

CACHE CREEK REHABILITATION PROJECT

INITIAL STUDY

with Proposed Mitigated Negative Declaration



YOLO COUNTY, CALIFORNIA

DISTRICT 3 – YOL – 16 – Post Miles 15.10 to 20.50

EA 03-2J670 / EFIS 0322000086

**Prepared by the
State of California Department of Transportation**



August 2026



General Information About This Document

What is in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study with proposed Mitigated Negative Declaration (IS/MND) which examines the potential environmental impacts of the Cache Creek Rehabilitation Project on State Route (SR) 16 in Yolo County, California.

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

What you should do:

- Please read this document.
- Additional copies of this document are available at:
 - **Esparto Regional Library, 17065 Yolo Avenue, Esparto, CA 95627**
 - **Caltrans, District 3, 703 B Street, Marysville, CA 95901**
- The document can be viewed digitally via Caltrans weblink:

<https://dot.ca.gov/caltrans-near-me/district-3/d3-projects/d3-yolo-16-cache-creek-rehab-project>

- We'd like to hear what you think. If you have any comments about the proposed project, please send your written comments to Caltrans by the deadline.
- Please send comments via U.S. mail to:

California Department of Transportation
North Region Environmental–District 3
Attention: Erin Damm, Environmental Branch Chief-M5
703 B Street
Marysville, CA 95901

- Send comments via e-mail to: 03_2J670_Project_Inbox@dot.ca.gov
- Be sure to send comments by the deadline: September 21, 2026

What happens after this?

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

Accessibility Assistance:

Caltrans makes every attempt to ensure documents are accessible. To obtain a copy in an alternate format other than the one provided, please write to or call Caltrans, Attention: Dennis Keaton Public Information Officer, North Region Environmental-District 3, 703 B Street, Marysville, CA 95501; (916) 825-5252 Voice, or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1- 800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

CACHE CREEK REHABILITATION PROJECT

Rehabilitate pavement, widen shoulders, replace and widen bridges,
replace nonstandard guardrails and road signs
on SR 16 in Yolo County between Post Mile 15.10 (0.1 mile
west of County Road 68) and
Post Mile 20.50 (0.3 mile east of County Road 78A)

INITIAL STUDY with Proposed Mitigated Negative Declaration

Submitted Pursuant to:

State: Division 13, California Public Resources Code

THE STATE OF CALIFORNIA Department of Transportation

08/13/2026

Date of Approval

for

Mundeco Pursual

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

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

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PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, California Public Resources Code

State Clearinghouse Number: (Pending)

Project Description

The California Department of Transportation (Caltrans) proposes the Cache Creek Rehabilitation Project on State Route (SR) 16 in Yolo County between Post Mile (PM) 15.10 (0.1 mile west of County Road 68) to PM 20.50 (0.3 mile east of County Road 78A). This project proposes Resurfacing, Restoration and Rehabilitation (3R) to improve pavement condition and roadway safety. The scope of work includes pavement rehabilitation using full depth reclamation of the entire road surface and base materials to be recycled and reused on site, widen shoulders from 1 to 2 feet, replace and widen the existing bridges with upgraded bridge railings to accommodate standard shoulder width (4-feet to 8-feet depending on the location), replace nonstandard guardrails and end terminals in compliance with the Manual for Assessing Safety Hardware (MASH), replace nonstandard roadside signs, and implement Complete Street (e.g., signs and signals) features where feasible.

Determination

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

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

- Aesthetics
- Agriculture and Forestry Resources
- Cultural Resources
- Geology and Soils

- Land Use and Planning
- Mineral Resources
- Population and Housing
- Recreation
- Transportation
- Tribal Cultural Resources

The proposed project would have *Less than Significant Impacts* to the following CEQA Checklist topics:

- Air Quality
- Energy
- Greenhouse Gas (GHG) Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services
- Utilities and Service Systems
- Wildfire

With the following mitigation measures incorporated, the project would have *Less Than Significant Impacts* to Biological Resources and Mandatory Findings of Significance:

- Caltrans would compensate for permanent impacts to Valley-foothill Riparian, a sensitive natural community, in accordance with permitting requirements set forth by the California Department of Fish and Wildlife (CDFW). Final permit-driven mitigation ratios would be determined by CDFW during the permitting process to fully mitigate project impacts and account for any temporary loss of habitat function. Furthermore, all areas temporarily disturbed by construction activities would receive a permanent erosion control seed mix comprising regionally appropriate native species. Additional onsite revegetation may occur if required by regulatory agencies or environmental permits.

- Temporary and permanent impacts to jurisdictional Waters of the U.S. and State would be minimized to the greatest extent possible. Caltrans would compensate for permanent project impacts to Waters of the U.S. and State in accordance with permitting requirements set forth by the United States Army Corps of Engineers (USACE), the Central Valley Regional Water Quality Control Board (CVRWQCB) and CDFW. Compensation for permit-driven impacts to waters would be done in accordance with permitting requirements; final permit-driven mitigation ratios would be determined by CDFW during the permitting process to fully mitigate project impacts and account for any temporary loss of function.
- Caltrans would compensate for adverse effects through the purchase of Valley elderberry longhorn beetle mitigation credits at a United States Fish and Wildlife Service (USFWS)-approved mitigation bank and transplanting elderberry shrubs to an offsite USFWS-approved bank site. Caltrans would compensate for permanent losses using habitat level compensation. Compensation for permit-driven impacts to Valley elderberry longhorn beetle would be done in accordance with permitting requirements; final permit-driven mitigation ratios would be determined by USFWS during the permitting process through Federal Endangered Species Act (FESA) Section 7 consultation to fully mitigate project impacts.

Mundeco Pursual

for

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

08/13/2026

Date



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Chapter 1. Proposed Project

1.1 Introduction/Project History

Caltrans proposes the Cache Creek Rehabilitation Project located on SR 16 in Yolo County between PM 15.10 (0.1 mile west of County Road 68) to PM 20.50 (0.3 mile east of County Road 78A) (Figures 1 and 2).

Caltrans proposes 3R to improve pavement condition and roadway safety. The scope of work would include pavement rehabilitation using full depth reclamation (FDR) of the entire road surface and base materials to be recycled and reused on site, widen to standard shoulders from 1 to 2 feet, replace and widen the existing bridges with upgraded bridge railings to accommodate standard shoulder width (4 feet to 8 feet depending on the location), replace superelevation nonstandard guardrails and end terminals in compliance with the MASH, replace nonstandard roadside signs, and implement complete street (e.g. signs and signals) features where feasible.

Caltrans, as assigned by the Federal Highway Administration (FHWA), is the lead agency under NEPA. A separate NEPA document will be prepared. Caltrans is the lead agency under CEQA.

Figure 1. Project Vicinity

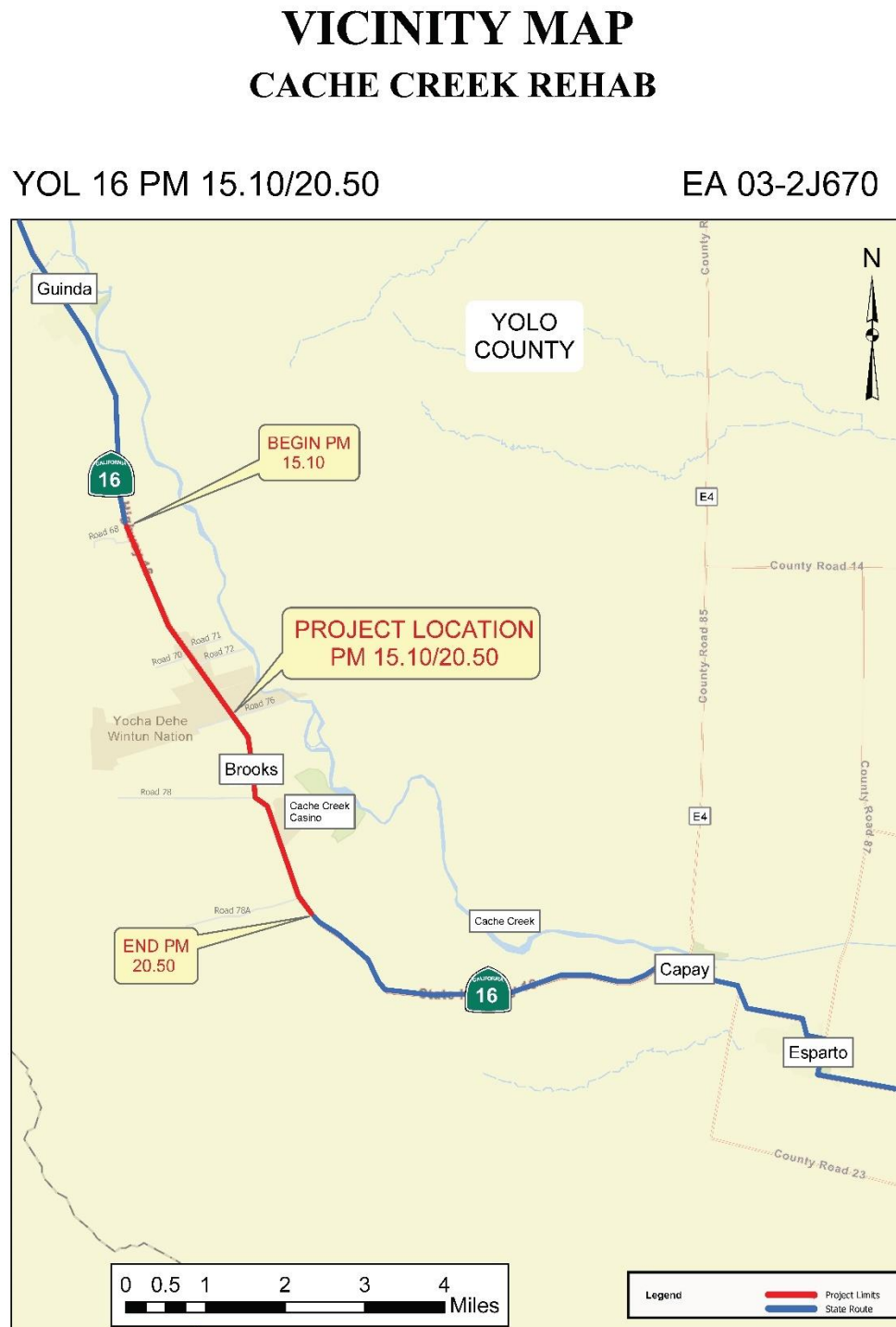
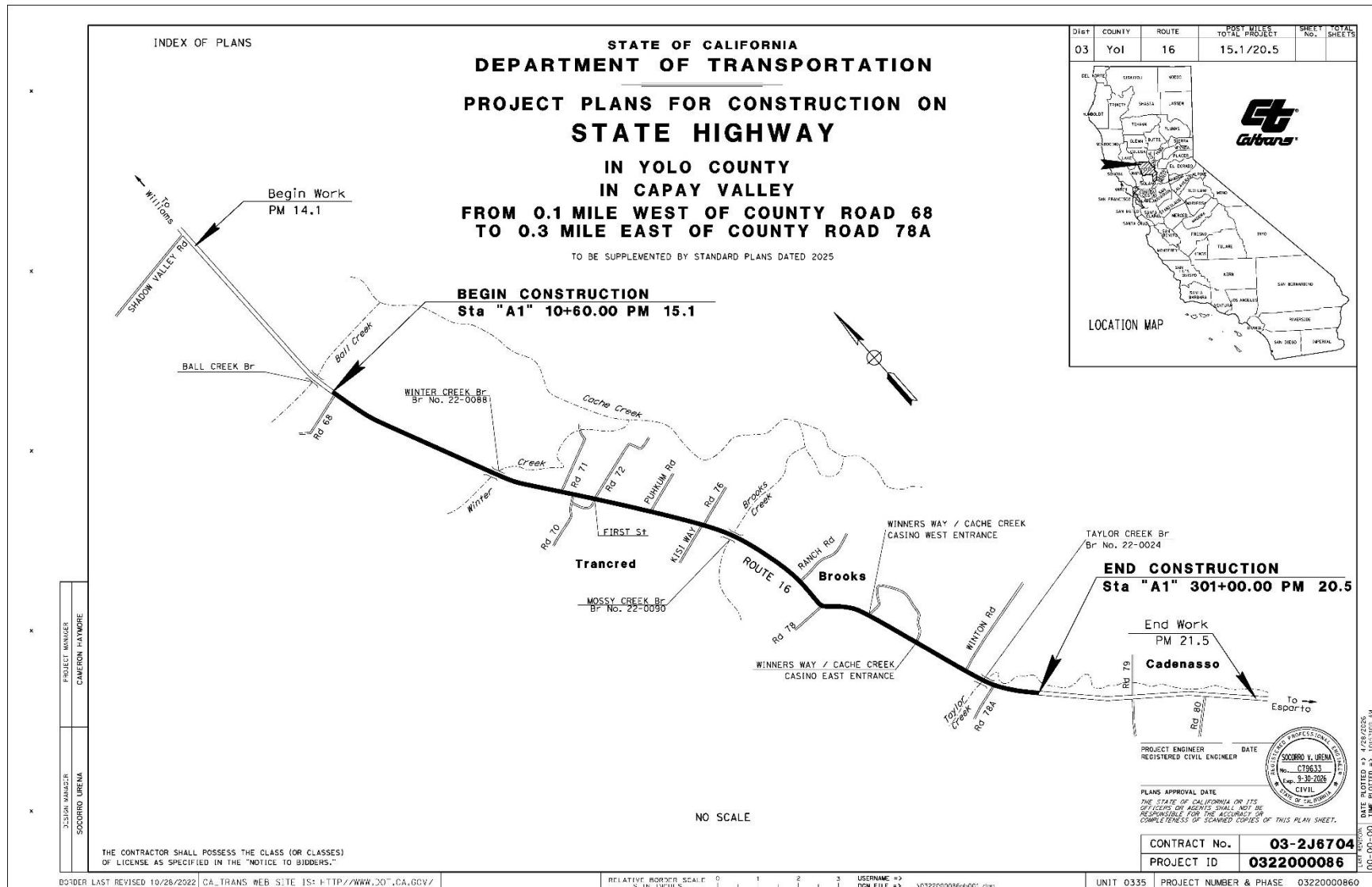


Figure 2. Project Location Map



Within District 3, SR 16 is approximately 74 miles long and runs west to east through open spaces, farmland, and rural areas in Colusa County and Yolo County, and the urban fringes of Sacramento County. SR 16 serves west-east traffic through the western rural area in Yolo County, including the communities of Rumsey, Guinda, Brooks, Esparto and Capay Valley and provides connection to the Cache Creek Casino Resort located near the town of Brooks.

The proposed project area is in Yolo County, outside of the metropolitan area, west of the communities of Woodland and Esparto. The project limits lie within what is informally known as the Capay Valley and passes through the unincorporated community of Brooks. The surrounding environment is predominantly rural and agricultural with significant tribal economic and cultural presence centered around the Yocha Dehe Wintun Nation and the Cache Creek Casino Resort. A planned community with homes, a community center, pool, and a school for tribal members is located on a separate parcel of trust land outside of the project area. The area features a strong agricultural sector (particularly organic farming) alongside the large casino resort which is the county's biggest private employer and a major economic driver. There are no schools, hospitals, or emergency facilities within the project limits. The project is located within the moderate California Department of Forestry and Fire Protection (CAL FIRE) Hazard Severity Zone (FHSZ). According to published geologic maps of the Guida Quadrangle, it appears that the project area is primarily underlain by Quaternary-age sedimentary units consisting of basin deposits, Modesto Formation, and Riverbank Formation, along with minor areas underlain by the Tertiary-age Tehama Formation.

This project is consistent with the latest Caltrans Transportation Corridor Concept Report (TCCR) for SR 16 which is a 20-year planning document that evaluates current and projected conditions along the route and outlines a vision for its development. The proposed project is in both Segments 2 and 3 according to TCCR for SR 16 (TCCR 2012), with a two-lane conventional highway and designated a local Scenic Highway which contains rolling hills, sprawling farmlands, several small communities with low-density residential housing, and the Cache Creek Casino Resort.

The proposed project on SR 16 has a wide variety of users including commuters, recreational travelers, freight truck drivers, and farm equipment operators. As a major destination, the Cache Creek Casino Resort draws a wide range of visitors, employees, and business partners from the larger Sacramento and San Francisco Bay Area. This project will support the ultimate facility concept to improve current and potential safety issues and accommodate future travel projections.

With the proposed shoulder widening, improved superelevation, upgraded non-standard guardrail and end terminals, and widening the existing bridges with upgraded railings, the project proposes to promote traffic safety that allows for improved roadway conditions. Due to the land use of mostly agricultural and isolated residential properties, pedestrian facilities are limited. At Winner's Way, there is an unmarked crosswalk that would be maintained. Pedestrian systems, such as the pedestrian header and Audible Pedestrian Signals (APS) push buttons, would be replaced to promote pedestrian safety.

A total of 23 culverts were identified for replacement due to condition and insufficient size, with all new culverts required to be at least 18 inches in diameter to match the new alignment. Four healthy culverts would be extended to fit the widened roadway. Rock slope protection (RSP) would be added at select locations, especially at the highway low point, to prevent erosion.

Within the project scope the following bridges are proposed to be replaced and constructed.

Winter Creek Bridge (Bridge Number 22-0088) was originally constructed in 1930 and widened in 1960. Winter Creek Bridge is an earth-filled arch bridge that spans a total of approximately 18.5 feet from one abutment to the other.

Taylor Creek Bridge (Bridge Number 22-0024) was originally constructed in 1912 and widened in 1954. Taylor Creek Bridge is an earth-filled arch bridge that spans a total of approximately 30 feet from one abutment to the other.

Mossy Creek Bridge (Bridge Number 22-0090) was constructed in 1954. Mossy Creek Bridge is a three-span reinforced concrete (RC) slab bridge with two piers in the channel supported on piles that spans a total of approximately 67.5 feet from one abutment to the other.

The proposed project would improve access for the communities of Tancred, Brooks, and Cadenasso with the widening of shoulders to a standard 8-foot-wide, upgrading signs, and improving roadway conditions.

The existing 0- to 1-foot-wide shoulders and absent signage for the presence of bicyclists act as significant obstacles to the comfort and safety of cyclists using the facility. As there are relatively few parallel routes for cyclists to use in this location, SR 16 would likely continue to be utilized and would feature adequate safety elements. The proposed 8-foot-wide shoulders would improve multimodal access for pedestrians and cyclists. Cyclists would have the ability to use the full width of the shoulder and, with the installation of roadside signs, would alert motorists of the presence of bicyclists on the roadway.

The improvements would encourage mode shift in the county by lowering the perceived Level of Traffic Stress experienced by users and would expand the county active transportation network, including work on and adjacent to SR 16 and the casino.

1.2 Purpose and Need

Purpose

The purpose of this project is to widen the shoulders to standard width, including at the bridge locations, and to rehabilitate the deteriorated pavement, restoring the facility to a state of good repair. The rehabilitation strategy makes this a 3R (resurfacing, restoration and rehabilitation) project. As a 3R project, in addition to extending the design life of the pavement structure, improvements to highway geometry are considered and included to improve mobility.

Need

According to the 2019 Pavement Condition Summary Report (PaveM), the existing pavement exhibited 8.77% Alligator B cracking in 2019, with projections indicating an increase to 32.75% by 2029. The International Roughness Index (IRI) is expected to rise from 186 inches/mile to 216 inches/mile over the same period. Without this 3R project, pavement conditions will continue to deteriorate. The existing shoulder widths along this segment of SR 16 do not meet current Highway Design Manual (HDM) standards; achieving standard shoulder widths will require bridge widening or replacement. The Winter Creek and Taylor Creek bridges cannot be widened due to structural deficiencies, including active scour, extensive concrete spalling with

exposed reinforcing steel, and low load ratings. Mossy Creek Bridge is structurally capable of being widened to meet the required shoulder width.

Geometric improvements and roadway realignment are also necessary throughout this corridor to improve stopping sight distance on horizontal curves, address significant vertical grade changes, and provide standard shoulder widths. These improvements support mobility and corridor safety.

Safety

Existing shoulders do not meet current shoulder width standards. Multiple guardrails and end terminals do not meet current MASH standards and need to be upgraded.

Signs and Striping

Multiple roadside signs have been identified as requiring replacement to comply with current standards. Striping of lanes are required to meet current standards.

Bridgework

During a 1954 project, the highway was realigned and improved. Winter Creek Bridge at PM 16.38 and Taylor Creek Bridge at PM 20.14 were widened, and Mossy Creek Bridge at PM 18.13 was replaced. To accommodate the current project scope, Winter Creek Bridge and Taylor Creek Bridge would be replaced, and Mossy Creek Bridge would be widened.

Replace Winter Creek Bridge and Taylor Creek Bridge: due to their current structural integrity, age, and condition, Winter Creek Bridge and Taylor Creek Bridge are overdue to be replaced. Winter Creek Bridge and Taylor Creek Bridge have experienced scouring leading to the exposure of the foundation; the proposed bridges would address the channel and bridge integrity.

Widen Mossy Creek Bridge: Mossy Creek Bridge is a three span Cast-in-Place continuous RC slab with reinforced concrete piles on open diaphragm type abutment. The bridge is a candidate for widening; it has sufficient foundation and ability to be widened with additional piles and widened reinforced concrete slab.

Culverts

Multiple culverts would be replaced in different locations. During a field visit with Design, District Hydraulics provided their recommendations for each location. If a culvert was found to be structurally deficient, it was automatically flagged for replacement. Due to shoulder widening, the ditch flowline must be pushed out approximately 4 to 5 feet; as a result, every culvert within the system would need to be replaced to the new ditch flowline. Due to their current conditions and insufficient size within the widening, 23 culverts have been identified to be replaced. All culverts must be at least 18 inches in diameter minimum to allow for proper drainage and maintenance purposes. Four culverts were proposed to be extended. While they were found to be healthy, due to the widening they must be extended to accommodate the new catch point. To address sediment buildup or to maintain the opening within the right of way, four headwalls were proposed. RSP was selected at certain locations to limit erosion, most importantly at the low point within the highway.

1.3 Project Description

This section describes the proposed action, and the project alternatives developed to meet the purpose and need of the project, while avoiding or minimizing environmental impacts. The alternatives are described in the “Proposed Build Alternative” and the “No-Build Alternative”.

1.4 Proposed Alternatives

This project examined two alternatives—the proposed Build Alternative and No-Build (No Action) Alternative.

Proposed Build Alternative

The proposed Build Alternative proposes to rehabilitate and extend the pavement service life by addressing existing pavement in fair and poor condition; bring shoulders to current standard; replace two bridges and widen one bridge; upgrade existing guardrails and end terminals; and upgrade roadside sign panels and striping to meet current standards as follows. Throughout the project limits, the following work will result in disturbed soil areas. Added pavement, culvert modifications and bridgework will all disturb soil either permanently or temporarily due to construction activities.

Pavement

Pavement work would occur from the beginning of the project limits at PM 15.10 to PM 18.95 and from PM 19.40 to the end of the project limits (PM 20.50). Shoulder widening would increase the amount of impervious surface by 7.82 acres within the project limits.

Eastbound and Westbound: PM 15.10 to PM 17.34

- Recycle existing pavement structure by the FDR strategy with Foamed Asphalt (FA) for a depth of 0.70 feet.
- Overlay 0.20 feet Rubberized Hot Mix Asphalt-Gap-Graded (RHMA-G).
- Widen existing outside shoulders from to 4 feet.
 - Saw cut along the Edge of Traveled Way (ETW) and remove section to edge of pavement (EP).
 - Construct new shoulders with Full Depth Reclamation Foam Asphalt (FDR-FA):
 - Excavate 0.80 feet by 4-feet-wide new shoulder area.
 - Compact the native material in excavation area.
 - Cold plane 0.20 feet of mainline AC (Recycled Asphalt Pavement (RAP)).
 - Place and compact the 0.60 feet of the RAP in the excavated shoulder area.
 - FDR-FA the mainline and shoulder area.
- Conform pavement at the intersections and bridges.
- Place imported material shoulder backing at the outside edge of shoulders, as needed.
- Restripe lanes and shoulders with new 6 inch Enhanced Wet Night Visibility Thermoplastic Traffic Stripes (EWNVTTS), pavement markings and retroreflective pavement markers.

Eastbound and Westbound: PM 17.34 to PM 18.95

- Recycle existing pavement structure by the FDR strategy with FA for a depth of 0.70 feet.

- Overlay 0.20 feet RHMA-G.
- Widen existing 1- to 4-foot-wide outside shoulders to 8-foot-wide.
 - Saw cut along the ETW and remove section to EP.
 - Construct new shoulder pavement structure consisting of:
 - 0.20 feet RHMA-G.
 - 0.55 feet Hot Mix Asphalt Type A (HMA-A).
 - 0.50 feet Class II Aggregate Base (AB).
 - Subgrade Enhancement Geogrid (SEGG) (Bi-Axial).

Partial Realign Highway 16 from PM 17.96 to PM 18.12

Realign State Route 16 from PM 18.35 to PM 18.53

- New construction follows shoulder widening structural section.
- Conform pavement at the intersections and bridges.
- Place imported material shoulder backing at the outside edge of shoulders, as needed.
- Restripe lanes and shoulders with new 6 inch EWNVTTS, pavement markings and retroreflective pavement markers.

Eastbound and Westbound: PM 18.95 to PM 19.71

- Cold plane from EP to EP to a depth of 0.40 feet.
- 0.20 feet RHMA-G and 0.20 feet HMA-A.
- Repair locations of severe existing asphalt pavement failure with digouts.
- Place imported material shoulder backing at the outside edge of shoulders as needed.
- Restripe lanes and shoulders with new 6 inch EWNVTTS, pavement markings and retroreflective pavement markers.

Eastbound and Westbound: PM 19.71 to PM 20.50

- Recycle existing pavement structure by FDR strategy with FA for a depth of 0.70 feet.
- 0.20 feet RHMA-G and 0.25 feet HMA-A.
- Widen existing outside shoulders to 8 feet.
 - Saw cut along the ETW and remove section to EP.
 - Construct new shoulder pavement structure consisting of:
 - 0.20 feet RHMA-G.
 - 0.55 feet HMA-A.
 - 0.50 feet Class II AB.
 - SEGG (Bi-Axial).
- Conform pavement at the intersections and bridges.
- Place imported material shoulder backing at the outside edge of shoulders, as needed.
- Restripe lanes and shoulders with new 6 inch EWNVTTS, pavement markings and retroreflective pavement markers.

Structures

Replace/Widen the following bridges due to shoulder widening:

- Replace Winter Creek Bridge No. 22-0088 at PM 16.38
- Widen Mossy Creek Bridge No. 22-0090 at PM 18.13
- Replace Taylor Creek Bridge No. 22-0024 at PM 20.14

Drainage

- Extend drainage cross culverts due to shoulder widening, as needed.
- Reconstruct drainage ditches due to the shoulder widening. Replace driveway culverts with 18 inch diameter Corrugated Steel Pipe (CSP) or RSP as needed.
- Acquire permanent drainage easements for drainage facilities maintenance as needed.

- Table 1 indicates the locations of culverts that have been identified as needing extension or replacement.

Table 1. Culverts Needing Extension or Replacement

Post Mile	Type	Material	Existing Diameter (inches)	Proposed Work
15.40	Arch	CSP	21 x 12	Driveway culvert. Replace arch culvert with 18 inch diameter x 24-foot-long RCP.
15.44	Circular	CSP	18	Driveway culvert. Replace with 18 inch diameter x 36-foot-long RCP.
15.74	Circular	CSP	24	Driveway culvert. Replace (upsized) with 18 inch diameter x 42-foot-long RCP.
15.93	Circular	Concrete	24	Replace with 24 inch diameter x 48-foot-long RCP. Install RSP = 4 CY Install RSP fabric = 9.5 SQYD Install concrete flared end section (FES) for a 24-inch-wide culvert.
15.93	Circular	CSP	24	Replace with 24 inch diameter x 48-foot-long RCP. Install concrete FES for a 24-inch-wide culvert.
15.93	Circular	Concrete	18	Replace (upsized) with 24 inch diameter x 48-foot-long RCP. Install concrete FES for a 24-inch-wide culvert.
15.93	Circular	Concrete	18	Replace (upsized) with 24 inch diameter x 48-foot-long RCP. Install concrete FES for a 24-inch-wide culvert.
16.70	Circular	CSP	12	Driveway culvert. Replace (upsized) with 18 inch diameter x 92-foot-long RCP. Ditch excavation = 50 LF Install two (2) concrete FES for an 18-inch-wide culvert.
16.75	Circular	CSP	12	Driveway culvert. Replace (upsized) with 18 inch diameter x 84-foot-long RCP. Ditch excavation = 24 LF Install two (2) concrete FES for an 18-inch-wide culvert.
16.76	Circular	CSP	18	Driveway culvert. Replace with 18 inch diameter x 56-foot-long RCP. Install two (2) concrete FES for an 18-inch-wide culvert.
16.81	Circular	CSP	18	Driveway culvert. Replace with 18 inch diameter x 82-foot-long RCP. Ditch excavation = 24 LF
16.92	Circular	CSP	12	Driveway culvert. Replace (upsized) with 18 inch diameter x 82-foot-long RCP.

Post Mile	Type	Material	Existing Diameter (inches)	Proposed Work
				Ditch excavation = 24 LF Install two (2) concrete FES for an 18-inch-wide culvert.
16.92	Arch	CSP	21 x 12	Driveway culvert. Replace arch culvert with 18 inch diameter x 42-foot-long RCP. Install two (2) concrete FES for an 18-inch-wide culvert.
17.14	Arch	CSP	42 x 29	Culvert with 42-inch-wide x 29-inch-tall x 15-foot-long CSP Install headwall = 8.6 CY Ditch excavation = 100 LF
17.14	Arch	CSP	42 x 29	Extend culvert with 42-inch-wide x 29-inch-tall x 15-foot-long CSP.
17.14	Arch	CSP	42 x 29	Extend culvert with 42-inch-wide x 29-inch-tall x 15-foot-long CSP
17.51	Circular	CSP	12	Driveway culvert. Replace (upsized) with 18 inch diameter x 20-foot-long RCP.
18.17	Circular	PVC	12	Driveway culvert. Replace (upsized) with 18 inch diameter x 30-foot-long RCP.
18.34	Circular	Concrete	60	Replace with 60 inch diameter x 58-foot-long RCP. Replace headwall = 9.24 CY Install RSP = 6 CY Install RSP fabric = 12.6 SQYD
18.59	Circular	CSP	12	Replace (upsized) with 18 inch diameter x 56-foot-long RCP. Replace drainage inlet = 1.1 CY
18.66	Circular	Concrete	30	Extend both sides (6 feet each side). Replace two (2) concrete FES for a 30 inch diameter culvert.
19.71	Circular	Concrete	24	Replace (upsized) with 30 inch diameter x 51-foot-long RCP. Replace headwall = 3.7 CY Install RSP = 4 CY Install RSP fabric = 9.3 SQYD
20.38	Circular	CSP	18	Replace with 18 inch diameter x 48-foot-long RCP. Install two (2) concrete FES for an 18-inch-wide culvert.

CSP: Corrugated Street Pipe; CY: Cubic Yard; FES: Flared End Section; LF: Linear Feet; PVC: Polyvinyl Chloride; RCP: Reinforced Concrete Pipe; RSP: Rock Slope Protection; SQYD: Square Yard

Signs

- There are numerous signs within the project limits which may require replacement to meet current standards.

Safety

- Replace all metal beam guardrail with steel post Midwest Guardrail System (MGS) and appropriate end treatments to current MASH standards to meet minimum length as needed.
- Upgrade three-beam barriers and bridge approach guardrails to meet MASH standards.
- Place 12 inch centerline and shoulder rumble strips within the project limits.
- Place pavement edge treatment within the project limits as needed.

Signal Modifications

Winners Street

- Install Hybrid Video Detection System (HVDS).
- Install Type-2 camera for Traffic Signal System.
- Reset or replace Caltrans pull box and electrical cabinets.
- Replace Loop Medium and Advance Loop Detectors.
 - Type C loop detectors at limit line would be abandoned due to the new HVDS.

Traffic Management System

- Install one (1) Microwave Vehicle Detection System (MVDS) at PM 17.74.
- Install one (1) maintenance vehicle pullout (MVP) for new MVDS at PM 17.74, and two (2) MVP for existing flashing beacon at PM 18.95 and PM 19.80.
- Upgrade Flashing Beacon System at PM 18.03.

Americans with Disabilities Act and Complete Streets

- Install Share the Road and Bike Route sign where appropriate along the roadway within the project limits.

- Replace APS push buttons.

Right of Way

The Build Alternative would result in permanent and temporary property right of way acquisitions from private, public, and tribal lands. Varying sizes of land to be acquired are adjacent to the existing SR 16 right of way where vegetation removal and earthwork would be completed to accommodate project features and road surface widening. These acquisitions would not displace any residents.

Design Standards Risk Assessment

The proposed improvements include nonstandard design features as well as perpetuating existing nonstandard features within this corridor. A Design Standard Decision Document would be prepared prior to completing the Preliminary Assessment and Environmental Determination. The new and proposed non-standard features include:

Design Standards – HDM

- Index 201.1 – Stopping Sight Distance Standards
- Index 202.2(1) – Standards for Superelevation
- Index 202.2 – Superelevation for Same Plane for Rural Two-Lane Roads
- Index 203.1 – Horizontal Alignment and Stopping Sight Distance
- Index 204.3 – Standards for Grade
- Index 204.3 – Standards for Grade, Min. grade of 0.3%
- Index 204.4 – Vertical Curves – 2% and Greater
- Index 204.4 – Vertical Curves – Less Than 2%
- Index 304.1 – Side Slopes 4:1 or Flatter
- Index 309.1(2) – Clear Recovery Zone – 4:1 or Flatter Apply on All Highways
- Index 309.1(2)(a) – Existing Above-Ground Utilities and Existing Large Trees
- Index 309.1(2)(b) – Discretionary Fixed Objects

Construction Methods

Bridge Construction

Geotechnical subsurface information was gathered September 2025 (Caltrans 2025). Construction of the new Winter Creek Bridge, Taylor Creek Bridge, and widening of the Mossy Creek Bridge would begin with tree and vegetation removal adjacent to the current bridge and the temporary access road for Mossy Creek Bridge. Riparian vegetation along stream banks and near culvert inlets/outlets is anticipated to be trimmed and/or removed to clear space for bridge and culvert work. Cranes, excavators, drill rigs, loaders, millers, forklifts, concrete pump trucks, and dump trucks and other construction equipment would be mobilized to the sites. All areas disturbed by construction activities would be restored to preconstruction conditions and receive a permanent erosion control seed mix comprising regionally appropriate native species. Additional onsite revegetation would occur if required by environmental permits.

