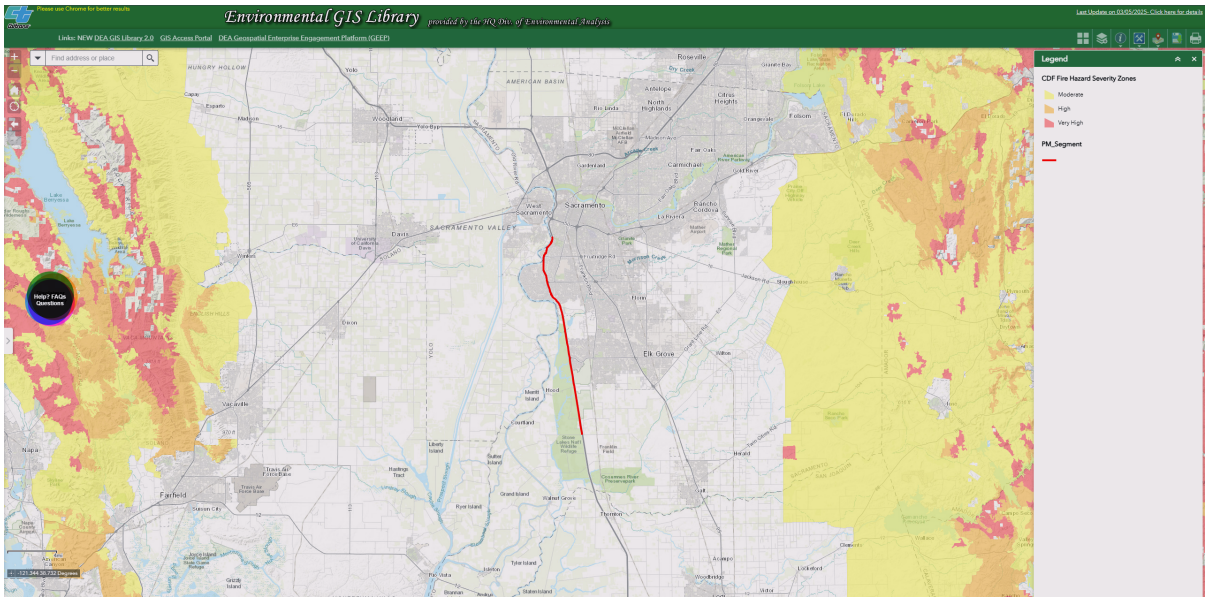
The *Caltrans Climate Change Vulnerability Assessment Report* for District 3 predicts the project's vicinity to have an 0.0%–4.9% increase in 100-year precipitation depth by 2055. This increase in precipitation would cause greater potential impact on drainage facilities and damaged pavement within this 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 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.

## 2.9 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 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 project have been identified. The project is in an area zoned for agriculture and is not located near schools, airports, or Cortese list sites. During the 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 undercrossing 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 SSP 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.

## 2.10 Hydrology and Water Quality

| Question | Significant and Unavoidable Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **Would the project:**<br>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:**<br>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:**<br>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:<br>(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 |

| Question | Significant and Unavoidable Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (iv) impede or redirect flood flows? | No | No | Yes | No |
| **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 project occurs along Interstate-5 and is near the Mokelumne River. Within the 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 project resides in a Total Maximum Daily Load (TMDL) watershed as the Delta Waterways are impaired for methylmercury. The project is not located within a high-risk receiving watershed boundary.

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

### Environmental Consequences

The 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 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 Best Management Practices (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 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 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 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 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 project is located in an area designated by the Federal Emergency Management Agency (FEMA) as a Special Flood Hazard Area (SFHA). The project occurs within a Total Maximum Daily Load (TMDL) watershed. As the 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 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. Implementation of Caltrans Standard Measures and BMPs are anticipated to protect water quality resources within the project limits. Therefore, impacts would be considered less than significant.

## 2.11 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 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 project would not involve land acquisition and therefore would not divide an established community. Due to the limited scope of work, the project would not cause a significant environmental impact. The scope of work to rehabilitate pavement, raise the roadway, repair drainage systems, install Transportation Management Systems, and 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).

## 2.12 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 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 project limits.

## 2.13 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 project, as well as the Noise Analysis dated October 31, 2024. (Caltrans 2024g)

Potential impacts to noise resources are not anticipated due to the project location and its limited scope of work. The 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 project is not expected to generate excessive groundborne vibration or groundborne noise. Vibration levels could be perceptible at residences near the 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 project is not located within the vicinity of a private, public, or public use airport.

## 2.14 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 project would not induce population growth or cause displacement. The project scope of work is mainly pavement and drainage work. The project does not add new homes or businesses and would not extend any roads or other infrastructure. There are no residences within the project area and no land acquisition or displacement would occur.

## 2.15 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 project.

Potential impacts to Public Services are not anticipated as project work would occur primarily 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.

## 2.16 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 project.

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

## 2.17 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 project is located on Interstate 5 in Sacramento County, between Post Miles 0.21 and 4.63. The total length of the project is 4.42 miles. Within the limits of the 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 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 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 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 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 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.

## 2.18 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:**<br>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 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.

## 2.19 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 |

| Question | Significant and Unavoidable Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **Would the project:**<br>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 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 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 project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, there would be no impact.

## 2.20 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:**<br>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 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 project is not within a State Responsibility Area or area classified as *very high* Fire Hazard Severity Zone.

## 2.21 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 2024c). The project would have a less than significant impact to biological resources and cultural resources. Culvert work may cause less than significant impacts to Waters of the U.S. and State, giant garter snake, and Northwestern pond turtle. Implementation of Caltrans Standard Measures and Best Management Practices (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 other projects in the area and along I-5 in the vicinity of the 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. Due to the project's limited scope of work, the project 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 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.

## 2.22 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." As cumulative effects for the proposed project were not found to be significant, 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.

As of 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 / Negative Declaration for this project:

### *California Department of Transportation, District 3*

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

| | |
|---|---|
| Noor Alzireeni | Project Engineer<br>Contribution: Project Design |
| Joshua Winchester | Project Engineer<br>Contribution: Project Design |
| John Bamfield | Project Manager<br>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
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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

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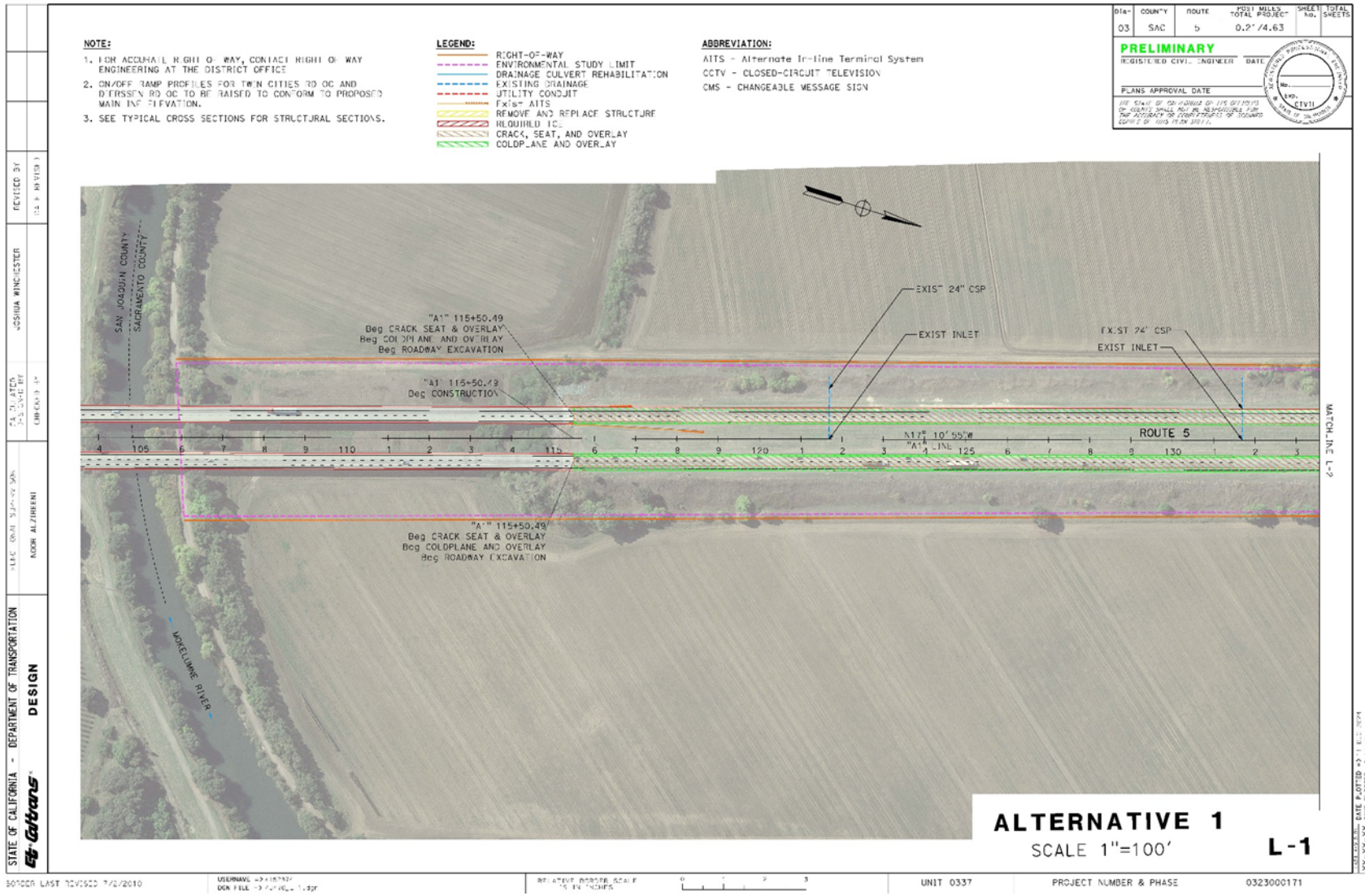
_____. 2024a. *Data Highlights.* Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed: June 14, 2024.

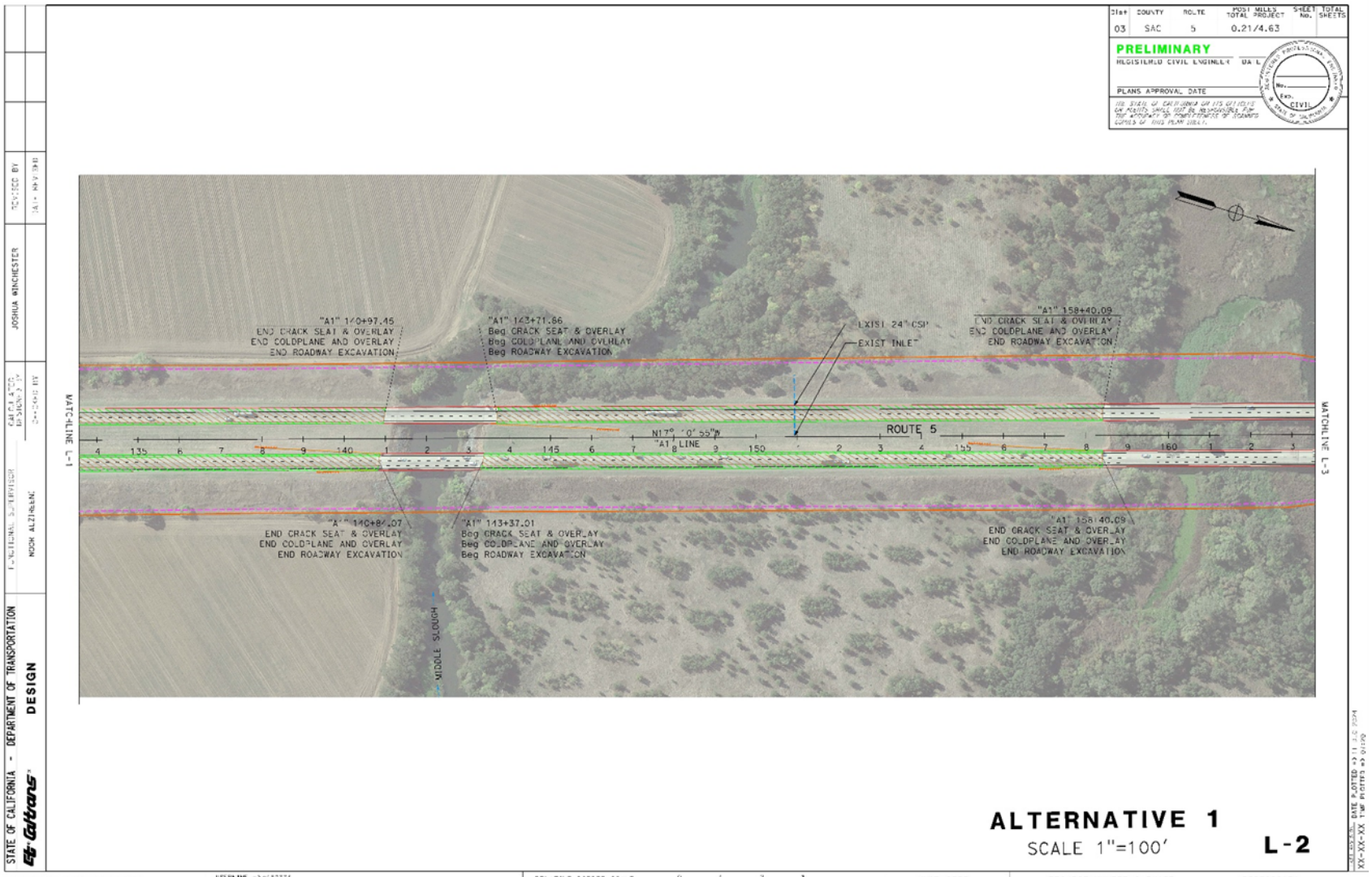
_____. 2024b. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022.* https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed: June 14, 2024.

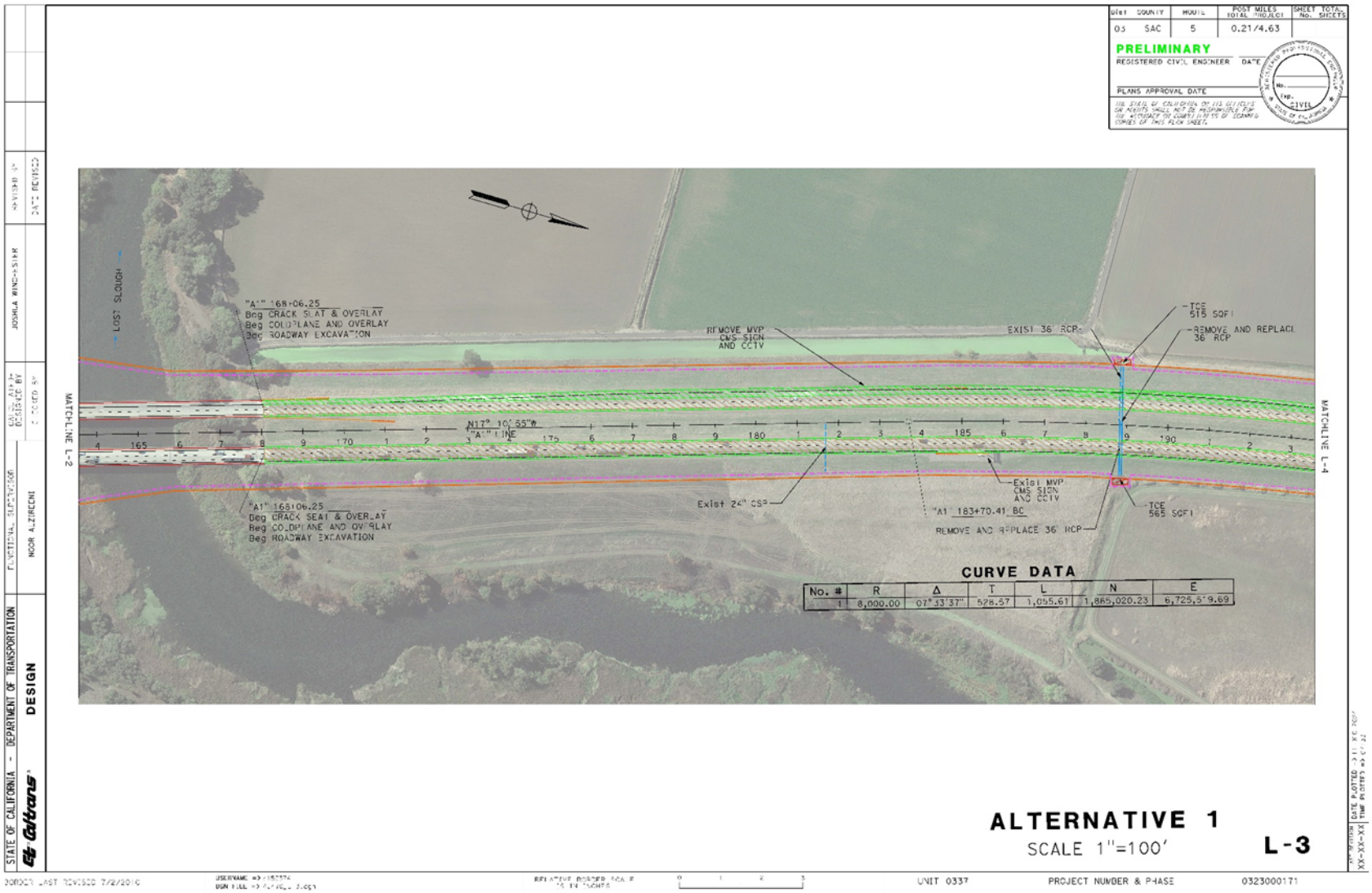
U.S. Global Change Research Program. 2023. *Fifth National Climate Assessment.* https://nca2023.globalchange.gov/chapter/front-matter/. Accessed: June 14, 2024.