Winter Creek Bridge

A full-width bridge replacement method would be used. One-lane traffic would be detoured around the new bridge construction on a temporary road which will be constructed to the west of the existing Winter Creek Bridge, next to the eastbound side of SR 16. Winter Creek Bridge would be removed completely within approximately 5 working days. The fill material (soil) for abutment slopes and the access roadway would be utilized for the new bridge. Access for bridge construction would likely be on the westbound side of SR 16 (east side of Winter Creek Bridge). An access road leading down into the creek channel would be constructed to provide access for small construction equipment (such as bobcats that are used to gather debris from the removal of the old bridge), to place fill material (soil) for slopes, to put in abutments, and for grading of the creek banks. Falsework is expected to be constructed within the creek channel to provide construction access to the new bridge. Precast or cast-in-place (slab/deck) to support the superstructure would then be installed. Following construction of the bridge abutments, the bridge superstructure would then be installed/constructed. No piles or pier walls are anticipated as the bridge would span the creek; therefore, only abutments would be constructed. The new bridge would span approximately 35.5 feet, and the abutments would be outside of the creek channel. RSP may be placed below the bridge deck to protect disturbed soil areas from erosion. An existing railroad culvert adjacent to the highway, no longer in active railroad use, will be retrofitted to accommodate

construction traffic, allowing vehicles to traverse the structure and re-enter the highway beyond the bridge construction area. An HMA-A overlay would be added for the deck and K-rail/temporary barrier system would be placed for motorist safety. A temporary traffic control system would be set up on each side to allow for one-lane traffic to continue uninterrupted. All temporary traffic controls and systems would be removed after construction and temporary roadways would be removed and restored to original condition.

Taylor Creek Bridge

Taylor Creek Bridge would be removed. The new bridge would be constructed using new fill material (soil) for slopes and the roadway. Precast or cast-in-place (slab/deck) for the superstructure would then be installed. Following construction of the bridge abutments, the bridge superstructure would then be installed/constructed. No piles or pier walls are anticipated as the new bridge would span the creek; therefore, only abutments would be constructed. The new bridge span would be 44-foot-wide x 80-foot-long, and the abutments are anticipated to be outside of the creek channel. A temporary two-lane road and bridge would be constructed on the eastbound side of SR 16 (west of the current bridge) to connect directly to County Road 78A without disrupting the existing access, flow, or functionality of the county road. The temporary bridge would be a single span bridge with the abutments cutting into the top of the creek bank. No piles or pier walls are anticipated for the temporary bridge. An access road leading down into the creek channel would be constructed to provide access for small construction equipment (such as bobcats that are used to gather debris from the removal of the old bridge), to place fill material (soil) for slopes, to put in abutments, and for grading of the creek banks. Falsework is expected to be constructed within the creek channel to provide construction access to the new bridge. Rock slope protection may be placed below the bridge deck to protect disturbed soil areas from erosion.

Mossy Creek Bridge

The work at Mossy Creek Bridge would include widening an approximately 32-foot-wide bridge (existing width of Brook Creek) to a 44-foot-wide bridge by widening on east side of the bridge and the alignment of the travel lanes will be shifted accordingly. Four new 24 inch diameter piles would be constructed within the creek to support the widened bridge. Small construction equipment (such as bobcats) are anticipated to be within the creek channel to widen the bridge abutments, form the new piers, and recontour the channel. The work at Mossy Creek would be

constructed in two stages. Temporary falsework would be required to construct the new widened section of the bridge and is also anticipated to be within the creek channel. The concrete walls at the abutments would then be constructed. The existing bridge pavement would be removed and replaced. A temporary staging area would be necessary for concrete pouring and heavy equipment for the placement of the new driven piles. Clearing and grubbing would be required for site preparation and potential channel grading. Affected locations would be revegetated after completion in accordance with project revegetation guidelines. Continuous two-way traffic control would be maintained through the duration of construction. Traffic would be moved over after completion of the east side. Traffic queues are expected with delays minimized as much as possible.

Bridge Construction Schedule

It is anticipated there would be 150 working days to complete all bridge work. Based on projected plans, Winter Creek Bridge would require approximately 89 working days, Taylor Creek Bridge would require approximately 100 working days, and Mossy Creek Bridge would require approximately 122 working days. Bridge construction would be done simultaneously and would, at most, occur through two summer seasons, anticipated to begin July 28, 2028, and end September 29, 2029.

No-Build (No-Action) Alternative

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

1.5 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction (Table 2).

Table 2. Agency, Permit/Approval Needed and Status

Agency	Permits, Licenses, Agreements and Certifications	Status
U.S. Army Corps of Engineers	Clean Water Act Section 404— Nationwide Permit 14 for work in Waters of the U.S.	Application process anticipated to begin 2027
U.S. Fish and Wildlife Service (USFWS)	Biological Opinion for Valley elderberry longhorn beetle	Formal consultation process anticipated to begin Spring of 2026 when Biological Assessment is submitted for review to USFWS
California Department of Fish and Wildlife	Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement for work in channels and associated riparian habitat	Application process anticipated to begin 2027
Central Valley Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	Application process anticipated to begin 2027

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 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 Section 1.6.

Aesthetics/Visual Resources

The following measures would further reduce the visual effect of the project and enhance the project's visual compatibility with the surrounding environment. The measures do not supersede any project-specific Aesthetics/Visual Resources environmental commitments specified in the environmental document. When applicable, these measures would be implemented through project plans, specifications, and special provisions:

- AR-1:** Aesthetic/visual treatment (such as tribal patterns, colors, texture) to bridges/guardrails/retaining walls would be included to address context sensitivity, where feasible.
- AR-2:** 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-3:** Where feasible, guardrail terminals would be buried; otherwise, an appropriate terminal system would be used, if appropriate.
- AR-4:** Where feasible, construction lighting would be temporary, and directed specifically on the portion of the work area actively under construction. Use of artificial lighting would be limited to California Division of Occupational Safety and Health (Cal/OSHA) work area lighting requirements.
- AR-5:** Where feasible, the removal of established trees and vegetation would be minimized. Environmentally sensitive areas would have Temporary High Visibility Fencing (THVF) installed before start of construction to demarcate areas where vegetation would be preserved and root systems of trees protected Caltrans Standard Specification (SS) 14-1.02.
- AR-6:** To ensure vegetation control would be visually compatible with the scenic corridor, provide integral colored or stained Vegetation Control (minor concrete) at all guardrail replacement locations, as feasible. The color and application method would be determined during the final design phase of the project.

Air Quality

- AQ-1:** The construction contractor must comply with Caltrans SS which require compliance by the contractor with all applicable laws and regulations related to air quality, including the Yolo-Solano Air Quality Management District regulations and local ordinances.
- AQ-2:** Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by California Code of Regulations (CCR) Title 17, Section 93114.
- AQ-3:** A *Dust Control Plan* comply with Caltrans' SS in Section 10-5 "Dust Control," Section 14-9 "Air Quality" and Section 18 "Dust Palliatives" (Caltrans 2024) will be developed documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes as needed to minimize construction impacts to existing communities. Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to reduce PM emissions. Water or a dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. 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-4:** Environmentally sensitive areas will be established near sensitive air receptors (e.g., near a school, hospital, nursing home, etc.). Within these areas, construction activities involving the extended idling of diesel equipment or vehicles will be prohibited, to the extent feasible.

Biological Resources**BR-1: General**

Before start of work, as required by permit or consultation conditions, a Caltrans biologist or Environmental Construction Liaison 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. Environmental

Awareness Training may be provided by the project biologist or contractor-supplied biologist.

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 construction activities paused for a period of time in excess of 10 days, then another survey would be required before work could resume. If an active nest is located, appropriate 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.
- B. A Bird Exclusion Plan would be prepared by a qualified biologist prior to construction if an active nest is found within the project limits. 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 (September 16 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 15 with biologist discretion) to prevent their occupation. Nest removal would be repeated weekly, or as needed to prevent active nesting, 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.

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 (Northern Region) (CDFW 2022) for all field gear and equipment in contact with water (SS 14-6.05).

BR-4: Plant Species

- A. Prior to the start of work, THVF and/or flagging would be installed around sensitive natural communities, environmentally sensitive habitat areas, rare plant occurrences, intermittent streams and wetlands and other waters, where appropriate. No ground-disturbance work would occur within fenced/flagged areas.
- B. Upon completion of construction, all superfluous construction materials would be completely removed from the site. The site would then be restored to a natural contour 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 or environmental permits.

BR-5: Wetlands and Other Waters

- A. Prior to any creek diversion, the contractor would be required to prepare and submit a Temporary Creek Diversion System Plan to Caltrans for approval (SS 13-12.01). Depending on site conditions, the plan may also require specifications for the relocation of sensitive aquatic species. Water generated from the diversion operations would be pumped and discharged according to the approved plan and applicable permits.
- B. See BR-4 for THVF information.

Cultural Resources

- CR-1:** A Yocha Dehe Wintun Nation tribal monitor may be present during ground-disturbing activities.
- CR-2:** 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.
- CR-3:** 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 United States Code (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.

Geology and Seismic/Topography

GS-1: The project would be designed to minimize slope failure, settlement, and erosion using recommended construction techniques and BMPs. New earthen slopes would be vegetated to reduce erosion potential. ***GHG Emissions***

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

GHG-2: Compliance with Title 13 of the 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 SS "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 Carbon dioxide (CO₂). This replanting would help offset any potential CO₂ emissions increase.

GHG-6: Bicycle access would be maintained on SR 16 during project activities.

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:** When identified as containing hazardous levels of lead, traffic stripes would be removed and disposed of in accordance with Caltrans Standard Special Provision (SSP) “Remove Yellow Traffic Stripes and Pavement Markings with Hazardous Waste Residue” (SSP 14-11.12).
- HW-3:** 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 SSP 14-11.14 “Treated Wood Waste.”
- HW-4:** If asbestos-containing material is removed during this project, it would be removed and disposed of in accordance with SSP 14-11.10 Naturally Occurring Asbestos and SSP 14–11.16 Asbestos-containing Construction Materials in Bridges”.

Hydrology and Floodplain

- HF-1:** The proposed bridges would maintain a similar elevation above the ordinary high-water mark (OHWM) as the existing bridges, and no new structures would be placed in the channel bed except at Mossy Creek Bridge where 4 bents would be placed due to the widening which would not result in a substantial backflow during a flood event.
- HF-2:** Existing bridge pilings at Winter Creek bridge and Taylor Creek bridge would be removed to 1 foot below the ground line or 3 feet below finished grade, whichever is lower below bed of channel, that would reduce resistance and blockage of water moving downstream in a flood event.

Noise

- N-1:** Control and monitor noise resulting from work activities. Do not exceed 86 dB Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. (SS 14- 8.02 Noise Control).

Paleontology

- PAL-1:** Workforce Education. Prior to construction, environmental training would be provided to workers regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities. This training may be combined with other environmental training for the project, provided that the program elements pertaining to paleontological resources are provided by a qualified instructor meeting applicable professional standards.
- PAL-2:** Paleontological Monitoring. In accordance with Caltrans Standard Provision (SP) "Paleontological Resources" (SP 14-7), areas where native soil will be disturbed and geologic units have been assigned a high level of paleontological sensitivity, full-time monitoring would be recommended. Monitoring must be performed by a qualified paleontological resources monitor. The monitor would have authority to temporarily divert equipment while evaluating and removing fossils. If fossils are encountered during construction, it is paleontologist who can evaluate the nature and scientific significance of the find to determine if recovery would be necessary. The monitor should be properly equipped to facilitate rapid removal of specimen. Once discovered, fossils would be salvaged by the monitor in an appropriate manner.
- PAL-3:** In the unlikely event that paleontological resources (fossils) are encountered, all work within a 60 foot radius of the discovery would stop, the area would be secured, and the work would not resume until appropriate measures are taken.
- PAL-4:** *Paleontological Mitigation Plan.* A Paleontological Mitigation Plan (PMP) would be prepared by the project paleontologist. A PMP is prepared when it has been determined that a high paleontological potential geologic unit will be impacted by a project and avoidance or minimization are not

feasible or adequately effective. The plan provides detailed information about the implementation of mitigation fieldwork (construction monitoring, fossil recovery), laboratory techniques for fossil preparation and identification, and the designation of a curation (repository) facility to receive the fossils. The level of detail included in the PMP may vary due to project-specific considerations, but the PMP should always provide sufficient information to guide on-the-ground execution.

Traffic and Transportation

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

Utilities and Emergency Services

- UE-1:** All emergency response agencies in the project area would be notified of the project construction schedule and would have access to SR 16 throughout the construction period.
- UE-2:** The project is located within the moderate CAL FIRE FHSZ. The contractor would be required to submit a jobsite Fire Prevention Plan as required by Cal/OSHA before starting job site activities. In the event of an emergency or wildfire, the contractor would cooperate with fire prevention authorities.

Water Quality and Stormwater Runoff

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

Before any ground-disturbing activities, the contractor would prepare a Stormwater Pollution Prevention Plan (SWPPP) (per the Construction General Permit Order 2022-0057-DWQ) or Water Pollution Control

Program (WPCP) (projects that result in a land disturbance of less than one acre) that includes erosion control measures and construction waste containment measures to protect Waters of the State during project construction. For SWPPP projects (which are governed according to both the Caltrans NPDES permit and the Construction General Permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES and CGP and the corresponding requirements of those permits are adhered to. For WPCP projects (which are governed according to the Caltrans NPDES permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES permit is adhered to.

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

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

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

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

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

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

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

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

1.7 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with CEQA and other state laws and regulations. Separate environmental documentation supporting a Categorical Exclusion determination will be prepared in accordance with 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 USFWS – in other words, species protected by the Federal Endangered Species Act.

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 Forestry Resources	No
Air Quality	Yes
Biological Resources	Yes
Cultural Resources	No
Energy	Yes
Geology and Soils	No
Greenhouse Gas Emissions	Yes
Hazards and Hazardous Materials	Yes
Hydrology and Water Quality	Yes
Land Use and Planning	No
Mineral Resources	No
Noise	Yes
Population and Housing	No
Public Services	Yes
Recreation	No
Transportation	No
Tribal Cultural Resources	No
Utilities and Service Systems	Yes
Wildfire	Yes
Mandatory Findings of Significance	Yes

The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the project will indicate there are no impacts to a particular resource. A “NO IMPACT” answer in the last column of the checklist reflects this determination. The words “significant” and “significance” used throughout the CEQA Environmental Checklist are only related to potential impacts pursuant to CEQA. The questions in the CEQA Environmental Checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, as well as standardized measures that are applied to all or most Caltrans projects (such as BMPs and measures included in the Standard Plans and Specifications or as SSP [Section 1.6]), 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 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 its 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 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 ND 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 BMPs. These measures can also be identified after the Initial Study/ND 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 PM 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.

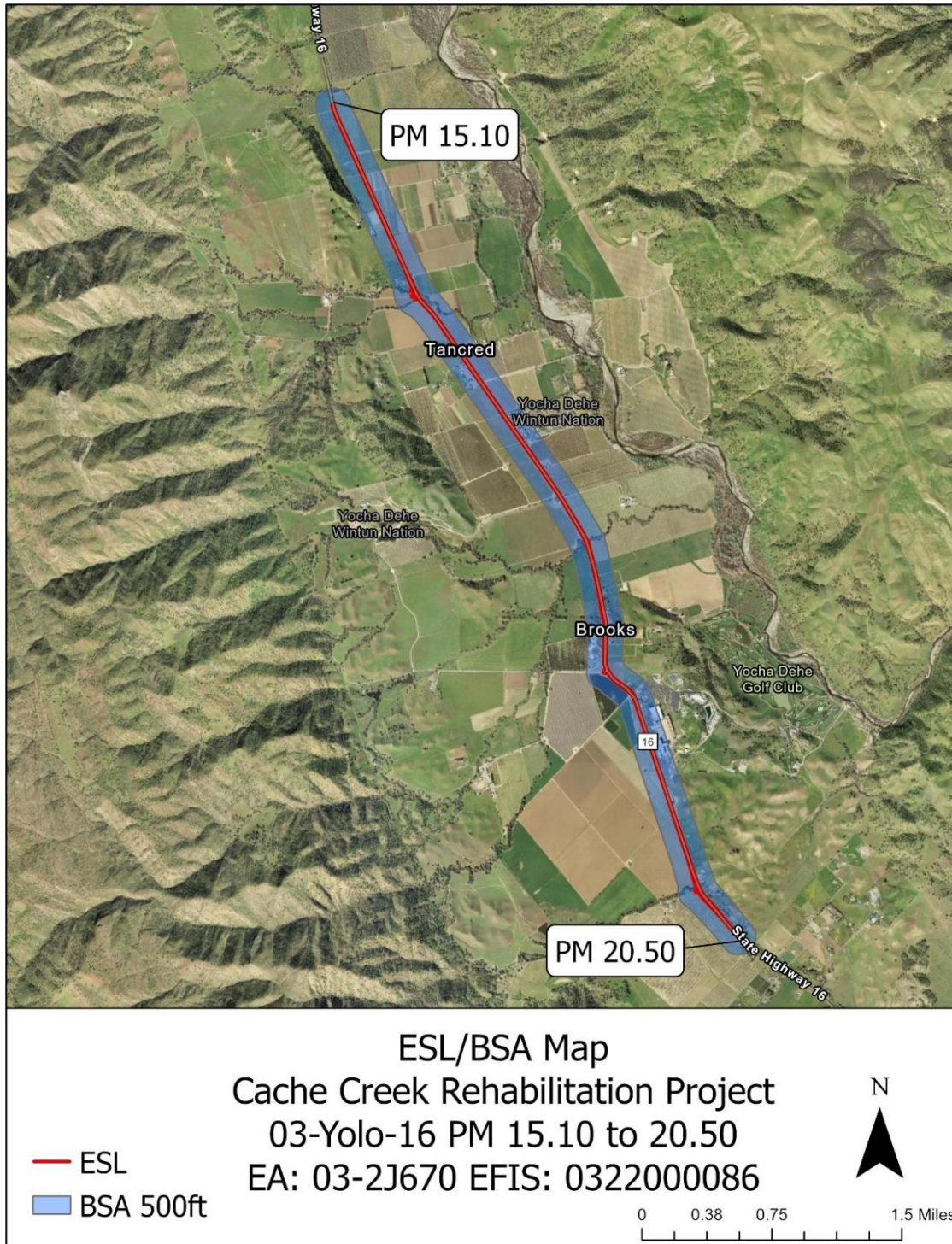
Project Footprint: The area within the Environmental Study Limits (ESL) the project is anticipated to impact, both temporarily and permanently. This includes staging and disposal areas.

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.). Depending on resources in the area, a project could have multiple BSAs. Each BSA should be identified and defined. If the project is within the Coastal Zone, this area would also include the required 100 foot buffer.

The BSA of the project includes a 500 foot buffer as a standard for raptors beyond the ESL (Figure 3 below).

Figure 3. ESL and BSA



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 proposed project, as well as the Visual Impact Assessment dated November 17, 2025 (Caltrans 2025a). Potential impacts to the visual characteristics of the environmental setting are not anticipated as the proposed project would be visually compatible with the existing infrastructure and would not impact the visual characteristic of the existing environment such as scenic vistas, scenic resources and public views. The project proposes to improve pavement conditions and roadway safety. With the proposed shoulder widening, improved superelevation, upgraded guardrail and end terminals, proposed project scope would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

2.2 Agriculture and Forestry Resources

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

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No	No	No	Yes
Would the project: b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No	No	No	Yes
Would the project: c) Conflict with existing zoning for, or cause rezoning of forest land (as defined by Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	No	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: d) Result in the loss of forest land or conversion of forest land to non-forest use?	No	No	No	Yes
Would the project: e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, as well as the California Department of Conservation Farmland Maps (California Department of Conservation 2010) and the Land Use Zoning Data from Yolo County General Plan–Agriculture and Economic Development (County of Yolo 2024a).

Potential impacts to agriculture and forestry resources are not anticipated since there is no farmland or forest land within the project area and there is no conversion of farmland or forest land to highway use. There are no parcels under a Williamson Act contract within the project area. The project would not change zoning for any agricultural land. Therefore, the project would not conflict with the existing zoning for agricultural use or any Williamson Act contracts.

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	Yes	No
Would the project: d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No	No	Yes	No

Regulatory Setting

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

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

Affected Environment

The Air Quality Report (Caltrans 2025b) was completed for the proposed project based on the scope, timeline of construction, traffic data, and topography of the project area. This proposed project is exempt from all air quality conformity analysis requirements per Table 2 of 40 CFR § 93.126, subsection “Safety” (“Pavement resurfacing and/or rehabilitation”) and no further air quality analysis is required under NEPA. The proposed project is located within the regulations administered by Yolo Solano Air Quality Management District.

Environmental Consequences

The proposed project is not a capacity-increasing transportation project. The proposed modifications would not result in changes to the traffic volume, fleet mix, speed, location of existing facility, or any other factor that would cause an increase in emissions relative to the No-Build Alternative; therefore, this project would not cause an increase in operational emissions. During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other construction-related activities. Construction activities are expected to increase traffic congestion in the area, resulting in increases in emissions from traffic during the delays. However, these emissions would be temporary and limited to the immediate area surrounding the construction site. Caltrans Standard Measures and BMPs outlined in Section 1.6 would be implemented to avoid and minimize air quality impacts from construction activities.

Avoidance, Minimization and Mitigation Measures

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 would not conflict with any air quality plan. The proposed project would extend the service life of the existing highway and bridges to enhance overall safety. The project would not result in changes to the normal operational traffic volume, fleet mix, speed, approximate location of existing facility, or any other factor that would cause an increase in emissions relative to the No-Build Alternative. This project would not cause an increase in operational emissions that affect quality standards. Therefore, no impact would be anticipated to any air quality plan.

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 project would not result in increases of criteria pollutants. The project is exempt from regional conformity requirements per 40 CFR 93.127. Therefore, there would be no impact.

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

Less Than Significant Impact. Sensitive receptors include residential areas, schools, hospitals, other health care facilities, child/day care facilities, parks, and playgrounds which are not within or adjacent to the proposed project. Based on the Air Quality Report (Caltrans 2025b), the proposed project would not generate/expose sensitive receptors to substantial pollutant concentrations. The project would result in temporary construction emissions, construction dust, and equipment exhaust; however, are not considered substantial. With implementation of the Standard Measures and BMPs and special provisions during all phases of construction outlined in Section 1.6, impacts would be less than significant.

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. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Temporary construction activities could generate fugitive dust from the operation of construction equipment (Caltrans 2025b). Bridge work has the potential for asbestos-containing dust. However, Standard Measures and BMPs outlined in Section 1.6 would be used to minimize the impact of these activities during construction. Construction activities are expected to increase traffic congestion in the area, resulting in an increase in emissions from traffic during delays. However, these emissions would be temporary and limited to the immediate area surrounding the construction site.

The project would not result in emissions affecting a substantial number of people. Therefore, impacts would be less than significant.

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	Yes	No	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	Yes	No	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	Yes	No	No

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No	No	No	Yes
Would the project: e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No	No	No	Yes
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

Determinations of “Less Than Significant Impact with Mitigation Incorporated” for Questions a, b and c) and “No Impact” for Questions d), e) and f) in this section are based on the scope, description, and location of the proposed project, as well as the Natural Environmental Study dated January 28, 2026 (Caltrans 2026a).

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.

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 USC 1344 (USACE—Section 401 Permits)
- Federal: Executive Order (EO) for the Protection of Wetlands (EO 11990)
- State: California Fish and Game Code (CFGF)—Sections 1600–1607
- State: Porter-Cologne Water Quality Control Act—Section 3000 et seq.

Plant Species

The USFWS and 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:

- FESA–USC 16 Section 1531, et seq. See also 50 CFR Part 402
- California Endangered Species Act (CESA)–CFGF 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
- 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. Federal laws and regulations relevant to wildlife include the following:

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

State laws and regulations relevant to wildlife include the following:

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

Threatened and Endangered Species

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 EO 13112 and NEPA.

Affected Environment

A Natural Environment Study (NES) (Caltrans 2026a) was prepared to identify existing biological resources, assess potential impacts, and identify permitting requirements for the proposed project. The following information relies on the NES.

Natural Communities

Within the project limits, sensitive natural communities include valuable connectivity between ecologically important habitat, riparian, and Waters of the U.S. and State. The streams within the project area (Winter Creek, Brooks Creek, and Taylor Creek) are tributaries to Cache Creek. All the streams are located upstream of a blockage classified as a total fish barrier by CDFW (Caltrans 2026a). Within the BSA, regionally occurring anadromous fish species do not occur in any of the streams. Therefore, Essential Fish Habitat will not be discussed further.

Habitat Connectivity

The project overlaps with CDFW Areas of Conservation Emphasis (ACE) Rank 3 and 4 habitats. The BSA contains areas with an ACE Connectivity Rank of 4 – Conservation Planning Linkages. Rank 4 areas have been identified as terrestrial connectivity linkages. Habitat connectivity linkages are often based on species-specific models and represent the best connections between core natural areas to maintain habitat connectivity (CDFW 2025e). The BSA also contains areas with an ACE Connectivity Rank of 3 – Connections with Implementation Flexibility. Rank 3

areas have been identified as having connectivity importance and include areas mapped as core habitat areas or are on the periphery of habitat linkage areas with greater urgency.

Because the project area is within a connectivity corridor of moderate to high conservation importance, the potential opportunity to maintain or improve connectivity and ecological flow should be assessed. Caltrans and CDFW discussed opportunities to enhance habitat connectivity through project actions. The Taylor Creek Bridge location was identified as a structure that would benefit from the addition of a terrace shelf adjacent to the creek, under the bridge structure. Terrace shelves function as elevated platforms that allow wildlife to safely cross roadways when water flows are high. However, a review of flow levels at this location and elevation profiles for the bridge replacement indicated that there would be a lack of overhead space to make a terrace shelf usable.

No other locations were identified for potential wildlife connectivity enhancement. The project is not expected to modify connectivity for the area.

Valley Foothill Riparian Habitat

Valley foothill riparian habitat is a sensitive natural community present along Winter, Brooks, and Taylor creeks banks and near some culvert inlet/outlets at PMs 15.94, 17.14, and 18.34. Valley-foothill riparian habitats provide food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for an abundance of wildlife. Dominant species in the canopy layer of riparian habitat are generally cottonwood (*Populus fremontii*) and valley oak (*Quercus lobata*). Typical subcanopy trees are alder (*Alnus rhombifolia*), box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). The typical understory shrub layer plants include wild grape (*Vitis californica*), wild rose (*Rosa californica*), California blackberry (*Rubus ursinus*), blue elderberry, poison oak (*Toxicodendron diversilobum*), buttonbush (*Cephalanthus occidentalis*), and willows (*Salix* spp.). The herbaceous layer generally consists of sedges (*Carex* spp.), rushes (various species in the Juncaceae plant family), grasses (various species in the Poaceae plant family), miner's lettuces (*Claytonia* spp.), California mugwort (*Artemisia douglasiana*), poison-hemlock (*Conium maculatum*), and sometimes stinging nettle (*Urtica dioica*).

Wildlife species commonly associated with these various habitats include mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), American beaver (*Castor canadensis*), western gray squirrel (*Sciurus griseus*), brush rabbit (*Sylvilagus bachmani*), gray fox (*Urocyon cinereoargenteus*), common raccoon (*Procyon lotor*), and various species of bats including pallid bat (*Antrozous pallidus*), hoary bat (*Lasiurus cinereus*), Mexican free-tailed bat (*Tadarida brasiliensis*), and western red bat (*Lasiurus frantzii*). Though these species are commonly associated with the aforementioned habitat types, not all are common within the project area because existing development has reduced suitable habitat. Native vegetation in the Capay Valley has been altered to accommodate agricultural needs and development. Once Cache Creek reaches Guinda and approaches the BSA, the landscape is largely agricultural and/or developed. It is uncommon for species associated with Valley-foothill riparian habitat to be present in the project area due to the urban development.

Environmental Consequences

The project proposes to widen nonstandard shoulders to standard 8 foot width throughout the entire length of the project. This would require the trimming and/or removal of riparian habitat at the creeks and culverts to make space for bridge and culvert work. The proposed work would permanently impact approximately 0.28 acres of Valley-foothill riparian habitat at various locations throughout the project limits. The breakdown of the impacts of each bridge is discussed below.

Valley Foothill Riparian

Winter Creek Bridge (PM 16.38)

Riparian vegetation along the east banks of Winter Creek would be removed to make space for work equipment to replace the existing bridge. Caltrans anticipates approximately 0.04 acres of permanent impacts to riparian habitat from vegetation removal.

Mossy Creek Bridge (Brooks Creek) (PM 18.13)

Riparian vegetation along the east and west banks of Brooks Creek would be removed to make space for work equipment to expand the existing bridge. Caltrans anticipates approximately 0.08 acres of permanent impacts to riparian habitat from vegetation removal.

Taylor Creek Bridge (PM 20.14)

Riparian vegetation along the west banks of Taylor Creek would be removed to make space for the temporary bridge structure and temporary road alignment that leads to the temporary bridge. Caltrans anticipates approximately 0.16 acres of permanent impacts to riparian habitat from vegetation removal.

Roadside Drainages (Culverts)

Many of the culvert locations throughout the project limits are not vegetated. Any riparian vegetation at the culvert inlets and/or outlets would be trimmed only to make space for culvert replacement/extensions, and in such a way that rootstock would be left intact so vegetation could naturally resprout when culvert work is complete. Caltrans does not anticipate any permanent impacts to riparian habitat from vegetation trimming/removal at the culverts.

Habitat Connectivity

The Taylor Creek Bridge location was identified as a structure that would benefit from the addition of a terrace shelf adjacent to the creek, under the bridge structure. However, review of flow levels at this location and elevation profiles for the bridge replacement indicated that there would be a lack of overhead space to make a terrace shelf usable by terrestrial animals. No other locations were identified for potential wildlife connectivity enhancement. The project is not expected to improve connectivity for the area.

Avoidance, Minimization and Mitigation Measures

All riparian areas that support potentially sensitive biological resources, including riparian habitats within the ESL, have been identified as Environmentally Sensitive Areas (ESAs). Prior to construction, ESA fencing would be installed along the construction limits to prevent encroachment into riparian areas adjacent to the construction area.

Riparian vegetation removal would be avoided when feasible. Where riparian vegetation trimming is necessary, trimming would be done to the least extent possible to accomplish the proposed work. The project would implement appropriate Caltrans Standard Measures and BMPs including BR-1, BR- 5A, and BR- 5B outlined in Section 1.6 to minimize adverse effects.

Compensatory mitigation to address approximately 0.28 acres of permanent impacts to riparian habitat would include purchase of CDFW-approved mitigation credits of offsite mitigation. Furthermore, all areas temporarily disturbed by construction activities would receive a permanent erosion control seed mix comprising regionally appropriate native species. Additional onsite revegetation may occur if required by regulatory agencies or environmental permits.

Wetlands And Other Waters

Affected Environment

Surveys for wetlands and Other Waters of the U.S. and State were incorporated into the December 23, 2024, and March 11, 2025, field surveys (Environmental Laboratory 2010). No potential wetlands were identified within the project BSA. Three non-wetland waters (intermittent streams) were identified within the survey area: Winter Creek, Brooks Creek, and Taylor Creek. Other waters within the BSA include stormwater drainages. Stormwater drainages determined to contain road runoff with no defined bed, bank, and channel features are not considered Waters of the U.S. and/or State. There are three ephemeral drainage locations at PMs 15.94, 17.14 and 18.34 which do exhibit features consistent with Waters of the U.S. and/or State.

Winter Creek

Winter Creek is an intermittent stream that flows east to Cache Creek. The creek crosses SR 16 under the Winter Creek Bridge (PM 16.38). Winter Creek's channel at this location is approximately 35-feet-wide and then narrows to approximately 10- feet-wide after passing under Winter Creek Bridge. There is a small sediment bench spanning under the bridge. The streambed consists of small gravel rocks and sand and is devoid of aquatic vegetation. There is minimal riparian vegetation along the banks. There is a small existing bridge adjacent to Winter Creek Bridge, approximately 45 feet to the west. A narrow band of vegetation, containing grasses and two oak trees, borders the creek between the two bridges.

Brooks Creek

Brooks Creek flows east to Cache Creek. The creek crosses SR 16 under the Mossy Creek Bridge (PM 18.13). It is a temporarily flooded, nontidal, intermittent stream, meaning that surface water is present for brief periods (from a few days to a few weeks) during the growing season (March to November). When water is not flowing,

water may remain in isolated pools or surface water may be absent. The water table usually lies well below the ground surface for most of the season. At the Mossy Creek Bridge location, Brooks Creek has a narrow channel (approximately 15 feet) with riparian vegetation along its banks. The stream bed consists of small gravel rocks and is devoid of aquatic vegetation. During field surveys, wracking was observed on bank vegetation and bridge piers indicating that occasional high flows occur. There is an agricultural culvert outlet that discharges water into Brooks Creek from an adjacent agricultural field. High flows are likely correlated to flood irrigation from the agricultural field.

Taylor Creek

Taylor Creek is an intermittent stream that flows from the west (Taylor Canyon) to the east. The creek crosses SR 16 at the Taylor Creek Bridge (PM 20.14). Once Taylor Creek crosses under SR 16, it takes a sharp turn southeast and begins to flow adjacent to SR 16 until it converges with Salt Creek. Salt Creek eventually converges with Cache Creek. At Taylor Creek Bridge, the creek has a wide channel (approximately 50 feet) with steeply incised banks. The bank slopes increasingly become steeper as the stream cuts into the mountainside and makes its sharp curve moving southeast. There are sediment benches and a fallen tree within the stream bed near the bridge. The channel bed consists of sand and small pebbles. Riparian habitat is present on the gentler upper bank slopes; however, the steeper lower banks do not support riparian vegetation. There is water staining on the bridge showing this stream experiences high flows and possibly flash flooding events. There is also bridge scour where the bridge piers and abutments have been eroded by fast flowing water.

Environmental Consequences

The project proposes to widen nonstandard shoulders to standard 8 foot width throughout the entire length of the project. This would require the replacement of Winter Creek Bridge and Taylor Creek Bridge as well as widening Mossy Creek Bridge and extending culverts. The shoulder widening would temporarily impact approximately 0.13 acres and permanently impact approximately 0.07 acres of Waters of the U.S. and State at various locations throughout the project limits.

Winter Creek

To conduct bridge work, traffic would be directed to an existing bridge to the west of Winter Creek Bridge. The bridge replacement would be done all at once and all work would be conducted from the existing roadway and Caltrans right of way, and from within the creek channel. The new bridge would be a single span bridge measuring 44-feet-wide by 6-feet-long and would have no in-water supports. Because the creek is incised, the new bridge abutments would be outside of the OHWM. Caltrans anticipates permanent impacts to Waters of the U.S. and/or State for replacing Winter Creek Bridge. Caltrans anticipates a possible net gain of bank and channel to Winter Creek due to the removal of the existing 32.4-foot-wide by 28.5-foot-long arch bridge and placement of a longer bridge with abutments outside of the OHWM and creek channel. Temporary impacts to Waters of the U.S. and/or State are anticipated to be 0.02 acres due to falsework, grading, and construction equipment being in the creek channel below the OHWM. Some of these impacts would be above the OHWM but within the bed, bank, or channel (CDFW jurisdiction).