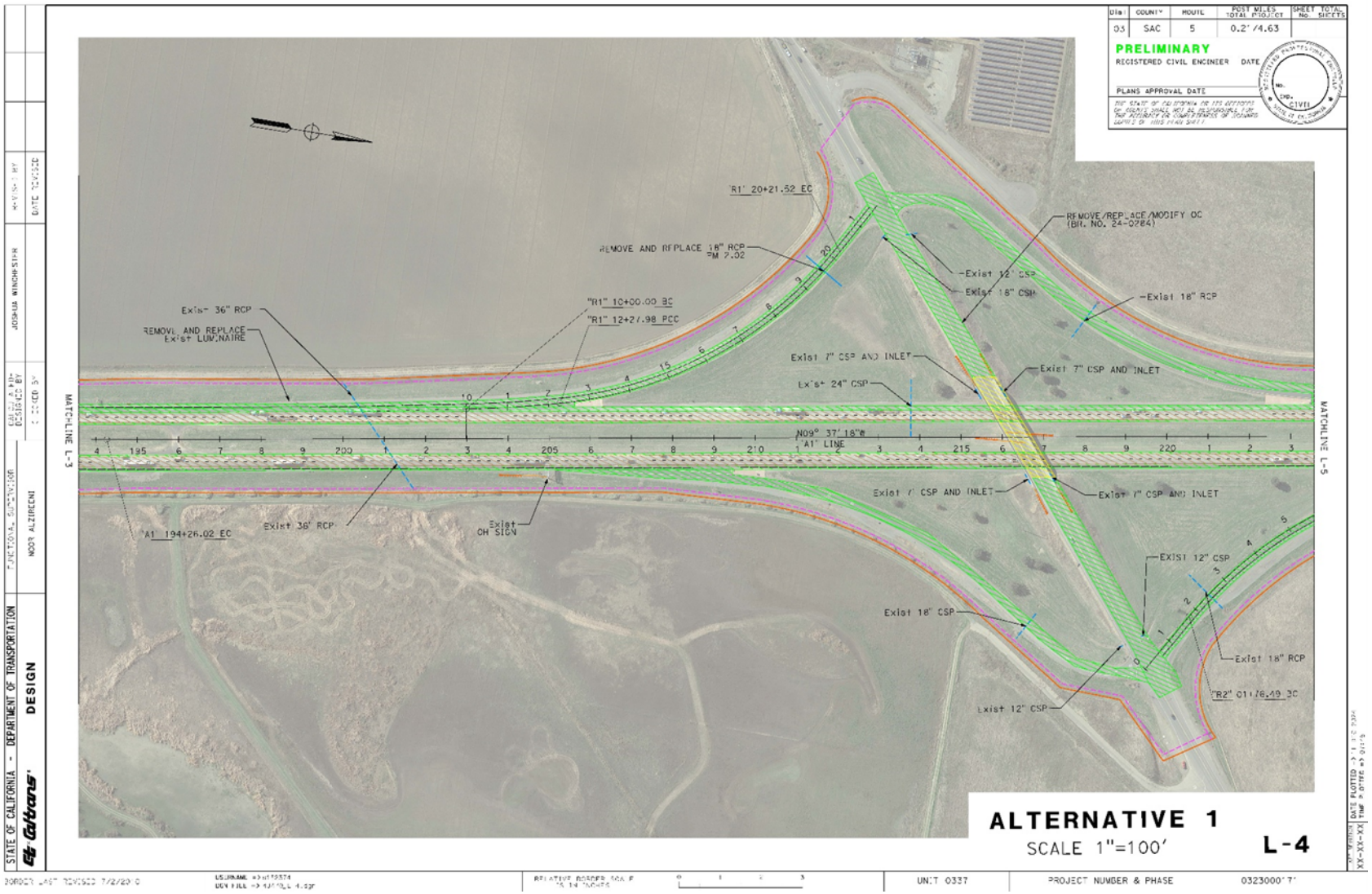
# APPENDIX A. PROJECT LAYOUTS

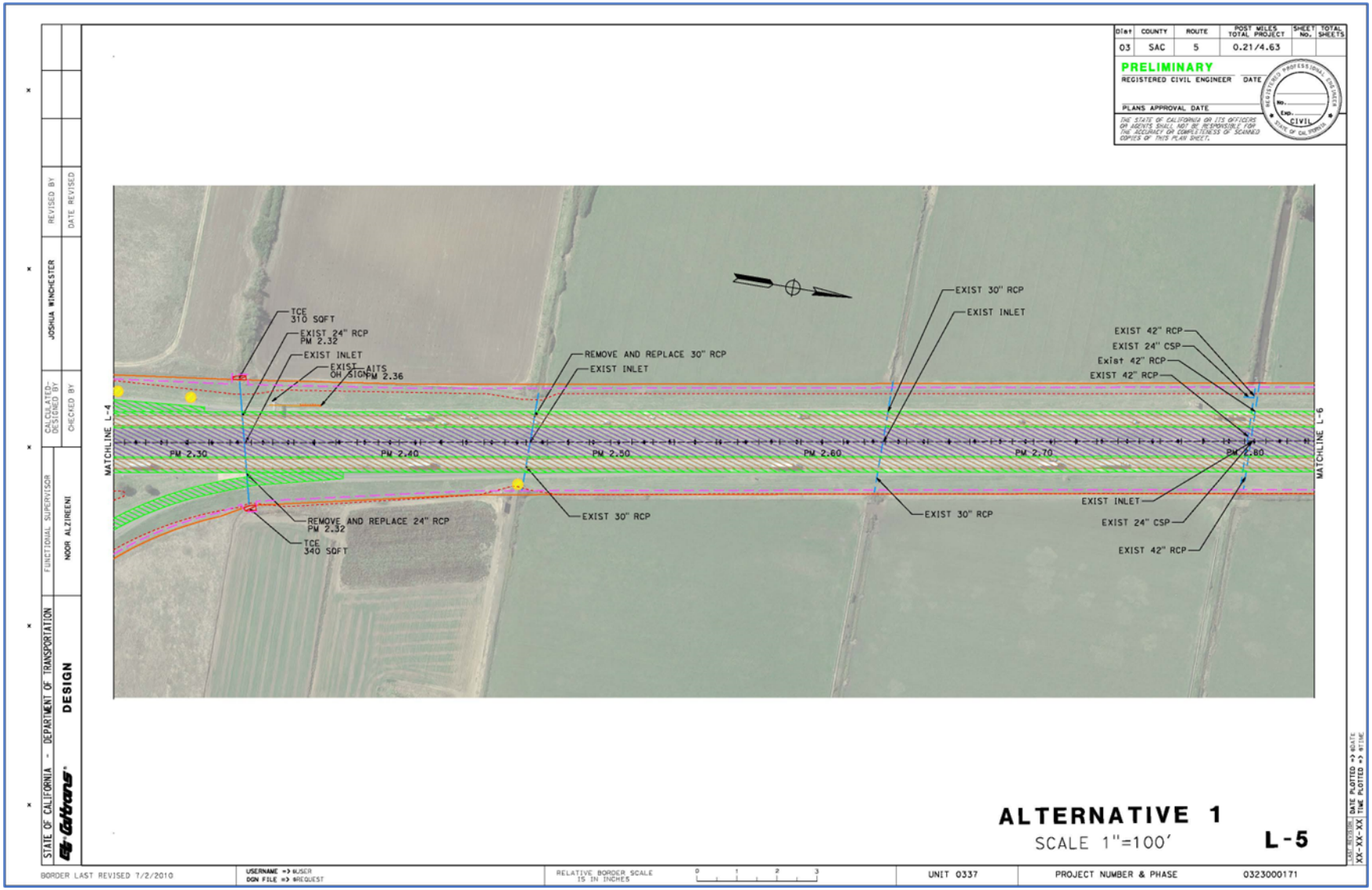


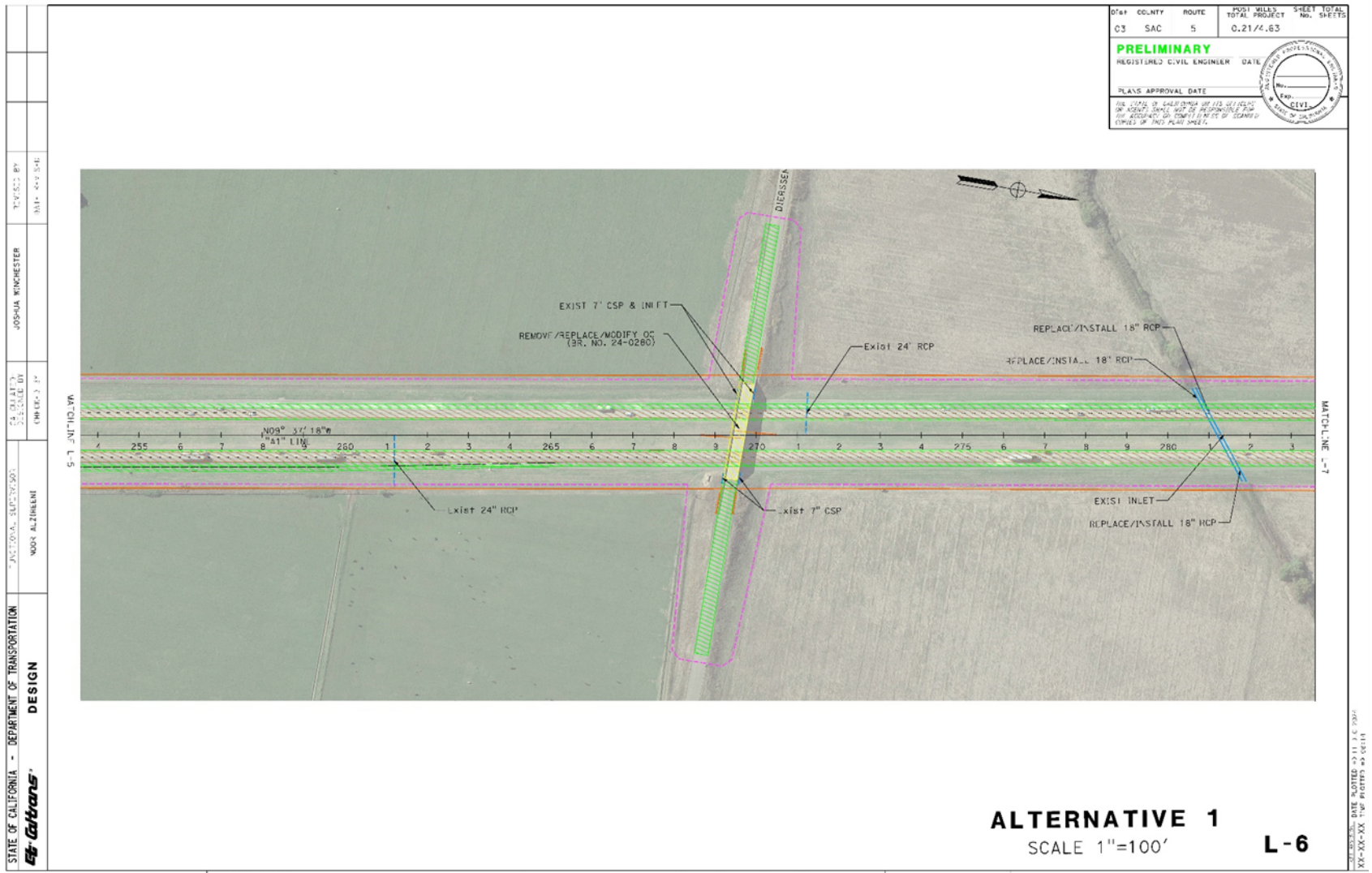

NOTE:
1. FOR ACCURATE RIGHT OF WAY, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE
2. ON/OFF RAMP PROFILES FOR TWIN CITIES RD OC AND DIERSSEN RD OC TO BE RAISED TO CONFORM TO PROPOSED MAINLINE ELEVATION.
3. SEE TYPICAL CROSS SECTIONS FOR STRUCTURAL SECTIONS.
LEGEND:
RIGHT-OF-WAY
ENVIRONMENTAL STUDY LIMIT
DRAINAGE CULVERT REHABILITATION
EXISTING DRAINAGE
UTILITY CONDUIT
Exist. ATMS
REMOVE AND REPLACE STRUCTURE
RELOCATE ITS
CRACK, SEAT, AND OVERLAY
COLDPLANE AND OVERLAY
ABBREVIATION:
ATMS - 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
EXP. 6/30/11
SAN JOAQUIN COUNTY
SACRAMENTO COUNTY
"A1" 115+50.49
Beg CRACK SEAT & OVERLAY
Beg COLDPLANE AND OVERLAY
Beg ROADWAY EXCAVATION
"A1" 115+50.49
Beg CONSTRUCTION
EXIST 24" CSP
EXIST INLET
EXIST 24" CSP
EXIST INLET
ROUTE 5
N17° 10' 55"W
"A1" LINE
"A" 115+50.49
Beg CRACK SEAT & OVERLAY
Beg COLDPLANE AND OVERLAY
Beg ROADWAY EXCAVATION
MOKELUMNE RIVER
MATCHLINE L-2
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
NOOR ALZIREENI
JOSHUA WINCHESTER
REVISED BY
ALTERNATIVE 1
SCALE 1"=100'
L-1
BORDER LAST REVISED 7/2/2010
UNIT 0337
PROJECT NUMBER & PHASE
0323000171