Mossy Creek

The existing bridge has 2 rows of 5 piles. The 2 rows are the 2 piers/bents but each pier is supported by piles. An additional 4 piles would be added to the east side to support bridge widening. 4 foot diameter holes would be excavated to construct the 2 foot diameter piles. The piles would be placed into the hole, and the remaining excavated area would be recontoured to pre-construction conditions around the pile. Because the hole would be recontoured, areas without the piles would be a temporary impact to Waters of the U.S. and/or State. This temporary impact would be approximately 12.56 square feet (less than 0.01 acres). Based on preliminary project design, additional temporary impacts to Waters of the U.S. and/or State are anticipated to be a maximum of 0.05 acres due to falsework, grading, and construction equipment being in the creek channel. The new piles are expected to be approximately 2 feet in diameter with a circumference of 6.28 feet (3.14 square feet; less than 0.01 acres). The 4 new piles would remain in the creek; thus, being a permanent impact to Waters of the U.S. and/or State. This permanent impact would be approximately 12.56 square feet (less than 0.01 acres). In total, 0.05 acres of temporary impacts and less than 0.01 acres of permanent impacts are anticipated at this location.

Taylor Creek

To conduct bridge work, a temporary bridge would be required. The temporary bridge would be constructed on the west side of the current bridge. The temporary bridge would be a single-span bridge with no in-water support. There would be 3 to 4 feet of grading on the ground surface above the OHWM to support timber pads. No work would be conducted in the creek or channel. Caltrans anticipates there would be no temporary or permanent impacts to Waters of the U.S. and/or State for the temporary bridge. The new Taylor Creek Bridge would not have any in-water supports; it would replace the existing arch bridge with a 44-foot-wide by 80-foot-long single span bridge. Based on preliminary project design, additional temporary impacts to Waters of the U.S. and/or State are anticipated to be a maximum of 0.06 acres due to falsework, grading, and construction equipment being in the creek channel. Some of these impacts would be above the OHWM but within the bed, bank, or channel (CDFW jurisdiction). Permanent impacts to Waters of the U.S. and/or State are anticipated to be 0.02 acres for placement of RSP.

Ephemeral Drainages (Culverts)

Nine culverts located at PM 15.94, 17.14, and 18.34 likely convey Waters of the U.S. and Waters of the State. The culvert replacements/extensions, RSP placement, and headwalls would result in approximately 0.044 acres of permanent impacts to Waters of the U.S. and Waters of the State.

Avoidance, Minimization and Mitigation Measures

The project would implement appropriate Caltrans Standard Measures and BMPs including BR-1, BR-5A, and BR-5B in Section 1.6 to minimize adverse effects to Waters of the U.S. and State. The design of the proposed new bridges at Winter Creek (PM 16.38) and Taylor Creek (PM 20.14) could result in net gain to bank and channel through the removal of existing abutments within the channels and placement of the new abutments outside of the channel.

To compensate for permanent impacts to Waters of the U.S. and State, Caltrans may purchase agency approved mitigation credits or in-lieu fee credits, if available. If no credits are available, agency-approved off-site mitigation may be required to offset project impacts. Caltrans will also obtain a Section 401 Water Quality Certification from the CVRWQCB and a 1602 Lake and Streambed Alteration Agreement from CDFW that may contain additional BMPs and water quality

measures to ensure the protection of water quality. Caltrans would implement the conditions and requirements of these permits.

Plant Species

Based on the queries made to the USFWS, CDFW CNDDDB, and the CNPS Rare Plant Inventory databases, it was determined that special status plants could potentially occur within the BSA (Table 3). There is no federally designated critical habitat within the project area. Botanical surveys were conducted on April 16, 2025, and May 27, 2025. No special status plant species were encountered during surveys.

Species that were not observed during surveys, occur only outside of the elevational and/or geographical range of the ESL, or have no suitable habitat present within the ESL will not be discussed in this document.

Table 3. Special Status Plants Potentially Occurring or Known to Occur within the Biological Study Area

<i>Scientific Name</i>	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Allium fimbriatum</i> var. <i>purdyi</i>	Purdy's onion	--/--/4.3	Chaparral, cismontane woodland, clay and serpentine soils. Elevation: 985-1,970 feet Blooms: April-June	Absent
<i>Amsinckia lunaris</i>	Bent-flowered fiddleneck	--/--/1B.2	Gravelly slopes, often serpentine, steep openings in woodlands. Occurs from Colusa County to Santa Cruz County and counties westward to the coast. Elevation: 164-1,640 feet Blooms: March-June	Absent
<i>Antirrhinum virga</i>	Twig-like snapdragon	--/--/4.3	Chaparral, lower montane coniferous forest. Openings, rocky soils, often in serpentine soils. Elevation: 330-6,610 feet Blooms: June-July	Absent

Scientific Name	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Aphyllon validum</i> ssp. <i>howellii</i>	Howell's broomrape	--/--/4.3	Chaparral, serpentinite, volcanic. Elevation: 590-5,710 feet Blooms: June-September	Absent
<i>Arabis modesta</i>	Modest rockcress	--/--/4.3	Chaparral, lower montane coniferous forest. Elevation: 395-2,625 feet Blooms: March-July	Absent
<i>Arabis oregana</i>	Oregon rockcress	--/--/4.3	Chaparral, lower montane coniferous forest, serpentine soils. Elevation: 1,970-6,005 feet Blooms: May	Absent
<i>Asclepias solanoana</i>	Serpentine milkweed	--/--/4.2	Chaparral, cismontane woodland, lower montane coniferous forest, serpentine soils. Elevation: 755-6,105 feet Blooms: May-August	Absent
<i>Astragalus breweri</i>	Brewer's milk- vetch	--/--/4.2	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grasslands, often in gravelly openings. Often in serpentine soils and sometimes volcanic soils. Elevation: 295-2,395 feet Blooms: April-June	Absent
<i>Astragalus clevelandii</i>	Cleveland's milk-vetch	--/--/4.3	Chaparral, cismontane woodland, riparian forest. Seeps and serpentine soils. Elevation: 655-4,920 feet Blooms: June-September	Absent
<i>Astragalus rattanii</i> var. <i>jepsonianus</i>	Jepson's milk- vetch	--/--/1B.2	Grasslands and grassy openings in woodland or chaparral with deep, clay-rich soil, often serpentine; foothills of western Sacramento Valley from Napa County to Tehama County. Elevation: 970-2,295 feet Blooms: March-June	Absent

Scientific Name	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Ferris' milk- vetch	--/--/1B.1	Meadows and seeps (vernally mesic), valley and foothill grasslands (subalkaline flats), usually seen in dry, adobe soil. Elevation: 5-260 feet Blooms: April-May	Absent
<i>Balsamorhiza</i> <i>macrolepis</i>	Big-scale balsamroot	--/--/1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Grassy or rocky slopes. Ultramafic, sometimes in serpentine soil. Elevation: generally <= 4593 feet Blooms: March-June	Absent
<i>Calyptridium</i> <i>quadripetalum</i>	Four-petaled pussypaws	--/--/4.3	Chaparral, lower montane coniferous forest. Often in serpentine soils. Sometimes in gravelly or sandy soils. Elevation: 1,035-6,695 feet Blooms: April-June	Absent
<i>Castilleja</i> <i>rubicundula</i> var. <i>rubicundula</i>	Pink creamsacs	--/--/1B.2	Open grasslands; meadows, seeps, drainages; sometimes chaparral; ultramafic, serpentinite substrates. Elevation: 65-3,100 feet Blooms: April-June	Absent
<i>Ceanothus</i> <i>sonomensis</i>	Sonoma ceanothus	--/--/1B.2	Chaparral (sandy, serpentinite, volcanic). Elevation: 705-2,625 feet Blooms: February-April	Absent
<i>Centromadia</i> <i>parryi</i> ssp. <i>parryi</i>	Pappose tarplant	--/--/1B.2	Chaparral, coastal prairie, marshes and swamps (coastal salt), meadows and seeps, valley and foothill grasslands (vernally mesic). Alluvial and alkaline substrates. Elevation: 0-1,380 feet Blooms: May-November	Absent

Scientific Name	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Chloropyron palmatum</i>	Palmate-bracted bird's-beak	FE/SCE/1B.1	Chenopod scrub, valley and foothill grassland, alkaline soils. Usually on Pescadero silty clay which is alkaline. Elevation: 15-510 feet Blooms: May-October	Absent
<i>Clarkia gracilis</i> ssp. <i>tracyi</i>	Tracy's clarkia	--/--/4.2	Openings in Foothill woodlands, chaparral from Napa County to Tehama County; generally serpentine soils. Elevation: 330-2,135 feet Blooms: April-July	Absent
<i>Collomia diversifolia</i>	Serpentine collomia	--/--/4.3	Chaparral, cismontane woodland. Rocky to gravelly serpentine areas in mid-elevation areas west of Central Valley. Elevation: 655-1,970 feet Blooms: May-June	Absent
<i>Cordylanthus tenuis</i> ssp. <i>brunneus</i>	Serpentine bird's-beak	--/--/4.3	Chaparral, cismontane woodland, closed-cone coniferous forest. Usually in serpentine soils. Elevation: 1,000-3,000 feet Blooms: July-August	Absent
<i>Cryptantha excavata</i>	Deep-scarred cryptantha	--/--/1B.1	Cismontane woodland. Gravelly and sandy soils. Elevation: 330-1,640 feet Blooms: April-May	Absent
<i>Cryptantha rostellata</i>	Red-stemmed cryptantha	--/--/4.2	Oak woodland, valley and foothill grassland. Usually steeply sloped areas, sometimes road cuts in gravelly clay soils or other, open, rocky, dry sites. Can also be found in volcanic soils and openings. From Napa County to Sutter County and in counties north of these. Elevation: 130-2,625 feet Blooms: April-June	Present

Scientific Name	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Delphinium uliginosum</i>	Swamp larkspur	--/--/4.2	Seeps, wetlands, streambanks with serpentine soils. Chaparral, valley and foothill grassland. Elevation: 1,115-2,000 feet Blooms: May-June	Absent
<i>Eriogonum nervulosum</i>	Snow mountain buckwheat	--/--/1B.2	Chaparral (serpentine). Elevation: 985-6,905 feet Blooms: June-September	Absent
<i>Eriogonum tripodum</i>	Tripod buckwheat	--/--/4.2	Chaparral, cismontane woodland. Often in serpentine soils. Elevation: 655-5,250 feet Blooms: May-July	Absent
<i>Eryngium jepsonii</i>	Jepson's coyote-thistle	--/--/1B.2	Vernal pools or marshes with moist clay soils in valley and foothill grasslands. Elevation: 10-985 feet Blooms: April-August	Absent
<i>Erythranthe nudata</i>	Bare monkeyflower	--/--/4.3	Chaparral, cismontane woodland, seeps, serpentine soils. Elevation: 655-2,295 feet Blooms: May-June	Absent
<i>Extriplex joaquinana</i>	San Joaquin spearscale	--/--/1B.2	Chenopod scrub, meadows and occasionally periphery of seeps, playas, valley and foothill grasslands, alkaline soils. Elevation: 5-2,740 feet Blooms: April-October	Absent
<i>Fritillaria pluriflora</i>	Adobe-lily	--/--/1B.2	Chaparral, cismontane woodland, valley and foothill grasslands. Adobe, generally serpentine of interior foothills. Elevation: 195-2,315 feet Blooms: February-April	Absent

Scientific Name	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Fritillaria purdyi</i>	Purdy's fritillary	--/--/4.3	Chaparral, cismontane woodland, lower montane coniferous forest. Usually in serpentine soils. Elevation: 575-7,400 feet Blooms: March-June	Absent
<i>Harmonia hallii</i>	Hall's harmonia	--/--/1B.2	Open sites, disturbed areas in serpentine chaparral hills from Napa to southern border of Glenn County. Elevation: 1,640-3,280 feet Blooms: April-June	Absent
<i>Harmonia nutans</i>	Nodding harmonia	--/--/4.3	Generally volcanic and/or rocky open or disturbed areas in mid-elevation chaparral from Solano to southern portion of Lake County. Elevation: 330-3,280 feet Blooms: March-May	Absent
<i>Hesperolinon drymarioides</i>	Drymaria-like western flax	--/--/1B.2	Serpentine chaparral or wooded hills from Napa to southern portion of Glenn County and a few known occurrences in Stanislaus County. Elevation: 330-3,280 feet Blooms: May-August	Absent
<i>Hesperolinon sharsmithiae</i>	Sharsmith's western flax	--/--/1B.2	Chaparral, serpentine soils. Elevation: 885-985 feet Blooms: May-July	Absent
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	--/--/1B.1	Marshes and swamps (coastal salt), playas, vernal pools in low elevation areas of the Central Valley. Elevation: rarely up to 3,000 feet (in the southernmost hills of the state) Blooms: February-June	Absent

Scientific Name	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Layia septentrionalis</i>	Colusa layia	--/--/1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Sandy and serpentine soils. Elevation: 330-3,595 feet Blooms: April-May	Absent
<i>Leptosiphon jepsonii</i>	Jepson's leptosiphon	--/--/1B.2	Open or partially shaded grassy slopes; on volcanics or the periphery of serpentine substrates; foothills west of the Central Valley from Solano County to Lake County and surrounding area. Elevation: <1,640 feet Blooms: March-May	Absent
<i>Leptosiphon latisectus</i>	Broad-lobed leptosiphon	--/--/4.3	Broadleaf upland forest, cismontane woodland. Open or partially shaded grassy, sandy, or rocky slopes. Sometimes on periphery of serpentine substrates. Elevation: below 4,920 feet Blooms: April-June	Present
<i>Lomatium hooveri</i>	Hoover's lomatium	--/--/4.3	Chaparral, cismontane woodland. Serpentine soils, rarely in volcanic soils. Elevation: 985-2,905 feet Blooms: April-July	Absent
<i>Lomatium repostum</i>	Napa lomatium	--/--/4.2	Pine/oak woodland, chaparral. Often in openings with volcanic soils. Sometimes in other dry gravelly/rocky soils, including roadcuts. Rarely found in sandstone. Elevation: 295-4,725 feet Blooms: March-June	Absent
<i>Malacothamnus helleri</i>	Heller's bushmallow	--/--/3.3	Chaparral (sandstone), riparian woodland (gravel). Elevation: 1,000-2,085 feet Blooms: May-July	Absent

Scientific Name	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Microseris sylvatica</i>	Sylvan microseris	--/--/4.2	Open woodland, valley and foothill grassland. Rarely in serpentine soils. Elevation: 150-4,920 feet Blooms: March-June	Absent
<i>Monardella viridis</i>	Green monardella	--/--/4.3	Broadleaved upland forest, chaparral, cismontane woodland. Elevation: 330-3,315 feet Blooms: June-September	Absent
<i>Navarretia cotulifolia</i>	Cotula navarretia (Broadleaved navarretia)	--/--/4.2	Chaparral, cismontane woodland, valley and foothill grassland. Adobe or similar heavy soils. Elevation: 15-1,640 feet Blooms: May-June	Absent
<i>Navarretia jepsonii</i>	Jepson's navarretia	--/--/4.3	Open, grassy or clay flats, serpentine areas. Elevation: 575-2,805 feet Blooms: April-June	Absent
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	--/--/1B.1	Valley and foothill vernal pools. Mesic soils. Elevation: 15-5,710 feet Blooms: April-July	Absent
<i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i>	Adobe navarretia	--/--/4.2	Valley and foothill grassland (vernally mesic), sometimes found in vernal pools or serpentine soils. Clay soils. Elevation: 330-3,280 feet Blooms: April-June	Absent
<i>Plagiobothrys hystriculus</i>	Bearded popcornflower	--/--/1B.1	Valley and foothill grassland (mesic), margins of vernal pools. Elevation: 0-900 feet Blooms: April-May	Absent

Scientific Name	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Senecio clevelandii</i> var. <i>clevelandii</i>	Cleveland's ragwort	--/--/4.3	Chaparral, seeps, serpentine soils. Elevation: 1,200-2,955 feet Blooms: June-July	Absent
<i>Sidalcea keckii</i>	Keck's checkerbloom	FE/--/1B.1	Grassy slopes in valley and foothill grasslands with clay and serpentine soil; from Solano County to Glenn County. Elevations: 245-2,135 feet Blooms: April-June	Absent
<i>Streptanthus hesperidis</i>	Green jewelflower	--/--/1B.2	Serpentine barrens and associated openings in chaparral/oak or cypress woodland; generally rocky, serpentine substrate. Elevation: 425-2,495 feet Blooms: May-July	Absent
<i>Streptanthus morrisonii</i> ssp. <i>kruckebergii</i>	Kruckeberg's jewelflower	--/--/1B.2	Serpentine barrens, chaparral, cypress/knobcone-pine woodland. Elevation: 705-3,395 feet Blooms: April-July	Absent
<i>Thelypodium brachycarpum</i>	Short-podded thelypodium	--/--/4.2	Chaparral, lower montane coniferous forest, meadows and seeps. Adobe, alkaline, and serpentine soils. Elevation: 2,200-8,400 feet Blooms: May-August	Absent

<i>Scientific Name</i>	Common Name	Status¹ Federal/ State/ CRPR	General Habitat Description Elevation Blooming Period	Habitat² Present/ Absent
<i>Toxicoscordion fontanum</i>	Marsh zigadenus	--/--/4.2	Marshes and swamps, meadows and seeps in chaparral, cismontane woodland, lower montane coniferous forest. Often in serpentine soils. Vernal mesic. Elevation: 50-3,280 feet Blooms: April-July	Absent

¹ **Status****Federal:** FE = Endangered**State:** SCE: State Candidate Endangered**California Rare Plant Rank (CRPR):**

1B = rare, threatened, or endangered in California and elsewhere

2B = rare, threatened, or endangered in California but more common elsewhere

3 = more information is needed (Review List)

4 = limited distribution (Watch List)

CRPR Threat Ranking:

0.1 = seriously endangered in California

0.2 = fairly endangered in California

0.3 = not very endangered in California.

² **Habitat:** Absent = No habitat present and no further work needed.

Present = Habitat is or may be present. The species may be present.

CH = Critical Habitat: the project is located within designated critical habitat, but does not necessarily mean that appropriate habitat is present.**Animal Species**

Based on the USFWS, NMFS, and CDFW-CNDDDB database queries, the following table indicates those special status animal species which could potentially occur within the suitable ESL and/or BSA and thus could potentially be impacted by project construction (Table 4). There is no designated critical habitat within the project area.

Impacts from the project to special status/listed species (FESA, CESA, Species of Special Concern, and Fully Protected) that could potentially be present within the project area, based on suitable habitat, elevation, and/or geographical range are discussed in the NES (Caltrans 2026). There will be no further discussion of those species where the project study area either lacks suitable habitat or is outside the elevation and/or geographical range of the species.

Table 4. Special Status Animal Species that May Potentially Occur within the Project Study Limits

<i>Scientific Name</i>	Common Name	Status¹ Federal/ State	General Habitat Description	Habitat² Present/ Absent
AMPHIBIANS/REPTILES				
<i>Actinemys marmorata</i>	Western (Northwestern) pond turtle	FPT/SSC	Freshwater systems including ponds, lakes, river, and marshes. Prefer slower-moving, shallow areas. Needs permanent water with sunny basking spots (logs, rocks, vegetation) and underwater shelter. Also needs adjacent dry land with shrubs for nesting and overwintering.	Absent

Scientific Name	Common Name	Status¹ Federal/ State	General Habitat Description	Habitat² Present/ Absent
<i>Ambystoma californiense</i>	California tiger salamander— Central California DPS	FT/ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding. Annual grasslands and open woodlands from Central Valley floor up to a maximum elevation of appx. 3,940 feet in the Coast Ranges and 1,640 feet in the Sierra Nevada foothills.	Absent
<i>Rana boylei</i> (Pop. 1)	Foothill yellow-legged frog (FYLF)—North Coast DPS	--/SSC	Aquatic, riparian forest, riparian scrub, riparian woodland, Sacramento/San Joaquin flowing waters from the coast to the western slope of the Sierra Nevada. Found in or near rocky streams. Partly shaded shallow streams and riffles with a rocky substrate, slow water flow, and low overhanging vegetation along the stream edge. Needs at least some cobble-sized substrate for egg-laying. Breeding and rearing habitat is generally characterized by wider, more sunlit mainstream channels.	Absent

Scientific Name	Common Name	Status¹ Federal/ State	General Habitat Description	Habitat² Present/ Absent
<i>Spea hammondi</i>	Western spadefoot– Northern DPS	FPT/--	Cismontane woodland, coastal scrub, valley and foothill grasslands, vernal pools, wetlands in Central Valley of California into northwestern Baja California; up to 4620 feet (1,410 m) above sea level. Also found along sandy gravel washes and small seasonal streams. Breeding and egg laying occur almost exclusively in shallow, temporary pools formed by heavy winter rains. Vernal pools or ephemeral wetlands are essential for breeding and egg-laying. Egg masses are attached to plant material, or the upper surfaces of small submerged rocks. Loose soils are required for digging burrows where they spend the majority of their lives (outside of the mating season).	Absent
BIRDS				
<i>Buteo swainsoni</i>	Swainson's hawk	--/ST	Great Basin grassland, riparian forest, woodland, valley and foothill grassland. Nests in trees with views of riparian areas, grasslands, or agricultural fields with scattered trees, or juniper-sage flats. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Present

Scientific Name	Common Name	Status¹ Federal/ State	General Habitat Description	Habitat² Present/ Absent
<i>Riparia riparia</i>	Bank swallow	--/ST	Occur from sea level up to about 7,000 feet. Most populations occur in lowland river valleys and coastal areas. Colonial nester; nesting occurs in soft banks or bluffs along rivers, streams, and coastal areas, occasionally in gravel pits, quarries, or road cuts, primarily in riparian scrub or woodlands. Requires vertical banks/cliffs with fine textured/sandy soils to dig nesting hole. Restricted to vertical bluffs or riverbanks. Important foraging habitats include wetlands, large bodies of water, grasslands, agricultural areas, and open woodlands.	Absent
<i>Strix occidentalis caurina</i>	Northern spotted owl	FT/	Old-growth forest with dense canopies and high incidence of large trees with cavities, broken tops, or large snags. Unlogged, expansive, mature coniferous forest stands; also tend to occur where heavy accumulations of woody debris and logs on forest floor. Roosts and nests in tree-trunk hollows, mistletoe tangles, or in old nests left behind by squirrels or birds of prey.	Absent

Scientific Name	Common Name	Status¹ Federal/ State	General Habitat Description	Habitat² Present/ Absent
FISH/ESSENTIAL FISH HABITAT				
<i>Oncorhynchus mykiss irideus</i> (Pop. 11)	Steelhead– California Central Valley (CCV) DPS	FT/--	Aquatic, estuary, marine bay, Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries; also includes the Coleman National Fish Hatchery and the Feather River Fish Hatchery populations. Most spawn from Dec-Apr in small streams and tributaries where cool, well oxygenated water is available year-round. Unlike Pacific salmon, steelhead do not necessarily die after spawning and may spawn more than once.	Absent EFH Absent
<i>Oncorhynchus tshawytscha</i>	Chinook salmon	FT/ST	Aquatic, estuary, marine bay, Sacramento/San Joaquin flowing waters. Federal listing refers to populations spawning in Sacramento River and tributaries northward. Adults pass under the Golden Gate Bridge to begin migration in Nov and continue upstream. They spawn in the upper mainstem of Sac River from mid-Apr through Aug, peaking Jun-Jul; Cold, clean water between 42.5-57.5 degrees Fahrenheit required to protect embryos and juveniles from warm summer conditions.	Absent EFH Present

Scientific Name	Common Name	Status ¹ Federal/ State	General Habitat Description	Habitat ² Present/ Absent
MAMMALS				
<i>Lasiurus frantzii</i>	Western red bat	--/SSC	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Roost sites are often in edge habitats adjacent to streams, fields, or urban areas. Feed over a variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging. Roosting occurs in foliage of trees and shrubs in forests, most commonly 2-40 feet above the ground; often associated with mature stands of cottonwood (<i>Populus</i> spp.), sycamore (<i>Platanus</i> spp.), and willows (<i>Salix</i> spp.) near streams.	Present
INVERTEBRATES				
<i>Bombus crotchii</i>	Crotch's bumble bee	--/SCE	Open shrublands and grasslands of Central California southward to Mexico, includes coastal areas east to the edges of the deserts and Central Valley, but mostly excluding mountainous areas. Historically common in Central Valley but range is dwindling. Nesting often occurs underground in abandoned rodent nests or above ground in tufts of grass, rock piles, old bird nests, or cavities in dead trees. Able to persist in semi-natural habitats surrounded by intensely modified landscapes. Short-tongued species food plants include milkweed (<i>Asclepias</i> spp.), pincushion (<i>Chaenactis</i> spp.), lupine (<i>Lupinus</i> spp.), medick and burclover (<i>Medicago</i> spp.), <i>Phacelia</i> species, and sages (<i>Salvia</i> spp.).	Present

Scientific Name	Common Name	Status¹ Federal/ State	General Habitat Description	Habitat² Present/ Absent
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	FT/--	Found only in ephemeral (flows for only a short time) freshwater and a wide range of vernal pools, including seasonally ponded vernal pools, wetlands, and stagnant ditches that fill with water during fall and winter rains and dry up in spring and summer.	Absent
<i>Danaus plexippus</i>	Monarch butterfly	FPT/--	Prairies, meadows, grasslands. In the spring and summer, open fields, gardens, meadows with obligate host plant milkweed (<i>Asclepias</i> spp.). In winter, on the coast of southern California, it requires dense tree cover for overwintering. The majority of wintering sites are associated with blue gum trees (<i>Eucalyptus globulus</i>) although other tree species are also used.	Absent
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle (VELB)	FT/--	Riparian scrub. Found only in association with elderberry (<i>Sambucus</i> spp.) in the Central Valley.	Present
<i>Lepidurus packardii</i>	Vernal pool tadpole shrimp	FE/--	Endemic to California's Central Valley, found only in low elevations primarily between 131 to 551 feet. Vernal pools; other freshwater aquatic habitats including ponds, reservoirs, ditches, road ruts, and other temporary water bodies. Geographical range from Shasta County in the North to Tulare and Kings Counties in the south.	Absent

Scientific Name	Common Name	Status¹ Federal/ State	General Habitat Description	Habitat² Present/ Absent
¹ Status: Federal status: FT = Federal Threatened; FPT = Federal Proposed Threatened, FE = Federal Endangered State status: ST = State Threatened; SCE: State Candidate Endangered; SSC = CDFW Species of Special Concern ²Habitat: Absent = No habitat present and no further work needed. Present = Habitat is or may be present. The species may be present. CH = Critical Habitat: the project is located within designated critical habitat, but does not necessarily mean that appropriate habitat is present. EFH = Essential Fish Habitat – the project is located within designated Essential Fish Habitat, but does not necessarily mean that appropriate habitat is present/or would be impacted by the project.				

SWAINSON'S HAWK

Affected Environment

Swainson's hawk (*Buteo swainsoni*) is listed as threatened under CESA and is a migratory bird species protected under the federal Migratory Bird Treaty Act. Swainson's hawks reach about 19 inches at maturity and can be variable in appearance. Most males have gray heads; females tend to have brown heads. This hawk inhabits semi-open to open areas in a diverse array of communities including tundra, valleys, plains, dry meadows, foothills, and level uplands at low to middle elevations. In California, preferred habitat is open blue oak (*Q. douglasii*) savannahs and gray pine (*Pinus sabiniana*)-oak woodlands, though populations frequently nest peripheral to riparian systems in the Central Valley (e.g., wetlands, along drainages, windbreaks in fields and around farmsteads) dominated by valley oak (*Q. lobata*), cottonwoods (*Populus* spp.), California sycamore (*Platanus racemosa*), and willows (*Salix* spp.) (Caltrans 2026a).

Nesting occurs almost exclusively in isolated, dead or living trees of almost any species of suitable size (taller than 10 feet and with a diameter at breast height of 2 or more inches). Infrequently, they will nest in shrubs or on utility poles, low cliffs, rocky pinnacle, or cutbanks. Nests are usually constructed from 4 feet to 100 feet above the ground near riparian corridors with views of foraging habitat which generally consists of open spaces of short vegetation (i.e., grasslands or agricultural fields) containing small mammals, reptiles, birds, and insects (Caltrans 2026a). Swainson's hawks breed in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Its breeding range spans from southwestern Canada and northern Mexico. While most of the population overwinters in Central America, some small populations have been found overwintering in the Sacramento-San Joaquin Delta area (Caltrans 2026a). In California, Swainson's hawk begins breeding later than most raptors. Nesting season is considered to be from late March to mid-August. Nests are constructed of sticks, twigs, and other materials, reaching 2 feet in diameter and over a foot high. Up to 5 eggs are incubated for 28 to 35 days; nestlings are fed by both adults. Fledging occurs between 35 to 44 days but feeding from parents will continue as offspring remain within the nesting territory 2 to 3 weeks after fledging, often roosting in the nest tree.

Sexual maturity is reached at 2 years of age (Caltrans 2026a). In California, these birds typically return to nest sites from early March to April and migrate south in late August and September.

Within the BSA, there are large oak and walnut trees, as well as valley-foothill riparian habitat, that provide suitable nesting habitat, and adjacent agricultural fields provide suitable foraging habitat. There is one CNDDDB occurrence (from 2002) of Swainson's hawk within 5 miles of the BSA. No Swainson's hawks or raptor nests were detected within the BSA during field surveys.

Environmental Consequences

The project would require tree removal at various locations throughout the project limits during nesting season and could disturb nesting birds in or adjacent to the BSA. Other construction-related disturbance could result in the incidental loss of eggs or nestlings, and/or nest abandonment. The removal of trees from the valley-foothill riparian habitat would be necessary to accommodate the bridge replacement at Winter Creek, bridge widening at Brooks Creek, and bridge replacement at Taylor Creek, and would directly affect nesting birds if nests are present. The removal of orchard trees would be necessary from PM 20.11 to PM 20.14 to accommodate the temporary road alignment to the temporary Taylor Creek Bridge, which would remove foraging habitat if birds were present.

Other construction activities, such as grading, excavation, pile driving, and paving near trees, could also disturb nesting birds. In total, the proposed project may result in the removal of up to 0.28 acres of valley-foothill riparian and 0.48 acres of orchard habitats that may provide potential nesting or foraging habitat for Swainson's hawk. However, the habitat within and adjacent to the proposed impact areas is only marginally suitable. Considerably improved nesting trees and foraging habitats occur in the greater area, but no nests were observed during field surveys. Impacts to Swainson's hawk nests are not anticipated as a result of project activities; however, pre-construction nesting bird surveys would be conducted by an approved biologist who would establish appropriate buffers around any active nests. With implementation of Caltrans Standard Measures and BMPs outlined in Section 1.6, and the avoidance and minimization measures indicated below, Caltrans anticipates there would be no overall impact to the species.

Per CESA, based on the information above and with implementation of the avoidance and minimization measures below, the project would have no take of Swainson's hawk.

Avoidance and Minimization Measures

Standard protection measures and BMPs outlined in Section 1.6 would be implemented to avoid and minimize impacts on Swainson's hawk.

- If work activities are to be conducted during the nesting season (February 1 to September 15), a nesting bird survey would be completed by a qualified Caltrans-approved biologist no earlier than five days prior to the start of construction. If there is a pause in construction of one week or longer, surveys would be conducted again prior to the re-commencement of construction activities.
- If actively nesting birds are identified in the survey area, an appropriate protection buffer would be established by a qualified biologist based on the species, type of construction or maintenance activities, and line of sight to the work area. To prevent encroachment, the established buffer(s) would be clearly marked by high-visibility material (if it has been determined by the qualified biologist that high-visibility material would not attract predators to the nest site.) No construction activities would occur within the buffer zone until the young have fledged, or the nest is no longer active, as confirmed by the qualified biologist. If any nesting birds are discovered within or near the job site during construction, all work would stop, and the Engineer would notify the Caltrans biologist immediately.

WESTERN RED BAT

Affected Environment

Western red bat (*Lasiurus frantzii*) is designated a CDFW SSC. CDFW defines SSCs as those species characterized by declining populations levels, limited ranges, and/or continuing threats. Bats are also non-game mammals afforded additional protection by state law from take and/or harassment (CFGF § 4150; CCR, § 251.1).

Western red bats are locally common in some areas of California, occurring from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade crests and deserts. The winter range includes western lowlands and coastal regions south

of San Francisco Bay. There is migration between summer and winter ranges, and migrants may be found outside the normal range. Frequently seen foraging in large concentrations, foraging may be from high above treetops to nearly ground level (Caltrans 2026a). Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests (Caltrans 2026a). Roosting occurs primarily in trees, less often in shrubs. Roost sites often are in edge habitats adjacent to streams, fields, or urban areas. Roosts may be from 20 to 40 feet above ground level. It is unusual for Western red bats to be found in crevices.

Bat guano and urine staining was observed during the November 4, 2025, field survey at Mossy Creek Bridge. There were no cracks or crevices in the structure that could be used for day roosting or nesting by any bat species; therefore, the bridge is considered as only night roosting habitat. The scope of work at Mossy Creek Bridge includes adding four new piers to support bridge widening. If any bat species were using the bridge for a night roost it is likely that they would be disturbed by construction, although could utilize other suitable night roosting areas in the project vicinity. No other structures in the project ESL had evidence of bats.

Environmental Consequences

Western red bats have the potential to occur in trees near riparian habitats at the edges of fields or other open areas within the ESL. However, potential roosting trees in the ESL did not exhibit the species' preferred characteristics (i.e., heavy foliage above to protect from predators, adequate drop space below for exiting). With implementation of the avoidance and minimization measures listed below, Caltrans anticipates no impacts to Western red bat.

Per CESA, based on the information above and with implementation of the avoidance and minimization measures below, the project would have no impact on Western red bats.

Avoidance and Minimization Measures

- Standard protection measures and BMPs outlined in Section 1.6 would be implemented to avoid and minimize impacts to bats.

CROTCH'S BUMBLE BEE

Affected Environment

Crotch's bumble bee (*Bombus crotchii*) is State candidate endangered per CESA. This species occurs primarily in California, including the Mediterranean region (e.g. coastal ecological zone spanning from southern Oregon and Baja California. This region lies between the Pacific Ocean to the Sierra Nevada), Pacific Coast, Western Desert, Great valley, and adjacent foothills through most of southwestern California. It has also been documented in southwest Nevada, near the California border. Bumble bees are important pollinators of wild flowering plants and crops. As generalist foragers, they do not depend on any one flower type. However, some plants do rely on bumble bees to achieve pollination (Caltrans 2026a).

Crotch's bumble bee inhabits open grassland and scrub habitats. This species is classified as a short-tongued species. Bumble bees are social insects that live in colonies composed of a queen, workers, and reproductives (males and new queens). Colonies are annual and only the new, mated queens overwinter. These queens emerge from hibernation in early spring and immediately start foraging for pollen and nectar and begin to search for a nest site. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities of old trees (Caltrans 2026a).

Bee surveys were not conducted due to the complexity of conducting accurate, protocol-level surveys and project timing. Because ground-nesting bees nest in different burrows each year, it would not be appropriate to conduct nesting surveys years in advance of construction. Crotch's bumble bee and marginally suitable habitat is assumed present.

Environmental Consequences

Road widening activities may directly impact ground burrows, and the removal of vegetation may remove potential foraging habitat. Abundant potential nesting and foraging habitat for Crotch's bumble bee outside of the project footprint and in the vicinity of the BSA would not be impacted. All areas temporarily disturbed by construction activities would receive a permanent erosion control seed mix comprising regionally appropriate native species which would, as feasible, include native bee foraging plant species.

Per CESA, as a state candidate endangered species, with implementation of Caltrans Standard Measures and BMPs and the avoidance and minimization measures indicated below (section 1.6), Caltrans anticipates the project would result in no take of Crotch's bumble bee.

Avoidance and Minimization Measures

- Standard protection measures and BMPs (BR-2) outlined in Section 1.6 would be implemented to avoid and minimize impacts to Crotch's bumble bee.

VALLEY ELDERBERRY LONGHORN BEETLE

Affected Environment

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB) is listed as threatened under FESA. VELB is a small (0.5 to 0.8 inch.) wood-boring beetle in the *Cerambycid* family. Elderberry shrubs (*Sambucus* spp.) are the obligate larval host plants for VELB, and their larvae go through several developmental stages within the elderberry shrub. Eggs are laid individually on leaves or at the junctions of the leaf stalk and main stem. Upon hatching, the larvae bore in to the elderberry stem and create feeding galleries in the pith. Adult emergence, mating, and egg-laying occurs in the spring and summer (March to July) typically coinciding with the elderberry flowering period. The only identifiable exterior evidence of elderberry use by VELB is the exit hole created by the larvae (Caltrans 2026a).

The historic distribution of the VELB closely matched the distribution of the elderberry host plant, which was patchily found throughout the Central Valley riparian forests and occasionally adjacent uplands (non-riparian). The current presumed range for VELB extends throughout the Central Valley. The range extends from approximately Shasta County in the north to Fresno County in the south including the valley floor and lower foothills. Most VELB have been documented below 500 feet in elevation. The USFWS recognizes habitat for VELB as including both riparian and non-riparian areas where elderberry shrubs are present. Elderberry shrubs can be a common understory plant in riparian habitats and non-riparian valley oak and blue oak woodland habitats. Elderberry shrubs are often found away from riparian areas, but where ditches, irrigation, groundwater, or other features allow the plant to receive enough moisture. They are also commonly utilized as ornamental plantings in regularly maintained landscaped settings (Caltrans 2026a).

At the local level, it appears that much of the variation in VELB occupancy of elderberry shrubs results from variables such as elderberry condition, water availability, elderberry density, and the health of the riparian habitat. Research suggests that VELB occurs throughout the Central Valley in metapopulations. Metapopulations are defined as systems of discrete subpopulations that may exchange individuals through dispersal or migration. Research indicates that healthy riparian systems supporting dense elderberry clumps are the primary habitat of VELB. Typical distances between stems with exit holes averages 65 to 165 feet apart.

Because the elderberry is the sole host plant of VELB, any activities that adversely impact the elderberry shrub may also adversely impact VELB. Activities that reduce the suitability of an area for elderberry plants or elderberry recruitment and increase fragmentation may have adverse impacts to mating, foraging, and dispersal of VELB (Caltrans 2026a).

There were approximately 30 individuals and 6 clusters (clusters have approximately 10 shrubs), which totals approximately 90 elderberry shrubs within the ESL. The shrubs growing near the creeks and bridges were considered riparian habitat and the shrubs growing along the roadway where there were no water channels present were considered non-riparian habitat. At Winter Creek (PM 16.38) there were approximately 2 elderberry shrubs against the west side of the bridge and a cluster of shrubs approximately 15 feet from the bridge at the northeast end of the proposed staging area (PM 16.35) which comprised approximately 10 shrubs. At Mossy Creek Bridge (PM 18.13) there were approximately 2 elderberry shrubs against the southwest side, 4 elderberry shrubs against the northwest side, a large multi-stem elderberry shrub (approximate Diameter at Breast Height 3.5) and one small shrub growing against the northeast side of the bridge. There were approximately 3 elderberry shrubs growing on the west side of the Taylor Creek Bridge (PM 20.14), approximately 20 feet from the creek. There were individuals and clusters of non-riparian elderberry shrubs growing within the right of way at approximately PMs 15.32, 18.08, and 18.33. Based on the VELB framework, it is assumed VELB could be present at the riparian elderberry shrub locations (Caltrans 2026a).

Environmental Consequences

Because of the challenging nature of determining whether an individual plant or cluster is occupied by VELB, exit hole surveys were not conducted. The USFWS

VELB framework states the likelihood of adverse effects may not always be ascertained simply by the presence or lack of exit holes. The framework recommends a more thorough analysis of nearby occurrences, surrounding habitat, and elderberry density to fully address adverse impacts. There are no CNDDDB occurrence records of VELB within the project BSA; however, there are 3 occurrences within 2 miles of the BSA. Habitat within the BSA is mostly agricultural land or ruderal roadside vegetation that is regularly maintained. The clusters of elderberry shrubs in the riparian areas have the greatest potential for VELB within the BSA; however, these locations are considered isolated habitats as the riparian areas are located miles apart from each other. The shrubs that are within the ESL occur in sporadic patches that are too far from each other for VELB to move between habitats. If VELB are occurring on these shrubs, they are isolated to the single clusters. Nearby Cache Creek, which runs adjacent to SR 16, provides higher quality habitat that VELB are more likely to occupy as Cache Creek has more extensive, undisturbed spans of riparian habitat. The surrounding Capay Valley has other locations with greater potential to provide habitat for elderberry shrubs and VELB. Although habitat within the project footprint is considered inferior to that in the vicinity, Caltrans assumes that VELB may be present on its host plant within the ESL due to range suitability.

It is assumed that extending the road shoulders, bridge widening, and bridge replacement work would require the removal of elderberry shrubs within the ESL. All elderberry shrubs within the ESL (approximately 30 individual and 6 clusters, 90 inches total) are expected to be removed for this project. The actual number may be refined during the permitting phase of the project. Because VELB may inhabit elderberry shrubs within the ESL, the removal of elderberry shrubs may have a direct impact on VELB.

Per FESA, the project *may affect and is likely to adversely affect* valley elderberry longhorn beetle.

Avoidance, Minimization and Mitigation Measures

- Where feasible, elderberry shrubs would not be removed. Standard protection measures and BMPs (BR-2) outlined in Section 1.6 would be implemented to avoid and minimize impacts to VELB.

- Caltrans proposes to compensate for adverse effects through the purchase of VELB mitigation credits at a USFWS-approved mitigation bank and transplanting elderberry shrubs to an offsite USFWS-approved bank site. Caltrans proposes to compensate for permanent losses using habitat level compensation. One credit (unit) is equal to 1,800 square feet and would be used to determine the amount of credits required for mitigation. It is assumed that permanent riparian impacts would be compensated at a 3:1 acreage ratio and that permanent non-riparian impacts would be mitigated at a 1:1 acreage ratio. Final details of the VELB mitigation requirements will be determined during FESA Section 7 Consultation with USFWS.

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?***

Less Than Significant Impact with Mitigation Incorporated.

The special status species listed below have suitable habitat within the BSA; therefore, could potentially be impacted by project activities during construction. Although no special status species were observed during field surveys, these species could be in the vicinity of the project during construction.

Swainson's Hawk

No Impact. With implementation of Caltrans Standard Measures and BMPs outlined in Section 1.6, and above mentioned avoidance and minimization measures, there would no impacts to Swainson's hawk.

Western Red Bat

No Impact. With implementation of Caltrans Standard Measures and BMPs outlined in Section 1.6, and above mentioned avoidance and minimization measures, there would no impacts to Western red bat.

Crotch's Bumble Bee

No Impact. With implementation of Caltrans Standard Measures and BMPs outlined in Section 1.6, and above mentioned avoidance and minimization measures, there would no impacts to Crotch's bumble bee.

Valley Elderberry Longhorn Beetle

Less than Significant Impact with Mitigation. With implementation of Caltrans Standard Measures and BMPs outlined in Section 1.6, and mitigation measures listed below, there would be less than significant impacts to VELB.

Caltrans would compensate for adverse effects through the purchase of VELB mitigation credits at a USFWS-approved mitigation bank and transplanting elderberry shrubs to an offsite USFWS-approved bank site. Caltrans would compensate for permanent losses using a combination of shrub level and habitat level compensation. Compensation for permit-driven impacts to VELB would be done in accordance with permitting requirements; final permit-driven mitigation ratios would be determined by USFWS during the permitting process to fully mitigate project impacts and account for any temporal loss of function during FESA Section 7 consultation with USFWS. Discussion of CEQA Environmental Checklist Question 2.4 b – f 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?

Valley-foothill Riparian Habitat

Less Than Significant Impact with Mitigation Incorporated. The project proposes to widen nonstandard shoulders to standard 8 foot width throughout the entire length of the project. This would require the trimming and/or removal of riparian habitat at the creeks and culverts to make space for bridge and culvert work. The proposed work would permanently impact approximately 0.28 acres of valley-foothill riparian habitat at various locations throughout the project limits. Because the habitat within and adjacent to the proposed impact areas is only marginally suitable, and considerably improved nesting trees and foraging habitats occur in the area outside the BSA, there would be no impact to 0.48 acres of orchard habitats.

Temporary and permanent impacts would be minimized with implementation of the Standard Measures and BMPs outlined in Section 1.6 and mitigation measures indicated below.

In addition, Caltrans would compensate for permanent project impacts to these sensitive natural community in accordance with permitting requirements set forth by CDFW. Final permit-driven mitigation ratios would be determined by CDFW during the permitting process to fully mitigate project impacts and account for any temporary loss of habitat function.

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?***

Wetlands and Other Waters

Less Than Significant Impact with Mitigation Incorporated. Three non-wetland waters (intermittent streams) were identified within the project area: Winter Creek, Brooks Creek and Taylor Creek. Additionally, 9 of the 23 culverts identified to be lengthened or replaced convey Waters of the U.S. and/or Waters of the State. The proposed project would temporarily affect 0.13 acres and permanently 0.07 of aquatic resources of the United States/Waters of the State.

Temporary impacts are anticipated to be a maximum of 0.02 acres in Winter Creek. At Mossy Creek, there would be 0.05 acres of temporary impacts and less than 0.01 acres of permanent impacts. At Taylor Creek, it is anticipated there would be 0.06 acres of temporary impacts and 0.02 acres of permanent impacts.

The culvert replacements/extensions, RSP placement, and headwalls would result in approximately 0.044 acres of permanent impacts to Waters of the U.S. and Waters of the State. Proposed bridge designs at Winter Creek and Taylor Creek may result in a net gain to bank and channel through the removal of existing abutments within the channels and placement of new abutments outside of the channel. If net gain is determined after further project design, discussions with CDFW will determine if

these betterments will offset project impacts to other bed, bank and channel modifications.

Temporary and permanent impacts would be minimized with implementation of the Standard Measures and BMPs outlined in Section 1.6. Caltrans would compensate for permanent project impacts in accordance with permitting requirements set forth by USACE, the CVRWQCB, and CDFW. Caltrans may purchase agency approved mitigation credits or in-lieu fee credits, if available, to compensate for permanent impacts to Waters of the U.S. and State. If no credits are available, agency-approved off-site mitigation may be required to offset project impacts. Thus, the project would have a less than significant impact with mitigation on other waters.

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. There are no fish present in the creeks, and fish are not able to migrate upstream toward the project area beyond the human-caused block on Cache Creek. The creeks within the project are tributaries to Cache Creek with intermittent flows and are poorly shaded, so they would not provide suitable habitat for fish to remain as resident species within the project area.

The proposed project does not include scope that would add features to the highway which would impede terrestrial migratory wildlife. Opportunities to provide habitat connectivity were examined for inclusion with the Taylor Creek Bridge improvements; however, water depths during high flow would impede safe wildlife crossing under the highway if it were added. The project would not modify connectivity for the area.

As currently proposed, the project would not result in any new or increased barriers to wildlife movement and all replaced culverts that measure under 24 inches in diameter would be replaced with those that measure at least 24 inches in diameter. Though this is a consideration designed to primarily meet hydraulic requirements, increased culvert diameters would also provide an ancillary benefit to

connectivity. Therefore the project would have no impact on movement of fish or wildlife species.

**Discussion of CEQA Environmental Checklist Questions 2.4e and f –
Biological Resources**

- e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***
- f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

No Impact. The proposed project is located within the State right of way, with minor property acquisition to construct the project. The local policies or ordinances would not conflict with the proposed project activities. There is a layer for conservation easements within the project area. However, the proposed project, with implementation of Caltrans' Standard Measures and BMPs outlined in Section 1.6 in combination with other avoidance and minimization measures described in this document, is consistent with provisions of the Yolo Habitat Conservation Plan/ Natural Communities Conservation Plan. Accordingly, for both questions (e) and (f), the analysis concludes that no impact would occur.

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	No	Yes
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

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

- the Archaeological Survey Report (ASR) prepared February 2026 (Caltrans 2026b);
- the Historic Property Survey Report prepared February 2026 (Caltrans 2026c);
- the Extended Phase I Report prepared December 2025 (Caltrans 2025d);
- and consultation with local tribes.

Cultural studies included an archaeological survey report, and extended phase I report. No cultural resources were identified within the project area of potential effects (APE). Caltrans, pursuant to Section 106 PA Stipulation IX.A, has determined a Finding of No Historic Properties Affected is appropriate for this undertaking because there are no historic properties in the APE. There are no Historic Properties in the APE.

Consultation for the project:

The California NAHC was contacted on August 18, 2024, to request a search of the sacred land files for the project area (Attachment 1). The NAHC responded via an email dated August 29, 2024. Results indicated that a resource was present and the NAHC provided a list of individuals and organizations in the Native American community who may be able to share any information or concerns about the project area and proposed undertaking. Communication with these contacts, which consisted of emails sent September 9, 2024, included the following tribal entities:

- Anthony Roberts, Chairperson, Yocha Dehe Wintun Nation
- Wayne Mitchum Jr., Chairperson, Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
- Charlie Wright, Chairperson, Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
- Ronald Kirk, Chairperson, Grindstone Rancheria of Wintun-Wailaki

Consultation also included local historical societies. The Yolo County Historical Society was asked to consult on this project via an email sent on September 9, 2024. Ms. Kathy Harryman, president of the society, responded via email and expressed concern about the historic Rumsey Bridge (Br. #22C-0003). This bridge, which is along County Road 41, is outside of the ESL and will not be affected by the project.

No indicators of human remains, or burial sites were observed within the project limits. The proposed project is not anticipated to disturb any human remains. There are no listed or eligible historic properties that were identified within the project area. Based on the findings, and implementation of Caltrans' Standard Measures and BMPs outlined in Section 1.6, there would be no impact to Cultural Resources as a result of the project.

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	Yes	No
Would the project: b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No	No	No	Yes

Regulatory Setting

NEPA (42 USC Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

CEQA Guidelines Section 15126.2(b) and CEQA Guidelines Appendix F – Energy Conservation require an analysis of a project’s energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

Affected Environment

Energy in a resource context generally pertains to the use or conservation of fossil fuels, which are a finite resource. Based on the scope, description, and location of the proposed project, Energy Analysis Study was completed on November 7, 2025, and determined that the proposed project would not increase capacity or provide congestion relief when compared to the no-build alternative (Caltrans 2025c). As such, it is unlikely to increase direct energy consumption from mobile sources. Construction of the proposed project would primarily consume diesel and gasoline through operation of heavy-duty construction equipment, material deliveries, and debris hauling.

Environmental Consequences

Temporary impacts would result from energy use associated with construction of the proposed project. Estimated total short-term fuel consumption is 6,415 gallons from diesel-powered equipment and 1,610 gallons from gasoline-powered equipment (Caltrans 2025c). This represents a small demand on local and regional fuel supplies that would be easily accommodated, and this demand would cease once construction is complete. Moreover, construction-related energy consumption would be temporary and not a permanent new source of energy demand, and demand for fuel would have no noticeable effect on peak or baseline demands for energy. The proposed project does not include maintenance activities which would result in long-term indirect energy consumption by equipment required to operate and maintain in the roadway.

Avoidance, Minimization and Mitigation Measures

Standard Measures and BMPs outlined in Section 1.6 would be implemented to minimize potential effects on energy efficiency by construction in or near the proposed project ESL.

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

Discussion of CEQA Environmental Checklist Question 2.6 – Energy

- a) Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?***

Less than Significant Impact. The proposed project would not increase vehicle capacity or provide congestion relief when compared to the No-Build Alternative. As such, it is unlikely to increase direct energy consumption from mobile sources.

Construction-related energy consumption would be temporary and not a permanent new source of energy demand, and demand for fuel would have no noticeable effect on peak or baseline demands for energy. As the proposed project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation, the impact to the environment would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The proposed project would not conflict with or obstruct State energy conservation plans by aligning construction contract requirements with state diesel-powered vehicle regulations and conducting analysis of the project energy using data incorporated from CARB emissions inventory. Additionally, the project does not conflict with the Yolo County Climate Action Plan because the project provides resilient infrastructure (County of Yolo 2024b). Therefore, no impact would occur.

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: a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No	No	No	Yes
ii) Strong seismic ground shaking?	No	No	No	Yes
iii) Seismic-related ground failure, including liquefaction?	No	No	No	Yes
iv) Landslides?	No	No	No	Yes
Would the project: b) Result in substantial soil erosion or the loss of topsoil?	No	No	No	Yes
Would the project: c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No	No	No	Yes

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 proposed project, as well as the California Department of Conservation’s Geological Survey website accessed December 12, 2025, (California Department of Conservation 2010) and the Paleontological Resources Assessment prepared on December 12, 2025 (Caltrans 2025d).

Alquist-Priolo earthquake fault zones are regulatory zones surrounding the surface traces of active faults in California (California Geological Survey 2024). According to published geologic maps of the Guida Quadrangle, it appears that the project area is primarily underlain by Quaternary-age sedimentary units consisting of basin deposits, Modesto Formation, and Riverbank Formation, along with minor areas underlain by the Tertiary-age Tehama Formation. These formations have all been documented as containing vertebrate fossils in different locations. Additionally, a review of the University of California Museum of Paleontology PaleoBios database shows many fossil localities have been documented in the nearby Cretaceous units, although they are outside of the project area.

The proposed project would not cause potential adverse effects, including the risk of loss, injury, or death, due to strong seismic ground shaking as the project is not in a known earthquake fault zone, seismic-related ground failure, landslide and soil erosion or the loss of top soil. Based on these findings, and implementation of Caltrans' Standard Measures and BMPs outlined in Section 1.6, there would be no impact to Geology and Soils resources as a result of the project.

2.8 GHG 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 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 CO₂, methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), and various hydrofluorocarbons (HFCs). CO₂ 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 CO₂ that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO₂.

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, 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.

NEPA (42 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 sets and enforces corporate average fuel economy standards for on-road motor vehicles sold in the United States. The U.S. EPA calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards for vehicles under the CAA. Raising CAFE standards leads automakers to create a more fuel-efficient fleet, which improves our nation’s energy security, saves consumers money at the pump, and

reduces GHG emissions (U.S. DOT 2014). 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 and EOs.

In 2005, EO S-3-05 initially set a goal to reduce California's GHG emissions to 80% below year 1990 levels by 2050, with interim reduction targets. Later EOs and Assembly and Senate bills refined interim targets and codified the emissions reduction goals and strategies. CARB was directed to create a climate change scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Ongoing GHG emissions reduction was also mandated in 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% 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.

Affected Environment

The proposed project is located in Yolo County, outside of a Metropolitan Statistical Area. The surrounding environment is predominantly rural and agricultural with tribal economic and cultural presence centered around the Yocha Dehe Wintun Nation and the Cache Creek Casino Resort. SR 16 is the main transportation route between SR 20 and Interstate 505 for commuters, recreational travelers, freight truck drivers, and farm equipment operators. The Yolo County General Plan—Sustainability element, Sacramento Area Council of Governments (SACOG), and Yolo-Solano Air Quality Management District (YSAQMD) addresses GHGs in the project area.

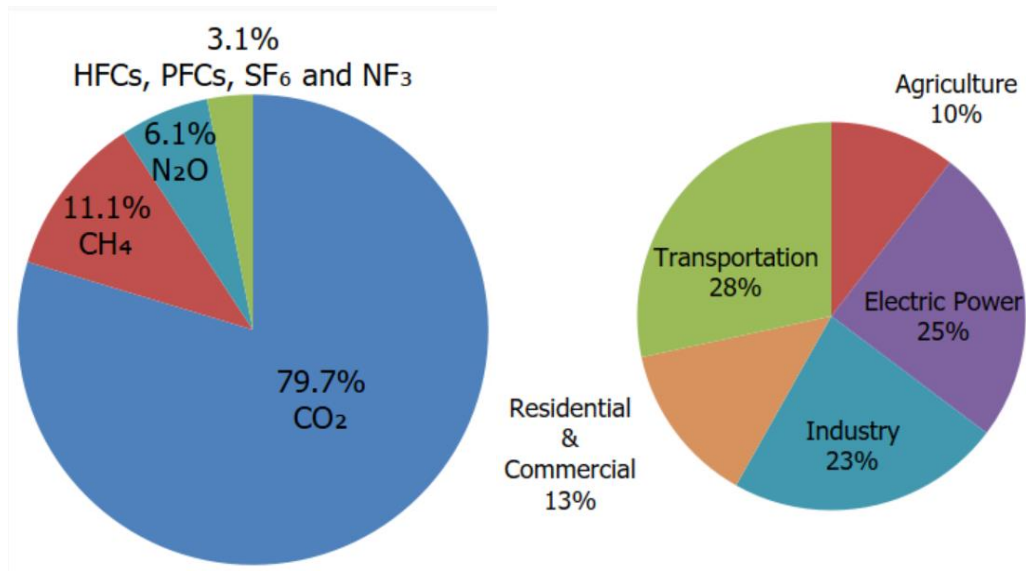
GHG INVENTORIES

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and 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, 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 CO₂, 11% were CH₄, and 6% were N₂O; the balance consisted of fluorinated gases. From 1990 to 2022, CO₂ emissions decreased by only 2% (U.S. EPA 2024a).

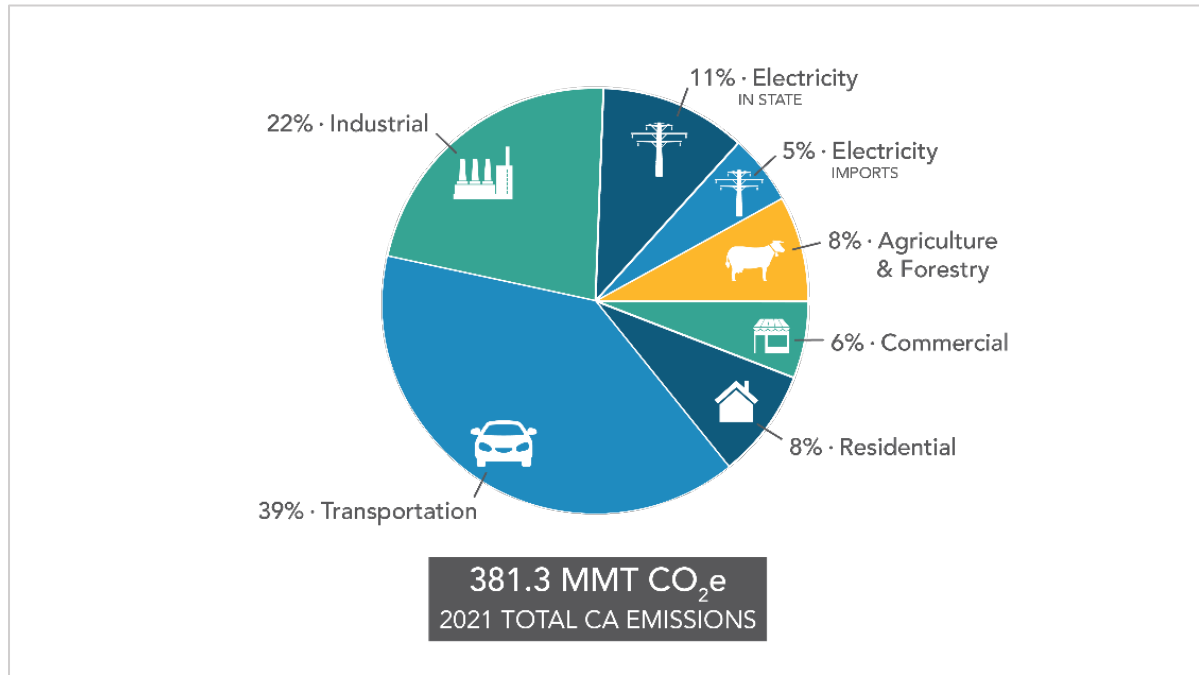
The transportation sector's share of total GHG emissions remained at 28% in 2022 and continues to be the largest contributing sector (Figure 4). Transportation activities accounted for 37% of U.S. CO₂ emissions from fossil fuel combustion in 2022. This is a decrease of 0.5% from 2021 (U.S. EPA 2024a, 2024b).

Figure 4. U.S. 2022 GHG Emissions

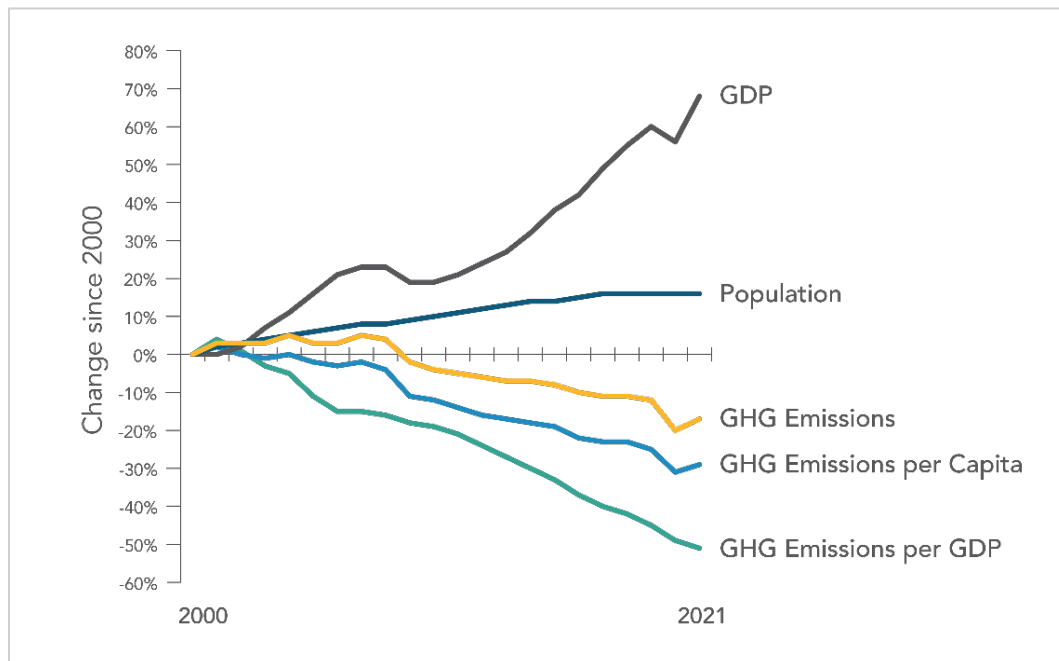
(Source: U.S. EPA 2024b)

STATE GHG INVENTORY

CARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. 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 5). Transportation emissions remain the largest contributor to GHG emissions in the state (Figure 6) (CARB 2022a).

Figure 5. California 2021 GHG Emissions by Economic Sector

(Source: CARB 2022a)

Figure 6. Change in California GDP, Population, and GHG Emissions since 2000

(Source: CARB 2022a)

AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions. CARB adopted the first scoping plan in 2008. 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% below 1990 levels and achieve carbon neutrality no later than 2045, in accordance with AB 1279 (CARB 2022a).

REGIONAL PLANS

As required by The Sustainable Communities and Climate Protection Act of 2008, CARB sets regional GHG reduction targets for California's 18 metropolitan planning organizations to achieve through planning future projects that will cumulatively achieve those goals, and reporting how they will be met in the Regional Transportation Plan (RTP)/Sustainable Communities Strategy (RTP/SCS) (Table 5).

Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for the SACOG. The regional reduction target for SACOG is 19% by 2035 (CARB 2021). Table 5 lists the policies and actions aimed at reducing GHG emissions.

Table 5. Regional and Local GHG Reduction Plans

Title	Greenhouse Gas (GHG) Reduction Policies or Strategies
Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for Sacramento, Yolo, Yuba, Sutter, Placer, and El Dorado counties (adopted November 2019)	• Transit oriented development. • Include complete streets. • Innovative Transportation Demand Management programs. • Build and maintain a safe, resilient, and Multimodal transportation system. • Implement pilot projects aimed at micro transit and micro mobility.
<i>Yolo County 2030 Countywide General Plan (County of Yolo 2024c)</i>	• Policy CI-4.2: Support regional air quality and GHG objectives through effective management of the county's transportation system. • Policy CI-4.3: Reduce dependence upon fossil fuels through: • Reduction of vehicle trips and vehicle miles traveled by requiring compact, infill and mixed use development. • Use of alternatives to the drive-alone automobile, including walking, bicycling and public transit. • Use of vehicles powered by renewable/alternative fuel sources. • Local street designs that encourage pedestrian and bicycle use and discourage high speed traffic. • Street designs that support/enhance access between neighborhoods and to neighborhood-based commercial developments. • Promotion of ride sharing and car sharing programs. • Use of LED traffic lights. • Encourage development of the infrastructure necessary to support clean alternative fuel vehicles and electric vehicles. • Emerging technologies related to goods movement activities at truck stops, loading terminals, airports -and rail facilities.
<i>Yolo-Solano Air Quality Management District (YSAQMD)¹ Planning & Monitoring Sustainability (YSQMD 2007)</i> <i>¹YSAQMD is the regional agency responsible for ensuring healthful air quality in Yolo County and the northeast portion of Solano County.</i>	• Improve the air quality in the Yolo-Solano County Region by obtaining Ambient Air Quality Standards for public health. • Reduce GHG emissions by monitoring facilities and verifying compliance to meet AB 32 goals. • Reduce particulate matter and improve outdoor air quality from wood burning appliances.

Environmental Consequences

GHG emissions from transportation projects can be divided into those produced during operation and use of the State Highway System (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO₂, CH₄, N₂O, and HFCs. CO₂ emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH₄ and N₂O. 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 (GWP). CO₂ is the most important GHG, so amounts of other gases are expressed relative to CO₂, using a metric called “carbon dioxide equivalent”, or CO₂e. The global warming potential of CO₂ is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO₂.)

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

Non-Capacity Increasing Projects

The purpose of this project is to rehabilitate and extend the pavement service life by addressing existing pavement in fair and poor condition; bring shoulders to current standard; upgrade existing guardrails, roadside sign panels, and striping to meet current standards.

The proposed project scopes 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. Because the project would not increase the number of travel lanes on SR 16, 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 December 2027 and occur over approximately 150 working days. The Caltrans Construction Emissions Tool (CAL-CET) 2021 v1.02 was used to estimate emissions from construction activities. Table 6 below summarizes estimated GHG emissions generated by on-site equipment for the project.

All construction contracts include Caltrans Standard Specifications related to air quality. Section 7-1.02A and 7-1.02C, Emissions Reduction, requires 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. Caltrans is firmly committed to implementing measures to help reduce GHG emissions.

Table 6. CAL-CET Estimates of GHG Emissions During Construction

Construction Year	CO ₂ (US tons)	CH ₄ (US tons)	N ₂ O (US tons)	HFC-134a (US tons)	BC (US tons)	CO ₂ e* (Metric tons)
2027	174	0.005	0.008	0.004	0.007	168
2028	407	0.009	0.021	0.011	0.016	395
2029	19	0.000	0.001	0.001	0.000	19
Total	599	0.014	0.030	0.015	0.024	581

* A quantity of GHG is expressed as carbon dioxide equivalent (CO₂e) that can be estimated by the sum after multiplying each amount of CO₂, CH₄, N₂O, and HFCs by its global warming potential (GWP). Each GWP of CO₂, CH₄, N₂O, and HFCs is 1, 25, 298, and 14,800, respectively.

Discussion of CEQA Environmental Checklist Question – GHG Emissions

a) Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. While the proposed project would result in GHG emissions during construction, it is anticipated the project would not result in any increased operational GHG emissions since it would not increase capacity of SR 16 nor change travel demands or traffic patterns as compared to the No-Build Alternative. The project would not increase the number of travel lanes on SR 16, so no increase in VMT would occur. Therefore, the overall impact of GHG would be less than significant.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG?

Less Than Significant Impact. The proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHG. Emissions would be temporarily increased during the construction of the proposed project; however, with implementation of construction GHG reduction measures and Caltrans' Standard Measures and BMPs outlined in Section 1.6, there would be a less than significant impact. Caltrans is firmly committed to implementing measures to help reduce GHG emissions.

GHG 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 by 2030; (2) Reducing petroleum use by up to 50% by 2030; (3) Increasing the energy efficiency of existing buildings by 50% 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 (OPR 2015).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of VMT.

Reducing today's petroleum use in cars and trucks is a key state goal for reducing GHG emissions by 2030 (California Environmental Protection Agency 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 CO₂ from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

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

Caltrans Policy Directives and Other Initiates

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

Project-Level GHG Reduction Strategies

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

- The construction contractor(s) must comply with the Caltrans Standard Specifications in Section 14-9. Section 14-9.02 specifically requires compliance with all applicable laws and regulations related to air quality, including the Central Valley Regional Air Quality Management District regulations as well as local ordinances.
- Compliance with Title 13 of the CCR, which includes idling restrictions of construction vehicles and equipment to no more than 5 minutes.
- Caltrans' Standard Specification 7-1.02C "Emissions Reduction" ensures that construction activities adhere to the most recent emissions reduction regulations mandated by CARB.
- Utilize a TMP to minimize vehicle delays.
- To the extent feasible, construction traffic would be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Maintain equipment in proper tune and working condition.
- Where feasible, the removal of established trees and vegetation would be minimized (Aesthetic Resources BMP AR-5).
- Environmentally sensitive areas would have THVF and/or flagging installed before start of construction to demarcate areas that will be protected. Such areas include, but are not limited to wetlands and riparian vegetation, including trees and their root systems.
- If previously vegetated, temporary access roads, construction easements, and staging areas would be restored to a natural contour and revegetated with regionally appropriate native vegetation.
- Earthwork Balance: Reduce the need for transport of earthen materials by balancing cut and fill quantities.