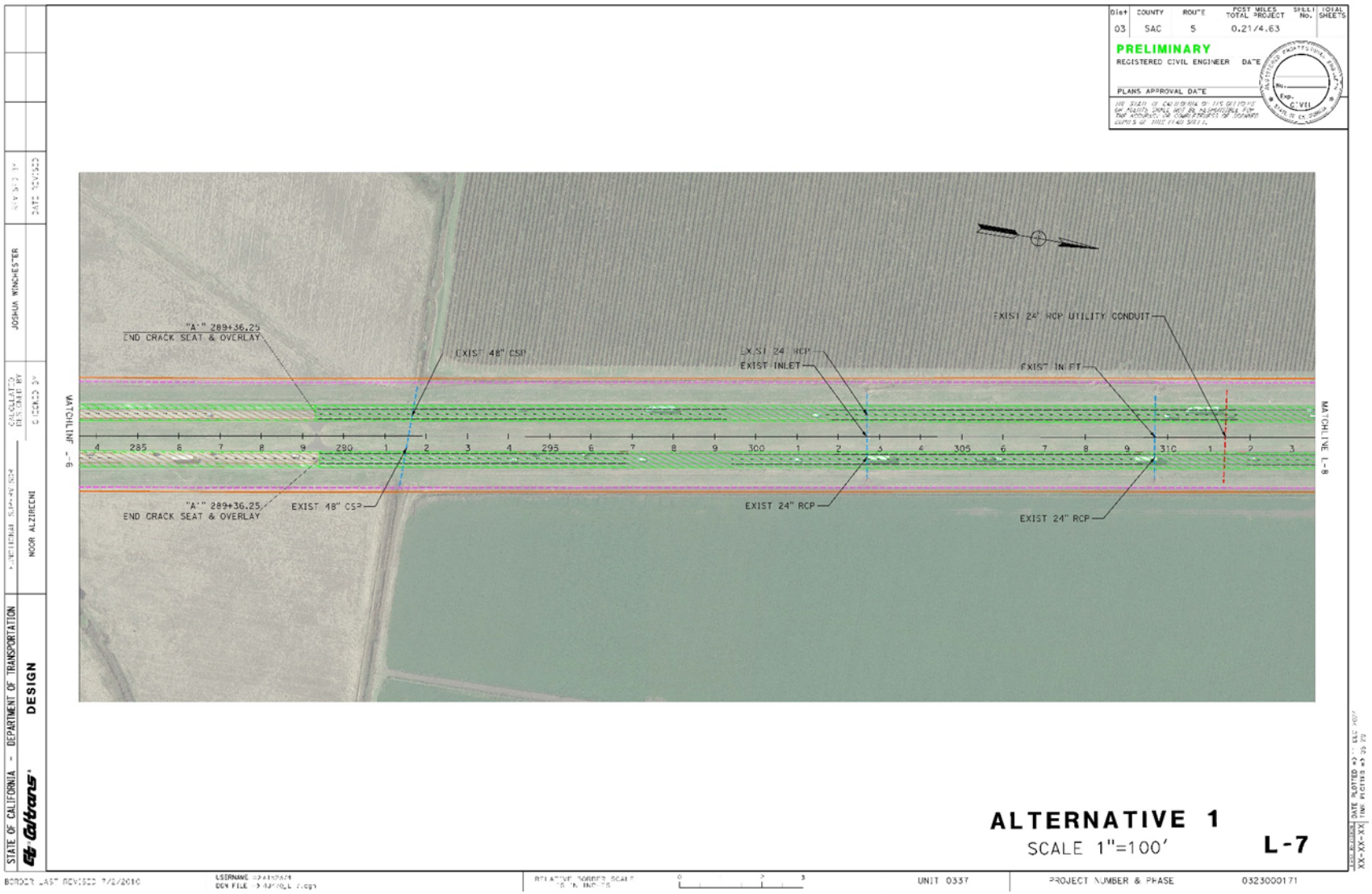

"A1" 140+97.45
END CRACK SEAT & OVERLAY
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
"A1" 143+71.86
Beg CRACK SEAT & OVERLAY
Beg COLDPLANE AND OVERLAY
Beg ROADWAY EXCAVATION
EXIST 24" CSP
EXIST INLET
"A1" 158+40.09
END CRACK SEAT & OVERLAY
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
ROUTE 5
N17° 0' 55"W
"A1" LINE
"A1" 140+87.07
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
MATCHLINE L-2
MATCHLINE L-3
PRELIMINARY
PLANS APPROVAL DATE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
JOSHUA WINCHESTER
NOOR ALZHRANI
ALTERNATIVE 1
SCALE 1"=100'
L-2
PROJECT NUMBER & PHASE
0323000171

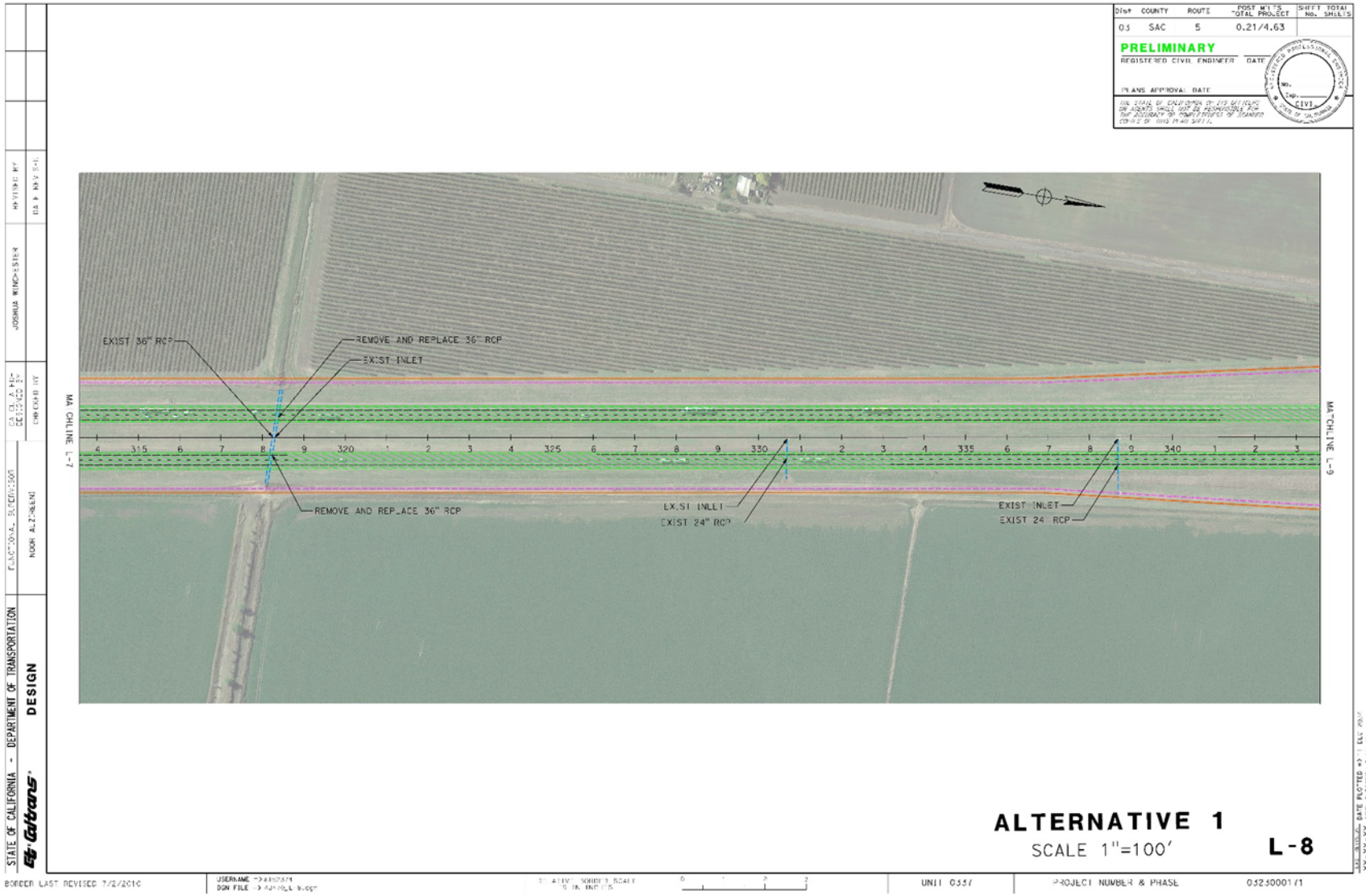

DIST COUNTY ROUTE POST MILES SHEET TOTAL
03 SAC 5 0.21/4.63
PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
CIVIL
STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR
NOOR ALZIRECNI
DESIGNED BY
JOSHUA WINDHOLZER
REVISED BY
DATE REVISED
LOST SLOUGH
"A1" 168+06.25
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" 165+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
BORDER LAST REVISED 7/2/2010
UNIT 0337
PROJECT NUMBER & PHASE
0323000171


PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans
JOSHUA WINCHESTER
NOOR ALZUBEDI
"R1" 20+21.52 EC
REMOVE AND REPLACE 18" RCP PM 2.02
REMOVE/REPLACE/MODIFY OC (Bit. 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 OH SIGN
Exist 18" CSP
EXIST 12" CSP
"R2" 01+76.49 BC
MATCHLINE L-3
MATCHLINE L-5
ALTERNATIVE 1
SCALE 1"=100'
L-4


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
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 ALZIRENI
CALCULATED-DESIGNED BY
JOSHUA WINCHESTER
CHECKED BY
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


PRELIMINARY
REGISTERED CIVIL ENGINEER
DATE
PLANS APPROVAL DATE
EXIST 7' CSP & INLET
REMOVE/REPLACE/MODIFY DC
(BR. NO. 24-0280)
Exist 24" RCP
REPLACE/INSTALL 18" RCP
REPLACE/INSTALL 18" RCP
N09° 37' 18"W
"A1" LINE
Exist 24" RCP
Exist 7" CSP
EXIST INLET
REPLACE/INSTALL 18" RCP
MATCH LINE L-5
MATCH LINE L-7
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
JOSHUA WINCHESTER
NOOR ALZHRENI
ALTERNATIVE 1
SCALE 1"=100'
L-6
UNIT 0337
PROJECT NUMBER & PHASE
0323000171


"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 48" CSP
EXIST 24" RCP
EXIST 24" RCP
MATCHLINE L-8
ALTERNATIVE 1
SCALE 1"=100'
L-7
PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION
DESIGN
JOSHUA WINCHESTER
NOOR ALZUBEENI
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 0557
PROJECT NUMBER & PHASE 0525000171


"A1" 344+99.17
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
"A1" 345+00.00
END CONSTRUCTION
"A1" 348+81.16
END COLDPLANE AND OVERLAY
END ROADWAY EXCAVATION
LAMBERT RD
VACAVILLE
I-80
PRELIMINARY
REGISTERED CIVIL ENGINEER
DATE
PLANS APPROVAL DATE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
NOOR ALZIRKANI
JOSHUA WINCHESTER
ALTERNATIVE 1
SCALE 1"=100'
L-9
UNIT 0337
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, CDFW–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: 07/24/2025 16:56:47 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, intentional or unintentional, 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.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. 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

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*<br>Population: Western U.S. DPS<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/3911 | Threatened |

## REPTILES

| NAME | STATUS |
|---|---|
| Giant Garter Snake *Thamnophis gigas*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/4482 | Threatened |
| Northwestern Pond Turtle *Actinemys marmorata*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/1111 | Proposed Threatened |

## AMPHIBIANS

| NAME | STATUS |
|---|---|
| Western Spadefoot *Spea hammondii*<br>Population: Northern DPS<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/5425 | Proposed Threatened |

## FISHES

| NAME | STATUS |
|---|---|
| Longfin Smelt *Spirinchus thaleichthys*<br>Population: San Francisco Bay-Delta DPS<br>There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/9011 | Endangered |

## INSECTS

| NAME | STATUS |
|---|---|
| Monarch Butterfly *Danaus plexippus*<br>There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/9743 | Proposed Threatened |
| Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/7850 | Threatened |

## CRUSTACEANS

| NAME | STATUS |
|---|---|
| Vernal Pool Fairy Shrimp *Branchinecta lynchi*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/498 | Threatened |
| Vernal Pool Tadpole Shrimp *Lepidurus packardi*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/2246 | Endangered |

## FLOWERING PLANTS

| NAME | STATUS |
|---|---|
| Large-flowered Fiddleneck *Amsinckia grandiflora*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>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*<br>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.<br>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 list
**Date:** Thursday, July 24, 2025 10:08:00 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***<br>green sturgeon - southern DPS | AFCAA01031 | Threatened | None | G2T1 | S1 | SSC |
| ***Actinemys marmorata***<br>northwestern pond turtle | ARAAD02031 | Proposed Threatened | None | G2 | SNR | SSC |
| ***Agelaius tricolor***<br>tricolored blackbird | ABPBXB0020 | None | Threatened | G1G2 | S2 | SSC |
| ***Athene cunicularia***<br>burrowing owl | ABNSB10010 | None | Candidate Endangered | G4 | S2 | SSC |
| ***Bombus crotchii***<br>Crotch's bumble bee | IIHYM24480 | None | Candidate Endangered | G2 | S2 | |
| ***Bombus pensylvanicus***<br>American bumble bee | IIHYM24260 | None | None | G3G4 | S2 | |
| ***Branchinecta lynchi***<br>vernal pool fairy shrimp | ICBRA03030 | Threatened | None | G3 | S3 | |
| ***Brasenia schreberi***<br>watershield | PDCAB01010 | None | None | G5 | S3 | 2B.3 |
| ***Buteo swainsoni***<br>Swainson's hawk | ABNKC19070 | None | Threatened | G5 | S4 | |
| ***Carex comosa***<br>bristly sedge | PMCYP032Y0 | None | None | G5 | S2 | 2B.1 |
| ***Cicuta maculata var. bolanderi***<br>Bolander's water-hemlock | PDAPI0M051 | None | None | G5T4T5 | S2? | 2B.1 |
| ***Coastal and Valley Freshwater Marsh***<br>Coastal and Valley Freshwater Marsh | CTT52410CA | None | None | G3 | S2.1 | |
| ***Coccyzus americanus occidentalis***<br>western yellow-billed cuckoo | ABNRB02022 | Threatened | Endangered | G5T2T3 | S1 | |
| ***Desmocerus californicus dimorphus***<br>valley elderberry longhorn beetle | IICOL48011 | Threatened | None | G3T3 | S3 | |
| ***Great Valley Mixed Riparian Forest***<br>Great Valley Mixed Riparian Forest | CTT61420CA | None | None | G2 | S2.2 | |
| ***Great Valley Valley Oak Riparian Forest***<br>Great Valley Valley Oak Riparian Forest | CTT61430CA | None | None | G1 | S1.1 | |
| ***Hibiscus lasiocarpos var. occidentalis***<br>woolly rose-mallow | PDMAL0H0R3 | None | None | G5T3 | S3 | 1B.2 |
| ***Hydrochara rickseckeri***<br>Ricksecker's water scavenger beetle | IICOL5V010 | None | None | G2? | S2? | |
| ***Laterallus jamaicensis coturniculus***<br>California black rail | ABNME03041 | None | Threatened | G3T1 | S2 | FP |
| ***Lathyrus jepsonii var. jepsonii***<br>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**

## 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 |  ©2000 John Game |
| *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. 2025. Rare Plant Inventory (online edition, v9.5.1). Website https://www.rareplants.cnps.org [accessed 24 July 2025].

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# 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

# APPENDIX E. RESPONSE TO PUBLIC COMMENTS

*[Text in brackets has been added since the draft environmental document was circulated.]*

The following comments and emails were received during the CEQA public circulation period for the Draft Environmental Document (Initial Study with Proposed Negative Declaration) which was circulated between February 11, 2026, and March 27, 2026.

Written comments were received from three public agencies: the California Highway Patrol, California Department of Conservation, and California Department of Fish and Wildlife. The comments and Caltrans' responses are included below.



## COMMENT 1. CALIFORNIA HIGHWAY PATROL

State of California — Transportation Agency

**Memorandum**

Date: March 5, 2026

To: South Sacramento Area

From: **DEPARTMENT OF CALIFORNIA HIGHWAY PATROL**
Special Projects Section

File No.: 063.A15083.A20019.NoC.Doc

Subject: ENVIRONMENTAL DOCUMENT REVIEW AND RESPONSE
SCH# 2026020314

The Special Projects Section (SPS) recently received the referenced Notice of Completion environmental impact document from the State Clearinghouse (SCH).