- Provide signs and striping necessary for approximately 81,300 linear feet of Class III bike lanes and pave pullouts for existing bus stops along the project route to encourage low- and zero-emission transportation options on SR 16.

Adaptation Strategies

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

FEDERAL EFFORTS

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

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

The National Oceanic and Atmospheric Administration 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 2022a).

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) provides information to help decision makers across sectors and at state, regional, and local scales 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 in the coastal zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

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

planning, design, and implementation processes to respond to the observed and anticipated climate change impacts (Climate-Safe Infrastructure Working Group 2018).

EO S-13-08, issued in 2008, directed state agencies to consider sea level rise scenarios for 2050 and 2100 during planning to assess project vulnerabilities, reduce risks, and increase resilience to sea level rise. It gave rise to the 2009 California Climate Adaptation Strategy, the Safeguarding California Plan, and a series of technical reports on statewide sea level rise projections and risks, including the State of California Sea-Level Rise Guidance Update in 2018. The reports addressed the full range of climate change impacts and recommended adaptation strategies. The current California Climate Adaptation Strategy incorporates key elements of the latest sector-specific plans such as the Natural and Working Lands Climate Smart Strategy, Wildfire and Forest Resilience Action Plan, Water Resilience Portfolio, and the CAPTI (described above). Priorities in the 2023 California Climate Adaptation Strategy include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, implementing nature-based climate solutions, using best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2023).

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

SB 1 Coastal Resources: Sea Level Rise (*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 Roadmap includes designing new buildings for climate change resilience and zero-net energy, and replacing fleet vehicles with zero-emission vehicles (Caltrans 2023).

PROJECT ADAPTATION EFFORTS

The adaptation analysis is intended to demonstrate how the project will be adapted to be resilient to climate change effects. Future changes in precipitation, flooding, and wildfires were considered in the planning and design decisions for the proposed project. The project proposes to improve pavement condition, roadway safety and rehabilitation using full depth reclamation, shoulder widening, and bridge replacement and widening with upgraded bridge railings. The bridges replacement and widening design will focus on perpetuating existing highway drainage conditions to the greatest extent feasible. Construction features would be designed to perpetuate flow in the existing direction and would have similar or greater capacity than what currently exists in support of current design standards.

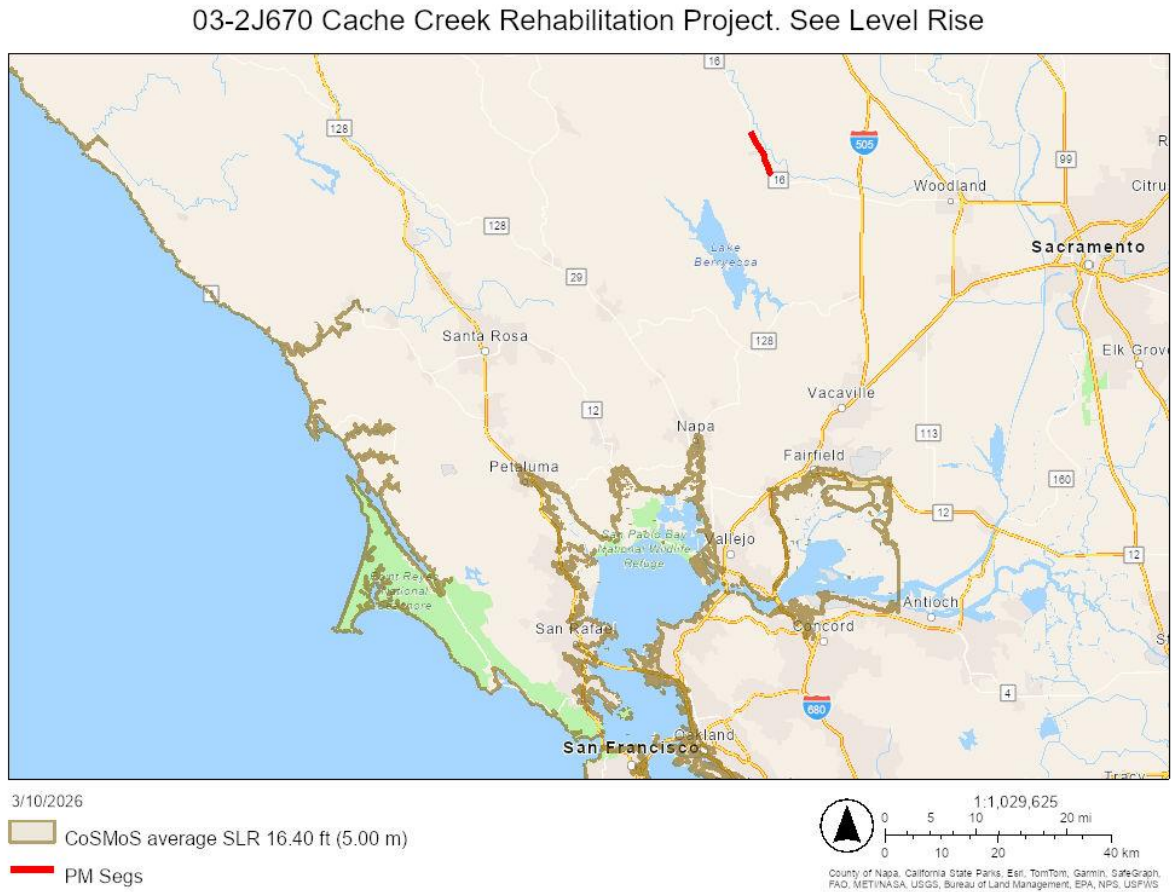
The replaced and widened bridges and upgraded culverts would better facilitate runoff during precipitation events, thus adapting the drainage systems of the roadway to increase resiliency against flooding with changing precipitation. Specific design materials were selected for the proposed project with adaptation to future climate change consideration. Fair and poor condition culverts would be replaced by reinforced concrete pipe (RCP) rather than CSP to better withstand fires and weathering. The new MGS installed in the proposed project would utilize steel posts as they are more resilient to wildfire compared to the wood post counterpart.

The proposed project would not exacerbate the effects of climate change related to CEQA topics such as sea level rise, riverine flooding, hazards, and wildfire. Climate-change risk analysis involves uncertainties as to the timing and intensity of potential risks, although the analysis uses the best available science.

Sea Level Rise

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

Figure 7. Sea Level Rise within Project Study Area from NOAA Sea Level Rise Viewer



Source: NOAA 2026 Year
(NOAA, 2022b)

Precipitation and Flooding

The Caltrans Climate Change Vulnerability Assessment for District 3 (Caltrans 2019) mapped the potential climate impacts to the district's portion of the State Highway System by comprising a database of climate stressors and using the relative geospatial data to gauge the vulnerability. To determine the impacts due to precipitation and flooding to the proposed project area on SR 16 and the surrounding areas, the 100-year flood event was assessed to project how 100-year flood rainfall is to change as a result of climate change. The 100-year flood event is commonly used in the sizing and design of culverts and drainage systems. In most cases, it is assumed that the 100-year flood is caused by a 100-year precipitation event. For the proposed project area, the 100-year rainfall precipitation depth is projected to increase by as much as 5.0–9.9 % through 2055 and 10–14.9% through 2085.

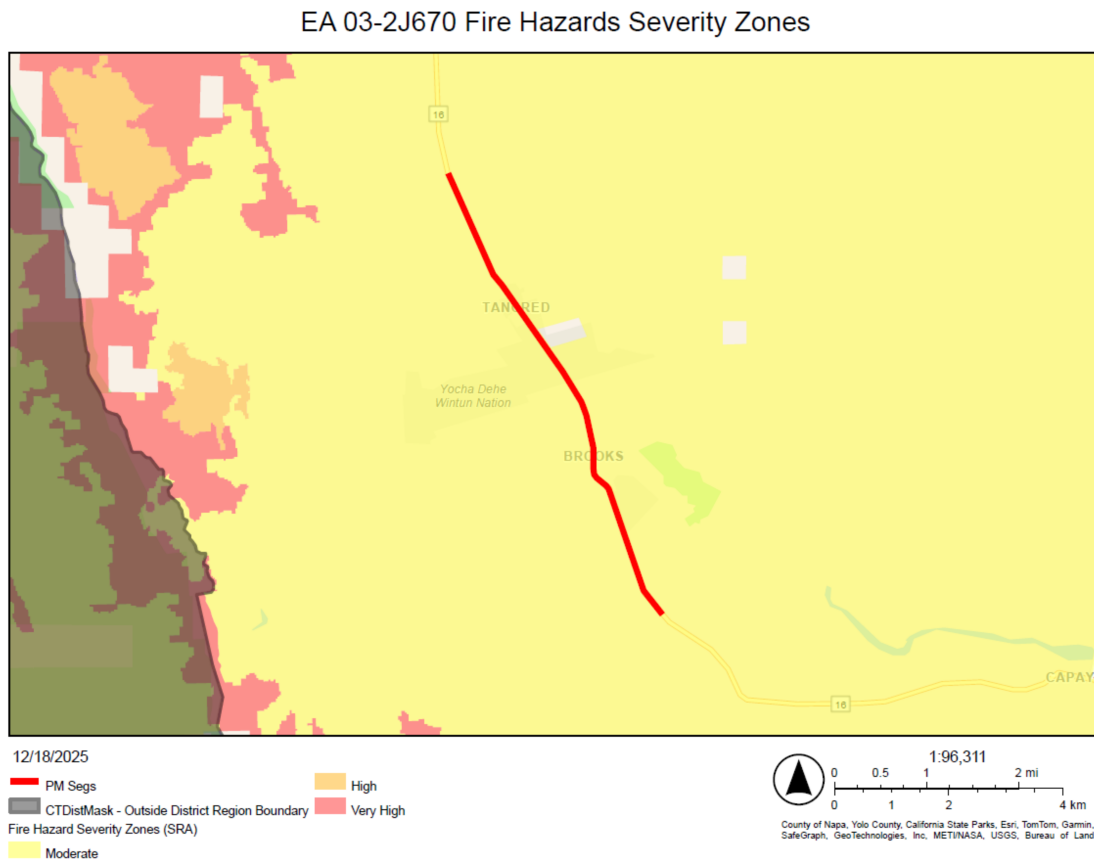
The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for Yolo County, California, and Incorporated Areas indicates the location of the Mossy, Winters and Taylor Creeks bridges are within FEMA Zone A floodplains, denoting “an area subjected to 1% annual-chance flood.” Caltrans, in the Floodplain Hydraulics Study (Caltrans 2025e), has determined that risk of a 100-year flood inundating the project site at this location is low. All other areas of the project site are located within FEMA Zone X, denoting an “Area of Minimal Flood Hazard.” FEMA uses unshaded Zone X to characterize areas determined to be outside of the 0.2% annual chance flood (500-year flood) (FEMA 2025a, 2025b).

This project proposes to replace and extend bridges to accommodate widening of the roadway. It is anticipated that drainage system design will focus on perpetuating existing highway drainage conditions to the greatest extent feasible. In support of current design standards, the proposed project would improve drainage systems to reduce the risk of localized flooding and protect the integrity of the roadbed during precipitation events.

Wildfire

The proposed project is located in a State Responsibility Area (SRA) on SR 16 in Yolo County. Within the SRA, the proposed project is located within a moderate CAL FIRE Fire Hazard Severity Zone, as shown below in Figure 8 (CAL FIRE 2025).

Figure 8. CAL FIRE Fire Hazard Severity Zones in the Project Area



The Caltrans Climate Change Vulnerability Assessment for District 3 identified the proposed project site within an area with Moderate Wildfire Exposure (Caltrans 2019). The projections are based on the Representative Concentration Pathways 8.5 Emissions Scenario.

Caltrans Standard Specifications mandate fire prevention procedures, including a Fire Prevention Plan, to avoid accidental fire starts during construction.

Replacing culverts that have exceeded their design life is expected to reduce the risk of slope instability for situations where wildfires leave areas with steep slopes exposed. The proposed project work would include managing vegetation control to current standards, thus reducing fuels for wildfires.

Specific design materials were selected for the proposed project with adaptation to future climate change in mind. The installation of new MGS would utilize steel posts as they are more resilient to wildfire compared to the wood post counterpart. Fair and poor condition culverts would be replaced by RCP rather than CSP to better withstand fires and weathering.

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 (Caltrans 2021).

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	Yes	No
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	Yes	No
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	Yes	No
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

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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

“Less Than Significant Impact” to answer CEQA Checklist Questions a and b, and “No Impact” to answer Questions c to g determinations in this section are based on the scope, description, and location of the proposed project, as well as the Initial Site Assessment dated April 15, 2026 (Caltrans 2026e).

Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, and the Resource Conservation and Recovery Act (RCRA) of 1976. The purpose of CERCLA, often referred to as “Superfund,” is to identify and clean up abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act of 1992
- CWA
- CAA
- Safe Drinking Water Act

- Occupational Safety and Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts listed above, EO 12088, *Federal Compliance with Pollution Control Standards*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

Affected Environment

The purpose of the Initial Site Assessment is to identify any hazardous waste issues within and adjacent to the project area that could affect the project's design, constructability, feasibility, and/or cost. Record searches of federal, state, and local databases, review of maps and reports, and a field inspection were conducted.

The proposed project consists of 5.4 miles of SR 16, including existing two earth-filled arch bridges and one pile cap bridge. Bridge widening and replacement activities which could potentially involve or release hazardous materials include:

- Operation, maintenance and storage of heavy equipment.
- Removal of painted striping and markings.
- Removal of signposts and guardrails.
- Widening of the existing bridge.
- Replacing the existing bridges.
- Removal and/or extension of existing culverts and other drainage features.
- Disturbance of soils and rock features within the right of way.

Environmental Consequences

Humans and the environment could be exposed to hazardous conditions from the accidental release of hazardous materials during construction activities. Construction would involve the use of heavy equipment, involving small quantities of hazardous materials (e.g., petroleum products and other chemicals used to operate and maintain construction equipment) that may result in hazardous conditions in the project area. Additional hazardous materials that may be encountered during the proposed project are discussed in the following sections.

Naturally Occurring Asbestos

A geologic evaluation regarding Naturally Occurring Asbestos (NOA) was conducted within the project limits. This evaluation included a review of geologic maps and reports including data prepared by the California Geological Survey and the United States Geological Survey. The evaluation does indicate the potential presence of altered ultramafic bedrock, alluvium derived from ultramafic rock, or other rock commonly associated with NOA.

Cortese List

The Cortese List is a compilation of contaminated sites identified by the State of California State Water Resources Control Board (SWRCB); active, closed, and inactive landfills identified by the Integrated Waste Management Board; and potential hazardous waste sites identified by the Department of Toxic Substances Control. This list was reviewed as part of the initial screening for this project. The list, or a property's presence on the list, has bearing on the local permitting process as well as on compliance with CEQA.

Both the Envirostor and the Geotracker database did show this area containing some hazardous waste/sources. The proposed project is within or impacting a site on the Cortese List. There is a closed/inactive site within the Geotracker database (Caltrans 2026f).

Due to the nature of the work and the status of the listed site, the listed location is not an environmental concern for this project.

Aerially Deposited Lead

Aerially deposited lead (ADL) from the historical use of leaded gasoline, exists along roadways throughout California. If encountered, soil with elevated concentrations of lead as a result of ADL on the State Highway System right of way within the limits of the project will be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control.

A preliminary site investigation will be required for ADL to determine concentration levels and what actions, if any, would need to occur during construction.

Thermoplastic Paint Striping and Pavement Markings

The highway has paints/markings that possibly contain lead. The project would comply with necessary requirements when working with lead. The Contractor is required to properly manage removed stripe and pavement marking and must prepare a project specific Lead Compliance Plan to prevent or minimize worker exposure to lead while working on and/or handling materials containing lead. Attention is directed to Title 8, California Code of Regulations, Section 1532.1, "Lead," for specific Cal-OSHA requirements when working with lead. If traffic striping removal is required (depending on the method and type of traffic striping removal),

one or more of the following SSP would be required: SSP 36-4 and/or SSP 84-9.03B.

Treated Wood Waste

Treated wood waste (TWW) can occur as posts along metal beam guardrail, three beam barrier, piles, or roadside signs. These wood products are typically treated with preserving chemicals that may be hazardous (carcinogenic) and include, but are not limited to arsenic, chromium, copper, creosote, and pentachlorophenol. Based upon visual survey of the proposed disposal area by Google Earth Street-View Imagery (Caltrans 2026e), treated wood waste may be present within the area to be disposed.

The Department of Toxic Substances Control requires that TWW either be disposed as a hazardous waste or, if not tested, the generator may presume that TWW is a hazardous waste and must be disposed in an approved treated wood waste facility.

Asbestos and Lead Paint

Bridge structures have the potential to contain asbestos and/or lead paint. The project proposes to replace two bridge structures and widen one bridge structure. The surveys/samples would occur prior to construction to determine the presence of Asbestos Containing Materials (ACM) and Lead-Containing Paint (LCP).

Avoidance, Minimization and Mitigation Measures

The Initial Site Assessment prepared for the project (Caltrans 2025f) requires an additional Site Investigation to be conducted prior to the start of construction activities. The Site Investigation would quantify concentrations of hazardous materials within the work area due to ADL, NOA, and bridge asbestos/lead paint. Additional avoidance and minimization measures, aside from the Standard Measures and BMPs outlined in Section 1.6, may be created. However, based on the scope and location of the proposed project, mitigation measures for hazardous materials are not anticipated.

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

Discussion of CEQA Environmental Checklist Question 2.9 – Hazards and Hazardous Materials

- a) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

Less Than Significant Impact. There is a potential for NOA, ADL, thermoplastic paint, TWW, ACM and LCP that could potentially occur at the project site. Prior to construction, a site investigation would be conducted to determine if hazardous soils exist and what actions, if any, are needed during construction. With implementation of Caltrans Standards Measures and BMPs outlined in Section 1.6 and Caltrans Standard Specifications, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, the impact would be less than significant.

- b) *Would the project 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?***

Less Than Significant Impact. Implementation of Caltrans Standards Measures and BMPs outlined in Section 1.6 and Standard Specifications for the removal and handling of known hazardous materials (such as ADL, thermoplastic paint, and TWW) would minimize the chances of an accidental release of hazardous materials into the environment. Therefore, the proposed project would have a less than significant impact resulting from the potential release of hazardous materials to the public or the environment.

- c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

No Impact. There are no schools located within or immediately adjacent to the project limits. The nearest school to the proposed project is Esparto Elementary School located 16 miles south at 17120 Omega Street, Esparto, CA 95627.

Given the temporary and short-term nature of construction, relatively small quantity of hazardous materials potentially on-site, and distance to the nearest school, no impacts on existing schools from potential hazardous substance emissions would be expected.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. Both the Envirostor and the Geotracker database did show this area containing some hazardous waste/sources. The proposed project is within or impacting a site on the Cortese List. There is a closed/inactive site within the Geotracker database. Due to the nature of the work and the status of the listed site, the listed location is not an environmental concern for this project (Caltrans 2026e). Therefore, the impact would be less than significant impact.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The proposed project would not expose people to additional airport-related hazards as there are no airports within two miles of the project area. Therefore, the proposed project would have no impact related to airport hazards.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan as emergency vehicles would be accommodated through any temporary lane closures and temporary bridges. Therefore, there would be no impact to emergency response or evacuation plans.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Standard construction specifications for equipment idling and fuel storage during construction are intended to minimize the risk associated with their use. If a wildland fire affected the area, work would stop, and evacuation routes would be accessible. Therefore, there would be no impact.

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: a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	No	No	Yes	No
Would the project: b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No	No	Yes	No
Would the project: c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	No	No	Yes	No
(i) result in substantial erosion or siltation on- or off-site;	No	No	Yes	No
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	No	No	Yes	No
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No	No	Yes	No
(iv) impede or redirect flood flows?	No	No	No	Yes

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

Regulatory Setting

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

- Federal: CWA–33 USC 1344
- Federal: EO for the Protection of Wetlands–EO 11990
- State: CFGC–Sections 1600–1607
- State: Porter-Cologne Water Quality Control Act– Sections 13000 et seq.

Affected Environment

A Water Quality Assessment was prepared on March 27, 2025 (Caltrans 2025f), and a Floodplain Hydraulics Study was completed on August 13, 2025 (Caltrans 2025e). Both the Water Quality Assessment were used to inform the analysis of the effects of the proposed project on hydrology and water quality.

The project location has an elevation of approximately 300 to 356 feet above sea level in the Central Valley. The project is located within the hydrologic area of the Valley Putah Cache-Lower Cache Creek watershed, and sub-watershed Brook Creek-Cache Creek. This area is under the jurisdiction of the SWRCB Region 5, whose water quality regulations are administered by the CVRWQCB and lies within the Lower Cache Creek Hydrologic Sub Area 511.30 in the Valley Putah Cache

Hydrologic Unit. This project receives waters from Winter Creek (north of PM 15.1), Brooks Creek, and Cache Creek.

Highway drainage features typical for this area include paved and stabilized shoulder backing, vegetated drainage ditches, cross culverts, general flat terrain, and agricultural stormwater and irrigation run-on.

Environmental Consequences

The project proposes to improve pavement condition, improve roadway safety and provide rehabilitation using full depth reclamation, shoulder widening, bridge replacement and widening with upgraded bridge railings to accommodate standard shoulder width, replace nonstandard guardrails and end terminals in compliance with the MASH, replace nonstandard roadside signs, and implement Complete Street facilities (where feasible) to enhance access and overall safety.

The project proposes to replace and/or extend 15 CSP culverts with RCP culverts along the project route. During the design phase of the project, hydrologic and hydraulic analyses of culverts within the project limits will be conducted and some of the culverts may be replaced by those of a larger diameter. The increase in diameter of a culvert conveying jurisdictional waters may improve the channel condition by reducing the occurrence of flowing water upstream of the culvert and decreasing water velocities at the outlet. This would decrease the erosion of bed, bank and channel both upstream and downstream of the culvert. Potential temporary impacts to water quality could occur during construction activities, roadway widening, grading, and culvert work.

The potential for turbidity impacts (i.e., soil and sediment migration) from erosion is specifically of concern from construction-related activities; however, those impacts would be minimized through implementation of Section 13 of the Standard Specifications which guide compliance with water quality laws, regulations and permits. Any impacts to wetlands must be addressed, as per No Net Loss policies for wetlands (Caltrans 2025e and 2026a). If construction takes more than one season, winterization strategies would need to be implemented. Any temporary impacts to Waters of the U.S. or Waters of the State lasting more than one year are deemed permanent impacts by permitting agencies due to temporary loss of function.

The project scope and associated construction scenario proposes to perform work within jurisdictional waterways; therefore, the project is anticipated to be subject to CWA Section 404 regulations and permitting and a CVRWQCB 401 Certification (Caltrans 2026a).

Standard Measures and BMPs, as outlined in Section 1.6, would be incorporated into the project, as well as BMPs from the Caltrans Construction Site BMP Manual (Caltrans 2017). Additional BMPs will also likely be incorporated in the approved project-specific SWPPP during the construction phase of the project to address specific items of work.

Avoidance, Minimization and Mitigation Measures

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. The discharge of 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 SWRCB. This statewide permit defines waste discharge requirements for stormwater and non-stormwater discharges from Caltrans' properties and facilities, and discharges associated with operation and maintenance of the State Highway System. In addition, Caltrans' Stormwater Permit requires Caltrans follow strict and robust guidelines and protocols for implementing approved minimization and avoidance measures and BMPs meant to protect

environmental resources, groundwater, and receiving waters for the duration of project activities. Therefore, these impacts would be considered less than significant.

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

Less Than Significant Impact. Construction of the proposed project would increase the amount of impervious surface by 5.57 acres within the project limits, potentially reducing groundwater recharge rates. The total footprint area of the culverts would increase slightly, thus leading to a decrease in impervious surfaces. The purpose of the proposed drainage work is to address existing fair and poor condition culverts to increase the flow of water away from the roadbed to recharge the groundwater. However, implementation of Caltrans' Standard Measures, BMPs, and TBMPs during and after construction would minimize impacts to surface water runoff. Preservation of the existing vegetation on all slopes, and other related surroundings, would be done in accordance with environmental permits and/or agreements. All slopes and Disturbed Soil Areas (DSAs) would be stabilized and vegetated in accordance with plans approved by the District Landscape Architect, and site features that would increase the perviousness of the treated area(s) would be implemented, as feasible. Therefore, impacts to groundwater supplies and groundwater recharge, such that the project may impede sustainable groundwater management of the basin, would be 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:

(i) result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. The project proposes to address poor/fair condition culverts to protect the integrity of the roadbed of SR 16 by relining the inside of the culvert or the removal and replacement with a new pipe. Multiple culverts would be upsized to the standard 18 inch RCP to perpetuate the flow of water away from SR 16. As the proposed project would not substantially alter the existing drainage pattern, there would be no substantial erosion or siltation. Construction operations for the proposed project would include implementation of sediment and erosion

control measures to protect receiving waters to the maximum extent practicable (Caltrans 2025e and 2026a). Therefore, the impacts to substantial on- or off-site erosion and siltation are expected to be less than significant.

(ii) *substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Less Than Significant Impact. As the project proposes to rehabilitate existing drainage systems, it would not increase the rate or amount of surface runoff. New drainage features will be designed to perpetuate flow in the existing direction and will have similar or greater capacity than what currently exists in support of current design standards and the proposed design features for the project. Permanent Treatment BMPs would be implemented, when and where applicable, to minimize potential impacts due to new impervious areas. Therefore, less than significant impacts are anticipated.

(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?*

Less than Significant Impact. The project proposes to address poor/fair condition culverts to protect the integrity of the roadbed of SR 16 by relining the inside of the culvert or the removal and replacement with a new pipe. Multiple culverts will be upsized from 16 inches to the standard 18 inch RCP to perpetuate the flow of water away from SR 16. It is anticipated that rehabilitation of the existing drainage systems would perpetuate existing flow patterns and similar volumetric flow rates. Appropriate and applicable temporary and permanent design BMPs will be implemented to address potential impacts resulting from construction operations and new design features constructed within the project corridor. Therefore, impacts to runoff capacity and additional sources of polluted runoff are anticipated to be less than significant.

(iv) *impede or redirect flood flows?*

No Impact. As the project proposes to replace/rehabilitate existing drainage systems, it would not substantially alter the existing drainage pattern of the area. Any potential temporary impacts due to construction would be minimized with

implementation of Caltrans Standard Measures and BMPs outlined in Section 1.6, as well as adherence to regulatory and Caltrans requirements. Therefore, there would be no impact.

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

Less Than Significant Impact. A portion of the proposed project is located in an area designated by FEMA as a 100-Year Floodplain. The project occurs within a total maximum daily load watershed. The project would be required to follow the conditions of the Caltrans-approved 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 CVRWQCB and is expected to be in compliance with all applicable NPDES regulatory permits, including the Regional Basin Plan. Implementation of Caltrans Standard Measures and BMPs outlined in Section 1.6 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 proposed project, as well as Yolo County General Plan – Land Use Element updated in 2023 (County of Yolo 2024d).

Potential impacts to Land Use and Planning are not anticipated as the project scope is restricted to the existing roadway and immediately adjacent areas and does not include an extension or expansion of a highway system that would encourage an increase in highway travelers. Therefore, the project would neither physically divide an established community nor cause a significant environmental impact due to conflict with any land use plans or policies because the project is consistent with the Yolo County Land Use Plan. No impacts would be expected, and no mitigation measures are required to Land Use and Planning.

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 proposed project, as well as the California Department of Conservation Mineral Resources Map accessed December 28, 2025 (California Department of Conservation 2025), and the Yolo County General Plan (County of Yolo 2023). Potential impacts to Mineral Resources are not anticipated due to the limited project scope, previous road cut and fill activities, and lack of identified mineral resources within the project limits.

There are no designated mineral resource areas of state or regional importance in the project area, and the proposed project would not reduce the availability of a locally important mineral resource recovery site. Therefore, there would be no impact on mineral resources.

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	Yes	No
Would the project result in: b) Generation of excessive groundborne vibration or groundborne noise levels?	No	No	Yes	No
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

Regulatory Setting

NEPA of 1969 and the CEQA provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

CEQA

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation

measures must be incorporated into the project unless those measures are not feasible.

NEPA and 23 CFR 772

For highway transportation projects with FHWA involvement (and Caltrans, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA).

Affected Environment

Determinations in this section are based on the scope, description, and location of the proposed project, as well as the Noise Study Report dated November 7, 2025 (Caltrans 2025h). The proposed project area is in Yolo County, outside of a metropolitan area. The surrounding environment is predominantly agricultural. A planned community with homes, a community center, pool, and a school for tribal members is located on a separate parcel of trust land outside of the project area. The topography of the land is gently rolling hills resulting in large cuts and fills along portions of the roadway. In some areas, there are substantial cut banks that shield nearby 'receptors' (rural/agricultural residential houses) from traffic noise. The dominant noise source in the area is traffic noise from SR 16.

Environmental Consequences

Traffic volumes, composition and speeds would remain the same in the build and no-build condition. However, the project area is surrounded by a mix of rural, agricultural and residential land uses. Sensitive receptors were identified in the project vicinity. The nearest sensitive receptors are the rural/agricultural residential houses which are approximately 20 feet from the proposed construction area. These residential areas may be exposed to elevated noise levels during roadway construction operations. Therefore, traffic noise impacts are not anticipated.

Project construction is anticipated to include:

- Land clearing and grubbing
- Earthwork
- Paving
- Bridge construction (excluding pile driving)
- Vibratory or impact pile driving
- Nighttime construction activities

Avoidance, Minimization and Mitigation Measures

Standard Measures and BMPs as outlined in Section 1.6 would be incorporated into the project. The following additional standard measures may be utilized to minimize noise during construction operations:

- Near residential areas, limit operations involving pile driver, jackhammer, concrete saw, pneumatic tools, demolition and blasting to daytime hours (9 p.m. to 6 a.m.).
- Do not exceed 86 dBA Lmax at 50 feet from the job site from 9 p.m. to 6 a.m.
- Notify residents within 500 feet of the project area at least two weeks prior to the start of nighttime construction activities.
- SSP 14-8.02 Noise Control Plan would be required.

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

Discussion of CEQA Environmental Checklist Question 2.13 – Noise

- a) *Would the project result in 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?***

Less Than Significant Impact. According to the Noise Study Report, permanent impacts to ambient noise are not anticipated as the proposed project would not

increase traffic volume, composition or speeds on SR 16 as compared to the no-build condition (Caltrans 2025g).

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate project vicinity. Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks. Construction noise levels would vary on a day-to-day basis during each phase of the proposed project depending on the specific task being completed. The closest receptors to construction noise would be residents and businesses located adjacent to SR 16. Construction is expected to begin in 2027 and will continue for four consecutive construction seasons with different intervals of noise-producing activities. Pile driving activities are anticipated during construction of retaining walls, but noise associated with these and all other construction activities would be minimized with implementation of the Standard Measures and BMPs outlined in Section 1.6.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. The project is not expected to generate excessive groundborne vibration or groundborne noise within close proximity to potential receptors. Vibration levels would be perceptible at various locations and may cause disturbances at residences near the project area during operation of heavy equipment. However, these effects would be short-term and intermittent and would cease once construction is completed. Therefore, due to the temporary nature of noise and vibration generated during construction, there would be a less than significant impact.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. This project is not located within the vicinity of a private airstrip or an airport land use plan or within two miles of a public airport. Therefore, there would be no impact.

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, as well as the Yolo County General Plan – Housing Element dated August 31, 2021 (County of Yolo 2023).

The project proposes to improve pavement conditions and roadway safety. The scope of work would not induce population growth. Potential impacts to population and housing are not anticipated as the project scope is restricted to the roadway or immediately adjacent areas. The proposed project would not displace or relocate residents from their housing.

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	Yes	No
Police protection?	No	No	Yes	No
Schools?	No	No	No	Yes
Parks?	No	No	No	Yes
Other public facilities?	No	No	No	Yes

Regulatory Setting

The primary law governing public services is CEQA.

Affected Environment

Determinations in this section are based on the scope, description, and location of the proposed project, as well as the County of Yolo 2030 Countywide General Plan – Public Facilities and Services Element (County of Yolo 2024e) and Caltrans TMP (Caltrans 2025h).

Fire Protection

The following fire protection facilities are located within the project limits on SR 16 in Yolo County:

CAL FIRE Brooks Fire Station, the Yocha Dehe Fire Station, and the Capay Valley Fire District Station 21.

Police Protection

The Yolo County Sheriff's Office serves the people of Yolo County by providing law enforcement to the unincorporated areas. The California Highway Patrol provides policing services along the SR 16 state highway.

Schools

There are no schools located within or immediately adjacent to the project limits. The nearest school to the proposed project is Esparto Elementary School located 16 miles south at 17120 Omega Street, Esparto, CA 95627.

Environmental Consequences

The proposed project would not result in direct or long-term impacts on emergency services, schools, parks, or public facilities. During construction, lane closures may be required. Any required temporary lane closures would be coordinated with emergency service providers in advance so as not to hinder emergency responses. The project is not anticipated to adversely affect response time for emergency services associated with fire station or police department personnel.

The potential impacts anticipated from this proposed project are construction related. During construction, one-way traffic control is expected for Winter Creek Bridge. This could potentially impact public service delivery, such as fire, ambulance, and police. However, one lane of traffic would be open, managed by portable signal vehicle detection at each end of traffic control to allow for traffic demand to dictate traffic flow. Portable flashing beacons at 1,000 feet to 2,000 feet apart is anticipated to alert motorists of stopped traffic. Sight of oncoming traffic would enable emergency vehicles to be seen and yielded to from either end of the traffic control. This would not substantially affect response times for emergency responders.

Replacement of Winter Creek Bridge and Taylor Creek Bridge would utilize the existing Railroad Culvert Bridge to detour traffic by approximately 650 feet/0.12 miles and 2300 feet/0.43 miles respectively. Detour signs would be posted. Mossy Creek Bridge would be widened on the east side only, allowing for two way traffic through the extent of bridge construction.

The construction schedule would incorporate local special events and seasonal crowds. The current TMP recommends construction be halted starting Friday night through the weekend during active construction. The project TMP Data Sheet stipulates that affected parties would be notified in advance of proposed delays or closures.

Avoidance, Minimization and Mitigation Measures

Any required temporary lane closures would be coordinated with emergency service providers in accordance with Best Management Practice TT-1 in the Traffic and Transportation section outlined in Section 1.6. Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

Discussion of CEQA Environmental Checklist Question 2.15 – Public Services

- a) ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, Police Protection, Schools, Parks, and Other public facilities?***

Fire Protection?

Less than Significant Impact. Caltrans is aware that with any roadway construction project, project-related activities could potentially temporarily interfere with safe fire response during construction. Caltrans would coordinate with emergency service providers. A TMP would be created to ensure all emergency response agencies would be notified of the short-term, one side lane closures during construction and project construction schedule. Therefore, less than significant impact would be expected.

Police Protection?

Less than Significant Impact. There are no police stations located within or immediately adjacent to the project limits. During project construction, Caltrans will coordinate any lane closures with emergency service providers so that response times would be minimized. Travelers would be able to see approaching emergency vehicles within traffic control segments of the project and yield to passing or oncoming police protection responding to calls. Therefore, the proposed project would have a less than significant impact on police protection services.

Schools?

No Impact. There are no schools located within or immediately adjacent to the project limits. The nearest school to the proposed project is Esparto Elementary School located 16 miles south at 17120 Omega Street, Esparto, CA 95627. Therefore, no impact would be expected.

Parks and Other Public Facilities?

No Impact. There are no parks or other public facilities within or adjacent to the project limits, therefore there would be no impact.

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 proposed project, as well as County of Yolo 2030 Countywide General Plan – Public Facilities and Services Element updated in 2023 (County of Yolo 2024e).

Potential impacts to recreation facilities are not anticipated due to the limited scope of work restricted to roadway/culvert and bridge work, with no recreational facilities being affected directly or indirectly by the project.

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	No	Yes
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

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, as well as the Yolo County General Plan – Public Facilities and Services Element updated in 2023 (County of Yolo 2023), the Yolo County Transportation District (YoloTD) 2022 RTP (YoloTD 2026) and Transportation Management Plan (Caltrans 2025i).

The proposed project does not conflict with transportation programs, plans or ordinances. There are no existing pedestrian facilities, such as sidewalks and bicycle facilities, within the project limits. Due to the rural context of this location, and lack of pedestrian and bicycle traffic, pedestrian and bicycle facilities (such as sidewalks and dedicated bike lanes) are not proposed. A parallel bike lane and sidewalk exist within tribal land, which is outside the Caltrans right of way.

There is one transit terminal location at Cache Creek Casino Resort. This project would not add any new transit facilities. There is no existing or proposed park-and-ride facility within the project limits.

The project proposes widening the roadway but would not increase vehicular capacity and thus would not conflict with CEQA Guidelines § 15064.3, subdivision (b). The proposed project would maintain and upgrade existing facilities; including realignment of the roadway, which would potentially help to reduce existing curves within the project limits. The proposed project would rehabilitate and upgrade the roadway using recycled road/roadbase materials on site (full depth reclamation), widen shoulders, and facilitate bridge replacement which would potentially help to enhance access and overall safety within the project limits. The project has been screened as unlikely to induce vehicle miles traveled.

The proposed project would not block any roadways and does not include any work that would impede emergency access. Project plans also would be designed and reviewed by the appropriate Caltrans staff to ensure conformance with all applicable fire safety code and ordinance requirements to reduce geometric design hazards.

Standard management practices outlined in the TMP during construction would maintain the efficiency of emergency access. A final TMP will be prepared during the design phase for use in construction. The proposed project does not include any work that would impede emergency access. See also section 2.15 for additional information. Therefore, the project has no impact to transportation.

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: a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k), or	No	No	No	Yes
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No	No	No	Yes

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, as well as the Archaeological Survey Report prepared January 2026 (Caltrans 2026b), which included background research, literature review, in-person field surveys, and consultation with local Native American tribes. No tribal cultural resources were identified within the project limits.

Consultation letters have been sent to the following tribes:

- Yocha Dehe Wintun Nation
- Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
- Kletsel Dehe Band of Wintun Nations

Cultural resources investigations, including an ASR and Extended Phase I, did not identify any cultural resources within the project area (Caltrans 2026b).

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	Yes	No
Would the project: b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	No	No	No	Yes
Would the project: c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No	No	No	Yes
Would the project: d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No	No	No	Yes
Would the project: e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No	No	No	Yes

Regulatory Setting

The primary law governing utilities and service systems is CEQA.

Affected Environment

The following utilities serving local residences and businesses are located within the Environmental Study Limits along the project route according to the Utility Conflict Plan prepared for this proposed project (Caltrans 2026f):

- Altice, fiber optic, overhead and underground
- America Propane
- Central Valley Independent Network fiber optic, underground
- Yolo Irrigation District, underground
- American Telephone and Telegraph (AT&T), overhead and underground
- Pacific Gas and Electric (PG&E), overhead including poles
- USA Media Group

Caltrans would create utility conflict maps during the Plans, Specifications and Estimates phase of the proposed project, which would verify exact location and status of utilities within the project route. Impacts to utilities are anticipated to be temporary, primarily because relocations of any utilities in conflict with the proposed project features would occur during the construction phase of the project.

Environmental Consequences

Proposed project improvements could potentially place existing utilities in conflict with the planned construction activities. Approximately 13 utility poles belonging to either PG&E or AT&T have been identified as being in conflict and requiring relocation. All potential conflicts would be coordinated with the utility owners prior to and during construction.

Environmental impacts due to relocation of utilities are anticipated to be temporary. Standard Measures and BMPs as outlined in Section 1.6 would be incorporated, as well as BMPs from the Caltrans Construction Site BMP Manual (Caltrans 2017).

Specifically, hazardous waste BMPs HW-1 and HW-3 would also likely be incorporated during utility relocation work to address the potential for lead-contaminated soil and treated wood to be present during removal and relocation of utility poles.

Avoidance, Minimization and Mitigation Measures

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

Discussion of CEQA Environmental Checklist Question 2.19 – Utilities and Service Systems

- a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities—the construction or relocation of which could cause significant environmental effects?***

Less Than Significant Impact. Potential impacts to Utilities and System Services are anticipated to be temporary and occur only during the construction phase of the project. Caltrans would verify the location of any underground gas, electric, water, or sewer lines within the project area and would coordinate with affected utility companies prior to construction. Standard Measures and BMPs as outlined in Section 1.6 would be employed to minimize environmental impacts during utility relocation activities. Therefore, impacts would be less than significant.

- b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?***

No Impact. The project does not propose to increase or decrease water supplies within the project limits. Impacts to water utilities within the project limits would be limited to potential relocation if a conflict is identified, and impacts would be confined to the construction phase of the project. Water requirements during construction activities would be provided by the contractors and should not impact local supplies. No impact on water supplies would be expected.

- c) *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

No Impact. The proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities. The wastewater treatment provider serves the adequate capacity to serve the project's projected demand and does not require addition. The project has no impact to population growth such that wastewater would be increased. Therefore, no impact would be expected.

- d) *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

No Impact. The proposed project would not generate solid waste in excess of State or local standards, or in exceedance of the capacity of local infrastructure. Hazardous materials generated, if any, would be disposed of in accordance to Section 2.9 above, as well as the Standard Measures and BMPs outlined in Section 1.6. Therefore, no impact would be expected.

- e) *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

No Impact. Contractors would adhere to Caltrans' SS 14-10 (Solid Waste Disposal and Recycling), along with other standards that govern the use of recycled materials, to ensure the proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste (Caltrans 2026e). Therefore, no impact would be expected.

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 <i>very high</i> Fire Hazard Severity Zones, would the project: a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No	No	Yes	No
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 CAL FIRE to develop amendments to the “CEQA Environmental Checklist” for the inclusion of questions related to fire hazard impacts for projects located on lands classified as *very high* Fire Hazard Severity Zones. The 2018 updates to the CEQA Guidelines expanded this to include projects “near” these *very high* Fire Hazard Severity Zones.

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project, as well as the Yolo County Community Wildfire

Protection Plan (County of Yolo 2024f) and the Fire Hazard Severity Zones in SRA (CAL FIRE 2025). Potential impacts are not anticipated due to the project's adherence to Standard Measures and BMPs as outlined in the Wildfire subsection of the GHG Emissions Section 2.8 above, as well as Caltrans' goals of building a wildfire resilient highway.

Regulatory Setting

The primary law governing wildfire is CEQA.

Affected Environment

The proposed project is located in a CAL FIRE SRA in Yolo County. According to the CAL FIRE Map of Fire Hazard Severity Zones within the SRA, the proposed project is located within the *moderate* CAL FIRE Fire Hazard Severity Zone (Figure 8).

Avoidance, Minimization and Mitigation Measures

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

Discussion of CEQA Environmental Checklist Question 2.20 – Wildfire

If located in or near State Responsibility Areas or lands classified as very high Fire Hazard Severity Zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The proposed project would not impair an adopted emergency response plan or emergency evacuation plan, exacerbate wildfire risks, or expose people or structures to significant risks. Caltrans' TMP (Caltrans 2025h) would ensure that emergency response agencies in the project area would be notified of the project construction schedule and would have access to SR 16 throughout the construction period and receive prior notification of lane closures. Emergency vehicles would be accommodated through any temporary ramp or lane closures.

If a wildland fire or other emergency were to affect the area, work would stop, and evacuation routes would be accessible using temporary lanes. Thus, less than significant impact would be expected.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. No changes to road slope that would affect prevailing winds or other factors are included in the scope of work; thus, this project would not exacerbate wildfire risks and would not expose occupants to pollution concentrations from a wildfire or the uncontrolled spread of a wildfire. Furthermore, access and overall safety would provide a large buffer during wildfire events, and project features identified and outlined in the Wildfire subsection of the Section 2.8 “GHG Emissions” and Section 2.9 “Hazards and Hazardous Materials” above, would reduce the existing road infrastructure advancing fire events. Thus, there would be no impact.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or may result in temporary or ongoing impacts to the environment?

No Impact. No installation or maintenance of associated infrastructure (such as new roads, fuel breaks, emergency water sources, power lines or other utilities) would be required for this project; therefore, it would not exacerbate fire risk nor result in temporary or ongoing impacts to the environment. Thus, there would be no impact.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. Preservation of the existing vegetation, and other related surroundings, would be done in accordance with any environmental permits and/or agreements. All required areas and DSAs would be stabilized and vegetated in accordance with plans approved by the District Landscape Architect, and site features that would increase the perviousness of the treated area(s) would be implemented, as feasible.

Additionally, all drainages would retain their current pattern flow, with operation improvement expected for culverts that are proposed to be upsized throughout the project area, as compared to pre-construction levels. These efforts, combined with the statements in the paragraphs directly above, ensure downslope/downstream flooding or landslides, due to runoff, post-fire slope instability, or drainage changes, would not be due to project activities, neither during construction nor post-construction. Therefore, no impact would be expected.

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	Yes	No	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 with Mitigation Incorporated. Determinations are based on the NES, which was completed by a qualified Caltrans biologist in February 2026 (Caltrans 2026a). The proposed project would have a less than significant impact to biological resources with mitigation incorporated. Based on preliminary project design, a maximum of 0.13 acres of temporary and 0.07 acres of permanent impacts to Waters of the U.S. and State are estimated. In addition, there would be 0.28 acres of permanent impact to riparian habitat. Implementation of Caltrans Standard Measures and BMPs outlined in 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. Therefore, the impact would be less than significant with mitigation incorporated. Additional enhancement or mitigation would be implemented on or off-site to offset permanent waters and riparian impacts as pending permits dictate.

- 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. It is not anticipated that any potential impacts identified in this Initial Study, in consideration of the existing project condition and resulting from past projects and any foreseeable future projects, would become cumulatively considerable.

The proposed project's scope of work would not result in any adverse effects that, when considered in connection with other projects, would be considered cumulatively considerable. Therefore, there would be no impact.

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

No Impact. As the locations of proposed construction would not be adjacent to human activity areas, and based on the description of the proposed project and studies completed for the proposed project which 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.*” Based on the scope and scale of the potential effects and the inclusion of Standard Measures and BMPs outlined in Section 1.6 to minimize impacts, this Initial Study did not identify any “significant and unavoidable” or “cumulatively considerable” impacts. Given this, an Environmental Impact Report 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 and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team 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

Coordination with the following agencies was initiated for this project:

- USACE
- USFWS
- California Department of Fish and Wildlife
- CVRWQCB
- NAHC

Coordination with Property Owners

Notice of the proposed project and the opportunity to comment on the draft environmental document and proposed project has been mailed to property owners adjacent to the project limits. If the project is approved, coordination with property owners during the right of way phase would occur in compliance with the FHWA Uniform Act, and other federal and state requirements.

Circulation

Public circulation will commence on the date indicated in the signature page found at the beginning of this document and will run for a period no shorter than 30 days. In

addition, a list of interested parties has been identified, and this document will be accessible to all parties. All comments will be addressed in the final document.

Chapter 4. List of Preparers

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

California Department of Transportation, District 3

Erin Damm	Senior Environmental Scientist, M5 Branch Chief
Masum Patwary	Environmental Scientist
Risa Fackler	Biologist
Allison Kunz	Mitigation Specialist
Hannah Clark	Revegetation Specialist
Catherine Devis	Archaeologist
Katherine Jorgensen	Native American Coordinator
Sean Cross	Water Quality Specialist
Scene Wan	Hazardous Waste Specialist
Disi Shen	Air Quality/ GHG Specialist
Disi Shen	Noise Specialist
Matthew Smelski	Engineering Geologist
Cameron Haymore	Project Manager
Socorro Urena	Senior Transportation Engineer
Jeff Juarez	Visual Specialist
Stevan Campbell	Hydrology Specialist
Diego Conejo Gallegos	Project Engineer

Elizabeth Wood	Associate Transportation Planner
Anh Nguyen	Structure Engineer
William Little	Engineering Geologist
Lindsay Hembree	Right of Way Coordinator
Carol Alvarado	Senior Right of Way Agent
Valerie Smith	Right of Way Agent

Chapter 5. Distribution List

Federal Agencies

United States 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

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

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

Central Valley Flood Protection Board
3310 El Camino Ave # 170 Sacramento
CA 95821

Regional/County/Local Agencies

County of Yolo
625 Court Street
Woodland, CA 95695

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

Yolo TD
350 Industrial Way
Woodland, CA 95776

Yolo County Transportation Advisory Committee
625 Court Street
Woodland, CA 95695

Yolo County Sheriff's Office
140 Tony Diaz Drive
Woodland, CA 95776

Tribal Partners

Yocha Dehe Wintun Nation
Attn: Anthony Roberts, Honorable Chairman
18960 County Road 75A
Brooks, CA 95606

Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
Attn: Wayne Mitchum Jr, Honorable Chairman
3730 Highway 45
Colusa, CA 95932

Kletsel Dehe Band of Wintun Nations
Attn: Charlie Wright, Honorable Chairman
570 6th Street
Williams, CA 95987

Local Elected Officials

Oscar E. Villegas (Nonpartisan Office)
Yolo County Supervisor 1st District
625 Court Street, Room 204
Woodland, CA 95695

Lucas Frerichs (Nonpartisan Office)
Yolo County Supervisor 2nd District
625 Court Street, Room 204
Woodland, CA 95695

Mary Vixie Sandy (Nonpartisan)
Yolo County Supervisor 3rd District
625 Court Street, Room 204
Woodland, CA 95695

Sheila Allen (Nonpartisan Office)
Yolo County Supervisor 4th District
625 Court Street, Room 204
Woodland, CA 95695

Angel Barajas (Nonpartisan Office)
Yolo County Supervisor 5th District
625 Court Street, Room 204
Woodland, CA 95695

Jesse Salinas (Nonpartisan Office)
Yolo County Clerk/Recorder/Assessor
625 Court Street, Room 105
Woodland, CA 95695

Jeff Reisig (Nonpartisan Office)
Yolo County District Attorney
301 Second Street
Woodland, CA 95695

Tom Lopez (Nonpartisan Office)
Yolo County Sheriff-Coroner-Public Administrator
140 Tony Diaz Drive
Woodland, CA 95776

Garth Lewis (Nonpartisan Office)
Yolo County Superintendent of Schools
1280 Santa Anita Court, Suite 100
Woodland, CA 95776

Interested Groups, Organizations and Individuals

Cache Creek Conservancy
P.O. Box 8249
Woodland, CA 95776

Utilities, Service Systems, Businesses, and Other Property Owners

AT&T Structure Access
5005 Executive Parkway, 3N800W
San Ramon, CA 94583

Pacific Gas and Electric
77 Beale Street, Suite 100
San Francisco, CA 94105

Dana M. Carey
Yolo Office of Emergency Services
625 Court Street, Room 202
Woodland, CA 95695

Brooks Fire Station
14023 CA-16
Brooks, CA 95606

Capay Valley Fire Protection District
7447 Highway 16
Guinda, CA 95637
Telephone (530) 796-3300

Esparto Fire Protection District
16960 Yolo Avenue
Esparto, CA 95627

Yocha Dehe Fire Department
14170 Golf Course Dr
Brooks, CA 95606

Yolo County Firesafe Council
221 West Court Street, Suite 1
Woodland, CA 95695



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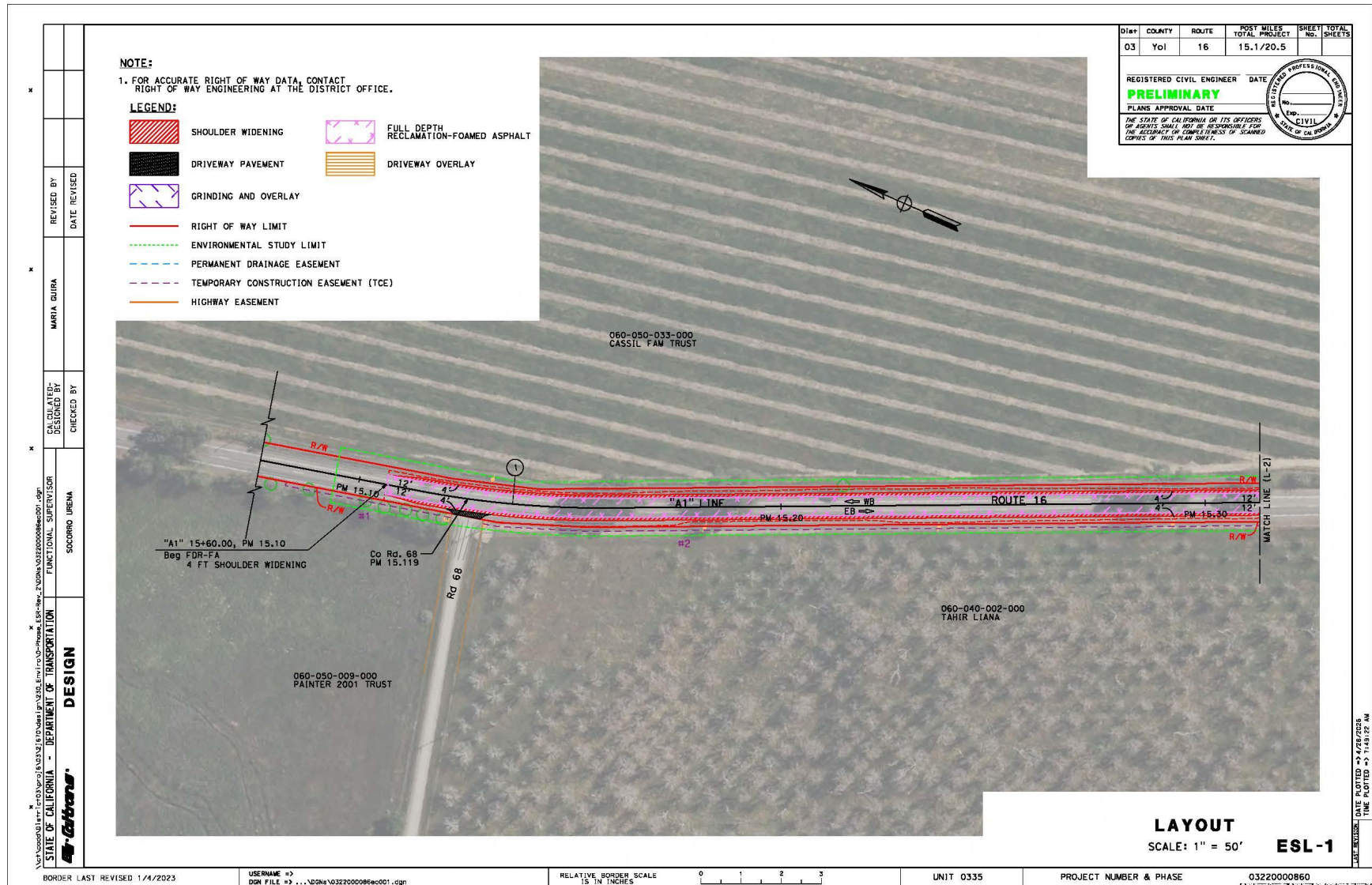
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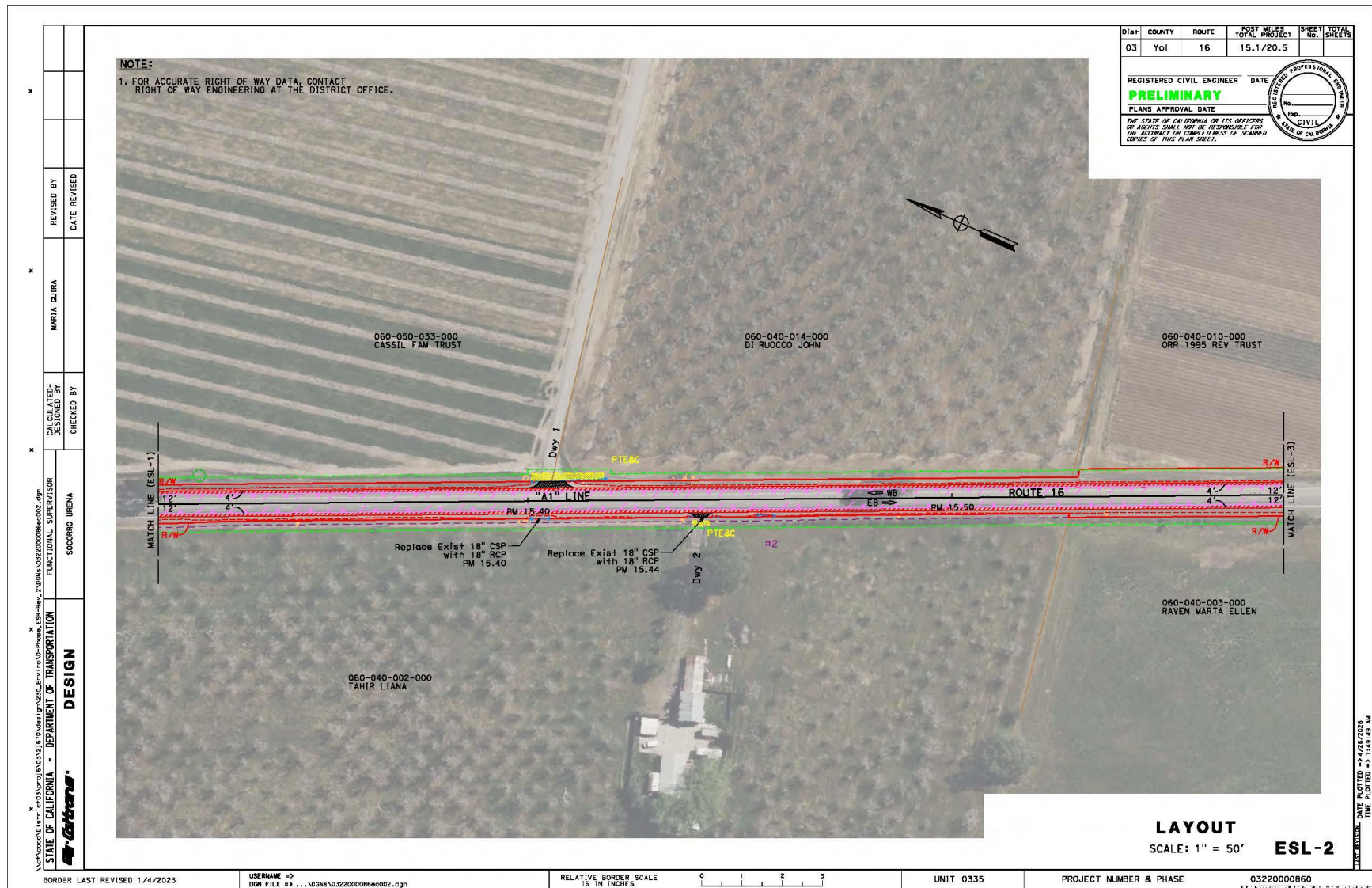
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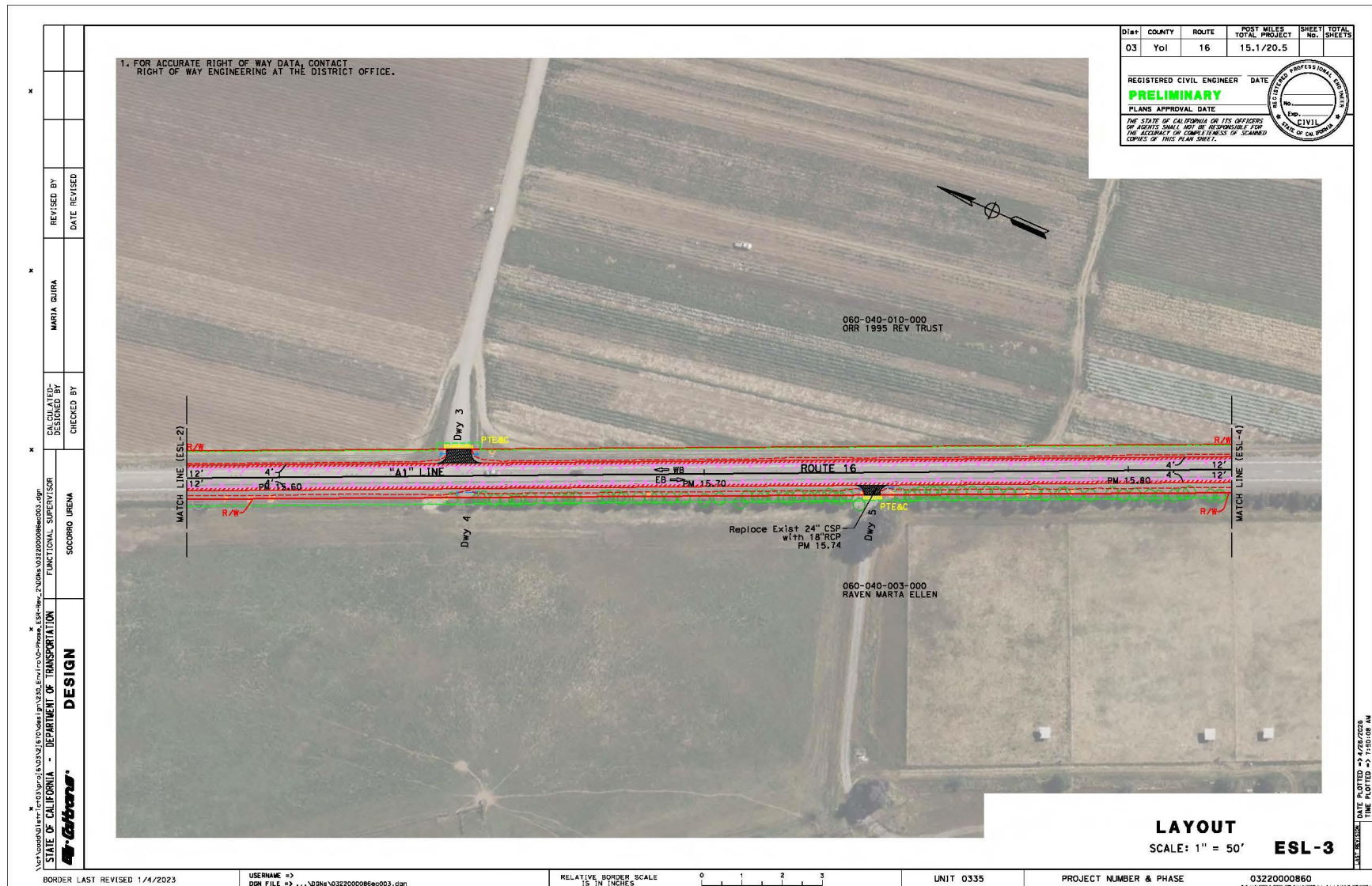
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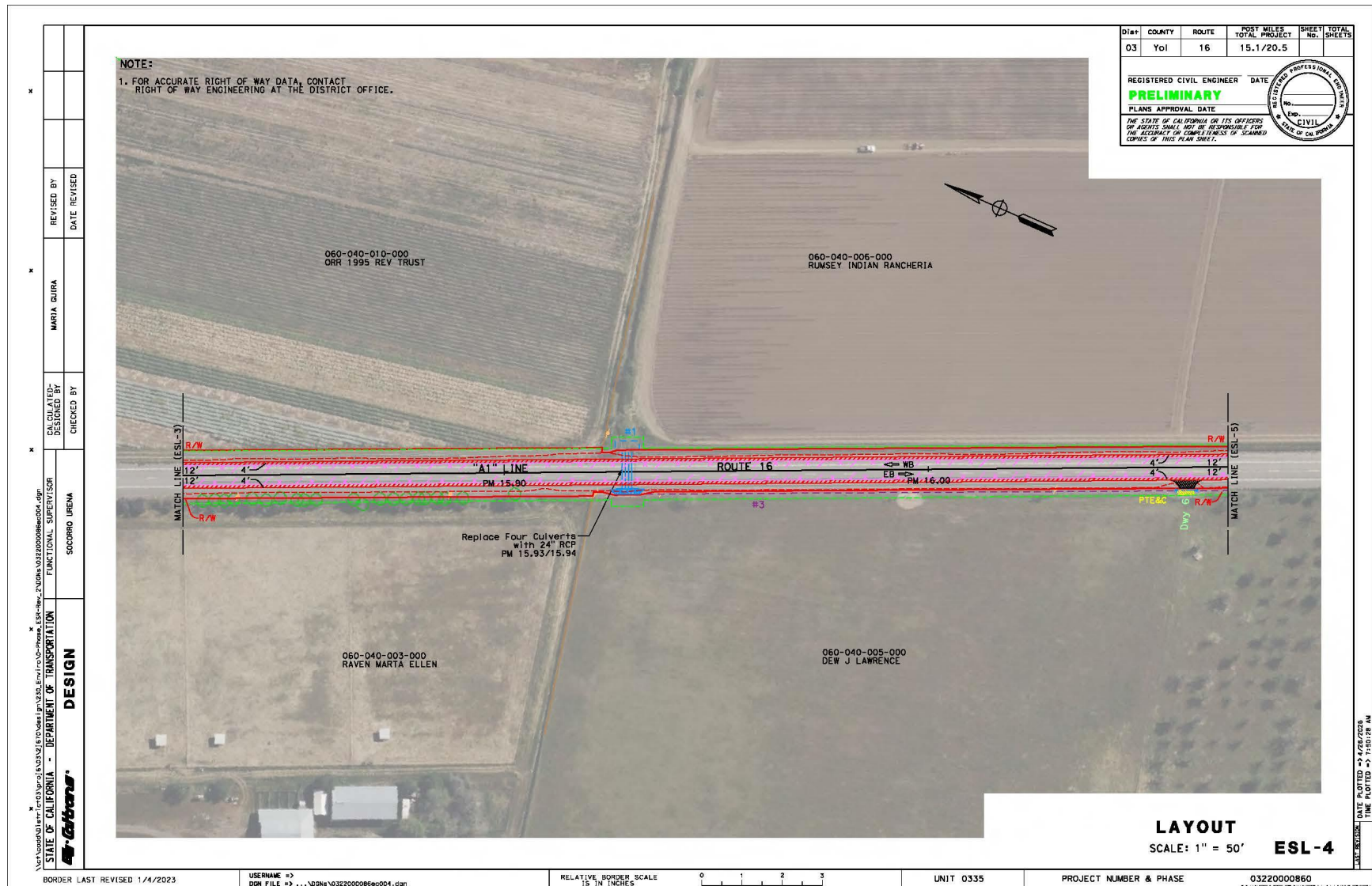
APPENDIX A. PROJECT LAYOUTS