Please use the attached checklist to assess its potential impact to local Area operations and public safety. If it is determined that departmental input is advisable, your written comments referencing the above SCH number must be sent to the lead agency and emailed to state.clearinghouse@opr.ca.gov. Your written comments must be received by the SCH no later than **March 27, 2026.** For reference, additional information can be found in General Order 41.2, Environmental Impact Documents.

For project tracking purposes, the SPS must be notified of the assessment of the project (including negative reports). Please e-mail a copy of the response to EIR@chp.ca.gov. For questions or concerns, please contact the Transportation Planning Unit at (916) 843-3370.

Kirk Bailor for
J. M. REYNOLDS
Commander

Attachments: Checklist
Project File

cc: Valley Division

*Safety, Service, and Security* — *An Internationally Accredited Agency*
CHP 51 (Rev. 06/2013) OPI 076

## ANNEX B

## ENVIRONMENTAL IMPACT REPORT EVALUATION/RESPONSE CHECKLIST FOR AREAS/SECTIONS

Reference: General Order 41.2

| | REVIEW | GO 41.2 |
|---|---|---|
| ☐ | Review memorandum for the due date(s). | |
| ☐ | Determine if the proposed project might impact local operations and/or public safety. Examples include:<br>• Housing developments.<br>• Large commercial projects.<br>• Large recreational developments or expansions.<br>• Landfill or quarry operations.<br>• Haz-Mat storage/dump sites<br>• Highway construction/ improvement projects.<br>• New schools.<br>• Airport improvements.<br>• Annexations/incorporations.<br>• Off-highway vehicle facilities.<br>• Indian gaming facilities.<br>• Cannabis facilities. | Pages 5-6 |
| ☐ | Review environmental impact documents to identify issues or concerns with possible impact to departmental operations (e.g., increased response times, enforcement, emergency services, service calls, telecommunications, public safety). | Page 5 |
| | **RESPOND** | |
| | *If comments are advisable:* | |
| ☐ | Prepare correspondence focusing primarily on traffic safety, congestion, public safety, or other impacts to the CHP's mission. **Areas shall not indicate to the lead agency that additional personnel, facilities, vehicles, etc., are required to mitigate departmental service issues.** | Page 7 |
| ☐ | Include the State Clearinghouse number (SCH #) in all correspondence. | |
| ☐ | Written comments shall be submitted in an accessible letter format to ensure compliance with SCH requirements. | Page 4 |
| ☐ | Comments shall be provided directly, via e-mail, to the lead agency and the SCH, at state.clearinghouse@lci.ca.gov, with a cc to the respective Division, ACF (if required), OLA (if required), and SPS, at EIR@chp.ca.gov, no later than the designated due date. | |
| | *If no impact is determined:* | |
| ☐ | Via e-mail, respond "**No impact to the _____ Area's local operations and/or public safety by SCH # _____ was identified,**" by the designated SCH due date to SPS, at EIR@chp.ca.gov, and the respective SPS TPU analyst. Ensure the SCH # is included. Do not include the lead agency or SCH in this response. | Page 4 |

** This checklist is for the command's use only and not required to be returned to SPS.

**From:** Patwary, Masum@DOT
**To:** Jones, Jennifer@DOT
**Subject:** FW: Environmental Document Review – SCH # 2026020314 – Due to Lead Agency by 3/27/2026
**Date:** Thursday, March 5, 2026 3:14:11 PM
**Attachments:** image001.png
image002.png
SCH 2026020314.pdf
1. EIR Response Checklist.pdf
2. PDF Accessibility Instructions if IMPACT.pdf

FYI
Thank you.

*Masum A Patwary*
Environmental Scientist
Cell (530) 812-7634
Working Time: 7:30am to 4:00pm.

**From:** Nguyen, Keith@CHP <KNguyen@chp.ca.gov>
**Sent:** Thursday, March 5, 2026 1:42 PM
**To:** CHP-EIR <EIR@chp.ca.gov>; Patwary, Masum@DOT <Masum.Patwary@dot.ca.gov>; Lemonds, Christine@CHP <Christine.Lemonds@chp.ca.gov>
**Cc:** Hawkins, Noah@CHP <NHawkins@chp.ca.gov>; Dugger, Christopher@CHP <Christopher.Dugger@chp.ca.gov>; OPR State Clearinghouse <state.clearinghouse@opr.ca.gov>
**Subject:** Fw: Environmental Document Review – SCH # 2026020314 – Due to Lead Agency by 3/27/2026

**This Message Is From an External Sender**
This message came from outside your organization. Please be careful when viewing message
Report Suspicious

Environmental Impact Review (EIR) – I-5 Grade Raise Project

The California Department of Transportation (Caltrans) proposes the Interstate 5 (I-5) Grade Raise Project located in Sacramento County between Post Miles 0.21 and 4.63, covering approximately 4.42 miles. Within the project limits, I-5 is a four-lane highway consisting of two lanes in each direction (northbound and southbound). The surrounding land use in this area is primarily agricultural with minimal urban development.

The project is programmed for pavement rehabilitation and includes raising the roadway grade, restoring existing pavement conditions, improving drainage systems, and extending the service life of the transportation infrastructure. The project is intended to preserve and sustain the I-5 corridor while improving safety, reliability, and ride quality for motorists traveling through the

area.

Comment #1

Construction activity will temporarily impact traffic flow within the project limits. However, the anticipated impacts appear consistent with normal construction operations associated with Construction Zone Enhanced Enforcement Program (COZEEP) projects. Provided adequate advance warning signs, lane closure notifications, and proper traffic control measures are implemented, the overall impact to motorists and the surrounding agricultural environment is expected to be minimal and temporary in nature. No long-term adverse environmental impacts are anticipated beyond routine construction-related traffic delays.

---

**From:** CHP-EIR <EIR@chp.ca.gov>
**Sent:** Thursday, March 5, 2026 10:59 AM
**To:** Nguyen, Keith@CHP <KNguyen@chp.ca.gov>
**Cc:** Martin, Chris@CHP <ChMartin@chp.ca.gov>; Lemonds, Christine@CHP <Christine.Lemonds@chp.ca.gov>; Gonzalez, Alexander@CHP <Alexander.Gonzalez@chp.ca.gov>; Abrahams, Kristen@CHP <Kristen.Abrahams@chp.ca.gov>
**Subject:** Environmental Document Review – SCH # 2026020314 – Due to Lead Agency by 3/27/2026

Greetings,

The Special Projects Section (SPS) recently received the referenced Notice of Environmental Impact document from the State Clearinghouse (SCH) outlined in the following Web site:

I-5 Grade Raise Project

Due to the project's geographical proximity, please use the attached checklist to assess its potential impact to local operations and public safety. **If impact is determined**, responses should be e-mailed directly to the Lead Agency with cc to SCH and myself. **If there is no impact**, please do not include SCH or the Lead Agency in your response.

For more information on the EIR review process, please check out: Commanders

EIR Training.pdf.

Please feel free to e-mail me if you have any questions.

Thank you,

*Christine Lemonds,* Analyst II

**Special Projects Section 063**

**Transportation Planning Unit**

601 N. 7th St., Sacramento, CA 95811

Office: (916) 843-3370

Direct: (916) 843-3396



## Caltrans' Response to California Highway Patrol

***Comment 1:***

*"Construction activity will temporarily impact traffic flow within the project limits. However, the anticipated impacts appear consistent with normal construction operations associated with Construction Zone Enhanced Enforcement Program (COZEEP) projects. Provided adequate advance warning signs, lane closure notifications, and proper traffic control measures are implemented, the overall impact to motorists and the surrounding agricultural environment is expected to be minimal and temporary in nature. No long-term adverse environmental impacts are anticipated beyond routine construction-related traffic delays."*

**Response to Comment 1:**

Thank you for your comment. For additional details on potential impacts to Transportation see Chapter 2.17. Finalized traffic control plans, including construction zone signing, striping and temporary closures will be determined in the Design phase of the project. Traffic control will comply with the requirements listed in the Transportation Management Plan.

# COMMENT 2. CALIFORNIA DEPARTMENT OF CONSERVATION

Docusign Envelope ID: 8FC76E44-9FE9-494C-B6CF-4F4686749185

California
Department of Conservation
Geologic Energy Management Division

Gavin Newsom, Governor
Jennifer Lucchesi, Director
715 P Street, MS 1803
Sacramento, CA. 95814
T: (916) 445-5986

*2/26/2026*

***VIA EMAIL***

*California Department of Transportation*
*Masum A Patwary*
*703 B St, Marysville, CA 95901*
masum.patwary@dot.ca.gov

Assessor Parcel Number(s): *N/A*
Property Owner(s): N/A
Project Location Address: Interstate 5 (I-5), Sacramento County, between Post Miles 0.21 and 4.63.
*Elk Grove, CA 95632*

PROJECT TITLE: I-5 Grade Raise Project

Comment #2

Public Resources Code (PRC) section 3208.1 establishes re-abandonment responsibility when previously plugged and abandoned oil, gas or geothermal wells will be impacted by planned property development or construction activities. Local permitting agencies, property owners, and/or developers should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near previously abandoned oil, gas, and geothermal wells.

The California Geologic Energy Management Division (CalGEM) has received the above-referenced project dated 2/9/2026. To assist local permitting agencies, property owners, and developers in making safe and practical land use decisions regarding potential development near oil, gas, or geothermal wells, CalGEM provides a table in the attached enclosure of the wells within the parcel boundary or in its vicinity, based on CalGEM's Well Finder database (https://maps.conservation.ca.gov/doggr/wellfinder/).

CalGEM categorically advises against building over, or in any way impeding access to, oil, gas, or geothermal wells. Impeding access to a well could result in the need to remove any structure or obstacle that prevents or impedes access including, but not limited to, buildings, housing, fencing, landscaping, trees, pools, patios, sidewalks, roadways, and decking at the landowner's expense if there is a need to access a well. Maintaining sufficient access is considered the ability for a well servicing unit and associated necessary equipment (consisting of well servicing rig, pumping equipment, pipe trailer) to reach a well from a public street or access way, solely over the parcel on which the well is located. A well servicing unit, and any necessary equipment, should be able to pass unimpeded along and over the route, and should be able to access the well without disturbing the integrity of surrounding infrastructure. Impermeable barriers such as asphalt, concrete, and plastic may trap hazardous gases and liquids underneath and could create a safety hazard if built over a well that later develops a leak.

CalGEM recommends that any well for which access is impeded or built over, against CalGEM's

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advice, should be evaluated by a qualified petroleum professional for compliance with the statutory objectives of isolating all hydrocarbon-bearing strata; protecting underground and surface waters; prevention of subsequent damage to life, health, property, and other resources; and prevention of loss of oil, gas, or reservoir energy. CalGEM recommends that wells that do not meet these standards are abandoned or re-abandoned prior to construction. The well information can be accessed through CalGEM's Well Finder database mentioned above. PRC section 3208, subdivision (a), provides the primary statutory authority for CalGEM to oversee adequate abandonment of wells. Additionally, CalGEM has developed the regulatory guidance for operators to be followed during well abandonment, which are listed within California Code of Regulation, title 14 (CCR) section 1723 and associated sub-sections (for onshore wells), and section 1745 and associated sub-sections (for offshore wells).

There is no guarantee that a well abandoned in compliance with current Division requirements as prescribed by law will not start leaking in the future. Due to the inability to predict all subsurface conditions or changes, it always remains a possibility that any well may start to leak oil, gas, and/or water after abandonment, no matter how thoroughly the well was plugged and abandoned. CalGEM acknowledges wells plugged and abandoned to the most current Division requirements as prescribed by law have a lower probability of leaking in the future, however there is no guarantee that such abandoned wells will not leak.

CalGEM advises that all wells identified on the development parcel prior to, or during, development activities be tested for liquid and gas leakage. Surveyed locations in Latitude and Longitude, NAD 83 decimal format, and leak testing results should be provided to CalGEM. CalGEM expects any wells found leaking to be reported to CalGEM immediately.

PRC section 3208.1 gives CalGEM the authority to order or permit the re-abandonment of any well where it has reason to question the integrity of the previous abandonment. Responsibility for re-abandonment costs may be affected by the choices made by the local permitting agency, property owner, and/or developer in considering the general advice set forth in this letter. The PRC continues to define the person or entity responsible for re-abandonment as:

1. The property owner - If the well was plugged and abandoned in conformance with Division requirements at the time of abandonment, and in its current condition does not pose an immediate danger to life, health, and property, but requires additional work solely because the owner of the property on which the well is located proposes construction on the property that would prevent or impede access to the well for purposes of remedying a currently perceived future problem, then the owner of the property on which the well is located shall obtain all rights necessary to re-abandon the well and be responsible for the re-abandonment.

2. The person or entity causing construction over or near the well - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and the property owner, developer, or local agency permitting the construction failed either to obtain an opinion from the supervisor or district deputy as to whether the previously abandoned well is required to be re-abandoned, or to follow the advice of the supervisor or district deputy not to undertake construction that impedes access, then the person or entity causing the construction over or near the well shall obtain all rights necessary to re-abandon the well and be responsible for the re-abandonment.

3. The party or parties responsible for disturbing the integrity of the abandonment - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and after that time someone other than the operator or an

affiliate of the operator disturbed the integrity of the abandonment in the course of developing the property, then the party or parties responsible for disturbing the integrity of the abandonment shall be responsible for the re-abandonment.

Should any wells require abandonment or re-abandonment, the responsible party must submit a Notice of Intention (NOI) to CalGEM through WellSTAR. The NOI form can be accessed in the 'Plugging and Abandonment' section of the following link: https://www.conservation.ca.gov/calgem/for_operators.

No well work may be performed on any oil, gas, or geothermal well without written approval from CalGEM. Well work requiring approval includes, but is not limited to, mitigating leaking gas or other fluids from abandoned wells, modifications to well casings, and/or any other re-abandonment work. CalGEM also regulates the top of a plugged and abandoned well's minimum and maximum depth below final grade. CCR section1723.5 states well casings shall be cut off at least 5 feet but no more than 10 feet below the surface of the ground. If any well needs to be lowered or raised (i.e. casing cut down or casing riser added) to meet this regulation, a permit from CalGEM is required before work can start.

CalGEM makes the following additional recommendations to the local permitting agency, property owner, and developer:

1. To ensure that present and future property owners are aware of (a) the existence of all wells located on the property, and (b) potentially significant issues associated with any improvements near oil or gas wells, CalGEM recommends that information regarding the below identified well(s), and any other pertinent information obtained after the issuance of this letter, be communicated to the appropriate county recorder for inclusion in the title information of the subject real property.

2. CalGEM recommends that any soil containing hydrocarbons be disposed of in accordance with local, state, and federal laws. Please notify the appropriate authorities if soil containing significant amounts of hydrocarbons is discovered during development.

As indicated in PRC section 3106, CalGEM has statutory authority over the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells, and attendant facilities, to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil, gas, and geothermal deposits; and damage to underground and surface waters suitable for irrigation or domestic purposes. In addition to CalGEM's authority to order work on wells pursuant to PRC sections 3208.1 and 3224, it has authority to issue civil and criminal penalties under PRC sections 3236, 3236.5, and 3359 for violations within CalGEM's jurisdictional authority. CalGEM does not regulate grading, excavations, or other land use issues.

Should you have any questions, or if any wells are encountered that were not part of this letter, contact CalGEM at *916-322-1110* or via email at CalGEMNorthern@conservation.ca.gov.

Sincerely,

May Soe

*May Soe*
*Supervising Oil and Gas Engineer – Northern District*

Docusign Envelope ID: 8FC76E44-9FE9-494C-B6CF-4F4686749185

Enclosure
cc: N/A

Docusign Envelope ID: 8FC76E44-9FE9-494C-B6CF-4F4686749185

Comment #3

Enclosure: The wells listed below are reported to be located within and nearby the parcel boundary and may have future access impeded.

| API No. | Well Name |
|---|---|
| N/A | N/A |
| | |
| | |

## Caltrans' Response to the Department of Conservation

***Comment 1:***

*"Public Resources Code (PRC) Section 3208.1 establishes re-abandonment responsibility when previously plugged and abandoned oil, gas or geothermal wells will be impacted by planned property development or construction activities. Local permitting agencies, property owners, and/or developers should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near previously abandoned oil, gas, and geothermal wells.*

*The California Geologic Energy Management Division (CalGEM) has received the above-referenced project dated 2/9/2026. To assist local permitting agencies, property owners, and developers in making safe and practical land use decisions regarding potential development near oil, gas, or geothermal wells, CalGEM provides a table in the attached enclosure of the wells within the parcel boundary or in its vicinity, based on CalGEM's Well Finder database (https://maps.conservation.ca.gov/doggr/wellfinder/)."*

**Response to Comment 1:**

Caltrans accepts and concurs with the regulations set for wells by CalGEM.

***Comment 2:***

*"Enclosure: The wells listed below are reported to be located within and nearby the parcel boundary and may have future access impeded."*

| ***API No.*** | ***Well Name*** |
|---|---|
| *N/A* | *N/A* |

**Response to Comment 2:**

Thank you for your comment. Caltrans confirms there are no wells within or nearby the project limits.

# COMMENT 3. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

**From:** Morford, Samantha@Wildlife
**To:** Patwary, Masum@DOT
**Cc:** Stanfield, Melissa@Wildlife; Wildlife R2 CEQA; Sheva, Tanya@Wildlife; Kilgour, Morgan@Wildlife
**Subject:** CDFW Comments on the ND for the I-5 Grade Raise Project (SCH No. 2026020314)
**Date:** Friday, March 27, 2026 3:43:05 PM
**Attachments:** image001.png

Dear Masum Patwary:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Intent to Adopt an ND from California Department of Transportation (Caltrans) for the Interstate 5 (I-5) Grade Raise Project (Project) pursuant to the California Environmental Quality Act (CEQA) statute and guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, native plants, and their habitat. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code.

**CDFW ROLE**

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (Fish & G. Code, § 1802.) Similarly for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

**PROJECT DESCRIPTION SUMMARY**

The Project site is located along 4.42 miles of I-5 between post mile (PM) 0.21 and 4.63, in Sacramento County, California.

The Project consists of pavement rehabilitation, raising the roadway profile by 0.5 to 1.5 feet between PM 0.21 and 3.9, removal and replacement of the Twin Cities Road

overcrossing and Dierssen Road overcrossing structures, replacement or rehabilitation of existing drainage facilities, replacement or modification of lighting system components, installation of Transportation Management System (TMS) elements, and installation of maintenance vehicle pullouts.

The Project description should include the whole action as defined in the CEQA Guidelines section 15070 and should include appropriate detailed exhibits disclosing the Project area including temporary impacted areas such as equipment staging areas, spoils areas, and access and haul roads if applicable.

**COMMENTS AND RECOMMENDATIONS**

CDFW offers the comments and recommendations below to assist Caltrans in adequately identifying and, where appropriate, mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

**COMMENT 1:** *Bird Exclusion Plan, Standard Measures BR-2B, page 11*

**Issue:** Standard Measure BR-2B states that a bird exclusion plan would be prepared and exclusion devices would be installed outside of the breeding season (October 1 through January 31). This measure also states that "partially constructed and unoccupied nests within the construction area would be removed and disposed of on a regular basis throughout the breeding season." Exclusion through monitoring and partial nest removal during nesting season is not a recommended exclusion method. Species such as cliff swallows (*Petrochelidon pyrrhonota*) have high site fidelity, returning to the same bridge or cliff annually.

The structures proposed for replacement are overcrossings and not subject to typical work period restrictions included in Streambed Alteration Agreements or other regulatory approvals. This presents an opportunity for full avoidance of impacts to nesting birds at the overcrossings.

**Recommendation:** CDFW highly recommends that the Twin Cities Road and Dierssen Road overcrossing structures be removed outside of the nesting bird season. Removal of these structures outside of the nesting bird season would avoid impacts to nesting birds and negate the need to install and monitor exclusion devices. Exclusion devices should be a last resort if construction cannot be conducted outside of the nesting bird season.

CDFW also recommends that the following language be removed from BR-2B: "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".

**COMMENT 2:** *Lighting Systems and TMS Elements, Biological Resources, page 36-59*

**Issue:** On page 106 the ND states that work would be limited to nighttime off-peak hours. This would require the use of temporary artificial night lighting during construction. The Project will also include the replacement and modification of existing lighting systems and the installation of TMS elements. As the ND is currently written, it does not analyze impacts to biological resources resulting from an increase in temporary and permanent lighting on habitats and the wildlife species they support.

New lighting or increased lighting, especially in areas where no lighting or low levels of lighting currently exist, has potential for significant impacts to biological resources. Artificial light spillage beyond the prism of the roadway into adjacent habitats may result in a potentially significant impact through substantial degradation of the quality of the habitat. Unlike the natural brightness created by the monthly cycle of the moon, permanent and continuously powered lighting fixtures create an unnatural light regime that produces a constant light output. Continuous light output for 365 days a year can also have cumulatively significant impacts on fish and wildlife populations.

Artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., bird song), determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). For nocturnally migrating birds, direct mortality resulting from collisions with anthropogenic structures due to attraction to light (Gauthreux, 2006) is another direct effect of artificial light pollution. There are also more subtle effects, such as disrupted orientation (Poot et al. 2008) and changes in habitat selection (McLaren et al. 2018). There is also growing evidence that light pollution alters behavior at regional scales, with migrants occupying urban centers at higher-than-expected rates as a function of urban illumination (La Sorte et al. 2021). While artificial light pollution can act as an attractant at both regional (La Sorte et al. 2021) and local (Van Doren et al. 2017) scales, there is also evidence of migrating birds avoiding strongly lit areas when selecting critical resting sites needed to rebuild energy stores (McLaren et al. 2018).

**Recommendation:** CDFW recommends that new or replacement artificial lighting is not installed upon Project completion. If the installation of artificial lighting is unavoidable, CDFW recommends the ND analyzes and mitigates to a less-than-significant level the Project's temporary and post-construction lighting impacts to biological resources. At a minimum, the following mitigation measures should be incorporated into the ND:

"Light Output Analysis: Isolux Diagrams that note current light levels present during pre-Project conditions and the predicted Project light levels that will be created upon completion of the Project will be included in the ND. If an increase in light output from current levels to the projected future levels is evident, additional avoidance, minimization or mitigation measures will be developed in coordination with the natural resource agencies to offset indirect impacts to biological resources including but not limited to special status species. Within 60 days of Project completion, Caltrans will

conduct a ground survey that compares projected future light levels with actual light levels achieved upon completion of the Project through comparison of Isolux diagrams. If an increase from the projected levels to the actual levels is discovered, additional avoidance, minimization or mitigation measures may also be required in coordination with the natural resource agencies.

Light Output Limits: All LED's or bulbs installed as a result of the Project will be rated to emit or produce light at or under 2700 kelvin that results in the output of a warm white color spectrum.

Lighting Shields: All new lighting elements will be shielded and downward-facing to reduce lighting pollution and glare.

Reflective Signs and Road Striping: Retro-reflectivity of signs and road striping shall be implemented throughout the Project to reduce the need for electrical lighting."

**COMMENT 3:** *Burrowing Owl, Biological Resources, page 48-49*

**Issue:** Burrowing owl (BUOW) (*Athene cunicularia*) is a state candidate species for listing under CESA and as such, it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of BUOW.

There are five CNDDB and two research grade iNaturalist observations of BUOW within a 5-mile radius of the Project site. Grassland and agricultural land including but not limited to
low growing vegetation with sparse shrubs and some tall vegetation (Green and Anthony 1989, Haug et al 1993) are considered BUOW roosting and nesting habitat. BUOW are also known to inhabit ditches, culverts, and roadsides that are surrounded by cropland. Because BUOW exhibit high fidelity to their nesting sites, their foraging habitat has significant overlap with their nesting habitat. The greatest threat to BUOW populations in California continues to be loss of suitable foraging and nesting habitat in portions of their breeding range due to urban development, incompatible agriculture, and fallow land (Gervais et al 2008).

The ND acknowledges that there is suitable habitat in and adjacent to the Project site for BUOW. The ND states that no mammal burrows were observed during the May and September 2024 surveys, therefore BUOW is unlikely to inhabit the Project area during Project activities. However, burrowing mammals, such as the California ground squirrel (*Otospermophilus beecheyi*) are very active and are known to disperse significant distances to establish new territories. Therefore, an absence of burrows in 2024, does not preclude the potential presence of BUOW during construction. Additionally, protocol-level surveys were not conducted to determine seasonal occupancy of the Project area by BUOW.

The ND states that with the implementation of the Caltrans Standard Measures and Standard Special Provisions, the Project will have a less than significant impact on BUOW and no take will occur. The Standard Special Provision included for BUOW states that one pre-construction survey will be conducted 15 days prior to the initiation of construction. This is not adequate to determine the seasonal residency status of any owls potentially occupying the site. The Standard Special Provision also states that if BUOW is detected within the Project area during the non-breeding season, an Exclusion Plan will be prepared and submitted to CDFW. However, eviction from an occupied burrow, regardless of the time of year, is considered take. Prior to performing burrow evictions Caltrans will need to demonstrate compliance with CESA. The ND, as written, does not sufficiently include mitigation to reduce potential impacts to BUOW to a level of less than-significant.

**Recommendation:** Project activities impacting BUOW and their nesting, foraging, wintering, and dispersal habitat should be mitigated to a less than significant level. To reduce the Project's impacts to BUOW to less than significant, CDFW recommends that the ND incorporate the following measures:

"Burrowing Owl Surveys. Project proponent will conduct a BUOW survey over all suitable habitat present within Project area. BUOW surveys will be conducted by a qualified biologist in accordance with the protocol described in the *Staff Report on Burrowing Owl Mitigation* (CDFW, March 7, 2012). The surveys will be conducted during both the breeding (February 1 – August 31) and non-breeding seasons (September 1 – January 31) immediately preceding the planned start of construction activities to ascertain the seasonal residency status of any owls occupying the site. The last survey will be conducted within 7 days prior to the initiation of construction activities. Additional surveys are necessary when initial site disturbance is followed by periods of inactivity or the construction is phased spatially and/or temporally over the Project site.

The presence of BUOW or their sign anywhere on the site or within a 500-foot accessible radius around the Project site will be recorded and mapped. Surveys will disclose all burrows and occurrence of sign of BUOW on the Project site and within the 500-foot buffer. If occupied burrows are detected, the results of the survey will be submitted to CDFW.

Eviction of Burrowing Owls. If after all applicable avoidance and minimization measures are implemented and Project proponent needs to evict BUOW, an incidental take permit (ITP) will be obtained for the activity and a BUOW eviction plan will be developed by a qualified biologist for the CDFW's review and approval. This plan, including its proposed mitigation, will be consistent with the most recent available guidelines (e.g., *2012 Staff Report on Burrowing Owl Mitigation*). Burrow eviction will only be conducted during the non-breeding season for burrows located in the Project footprint, and in limited instances within a buffer zone around the Project site, as determined by CDFW after all avoidance and minimization measures have been exhausted."

**COMMENT 4:** *Giant Garter Snake, Biological Resources, page 49-52*

**Issue:** Giant garter snake (GGS) (*Thamnophis gigas*) is listed as a threatened species under CESA and as such it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of GGS.

GGS typically occur in slow-moving, warm aquatic environments like marshes, sloughs, and ponds and have adapted to using irrigation canals and rice fields as wetlands have been reduced in the Central Valley (Halstead et al. 2010). Small mammal burrows in upland habitat are generally used for cover and retreat during the active season and for refuge from flood waters during the dormant season (Halstead et al. 2015). Causes of decline are largely related to habitat loss and fragmentation of wetland habitat. Up to 98% of historic giant garter snake habitat in the Central Valley has been lost to development, including agricultural lands (Ellis 1987). The Project site and adjacent area contain both suitable aquatic and upland habitat. There are five CNDDB occurrences of GGS in a 5-mile radius of the Project site.

The ND acknowledges that the canals conveyed under I-5 within the Project area may provide habitat for GGS but does not analyze the potential upland habitat in the Project area. The ND states that no GGS were observed with the Project area during the reconnaissance-level biological survey and that the Caltrans' right-of-way fence would act as a barrier to GGS' ability to emerge onto the shoulders of I-5. GGS are a cryptic species and difficult to detect without protocol-level surveys. The wire fencing that occurs along Caltrans' right-of-way is not an effective exclusion device as individuals could move through the openings in the fence.

The ND states that with the implementation of the Caltrans Standard Measures and Standard Special Provisions, the Project will have a less than significant impact on GGS and no take will occur. Standard Measure BR-2F states a limited operating period would be observed, where all construction activities would occur between October 1 and April 1. This time period is the inactive season for GGS when they cannot move out of harms ways on their own, increasing the potential for take. This measure also directly conflicts with the statement in the Environmental Consequences section that all construction activities would occur during the GGS active period (May 1 to October 1). The Standard Special Provision included for GGS states that a pre-construction survey would be conducted 24 hours prior to construction activities and on-site monitoring would occur during initial ground disturbance. The Project is over 4 miles long and it is assumed work would be phased spatially and temporally. Additionally, the Project would be conducted during GGS active season, meaning they could move throughout the Project site at any time. Conducting one pre-construction survey for the Project site as a whole would not be adequate to detect GGS and prevent take. Similarly, on-site monitoring during initial ground disturbance activities would not be adequate to detect GGS and prevent take. The ND, as written, does not sufficiently disclose impacts to GGS nor does it include mitigation to reduce potential impacts to GGS to a level of less than-significant.

**Recommendation:** Project activities impacting GGS and their aquatic and upland habitat should be mitigated to a less than significant level. To reduce the Project's impacts to GGS to less than significant, CDFW recommends that the ND incorporate the following measures:

Work Period. Ground disturbing Project activities within 200-feet of aquatic habitat (i.e., agricultural canals and ditches) will be confined to the period between May 1 and October 1.

Special-Status Reptile Clearance Survey and Monitoring. Immediately prior to the start of ground disturbance or vegetation clearing each day, a qualified biologist will survey the section of the Project area that will be disturbed that day for giant garter snake and northwestern pond turtle. The qualified biologist will remain on-site to monitor all ground disturbing activities within 200 feet of aquatic habitat (i.e., agricultural canals and ditches).

- If special-status reptiles are identified during surveys or Project activities, work will be suspended, CDFW notified, and conservation measures will be developed in coordination with CDFW prior to re-initiating the activity.

If it is determined that the proposed Project may result in "take," as defined in the Fish & G. Code, section 86, of GGS, a CESA ITP may be obtained to provide coverage in the event that take occurs.

**COMMENT 5:** *Northwestern Pond Turtle, Biological Resources, page 52-54*

**Issue:** Northwestern pond turtle (NWPT) (*Actinemys marmorata*) is a California Species of Special Concern. There are seven CNDDB occurrences and over 40 research grade iNaturalist occurrences of NWPT within a 5-mile radius of the Project site.

NWPT requires terrestrial habitat for nesting, basking, migration or dispersal, overwintering and aestivation. Oviposition typically occurs from May through July. Females travel an average of 51 meters from water to excavate nests in upland areas with sparse vegetation and direct sunlight exposure. The nesting depth generally occurs between 9 to 12 centimeters below the surface. The incubation period for eggs typically ranges from 80 to 126 days. (USFWS 2023). Between September and December, NWPT have been found to migrate an average distance of 203 meters (666 feet) from water bodies to overwintering habitats (Reese & Welsh, 1997).