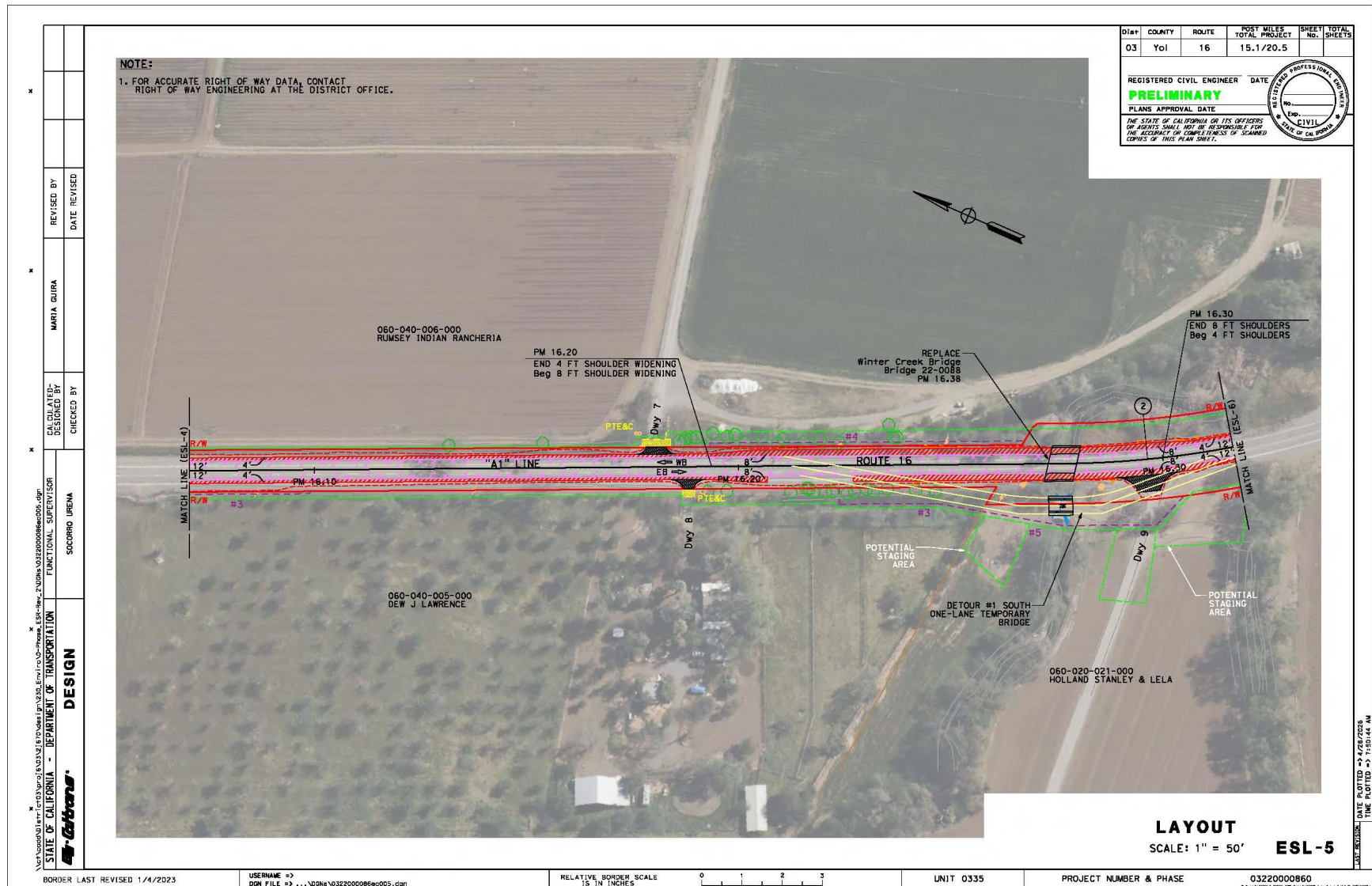


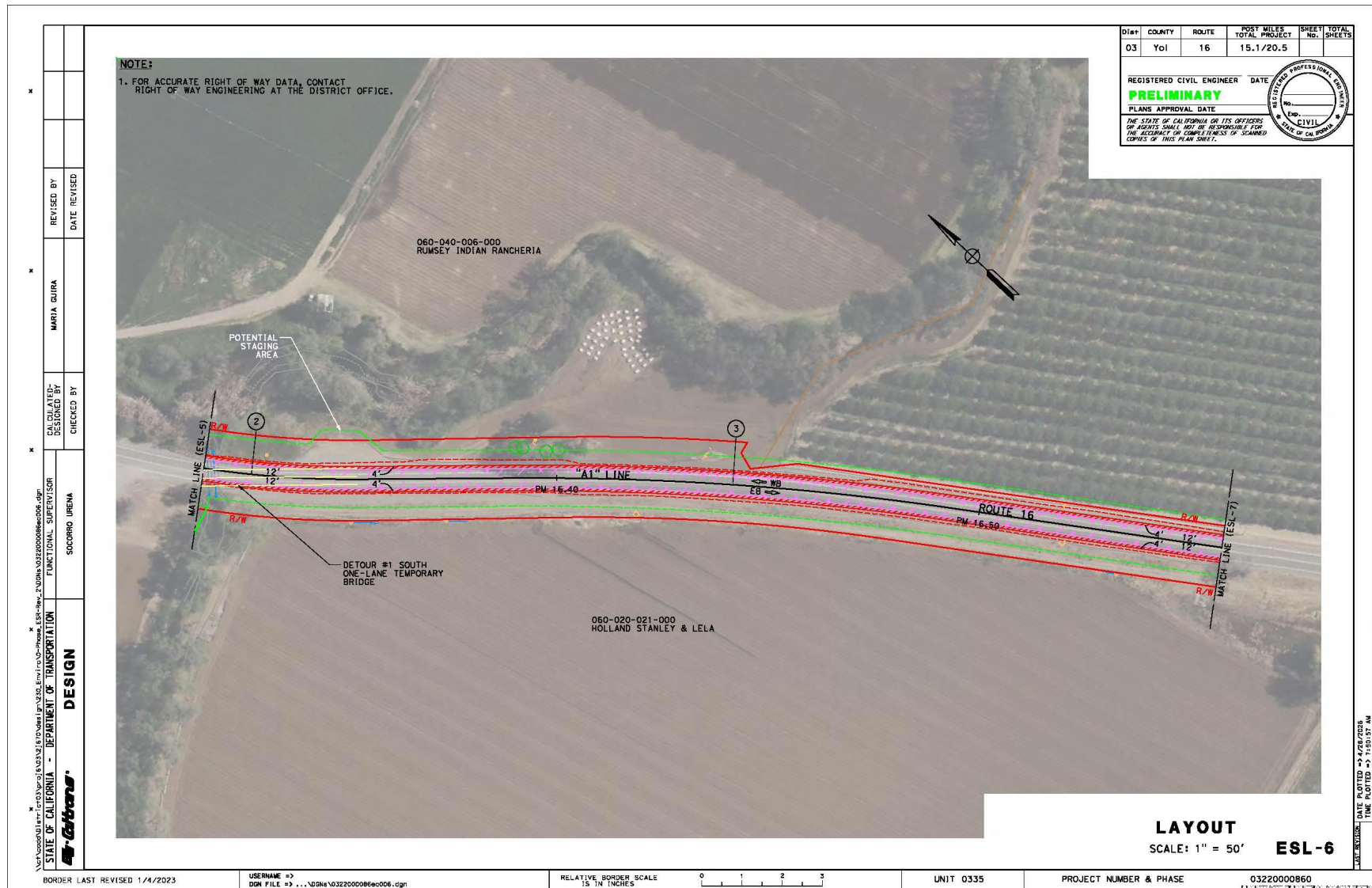


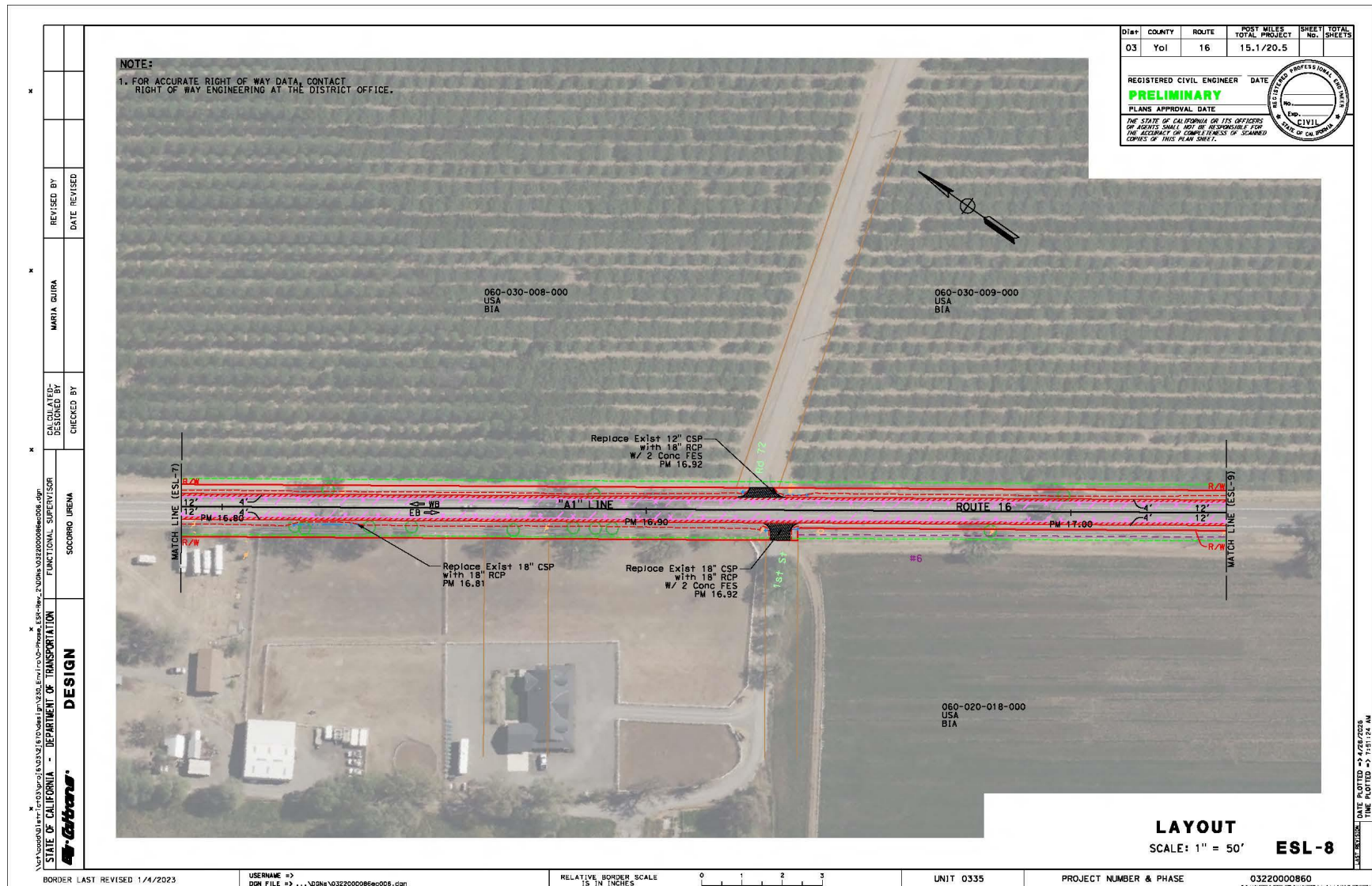


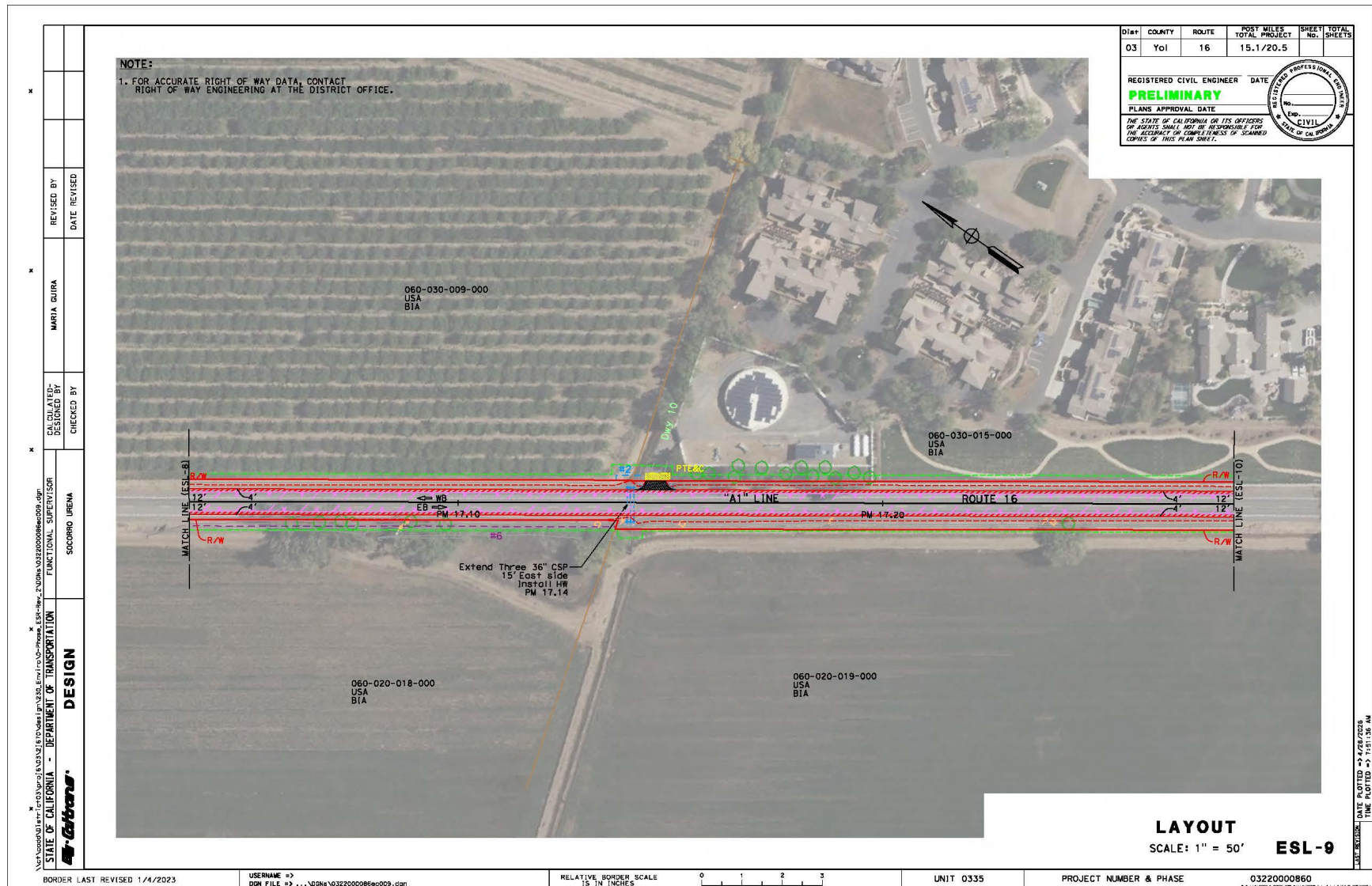


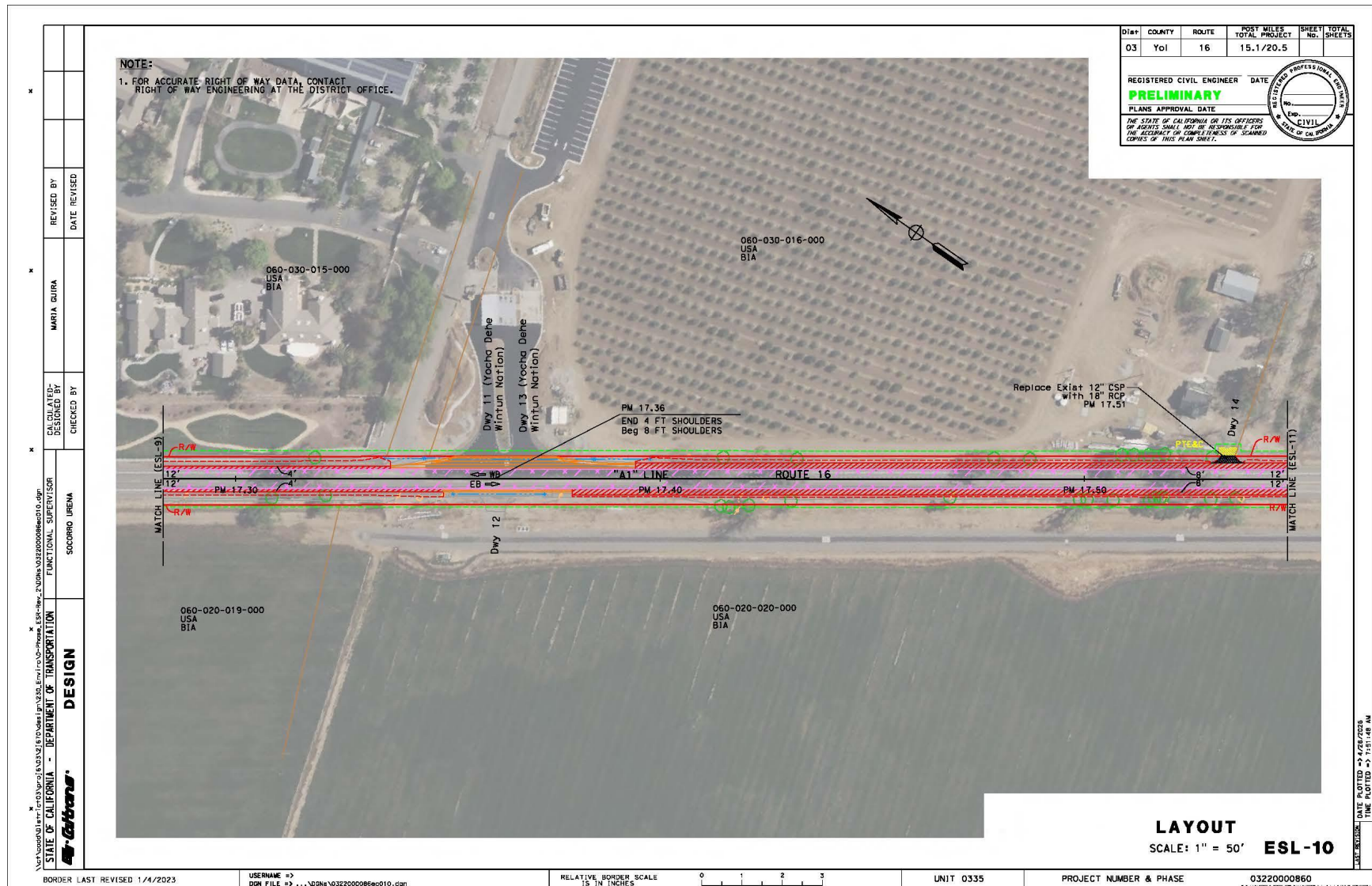


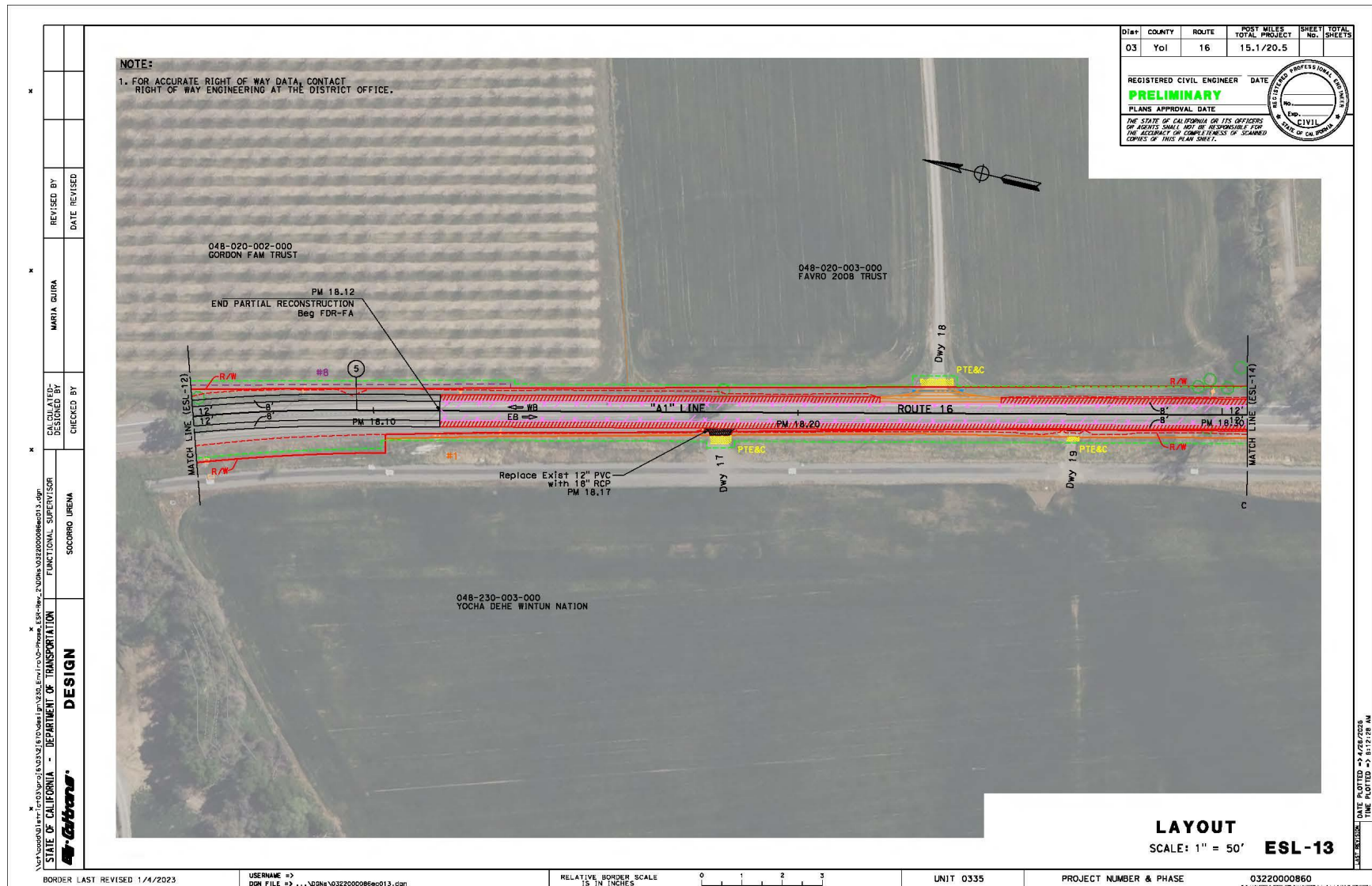


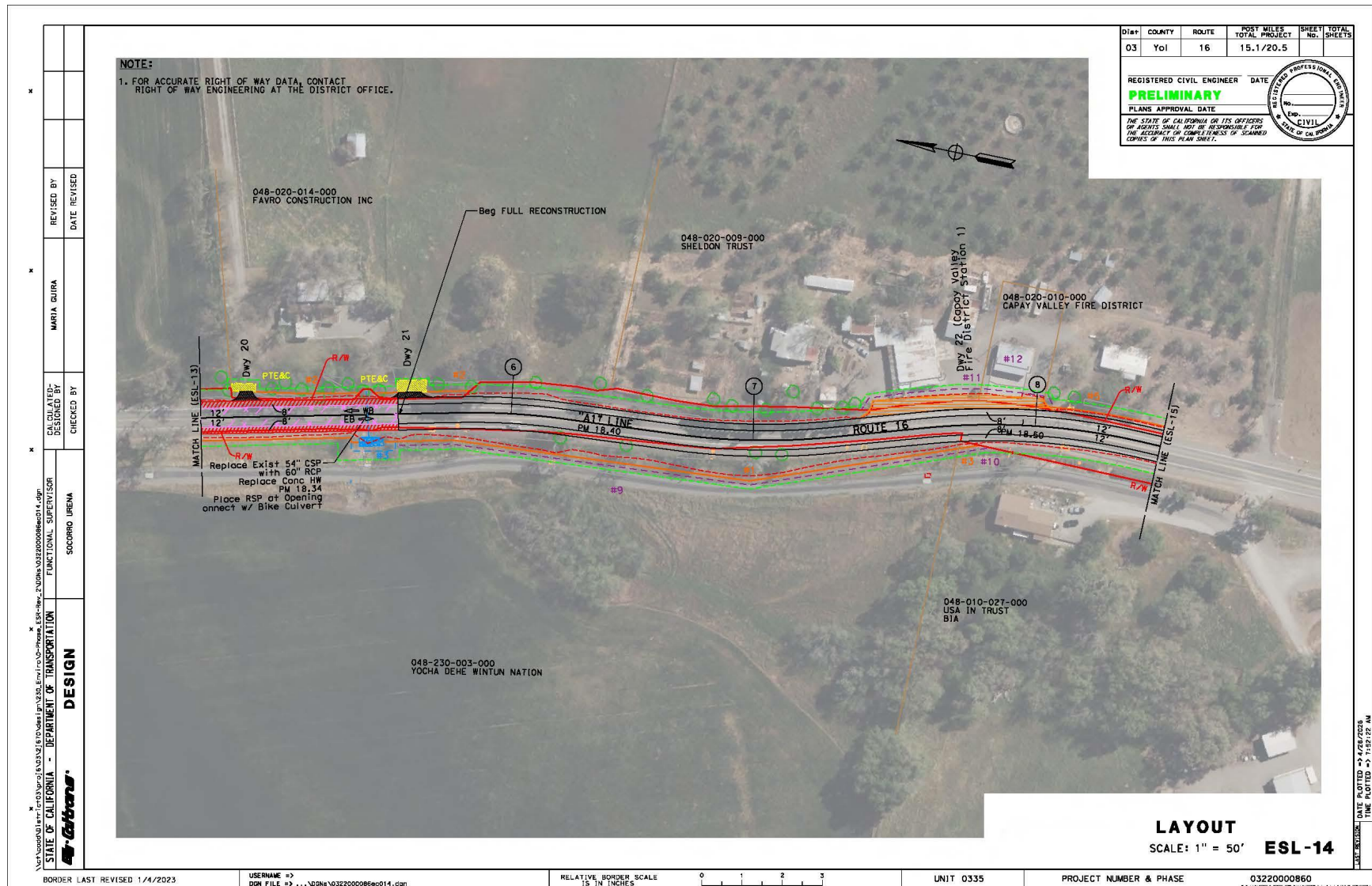


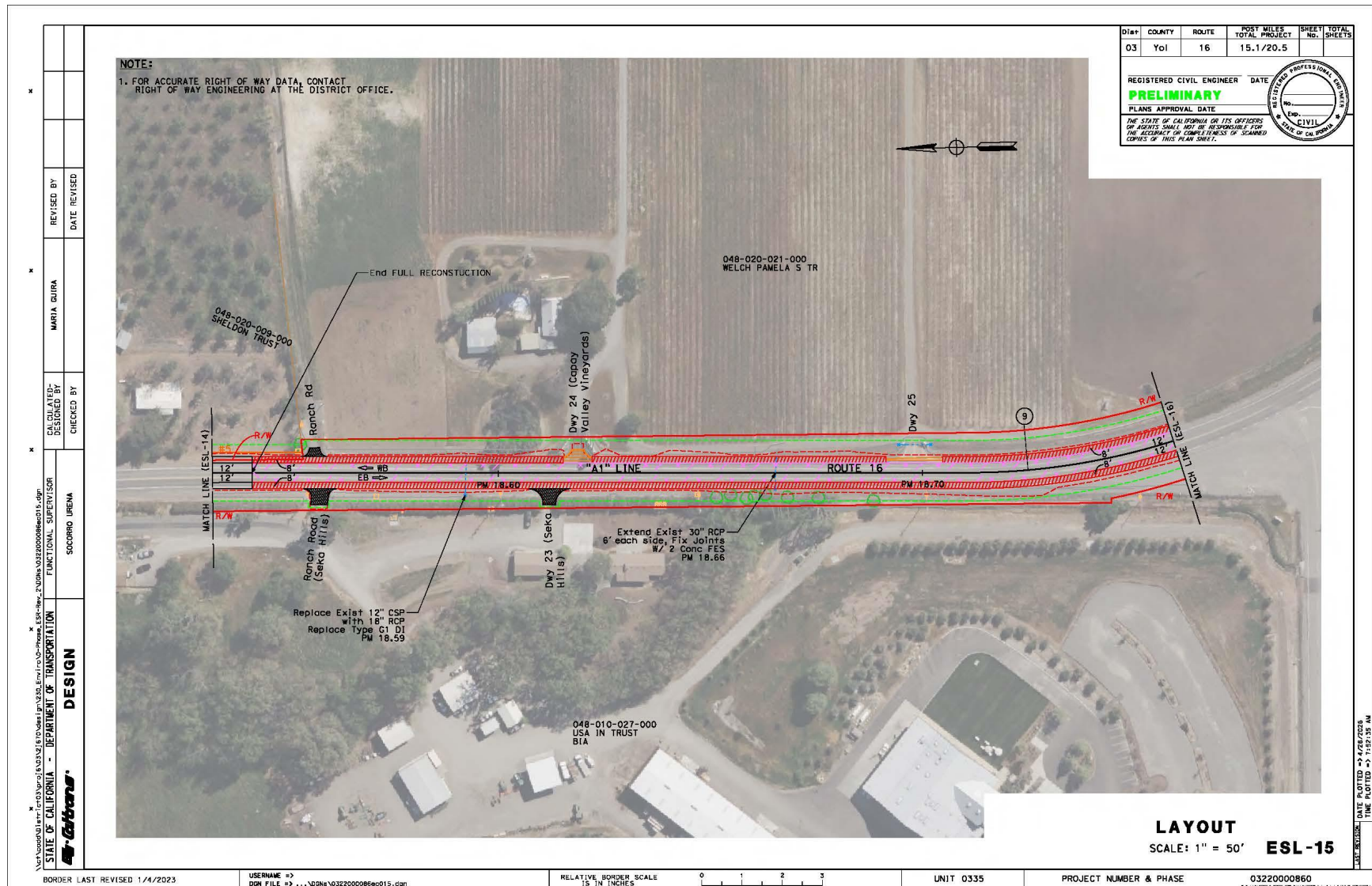


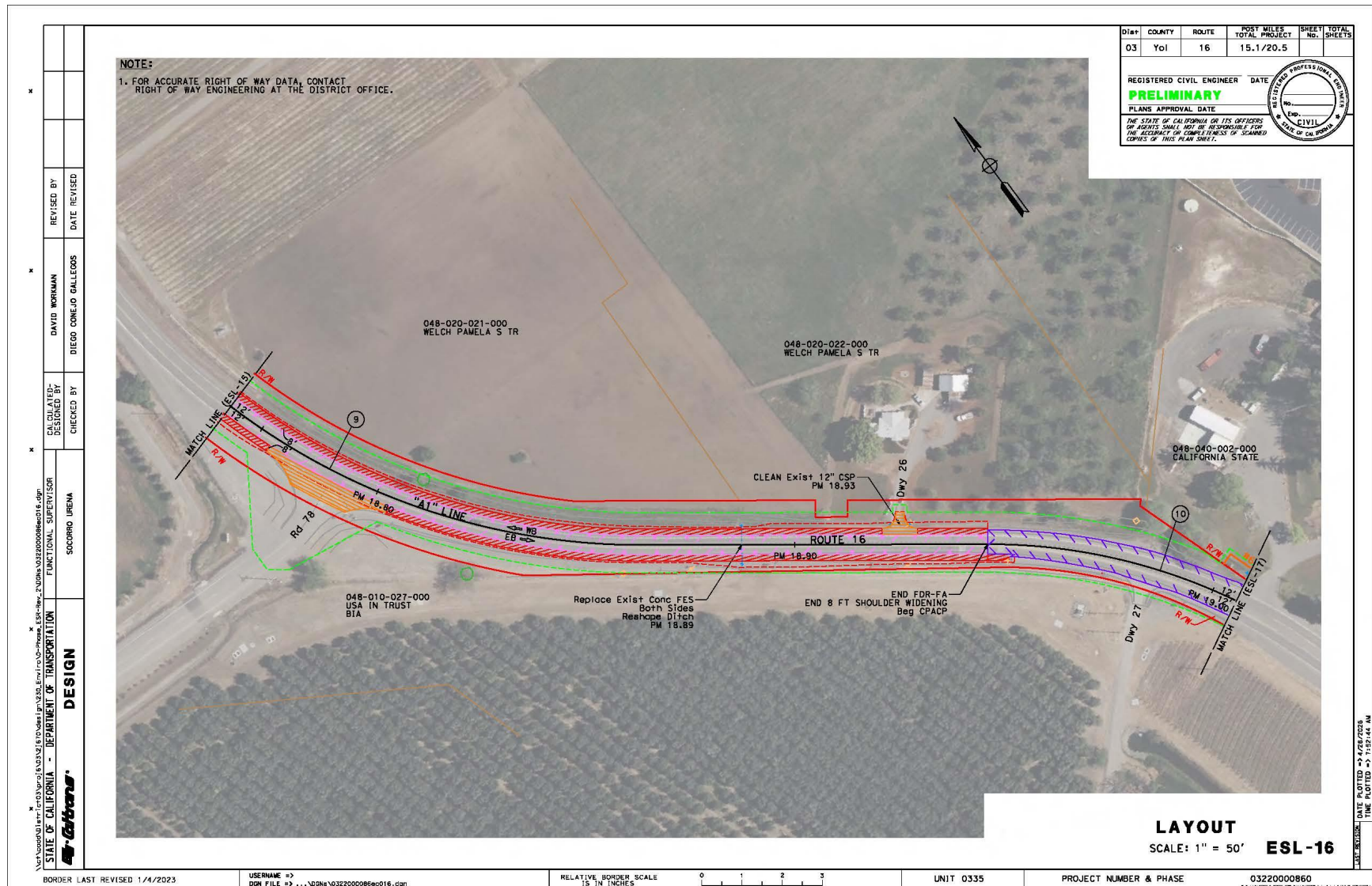


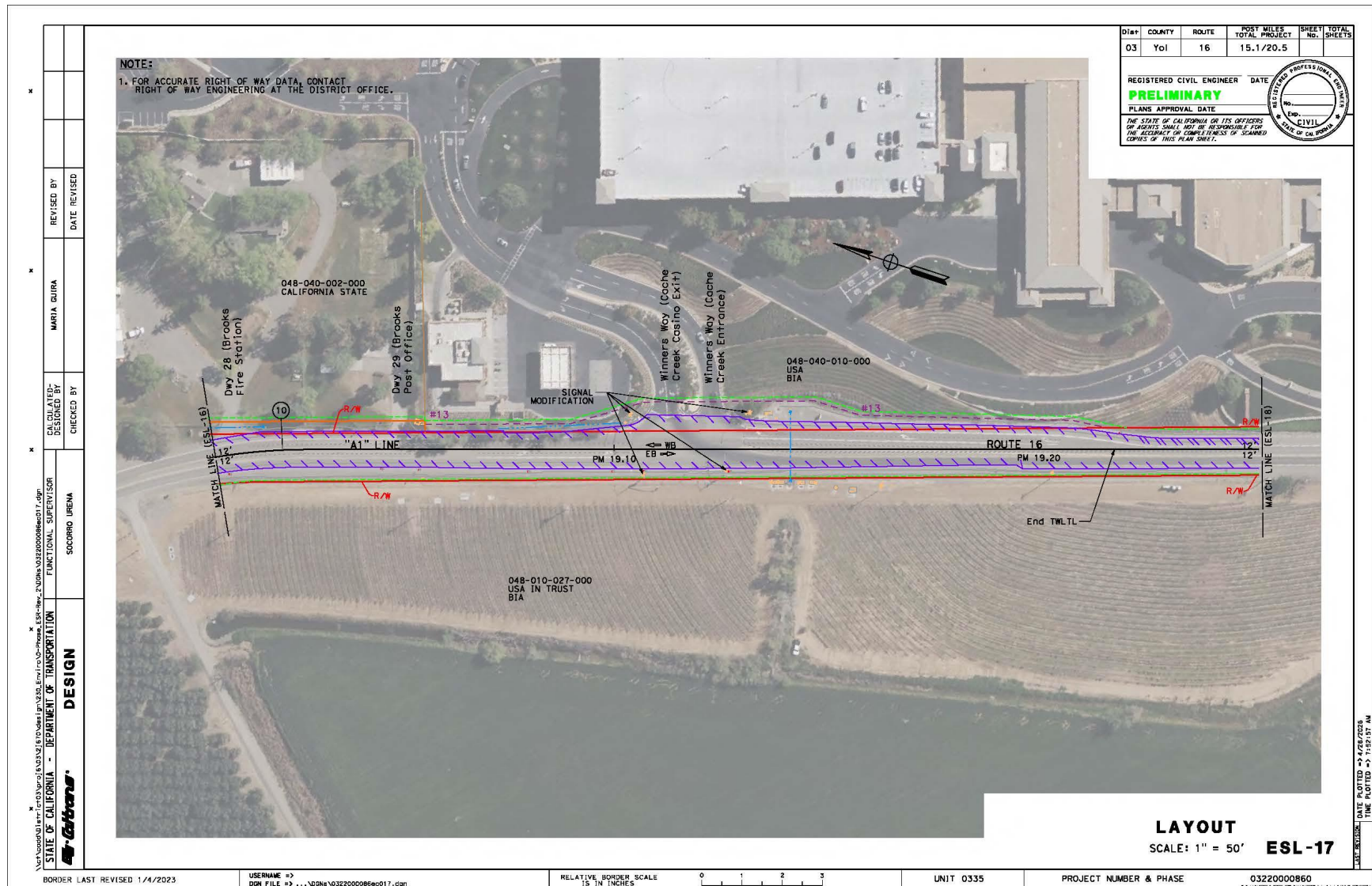


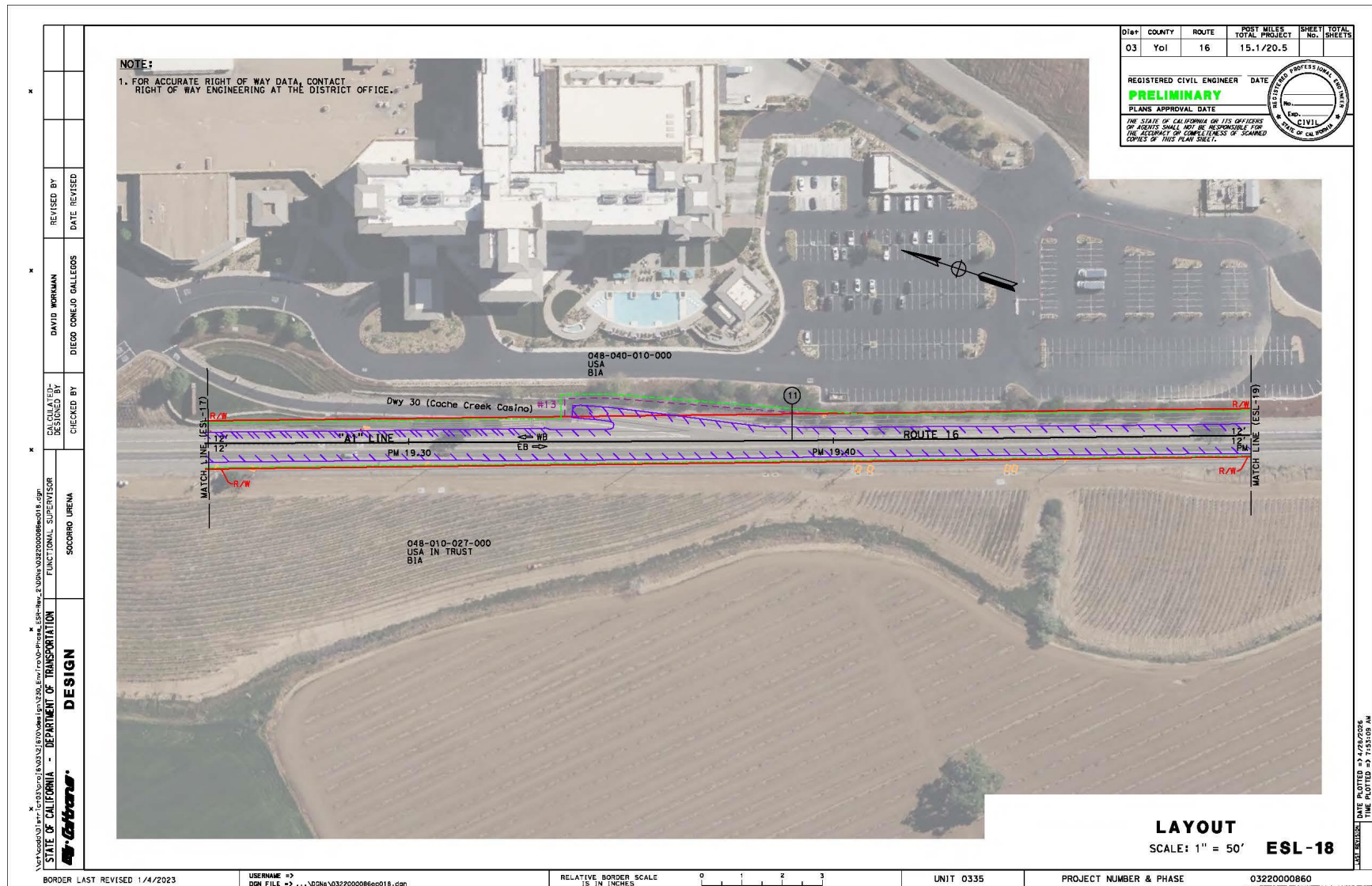


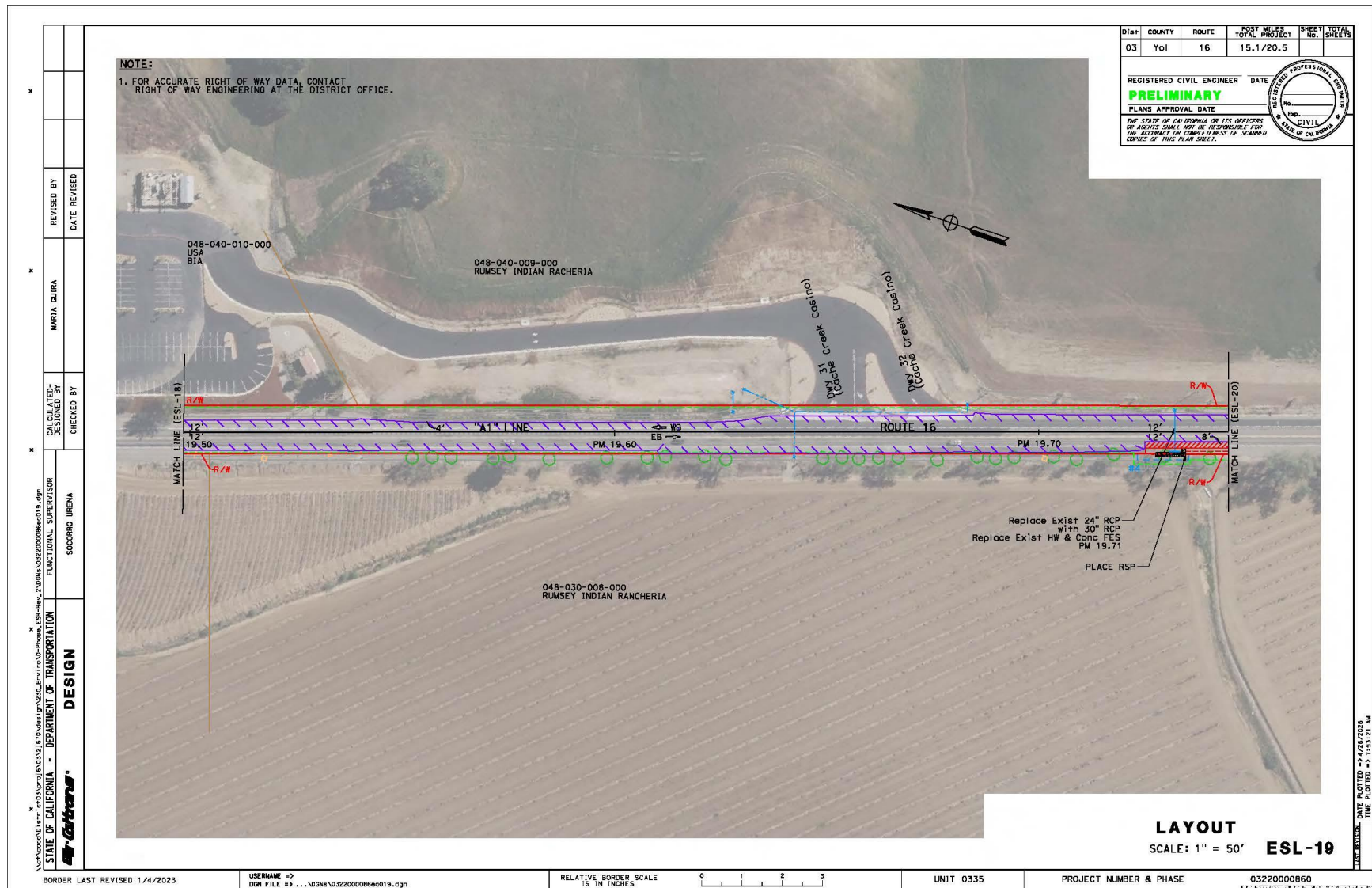


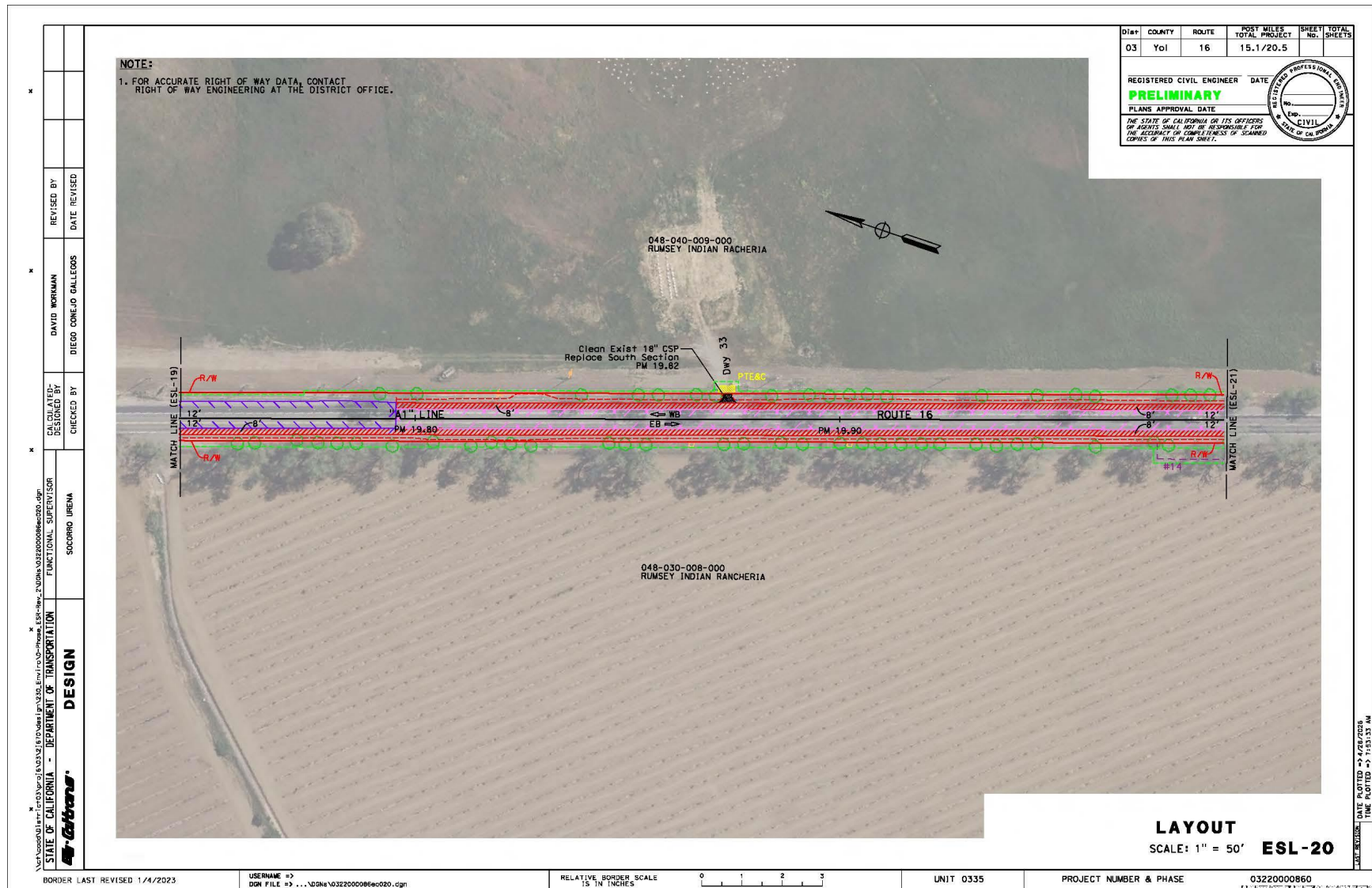


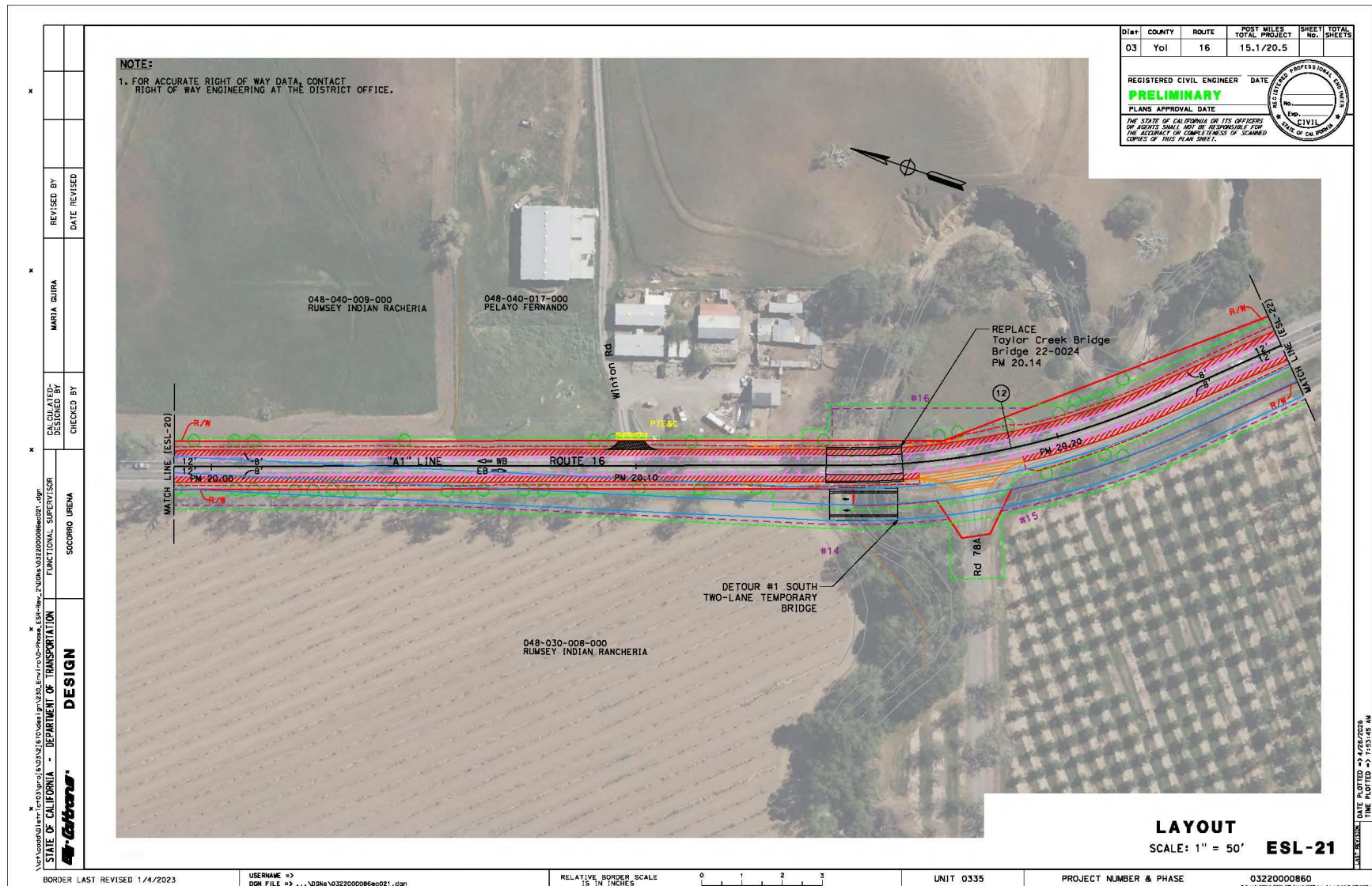


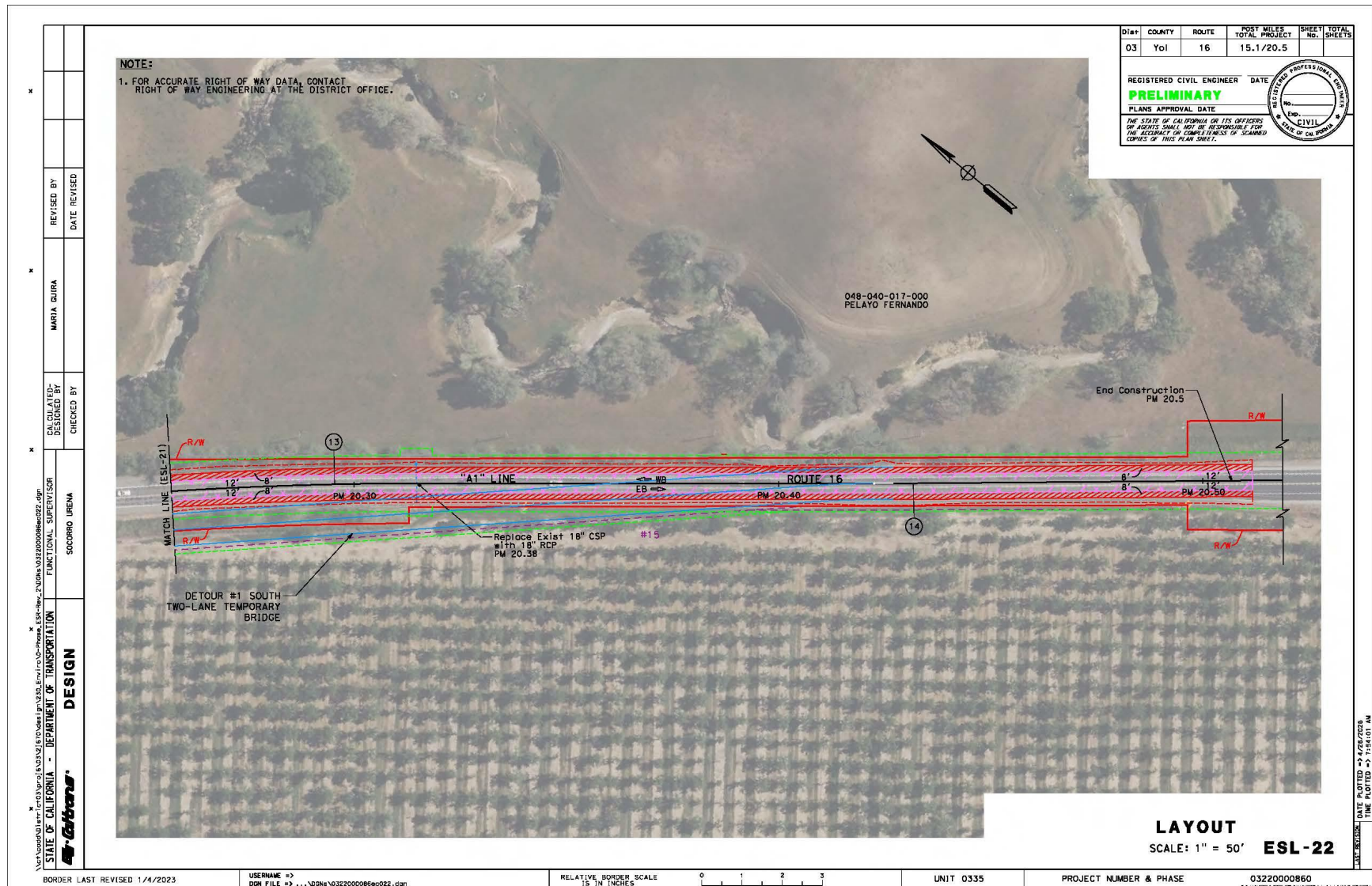












APPENDIX B. TITLE VI–NON-DISCRIMINATION POLICY STATEMENT



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 2022

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.

A handwritten signature in black ink, appearing to read 'Tony Tavares'.

TONY TAVARES
Director

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



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



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

05/13/2026 16:32:39 UTC

Project Code: 2024-0145099

Project Name: EA 03-2J670 Cache Creek Rehab

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2024-0145099
Project Name: EA 03-2J670 Cache Creek Rehab
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Yolo county near Guinda and Brooks. Highway runs adjacent to Cache Creek. The proposed project is to rehabilitate and extend the pavement service life by addressing existing pavement in fair and poor condition; bring shoulders to current standard; upgrade existing guardrails and end terminals that are not up to current standards; and upgrade roadside sign panels and striping to meet current standards. There is also bridge replacement at two locations. Bridge widening at one location. And multiple culverts being extended.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.75192005,-122.15172224757069,14z>



Counties: Yolo County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 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 Fisheries¹, 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
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123 General project design guidelines: https://ipac.ecosphere.fws.gov/project/A23RGCRZWBBX7MYIRIFNK2BQ2M/documents/generated/11271.pdf	Threatened

REPTILES

NAME	STATUS
Northwestern Pond Turtle <i>Actinemys marmorata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111 General project design guidelines: https://ipac.ecosphere.fws.gov/project/A23RGCRZWBBX7MYIRIFNK2BQ2M/documents/generated/11271.pdf	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076 General project design guidelines: https://ipac.ecosphere.fws.gov/project/A23RGCRZWBBX7MYIRIFNK2BQ2M/documents/generated/11271.pdf	Threatened
Western Spadefoot <i>Spea hammondi</i> Population: Northern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425 General project design guidelines: https://ipac.ecosphere.fws.gov/project/A23RGCRZWBBX7MYIRIFNK2BQ2M/documents/generated/11271.pdf	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/A23RGCRZWBBX7MYIRIFNK2BQ2M/documents/generated/11271.pdf	Proposed Threatened

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498 General project design guidelines: https://ipac.ecosphere.fws.gov/project/A23RGCRZWBBX7MYIRIFNK2BQ2M/documents/generated/11271.pdf	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246 General project design guidelines: https://ipac.ecosphere.fws.gov/project/A23RGCRZWBBX7MYIRIFNK2BQ2M/documents/generated/11271.pdf	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: California Department of Transportation District 3

Name: Risa Fackler

Address: 703 B Street

City: Marysville

State: CA

Zip: 95901

Email: risa.fackler@dot.ca.gov

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National Marine Fisheries Service – West Coast Region.

Project EA #	03-2J670	03-2J670
Date Queried	11-May-2026	11-May-2026
Quad Name	Guinda	Brooks
Quad Number	38122-G2	38122-F2
ESA Anadromous Fish		
SONCC Coho ESU (T)		
CCC Coho ESU (E)		
CC Chinook Salmon ESU (T)		
CVSR Chinook Salmon ESU (T)		
SRWR Chinook Salmon ESU (E)		
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)		
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		
Eulachon Critical Habitat		
sDPS Green Sturgeon Critical Habitat		
ESA Marine Invertebrates		
Range Black Abalone (E)		
Range White Abalone (E)		
ESA Marine Invertebrates Critical Habitat		
Black Abalone Critical Habitat (E)		
ESA Sea Turtles		
East Pacific Green Sea Turtle (T)		
Olive Ridley Sea Turtle (T/E)		
Leatherback Sea Turtles (E)		
North Pacific Loggerhead Sea Turtle (E)		
ESA Whales		
Blue Whales (E)		
Fin Whales (E)		
Humpback Whales (E)		
Southern Resident Killer Whale (E)		

North Pacific Right Whale (E)		
Sei Whale (E)		
Sperm Whale (E)		
ESA Pinnipeds		
Guadalupe Fur Seal (T)		
Steller Sea Lion Critical Habitat		
Essential Fish Habitat		
Coho EFH		
Chinook Salmon EFH	X	X
Groundfish EFH		
Coastal Pelagics EFH		
Highly Migratory Species EFH		
MMPA Species		
ESA & MMPA Cetaceans/Pinnipeds		
MMPA Cetaceans		
MMPA Pinnipeds		

X = Designated critical habitat may be present.



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad IS (Brooks (3812262)) OR Guinda (3812272))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Bombus crotchii</i> Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	
<i>Falco mexicanus</i> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S2	
<i>Lasiurus frantzii</i> western red bat	AMACC05080	None	None	G4	S3	SSC
<i>Rana boylei pop. 1</i> foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	G3T4	S4	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S3	
<i>Sidalcea keckii</i> Keck's checkerbloom	PDMAL110D0	Endangered	None	G2	S2	1B.1

Record Count: 9



CALIFORNIA
NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

54 matches found. Click on scientific name for details

Search Criteria: , 9-Quad include [3812283:3812281:3812271:3812282:3812261:3812263:3812273:3812272:3812262]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	GENERAL HABITATS	MICROHABITATS	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)	CA ENDEMIC	PHOTO
<i>Allium fimbriatum</i> var. <i>purdyi</i>	Purdy's onion	Alliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G4G5T3	S3	4.3	Chaparral, Cismontane woodland	Clay, Serpentine	985	1970	Yes	 © 2014 Steve Matson
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Cismontane woodland, Coastal bluff scrub, Valley and foothill grassland		10	1640	Yes	 © 2011 Neal Kramer
<i>Antirrhinum virga</i>	twig-like snapdragon	Plantaginaceae	perennial herb	Jun-Jul	None	None	G3?	S3?	4.3	Chaparral, Lower montane coniferous forest	Openings, Rocky, Serpentine (often)	330	6610	Yes	 © 2013 Aaron Schusteff
<i>Aphyllon validum</i> ssp. <i>howellii</i>	Howell's broomrape	Orobanchaceae	perennial herb (parasitic)	Jun-Sep	None	None	G4T3	S3	4.3	Chaparral (serpentine, volcanic)		590	5710	Yes	No Photo Available
<i>Arabis modesta</i>	modest rockcress	Brassicaceae	perennial herb	Mar-Jul	None	None	G3	S3	4.3	Chaparral, Lower montane coniferous forest		395	2625		 © 2014 Scot Loring
<i>Arabis oregana</i>	Oregon rockcress	Brassicaceae	perennial herb	May	None	None	G3G4Q	S3	4.3	Chaparral, Lower montane coniferous forest	Serpentine	1970	6005		 © 2021 Scot Loring
<i>Asclepias solanoana</i>	serpentine milkweed	Apocynaceae	perennial herb	May-Jul(Aug)	None	None	G3	S3	4.2	Chaparral, Cismontane woodland, Lower montane coniferous forest	Serpentine	755	6105	Yes	 © 2009 Julie Kierstead Nelson