The ND acknowledges that the canals conveyed under I-5 within the Project area may provide habitat for NWPT but does not analyze the potential upland habitat in the Project area. The ND states that there are no recent NWPT occurrences in the Project area and that the Caltrans right-of-way fencing would act as a barrier to NWPT's ability to access the culverts in the Project area. As stated above, there are many recent iNaturalist occurrences within a 5-mile radius of the Project, including several that were recorded in 2026. The wire fencing that occurs along Caltrans' right-of-way is not an effective exclusion device for NWPT as small individuals could fit

through the openings in the fencing, and NWPT are known to burrow under fencing. Additionally, the ND states that Bureau of Land Management staff mentioned that there have been sightings of NWPT in the culverts within the Project area.

The ND states that with the implementation of the Caltrans Standard Measures and Standard Special Provisions, the Project will have a less than significant impact on NWPT. Standard Special Provision 14.603D(1) states that "a contractor-supplied biologist would monitor work activities that could potentially impact sensitive biological resources". This measure is too vague to be enforceable or effective. In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions. As currently written, the ND does not provide adequate and enforceable measures to reduce potential impacts to NWPT to a level of less than significant.

**Recommendation:** Project activities impacting NWPT and their aquatic and upland habitat should be mitigated to a less than significant level. To reduce the Project's impacts to NWPT to less than significant, CDFW recommends that the ND incorporate the following measures:

Work Period. Ground disturbing Project activities within 200 feet of aquatic habitat (i.e., agricultural canals and ditches) will be confined to the period between May 1 and October 1.

Special-Status Reptile Clearance Survey and Monitoring. Immediately prior to the start of ground disturbance or vegetation clearing each day, a qualified biologist will survey the section of the Project area that will be disturbed that day for giant garter snake and northwestern pond turtle. The qualified biologist will remain on-site to monitor all ground disturbing activities within 200 feet of aquatic habitat (i.e., agricultural canals and ditches).

- If special-status reptiles are identified during surveys or Project activities, work will be suspended, CDFW notified, and conservation measures will be developed in coordination with CDFW prior to re-initiating the activity.

**COMMENT 6:** *Swainson's Hawk, Biological Resources, page 36-59*

**Issue:** Swainson's Hawk (SWHA) (*Buteo swainsoni*) is listed as a threated species under CESA and as such it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of SWHA.

SWHA are generally found in scattered trees or along riparian systems adjacent to open fields such as annual grasslands, agricultural fields including but not limited to low growing crops and fallow land, dry wetland, and pastures, which are all considered Swainson's hawk foraging habitat (CDFG 1994). SWHA have also been documented to have a 10-mile foraging radius from their nests (CDFG 1994). The primary threat to SWHA population in California continues to be habitat loss,

especially the loss of suitable foraging habitat (CDFW 2016). If prey resources are not sufficient, SWHA adults will need to hunt longer distances from their nest site, which would increase their foraging effort and may result in reduced nestling vigor with an increased likelihood of disease, starvation, and nest/young abandonment (CDFG 1994).

Table 5 on page 46 states that there is no suitable habitat present within the Project area for SWHA and that the Project will not result in take. There are over 200 CNDDB occurrences of SHWA within 10 miles of the Project site and approximately 120 research grade iNaturalist observations of SWHA within a 5-mile radius of the Project site. The annual grassland and agricultural fields in and adjacent to the Project site provide suitable foraging habitat. Unmitigated loss of foraging habitat for a CESA listed threatened species is a significant impact.

**Recommendation:** CDFW recommends the ND include an analysis and appropriate mitigation measures to reduce Project impacts to SWHA foraging habitat to a less than significant level. Mitigation measures could include, but are not limited to:

"Compensatory Mitigation for Permanent Impacts to SWHA Foraging Habitat: Caltrans will quantify the total acreage of Project impacts to Swainson's hawk foraging habitat. Two seasons of temporary impacts to foraging habitat will be considered and mitigated for as permanent impacts. To mitigate impacts to Swainson's hawk foraging habitat to a less than significant level, CDFW recommends Caltrans mitigate impacts at an appropriate ratio by either purchasing SWHA foraging habitat credits from a CDFW-approved conservation bank OR providing for both the permanent protection and management of Habitat Management (HM) lands including calculation and deposit of management funds as approved by CDFW. Prior to transfer of SWHA foraging credits, Caltrans will coordinate with CDFW to ensure the conservation bank and mitigation ratio is appropriate to compensate for the impacts of the Project. Caltrans will submit to CDFW a copy of the executed Credit Transfer Agreement prior to initiating construction activities.

Swainsons' Hawk Protocol Level Surveys. Protocol-level surveys will be conducted by a CDFW-approved Designated Biologist within a minimum 1/2-mile radius around the Project area in accordance with Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee [TAC], 2000) as follows:

- January to March 20- One (1) Survey, All Day
- March 20 to April 5- Three (3) Surveys, Sunrise to 1000 / 1600 to Sunset
- April 5 to April 20- Three (3) Surveys, Sunrise to 1200 / 1630 to Sunset
- April 21 to June 10- Monitoring
- June 10 to July 30- Three (3) Surveys, Sunrise to 1200 / 1600 to Sunset

Results of the protocol-level surveys shall be submitted to CDFW a minimum of 10 days prior to the start of construction. Based on the survey results, additional mitigation measures may be required.

Survey methods shall be closely followed by starting early in the nesting season to

maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases). Surveys shall occur annually for the duration of the Project. The qualified biologist shall have a minimum of two years of experience implementing the TAC survey methodology. If an active nest is identified, a 0.25-mile protective buffer shall be maintained around the nest until the young fledge. The protective buffer shall be clearly marked and be an area where no Project-related activities or personnel are allowed while in place.

If it is determined that the proposed Project may result in "take," as defined in the Fish & G. Code, section 86, of SWHA, a CESA ITP may be obtained to provide coverage in the event that take occurs."

**COMMENT 7:** *Bats, Biological Resources, page 36-59*

**Issue:** Bats are considered non-game mammals and are protected by state law from take and/or harassment (California Fish and Game Code §4150, §2126, §3007; California Code of Regulation, Title 14, §251.1). Several bat species are also considered species of special concern, which meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines §15065). The ND does not mention surveying for bat roosting habitat or potential nursery colonies and does not analyze the potential impacts on bat roosting habitat and potential nursery colonies. Bat species that are known to occur in the Project vicinity, such as Townsend's big-eared bat (*Corynorhinus townsendii*), pallid bat (*Antrozous pallidus*), Mexican free-tailed bat (*Tadariad brasiliensis*), Yuma myotis (*Myotis yumanensis*), and big brown bat (*Eptesicus fuscus*) could utilize the weep holes on the Twin Cities Road and Dierssen Road overcrossing as day roosting habitat.

Without an analysis of the type, quality, and quantity of roosting bat habitat within the Project site and appropriate surveys for presence/absence, it is unclear if there are bats present. The presence of bats in the overcrossing structures during construction could result in direct mortality. Additionally, if the overcrossing structures provide suitable bat habitat, the Project could result in the permanent loss of that roosting habitat when the structures are replaced. If there are bats present in any of the bridges or overcrossings in the Project site during construction, the increased noise, lighting, and vibrations from the bridge widening could impact them. This impact could result in roost abandonment, potentially resulting in a reduction in bat survivability from increased susceptibility to predation, reduced quality of thermal and social environments, and decreased foraging efficiencies. This can be particularly detrimental if the construction activities are conducted during maternity season (typically April 15 to August 31) or torpor season (typically October 15 to March 1). As currently proposed, the Project has potential to have significant and unmitigated impacts to bats. The ND, as written, does not sufficiently disclose impacts to bats nor does it include mitigation to reduce potential impacts to bats to a level of less than-significant.

**Recommendation:** To reduce Project impacts to bats and native nursery sites to a less-than-significant level, CDFW recommends that a qualified biologist survey the

Project site for potentially suitable bat roosting habitat. The minimum qualifications for the biologist should include experience in conducting bat habitat assessments, nighttime emergence surveys, and acoustic monitoring. The biologist should have adequate experience identifying local bat species (visual and acoustic identification), type of habitat, and differences in roosting behavior and types (i.e., day, night, maternity). The habitat assessment should include a visual inspection of suitable habitat features (i.e., structure joints and weep holes) for bat roosting habitat within the Project. Suitable roosting sites should be mapped, photographed, and evidence of bat presence noted (i.e., bat guano or urine staining). The methodology and results of the bat habitat assessment should be incorporated into the ND. If bat roosting habitat is present, mitigation measures should be included in the ND to mitigate potential impacts to bats and nursery sites. These measures could include, but are not limited to:

- Implementing work windows within suitable bat roosting habitat to avoid critical life stages (maternity season - April 15 to August 31 and torpor season - October 15 to March 1);
- Bat habitat assessment, pre-construction and nighttime emergence surveys conducted by a biologist with education and experience in bat biology and identification prior to the initiation of construction activities; and
- The development of a bat avoidance or exclusion plan by a biologist with education and experience in bat biology and identification if bats are detected. CDFW recommends this plan be developed well in advance of the Project so that avoidance or exclusion could be appropriately timed in coordination with scheduled construction, if necessary.

Additionally, CDFW recommends the following language be incorporated into the ND to help reduce impacts to bats and native nursery sites to a less-than-significant level:

"Replacement Structures. If bat roosts cannot be avoided, replacement roost structures will be designed to accommodate the bat species they are intended for. Replacement roost structures will be designed and installed in close coordination with a qualified bat biologist. The size of suitable roosting habitat to be removed will be quantified by the bat biologist and a minimum of twice the roosting habitat will be installed in close proximity to the removed roost habitat. Replacement roost habitat will be monitored by a qualified bat biologist for a minimum of two years to document bat use and monitoring reports will be submitted to CDFW. On-site temporary roosting habitat (e.g., bat houses, wooden backed signs) shall be installed prior to overcrossing removal and maintained until construction of the new overcrossing is complete."

**COMMENT 8:** *Crotch's Bumble Bee, Biological Resources, page 36-59*

**Issue:** Crotch's bumble bee (CBB) (*Bombus crotchii*) is a state candidate species for listing under CESA and as such, it is afforded full protection under the act. It is

unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of CBB.

This species of bumble bee is nearly endemic to California, and historically occupied grassland and shrubland in southern to central California. This species requires floral resources, underground nest sites, and overwintering sites. CBB are generalist foragers and are best suited to forage at open flowers with short corollas. CBB commonly visit the following plant families: Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, Hydrophyllacae, Asclepiadaceae, and Boraginaceae. CBB queen's flight period in California is from late February to late October. The flight period for the males and the workers of this species is from late March through September (CDFW 2019).

Table 5 on page 46 states that there is no suitable habitat present within the Project area for CBB and that the Project will not result in take. However, there are six CNDDB occurrences within a 5-mile radius of the Project, including one approximately 700 feet east of the Project site. There are annual grasslands and open woodland habitat in the Project area with potential to provide habitat for CBB. For example, the habitat adjacent to I-5 between PM 0.68 and 1.02 and between PM 1.25 and 2.10. There is potential for CBB to be directly impacted by the proposed culvert replacement work at PM 1.60 on the east side of the road. As currently proposed, the Project has potential to have significant and unmitigated impacts to CBB. The ND, as written, does not sufficiently disclose impacts to CBB nor does it include mitigation to reduce potential impacts to CBB to a level of less than-significant.

**Recommendation:** CDFW recommends the ND include an analysis and appropriate mitigation measures to reduce Project impacts to CBB to a less than significant level. Mitigation measures could include, but are not limited to:

"Crotch's Bumble Bee Protocol Survey. If Project activities are proposed to occur during the active season for CBB, Project Proponent will develop a Pre-Construction Survey Plan for CBB, developed in coordination with CDFW (see https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline). A total of three surveys will be conducted prior to any ground-disturbing Project activities or vegetation removal that will take place during the active season for CBB (March 1 through October 31), or until all flowering vegetation is largely desiccated, to determine if any active nests are within the Project area. Each survey will be spaced two to four weeks apart, with the last survey taking place within 72 hours prior to construction activity. A qualified biologist will perform meandering transects through the planned construction footprint, plus a 50-foot buffer where accessible, between 9:00 am and 1:00 pm where feasible and at least one hour after sunrise and at least two hours before sunset, to visually survey the area for CBB activity. The duration of the survey will be the minimum amount of time necessary to adequately survey the area, typically at least one hour of surveying per three acres of potential habitat, excluding photo and identification time. For each sampling event, the qualified

biologist will survey suitable habitat using visual encounter and non-lethal photo methods, developed in coordination with CDFW. If a suspected or confirmed CBB is identified during any of these surveys, the qualified biologist will notify CDFW within 48 hours.

If only foraging CBB is observed (i.e., no nest is found), construction activities may proceed without the additional monitoring requirements; however, if there is a lapse in initial construction disturbance greater than two weeks, an additional clearance survey will be repeated prior to ground disturbance. If a CBB nest is found, one or more qualified biologists will provide biological construction monitoring as long as needed to implement applicable measures below.

If a CBB nest is discovered within the Project area and avoidance is feasible, a non-disturbance buffer of 50 feet will be established around the nest until the nest senesces or becomes inactive and is no longer in use, as determined by the qualified biologist or until Project activities in the Project area are complete, whichever is first. The buffer will be delineated using high-visibility fencing, flagging, or similar materials along with appropriate signage. The nest location will be recorded with global positioning system (GPS). The qualified biologist could modify the nest buffer in coordination with CDFW.

If it is determined that the proposed Project may result in "take," as defined in the Fish & G. Code, section 86, of CBB, a CESA ITP may be obtained to provide coverage in the event that take occurs."

**COMMENT 9:** *Wildlife Connectivity, Biological Resources, page 59*

**Issue:** The ND states that the proposed Project would have no impact on wildlife connectivity. However, this stretch of I-5 is four lanes wide and is a highly impermeable barrier to movement for wildlife species. I-5 bisects suitable habitat for aquatic species such as GGS and NWPT.

**Recommendation:** CDFW recommends that Caltrans use this Project as an opportunity to mitigate aquatic wildlife connectivity issues caused by I-5. CDFW recommends that improvements be made to the culverts at PM 1.60 and 3.55. Making improvements to these culverts would allow for species such as GGS and NWPT to successfully move between the habitats on either side of the road. These two locations are recommended because a review of aerial imagery and public data including the South Sacramento Habitat Conservation Plan habitat modeling for GGS and NWPT shows that these canals contain high value aquatic habitat for both species. Additionally, making connectivity improvements to these two locations would increase the permeability within a Natural Landscape Block and improve connectivity between two Essential Connectivity Areas identified by the California Essential Habitat Connectivity Project.

Possible improvements may include, but are not limited to, 1) replacing the existing culvert with one of the same diameter or larger, preferably a box culvert with an open bottom or engineered streambed material; 2) removing any existing barriers that may

prevent or reduce species access to the culvert from the canal (i.e., fencing in the canal or woody debris build up).

**ENVIRONMENTAL DATA**
CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be submitted online or mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov.

**FILING FEES**
The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

**CONCLUSION**
Pursuant to Public Resources Code § 21092 and § 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the proposed project. Written notifications will be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to R2CEQA@wildlife.ca.gov.

CDFW appreciates the opportunity to comment on the ND for the I-5 Grade Raise Project to assist Caltrans in identifying and mitigating Project impacts on biological resources. CDFW personnel are available for consultation regarding biological resources and strategies to minimize and/or mitigate impacts. Questions regarding this letter or further coordination should be directed to Sammi Morford, Environmental Scientist at (916) 880-8324 or samantha.morford@wildlife.ca.gov.

Sincerely,

**Sammi Morford**
Environmental Scientist (Caltrans Liaison)
Habitat Conservation Program | North Central Region (R2)
1701 Nimbus Rd., Suite A
Rancho Cordova, CA 95670

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

[1]

CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

## Caltrans' Response to California Department of Fish and Wildlife

***Comment 1:*** *Bird Exclusion Plan, Standard Measures BR-2B, page 11*

***Issue:*** *Standard Measure BR-2B states that a bird exclusion plan would be prepared and exclusion devices would be installed outside of the breeding season (October 1 through January 31). This measure also states that "partially constructed and unoccupied nests within the construction area would be removed and disposed of on a regular basis throughout the breeding season." Exclusion through monitoring and partial nest removal during nesting season is not a recommended exclusion method. Species such as cliff swallows (Petrochelidon pyrrhonota) have high site fidelity, returning to the same bridge or cliff annually. The structures proposed for replacement are overcrossings and not subject to typical work period restrictions included in Streambed Alteration Agreements or other regulatory approvals. This presents an opportunity for full avoidance of impacts to nesting birds at the overcrossings.*

***Recommendation:*** *CDFW highly recommends that the Twin Cities Road and Dierssen Road overcrossing structures be removed outside of the nesting bird season. Removal of these structures outside of the nesting bird season would avoid impacts to nesting birds and negate the need to install and monitor exclusion devices. Exclusion devices should be a last resort if construction cannot be conducted outside of the nesting bird season. CDFW also recommends that the following language be removed from BR-2B: "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".*

**Response to Comment 1:**

Caltrans thanks CDFW for the comment regarding migratory birds. Caltrans has the language referenced in BR-2B intentionally for the demolition of swallow nests before they are completed. The intention of this is to avoid impacts to the common barn swallow (*Hirundo rustica*). The language specifically states this would be done with "unoccupied nests" and the intent is to have a contractor-supplied biologist monitor these activities to ensure only unoccupied nests will be removed. Additionally, the proposed work window to avoid impacts to migratory birds directly conflicts with the

May 1–October 1 window that would be required to avoid impacts to GGS and WPT. Caltrans is happy to discuss in a meeting or in the field in further detail if needed as this is how attempted swallow nesting has been addressed on projects in the past.

***Comment 2:***

*Lighting Systems and TMS Elements, Biological Resources, page 36-59*

***Issue:*** *On page 106 the ND states that work would be limited to nighttime off-peak hours. This would require the use of temporary artificial night lighting during construction. The Project will also include the replacement and modification of existing lighting systems and the installation of TMS elements. As the ND is currently written, it does not analyze impacts to biological resources resulting from an increase in temporary and permanent lighting on habitats and the wildlife species they support.*

*New lighting or increased lighting, especially in areas where no lighting or low levels of lighting currently exist, has potential for significant impacts to biological resources. Artificial light spillage beyond the prism of the roadway into adjacent habitats may result in a potentially significant impact through substantial degradation of the quality of the habitat. Unlike the natural brightness created by the monthly cycle of the moon, permanent and continuously powered lighting fixtures create an unnatural light regime that produces a constant light output. Continuous light output for 365 days a year can also have cumulatively significant impacts on fish and wildlife populations.*

*Artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., bird song), determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). For nocturnally migrating birds, direct mortality resulting from collisions with anthropogenic structures due to attraction to light (Gauthreux, 2006) is another direct effect of artificial light pollution. There are also more subtle effects, such as disrupted orientation (Poot et al. 2008) and changes in habitat selection (McLaren et al. 2018). There is also growing evidence that light pollution alters behavior at regional scales, with migrants occupying urban centers at higher-than-expected rates as a function of urban illumination (La Sorte et al. 2021). While artificial light pollution can act as an attractant at both regional (La Sorte et al. 2021) and local (Van Doren et al. 2017) scales, there is also evidence of migrating birds avoiding strongly lit areas when selecting critical resting sites needed to rebuild energy stores (McLaren et al. 2018).*

***Recommendation:*** *CDFW recommends that new or replacement artificial lighting is not installed upon Project completion. If the installation of artificial lighting is unavoidable, CDFW recommends the ND analyzes and mitigates to a less-than-significant level the Project's temporary and post-construction lighting impacts to biological resources. At a minimum, the following mitigation measures should be incorporated into the ND:*

*"Light Output Analysis: Isolux Diagrams that note current light levels present during pre-Project conditions and the predicted Project light levels that will be created upon completion of the Project will be included in the ND. If an increase in light output from current levels to the projected future levels is evident, additional avoidance, minimization or mitigation measures will be developed in coordination with the natural resource agencies to offset indirect impacts to biological resources including but not limited to special status species. Within 60 days of Project completion, Caltrans will conduct a ground survey that compares projected future light levels with actual light levels achieved upon completion of the Project through comparison of Isolux diagrams. If an increase from the projected levels to the actual levels is discovered, additional avoidance, minimization or mitigation measures may also be required in coordination with the natural resource agencies.*

*Light Output Limits: All LED's or bulbs installed as a result of the Project will be rated to emit or produce light at or under 2700 kelvin that results in the output of a warm white color spectrum.*

*Lighting Shields: All new lighting elements will be shielded and downward-facing to reduce lighting pollution and glare.*

*Reflective Signs and Road Striping: Retro-reflectivity of signs and road striping shall be implemented throughout the Project to reduce the need for electrical lighting."*

**Response to Comment 2:**

Caltrans thanks CDFW for the comment regarding lighting. Safety of the traveling public always takes priority in Caltrans' projects overall and removing lighting is not feasible; however, Caltrans intends to do its best to ensure lighting has a lower impact to wildlife and will take CDFW's modification recommendations into consideration.

***Comment 3:***

*Burrowing Owl, Biological Resources, page 48-49*

***Issue:*** *Burrowing owl (BUOW) (Athene cunicularia) is a state candidate species for listing under CESA and as such, it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of BUOW.*

*There are five CNDDB and two research grade iNaturalist observations of BUOW within a 5-mile radius of the Project site. Grassland and agricultural land including but not limited to low growing vegetation with sparse shrubs and some tall vegetation (Green and Anthony 1989, Haug et al 1993) are considered BUOW roosting and nesting habitat. BUOW are also known to inhabit ditches, culverts, and roadsides that are surrounded by cropland. Because BUOW exhibit high fidelity to their nesting sites, their foraging habitat has significant overlap with their nesting habitat. The greatest threat to BUOW populations in California continues to be loss of suitable foraging and nesting habitat in portions of their breeding range due to urban development, incompatible agriculture, and fallow land (Gervais et al 2008).*

*The ND acknowledges that there is suitable habitat in and adjacent to the Project site for BUOW. The ND states that no mammal burrows were observed during the May and September 2024 surveys, therefore BUOW is unlikely to inhabit the Project area during Project activities. However, burrowing mammals, such as the California ground squirrel (Otospermophilus beecheyi) are very active and are known to disperse significant distances to establish new territories. Therefore, an absence of burrows in 2024, does not preclude the potential presence of BUOW during construction. Additionally, protocol-level surveys were not conducted to determine seasonal occupancy of the Project area by BUOW.*

*The ND states that with the implementation of the Caltrans Standard Measures and Standard Special Provisions, the Project will have a less than significant impact on BUOW and no take will occur. The Standard Special Provision included for BUOW states that one pre-construction survey will be conducted 15 days prior to the initiation of construction. This is not adequate to determine the seasonal residency status of any owls potentially occupying the site. The Standard Special Provision also*

*states that if BUOW is detected within the Project area during the non-breeding season, an Exclusion Plan will be prepared and submitted to CDFW. However, eviction from an occupied burrow, regardless of the time of year, is considered take. Prior to performing burrow evictions Caltrans will need to demonstrate compliance with CESA. The ND, as written, does not sufficiently include mitigation to reduce potential impacts to BUOW to a level of less than-significant.*

***Recommendation:*** *Project activities impacting BUOW and their nesting, foraging, wintering, and dispersal habitat should be mitigated to a less than significant level. To reduce the Project's impacts to BUOW to less than significant, CDFW recommends that the ND incorporate the following measures:*

*"Burrowing Owl Surveys. Project proponent will conduct a BUOW survey over all suitable habitat present within Project area. BUOW surveys will be conducted by a qualified biologist in accordance with the protocol described in the Staff Report on Burrowing Owl Mitigation (CDFW, March 7, 2012). The surveys will be conducted during both the breeding (February 1 – August 31) and non-breeding seasons (September 1 – January 31) immediately preceding the planned start of construction activities to ascertain the seasonal residency status of any owls occupying the site. The last survey will be conducted within 7 days prior to the initiation of construction activities. Additional surveys are necessary when initial site disturbance is followed by periods of inactivity or the construction is phased spatially and/or temporally over the Project site.*

*The presence of BUOW or their sign anywhere on the site or within a 500-foot accessible radius around the Project site will be recorded and mapped. Surveys will disclose all burrows and occurrence of sign of BUOW on the Project site and within the 500-foot buffer. If occupied burrows are detected, the results of the survey will be submitted to CDFW.*

*Eviction of Burrowing Owls. If after all applicable avoidance and minimization measures are implemented and Project proponent needs to evict BUOW, an incidental take permit (ITP) will be obtained for the activity and a BUOW eviction plan will be developed by a qualified biologist for the CDFW's review and approval. This plan, including its proposed mitigation, will be consistent with the most recent available guidelines (e.g., 2012 Staff Report on Burrowing Owl Mitigation). Burrow eviction will only be conducted during the non-breeding season for burrows located in the Project footprint, and in limited instances within a buffer zone around the Project*

*site, as determined by CDFW after all avoidance and minimization measures have been exhausted."*

**Response to Comment 3:**

Caltrans thanks CDFW for the comment regarding burrowing owls. Caltrans does not anticipate take of Burrowing owl; however, the survey timing and protocols are feasible as proposed by CDFW. Caltrans will direct the CSB to conduct preconstruction surveys as required by the permits. If any nests are identified, CDFW will be consulted.

***Comment 4:***

*Giant Garter Snake, Biological Resources, page 49-52*

***Issue:*** *Giant garter snake (GGS) (Thamnophis gigas) is listed as a threatened species under CESA and as such it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of GGS.*

*GGS typically occur in slow-moving, warm aquatic environments like marshes, sloughs, and ponds and have adapted to using irrigation canals and rice fields as wetlands have been reduced in the Central Valley (Halstead et al. 2010). Small mammal burrows in upland habitat are generally used for cover and retreat during the active season and for refuge from flood waters during the dormant season (Halstead et al. 2015). Causes of decline are largely related to habitat loss and fragmentation of wetland habitat. Up to 98% of historic giant garter snake habitat in the Central Valley has been lost to development, including agricultural lands (Ellis 1987). The Project site and adjacent area contain both suitable aquatic and upland habitat. There are five CNDDB occurrences of GGS in a 5-mile radius of the Project site.*

*The ND acknowledges that the canals conveyed under I-5 within the Project area may provide habitat for GGS but does not analyze the potential upland habitat in the Project area. The ND states that no GGS were observed with the Project area during the reconnaissance-level biological survey and that the Caltrans' right-of-way fence would act as a barrier to GGS' ability to emerge onto the shoulders of I-5. GGS are a cryptic species and difficult to detect without protocol-level surveys. The wire fencing*

*that occurs along Caltrans' right-of-way is not an effective exclusion device as individuals could move through the openings in the fence.*

*The ND states that with the implementation of the Caltrans Standard Measures and Standard Special Provisions, the Project will have a less than significant impact on GGS and no take will occur. Standard Measure BR-2F states a limited operating period would be observed, where all construction activities would occur between October 1 and April 1. This time period is the inactive season for GGS when they cannot move out of harms ways on their own, increasing the potential for take. This measure also directly conflicts with the statement in the Environmental Consequences section that all construction activities would occur during the GGS active period (May 1 to October 1). The Standard Special Provision included for GGS states that a pre-construction survey would be conducted 24 hours prior to construction activities and on-site monitoring would occur during initial ground disturbance. The Project is over 4 miles long and it is assumed work would be phased spatially and temporally. Additionally, the Project would be conducted during GGS active season, meaning they could move throughout the Project site at any time. Conducting one pre-construction survey for the Project site as a whole would not be adequate to detect GGS and prevent take. Similarly, on-site monitoring during initial ground disturbance activities would not be adequate to detect GGS and prevent take. The ND, as written, does not sufficiently disclose impacts to GGS nor does it include mitigation to reduce potential impacts to GGS to a level of less than-significant.*

***Recommendation:** Project activities impacting GGS and their aquatic and upland habitat should be mitigated to a less than significant level. To reduce the Project's impacts to GGS to less than significant, CDFW recommends that the ND incorporate the following measures:*

*Work Period. Ground disturbing Project activities within 200-feet of aquatic habitat (i.e., agricultural canals and ditches) will be confined to the period between May 1 and October 1.*

*Special-Status Reptile Clearance Survey and Monitoring. Immediately prior to the start of ground disturbance or vegetation clearing each day, a qualified biologist will survey the section of the Project area that will be disturbed that day for giant garter snake and northwestern pond turtle. The qualified biologist will remain on-site to*

*monitor all ground disturbing activities within 200 feet of aquatic habitat (i.e., agricultural canals and ditches).*

- *If special-status reptiles are identified during surveys or Project activities, work will be suspended, CDFW notified, and conservation measures will be developed in coordination with CDFW prior to re-initiating the activity.*

*If it is determined that the proposed Project may result in "take," as defined in the Fish & G. Code, section 86, of GGS, a CESA ITP may be obtained to provide coverage in the event that take occurs.*

**Response to Comment 4:**

Caltrans thanks CDFW for the comment regarding GGS. There appears to be confusion in how the measure BR-2F was written. Caltrans' intent was on the work window of May 1–October 1 for avoidance of GGS "take". May 1–October 1 is the limited work period which Caltrans would observe during these construction activities. Additionally, the Special-Status Reptile Clearance Survey and Monitoring proposed by CDFW is feasible and Caltrans will add that to the list of duties of the CSB.

***Comment 5:***

*Northwestern Pond Turtle, Biological Resources, page 52-54*

***Issue:*** *Northwestern pond turtle (NWPT) (Actinemys marmorata) is a California Species of Special Concern. There are seven CNDDB occurrences and over 40 research grade iNaturalist occurrences of NWPT within a 5-mile radius of the Project site.*

*NWPT requires terrestrial habitat for nesting, basking, migration or dispersal, overwintering and aestivation. Oviposition typically occurs from May through July. Females travel an average of 51 meters from water to excavate nests in upland areas with sparse vegetation and direct sunlight exposure. The nesting depth generally occurs between 9 to 12 centimeters below the surface. The incubation period for eggs typically ranges from 80 to 126 days. (USFWS 2023). Between September and December, NWPT have been found to migrate an average distance of 203 meters (666 feet) from water bodies to overwintering habitats (Reese & Welsh, 1997).*

*The ND acknowledges that the canals conveyed under I-5 within the Project area may provide habitat for NWPT but does not analyze the potential upland habitat in the Project area. The ND states that there are no recent NWPT occurrences in the Project area and that the Caltrans right-of-way fencing would act as a barrier to NWPT's ability to access the culverts in the Project area. As stated above, there are many recent iNaturalist occurrences within a 5-mile radius of the Project, including several that were recorded in 2026. The wire fencing that occurs along Caltrans' right-of-way is not an effective exclusion device for NWPT as small individuals could fit through the openings in the fencing, and NWPT are known to burrow under fencing. Additionally, the ND states that Bureau of Land Management staff mentioned that there have been sightings of NWPT in the culverts within the Project area.*

*The ND states that with the implementation of the Caltrans Standard Measures and Standard Special Provisions, the Project will have a less than significant impact on NWPT. Standard Special Provision 14.603D(1) states that "a contractor-supplied biologist would monitor work activities that could potentially impact sensitive biological resources". This measure is too vague to be enforceable or effective. In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions. As currently written, the ND does not provide adequate and enforceable measures to reduce potential impacts to NWPT to a level of less than significant.*

***Recommendation:** Project activities impacting NWPT and their aquatic and upland habitat should be mitigated to a less than significant level. To reduce the Project's impacts to NWPT to less than significant, CDFW recommends that the ND incorporate the following measures:*

*Work Period. Ground disturbing Project activities within 200 feet of aquatic habitat (i.e., agricultural canals and ditches) will be confined to the period between May 1 and October 1.*

*Special-Status Reptile Clearance Survey and Monitoring. Immediately prior to the start of ground disturbance or vegetation clearing each day, a qualified biologist will survey the section of the Project area that will be disturbed that day for giant garter snake and northwestern pond turtle. The qualified biologist will remain on-site to monitor all ground disturbing activities within 200 feet of aquatic habitat (i.e., agricultural canals and ditches).*

*If special-status reptiles are identified during surveys or Project activities, work will be suspended, CDFW notified, and conservation measures will be developed in coordination with CDFW prior to re-initiating the activity.*

**Response to Comment 5:**

Caltrans thanks CDFW for the comment regarding WPT. As this comment largely echoes the concerns for GGS, this comment is addressed in Comment 4 above. Please refer to Comment 4.

***Comment 6:***

*Swainson's Hawk, Biological Resources, page 36-59*

***Issue:*** *Swainson's Hawk (SWHA) (Buteo swainsoni) is listed as a threated species under CESA and as such it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of SWHA.*

*SWHA are generally found in scattered trees or along riparian systems adjacent to open fields such as annual grasslands, agricultural fields including but not limited to low growing crops and fallow land, dry wetland, and pastures, which are all considered Swainson's hawk foraging habitat (CDFG 1994). SWHA have also been documented to have a 10-mile foraging radius from their nests (CDFG 1994). The primary threat to SWHA population in California continues to be habitat loss, especially the loss of suitable foraging habitat (CDFW 2016). If prey resources are not sufficient, SWHA adults will need to hunt longer distances from their nest site, which would increase their foraging effort and may result in reduced nestling vigor with an increased likelihood of disease, starvation, and nest/young abandonment (CDFG 1994).*

*Table 5 on page 46 states that there is no suitable habitat present within the Project area for SWHA and that the Project will not result in take. There are over 200 CNDDB occurrences of SHWA within 10 miles of the Project site and approximately 120 research grade iNaturalist observations of SWHA within a 5-mile radius of the Project site. The annual grassland and agricultural fields in and adjacent to the Project site*

*provide suitable foraging habitat. Unmitigated loss of foraging habitat for a CESA listed threatened species is a significant impact.*

***Recommendation:** CDFW recommends the ND include an analysis and appropriate mitigation measures to reduce Project impacts to SWHA foraging habitat to a less than significant level. Mitigation measures could include, but are not limited to:*

*"Compensatory Mitigation for Permanent Impacts to SWHA Foraging Habitat: Caltrans will quantify the total acreage of Project impacts to Swainson's hawk foraging habitat. Two seasons of temporary impacts to foraging habitat will be considered and mitigated for as permanent impacts. To mitigate impacts to Swainson's hawk foraging habitat to a less than significant level, CDFW recommends Caltrans mitigate impacts at an appropriate ratio by either purchasing SWHA foraging habitat credits from a CDFW-approved conservation bank OR providing for both the permanent protection and management of Habitat Management (HM) lands including calculation and deposit of management funds as approved by CDFW. Prior to transfer of SWHA foraging credits, Caltrans will coordinate with CDFW to ensure the conservation bank and mitigation ratio is appropriate to compensate for the impacts of the Project. Caltrans will submit to CDFW a copy of the executed Credit Transfer Agreement prior to initiating construction activities.*

*Swainsons' Hawk Protocol Level Surveys. Protocol-level surveys will be conducted by a CDFW-approved Designated Biologist within a minimum 1/2-mile radius around the Project area in accordance with Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee [TAC], 2000) as follows:*

- *January to March 20- One (1) Survey, All Day*
- *March 20 to April 5- Three (3) Surveys, Sunrise to 1000 / 1600 to Sunset*
- *April 5 to April 20- Three (3) Surveys, Sunrise to 1200 / 1630 to Sunset*
- *April 21 to June 10- Monitoring*
- *June 10 to July 30- Three (3) Surveys, Sunrise to 1200 / 1600 to Sunset*

*Results of the protocol-level surveys shall be submitted to CDFW a minimum of 10 days prior to the start of construction. Based on the survey results, additional mitigation measures may be required.*

*Survey methods shall be closely followed by starting early in the nesting season to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases). Surveys shall occur annually for the duration of the Project. The qualified biologist shall have a minimum of two years of experience implementing the TAC survey methodology. If an active nest is identified, a 0.25-mile protective buffer shall be maintained around the nest until the young fledge. The protective buffer shall be clearly marked and be an area where no Project-related activities or personnel are allowed while in place.*

*If it is determined that the proposed Project may result in "take," as defined in the Fish & G. Code, section 86, of SWHA, a CESA ITP may be obtained to provide coverage in the event that take occurs."*

**Response to Comment 6:**

Caltrans thanks CDFW for the comment regarding Swainson's hawk. Within a 1 mile buffer, approximately less than 2% of the total 13,493 acres of available Swainson's hawk potential foraging habitat may be impacted by project activities. Any potential foraging habitat that Swainson's hawk may use within the project area is extremely low quality as the species would need to avoid traffic, human disturbance, and high levels of ambient noise. When compared to the existing potential foraging habitat outside the ESL, foraging habitat inside the ESL is far smaller and of lower quality. Therefore, Caltrans has found that impacts to potential Swainson's hawk are insignificant and no compensatory mitigation or ITP are anticipated. Additionally, as the ND states, the project area does not provide suitable nesting habitat for Swainson's hawk, and no take is anticipated for the species. If CDFW wants to meet to discuss this in more detail, Caltrans is available to facilitate.

***Comment 7:***

*Bats, Biological Resources, page 36-59*

***Issue:*** *Bats are considered non-game mammals and are protected by state law from take and/or harassment (California Fish and Game Code §4150, §2126, §3007; California Code of Regulation, Title 14, §251.1). Several bat species are also considered species of special concern, which meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines §15065). The ND does not*

*mention surveying for bat roosting habitat or potential nursery colonies and does not analyze the potential impacts on bat roosting habitat and potential nursery colonies. Bat species that are known to occur in the Project vicinity, such as Townsend's big-eared bat (Corynorhinus townsendii), pallid bat (Antrozous pallidus), Mexican free-tailed bat (Tadariad brasiliensis), Yuma myotis (Myotis yumanensis), and big brown bat (Eptesicus fuscus) could utilize the weep holes on the Twin Cities Road and Dierssen Road overcrossing as day roosting habitat.*

*Without an analysis of the type, quality, and quantity of roosting bat habitat within the Project site and appropriate surveys for presence/absence, it is unclear if there are bats present. The presence of bats in the overcrossing structures during construction could result in direct mortality. Additionally, if the overcrossing structures provide suitable bat habitat, the Project could result in the permanent loss of that roosting habitat when the structures are replaced. If there are bats present in any of the bridges or overcrossings in the Project site during construction, the increased noise, lighting, and vibrations from the bridge widening could impact them. This impact could result in roost abandonment, potentially resulting in a reduction in bat survivability from increased susceptibility to predation, reduced quality of thermal and social environments, and decreased foraging efficiencies. This can be particularly detrimental if the construction activities are conducted during maternity season (typically April 15 to August 31) or torpor season (typically October 15 to March 1). As currently proposed, the Project has potential to have significant and unmitigated impacts to bats. The ND, as written, does not sufficiently disclose impacts to bats nor does it include mitigation to reduce potential impacts to bats to a level of less than-significant.*

***Recommendation:** To reduce Project impacts to bats and native nursery sites to a less-than-significant level, CDFW recommends that a qualified biologist survey the Project site for potentially suitable bat roosting habitat. The minimum qualifications for the biologist should include experience in conducting bat habitat assessments, nighttime emergence surveys, and acoustic monitoring. The biologist should have adequate experience identifying local bat species (visual and acoustic identification), type of habitat, and differences in roosting behavior and types (i.e., day, night, maternity). The habitat assessment should include a visual inspection of suitable habitat features (i.e., structure joints and weep holes) for bat roosting habitat within the Project. Suitable roosting sites should be mapped, photographed, and evidence of bat presence noted (i.e., bat guano or urine staining). The methodology and results of the bat habitat assessment should be incorporated into the ND. If bat roosting*

*habitat is present, mitigation measures should be included in the ND to mitigate potential impacts to bats and nursery sites. These measures could include, but are not limited to:*

- *Implementing work windows within suitable bat roosting habitat to avoid critical life stages (maternity season - April 15 to August 31 and torpor season - October 15 to March 1);*
- *Bat habitat assessment, pre-construction and nighttime emergence surveys conducted by a biologist with education and experience in bat biology and identification prior to the initiation of construction activities; and*
- *The development of a bat avoidance or exclusion plan by a biologist with education and experience in bat biology and identification if bats are detected. CDFW recommends this plan be developed well in advance of the Project so that avoidance or exclusion could be appropriately timed in coordination with scheduled construction, if necessary.*

*Additionally, CDFW recommends the following language be incorporated into the ND to help reduce impacts to bats and native nursery sites to a less-than-significant level:*

*"Replacement Structures. If bat roosts cannot be avoided, replacement roost structures will be designed to accommodate the bat species they are intended for. Replacement roost structures will be designed and installed in close coordination with a qualified bat biologist. The size of suitable roosting habitat to be removed will be quantified by the bat biologist and a minimum of twice the roosting habitat will be installed in close proximity to the removed roost habitat. Replacement roost habitat will be monitored by a qualified bat biologist for a minimum of two years to document bat use and monitoring reports will be submitted to CDFW. On-site temporary roosting habitat (e.g., bat houses, wooden backed signs) shall be installed prior to overcrossing removal and maintained until construction of the new overcrossing is complete."*

**Response to Comment 7:**

Caltrans thanks CDFW for the comment regarding bats. Caltrans deemed existing overpass joints within the project are sealed so as to not allow bats to enter the structure for nesting. Therefore, no impacts to bats are anticipated during construction.

***Comment 8:***

*Crotch's Bumble Bee, Biological Resources, page 36-59*

***Issue:*** *Crotch's bumble bee (CBB) (Bombus crotchii) is a state candidate species for listing under CESA and as such, it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of CBB.*

*This species of bumble bee is nearly endemic to California, and historically occupied grassland and shrubland in southern to central California. This species requires floral resources, underground nest sites, and overwintering sites. CBB are generalist foragers and are best suited to forage at open flowers with short corollas. CBB commonly visit the following plant families: Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, Hydrophyllacae, Asclepiadaceae, and Boraginaceae. CBB queen's flight period in California is from late February to late October. The flight period for the males and the workers of this species is from late March through September (CDFW 2019).*

*Table 5 on page 46 states that there is no suitable habitat present within the Project area for CBB and that the Project will not result in take. However, there are six CNDDB occurrences within a 5-mile radius of the Project, including one approximately 700 feet east of the Project site. There are annual grasslands and open woodland habitat in the Project area with potential to provide habitat for CBB. For example, the habitat adjacent to I-5 between PM 0.68 and 1.02 and between PM 1.25 and 2.10. There is potential for CBB to be directly impacted by the proposed culvert replacement work at PM 1.60 on the east side of the road. As currently proposed, the Project has potential to have significant and unmitigated impacts to CBB. The ND, as written, does not sufficiently disclose impacts to CBB nor does it*

*include mitigation to reduce potential impacts to CBB to a level of less than-significant.*

***Recommendation:** CDFW recommends the ND include an analysis and appropriate mitigation measures to reduce Project impacts to CBB to a less than significant level. Mitigation measures could include, but are not limited to:*

*"Crotch's Bumble Bee Protocol Survey. If Project activities are proposed to occur during the active season for CBB, Project Proponent will develop a Pre-Construction Survey Plan for CBB, developed in coordination with CDFW (see https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline). A total of three surveys will be conducted prior to any ground-disturbing Project activities or vegetation removal that will take place during the active season for CBB (March 1 through October 31), or until all flowering vegetation is largely desiccated, to determine if any active nests are within the Project area. Each survey will be spaced two to four weeks apart, with the last survey taking place within 72 hours prior to construction activity. A qualified biologist will perform meandering transects through the planned construction footprint, plus a 50-foot buffer where accessible, between 9:00 am and 1:00 pm where feasible and at least one hour after sunrise and at least two hours before sunset, to visually survey the area for CBB activity. The duration of the survey will be the minimum amount of time necessary to adequately survey the area, typically at least one hour of surveying per three acres of potential habitat, excluding photo and identification time. For each sampling event, the qualified biologist will survey suitable habitat using visual encounter and non-lethal photo methods, developed in coordination with CDFW. If a suspected or confirmed CBB is identified during any of these surveys, the qualified biologist will notify CDFW within 48 hours.*

*If only foraging CBB is observed (i.e., no nest is found), construction activities may proceed without the additional monitoring requirements; however, if there is a lapse in initial construction disturbance greater than two weeks, an additional clearance survey will be repeated prior to ground disturbance. If a CBB nest is found, one or more qualified biologists will provide biological construction monitoring as long as needed to implement applicable measures below.*

*If a CBB nest is discovered within the Project area and avoidance is feasible, a non-disturbance buffer of 50 feet will be established around the nest until the nest senesces or becomes inactive and is no longer in use, as determined by the qualified*

*biologist or until Project activities in the Project area are complete, whichever is first. The buffer will be delineated using high-visibility fencing, flagging, or similar materials along with appropriate signage. The nest location will be recorded with global positioning system (GPS). The qualified biologist could modify the nest buffer in coordination with CDFW.*

*If it is determined that the proposed Project may result in "take," as defined in the Fish & G. Code, section 86, of CBB, a CESA ITP may be obtained to provide coverage in the event that take occurs."*

**Response to Comment 8:**

Caltrans thanks CDFW for the comment regarding western bumble bees. Caltrans will add surveys for western bumble bees to the list of tasks for the CSB during construction. At this time however, Caltrans does not anticipate take of western bumble bees as stated in the ND.

***Comment 9:***

*Wildlife Connectivity, Biological Resources, page 59*

***Issue:*** *The ND states that the proposed Project would have no impact on wildlife connectivity. However, this stretch of I-5 is four lanes wide and is a highly impermeable barrier to movement for wildlife species. I-5 bisects suitable habitat for aquatic species such as GGS and NWPT.*

***Recommendation:*** *CDFW recommends that Caltrans use this Project as an opportunity to mitigate aquatic wildlife connectivity issues caused by I-5. CDFW recommends that improvements be made to the culverts at PM 1.60 and 3.55. Making improvements to these culverts would allow for species such as GGS and NWPT to successfully move between the habitats on either side of the road. These two locations are recommended because a review of aerial imagery and public data including the South Sacramento Habitat Conservation Plan habitat modeling for GGS and NWPT shows that these canals contain high value aquatic habitat for both species. Additionally, making connectivity improvements to these two locations would increase the permeability within a Natural Landscape Block and improve connectivity between two Essential Connectivity Areas identified by the California Essential Habitat Connectivity Project.*

*Possible improvements may include, but are not limited to, 1) replacing the existing culvert with one of the same diameter or larger, preferably a box culvert with an open bottom or engineered streambed material; 2) removing any existing barriers that may prevent or reduce species access to the culvert from the canal (i.e., fencing in the canal or woody debris build up).*

**Response to Comment 9:**

Caltrans thanks CDFW for the comment regarding wildlife connectivity. The project area is predominately located within an Area of Conservation Emphasis Terrestrial Connectivity rank 3, “Connections with Implementation Flexibility.” The existing highway has two lanes in each direction and an open median. No median barriers are planned for construction in this project, and no other structures are planned that would change the current terrestrial wildlife habitat connectivity. Therefore, no impacts to wildlife connectivity are anticipated during construction. Additionally, Caltrans Hydraulics has determined that no changes to hydrology are feasible for this project; therefore, no changes to the culvert diameters are planned. However, Caltrans may consider widening the diameter of the culverts in future projects.