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<i>Astragalus breweri</i>	Brewer's milk-vetch	Fabaceae	annual herb	Apr-Jun	None	None	G3	S3	4.2	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland (openings, often gravelly)	Serpentine (often), Volcanic	295	2395	Yes	 © 2021 Zoya Akulova
<i>Astragalus cleveandii</i>	Cleveland's milk-vetch	Fabaceae	perennial herb	Jun-Sep	None	None	G4	S4	4.3	Chaparral, Cismontane woodland, Riparian forest	Seeps, Serpentine	655	4920	Yes	 © 2024 Aaron Arthur
<i>Astragalus rattanii</i> var. <i>jepsonianus</i>	Jepson's milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G4T3	S3	1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland	Serpentine (often)	970	2295	Yes	No Photo Available
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	None	None	G2T1	S1	1B.1	Meadows and seeps (vernally mesic), Valley and foothill grassland (subalkaline flats)		5	245	Yes	No Photo Available
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland	Serpentine (sometimes)	150	5100	Yes	 ©1998 Dean Wm. Taylor
<i>Calyptridium quadripetalum</i>	four-petaled pussypaws	Montiaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Chaparral, Lower montane coniferous forest	Gravelly (sometimes), Sandy (sometimes), Serpentine (usually)	1035	6695	Yes	No Photo Available
<i>Castilleja rubicundula</i> var. <i>rubicundula</i>	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	None	None	G5T2	S2	1B.2	Chaparral (openings), Cismontane woodland, Meadows and seeps, Valley and foothill grassland	Serpentine	65	2985	Yes	 ©2010 Vernon Smith
<i>Ceanothus sonomensis</i>	Sonoma ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	None	None	G2	S2	1B.2	Chaparral (sandy, serpentine, volcanic)		705	2625	Yes	No Photo Available

<https://rareplants.cnps.org/Search/result?frm=T&qsl=9&quad=3812283:3812281:3812271:3812282:3812261:3812263:3812273:3812272:3812262:&el...> 2/7

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CNPS Rare Plant Inventory | Search Results

<i>Centromadia parryi</i> ssp. <i>parryi</i>	pappose tarplant	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.2	Chaparral, Coastal prairie, Marshes and swamps (coastal salt), Meadows and seeps, Valley and foothill grassland (vernally mesic)	Alkaline (often)	0	1380	Yes	 © 2016 John Doyen
<i>Chloropyron palmatum</i>	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct	FE	CE	G1	S1	1B.1	Chenopod scrub, Valley and foothill grassland	Alkaline	15	510	Yes	No Photo Available
<i>Clarkia gracilis</i> ssp. <i>tracyi</i>	Tracy's clarkia	Onagraceae	annual herb	Apr-Jul	None	None	G5T3	S3	4.2	Chaparral (openings, serpentine)		215	2135	Yes	No Photo Available
<i>Collomia diversifolia</i>	serpentine collomia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Chaparral, Cismontane woodland	Gravelly (sometimes), Rocky (sometimes), Serpentine (sometimes)	655	1970	Yes	 ©2019 Zoya Akulova
<i>Cordyanthus tenuis</i> ssp. <i>brunneus</i>	serpentine bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jul-Aug	None	None	G4G5T3	S3	4.3	Chaparral, Cismontane woodland, Closed-cone coniferous forest	Serpentine (usually)	1000	3000	Yes	No Photo Available
<i>Cryptantha excavata</i>	deep-scarred cryptantha	Boraginaceae	annual herb	Apr-May	None	None	G1	S1	1B.1	Cismontane woodland (gravelly, sandy)		330	1640	Yes	No Photo Available
<i>Cryptantha rastellata</i>	red-stemmed cryptantha	Boraginaceae	annual herb	Apr-Jun	None	None	G4	S3	4.2	Cismontane woodland, Valley and foothill grassland	Gravelly (often), Openings, Roadsides (often), Volcanic	130	2625		No Photo Available
<i>Delphinium uliginosum</i>	swamp larkspur	Ranunculaceae	perennial herb	May-Jun	None	None	G3	S3	4.2	Chaparral, Valley and foothill grassland	Seeps, Serpentine	1115	2000	Yes	No Photo Available
<i>Eriogonum nervulosum</i>	Snow Mountain buckwheat	Polygonaceae	perennial rhizomatous herb	Jun-Sep	None	None	G2	S2	1B.2	Chaparral (serpentine)		985	6905	Yes	 © Rick York and CNPS
<i>Eriogonum tripodum</i>	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	None	None	G4	S4	4.2	Chaparral, Cismontane woodland	Serpentine (often)	655	5250	Yes	 ©2008 Steven Perry
<i>Eryngium jepsonii</i>	Jepson's coyote-thistle	Apiaceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	Valley and foothill grassland, Vernal pools	Clay	10	985	Yes	No Photo Available

<https://rareplants.cnps.org/Search/result?frm=T&qsl=9&quad=3812283:3812281:3812271:3812282:3812261:3812263:3812273:3812272:3812262:&el...> 3/7

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<i>Erythranthe nudata</i>	bare monkeyflower	Phymaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Chaparral, Cismontane woodland	Seeps, Serpentine	655	2295	Yes	 John Doyen 2015
<i>Extriplex joaquinana</i>	San Joaquin spearscale	Amaranthaceae	annual herb	Apr-Oct	None	None	G2	S2	1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland	Alkaline	5	2740	Yes	No Photo Available
<i>Fritillaria pluriflora</i>	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2G3	S2S3	1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland	Adobe (often)	195	2315	Yes	 © 2015 Steve Matson
<i>Fritillaria purdyi</i>	Purdy's fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G4	S4	4.3	Chaparral, Cismontane woodland, Lower montane coniferous forest	Serpentine (usually)	575	7400		 Aaron Schusteff, 2004
<i>Harmonia hallii</i>	Hall's harmonia	Asteraceae	annual herb	(Mar)Apr-Jun	None	None	G2?	S2?	1B.2	Chaparral (serpentine)		1000	3200	Yes	 © 2015 John Doyen
<i>Harmonia nutans</i>	nodding harmonia	Asteraceae	annual herb	Mar-May	None	None	G3	S3	4.3	Chaparral, Cismontane woodland	Gravelly (sometimes), Rocky (sometimes), Volcanic	245	3200	Yes	 © 2008 Neal Kramer
<i>Hesperolinon drymarioides</i>	drymaria-like western flax	Linaceae	annual herb	May-Aug	None	None	G2	S2	1B.2	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Valley and foothill grassland	Serpentine	330	3710	Yes	 © Niall McCarten and CNPS
<i>Hesperolinon sharsmithiae</i>	Sharsmith's western flax	Linaceae	annual herb	May-Jul	None	None	G2Q	S2	1B.2	Chaparral	Serpentine	885	985	Yes	 © 2017 Aaron Arthur
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1	Marshes and swamps (coastal salt), Playas, Vernal pools		5	4005		 © 2013 Keir Morse

<https://rareplants.cnps.org/Search/result?frm=T&qsl=9&quad=3812283:3812281:3812271:3812282:3812261:3812263:3812273:3812272:3812262:&el...> 4/7

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<i>Layia septentrionalis</i>	Colusa layia	Asteraceae	annual herb	Apr-May	None	None	G2	S2	1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland	Sandy, Serpentine	330	3595	Yes	 © 2013 Jake Ruygt
<i>Leptosiphon jepsonii</i>	Jepson's leptosiphon	Polemoniaceae	annual herb	Mar-May	None	None	G2G3	S2S3	1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland	Volcanic (usually)	330	1640	Yes	 © 2012 Aaron Arthur
<i>Leptosiphon latsectus</i>	broad-lobed leptosiphon	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Broadleafed upland forest, Cismontane woodland		560	4920	Yes	 © 2015 Steve Matson
<i>Lomatium hooveri</i>	Hoover's lomatium	Apiaceae	perennial herb	Apr-Jul	None	None	G3	S3	4.3	Chaparral, Cismontane woodland	Serpentine, Volcanic (rarely)	985	2905	Yes	 © 2022 Zoya Akulova
<i>Lomatium repostum</i>	Napa lomatium	Apiaceae	perennial herb	Mar-Jun	None	None	G3	S3	4.2	Broadleafed upland forest, Chaparral, Cismontane woodland	Gravelly (sometimes), Openings (often), Rocky (sometimes), Sandstone (rarely), Serpentine, Volcanic (often)	295	4725	Yes	No Photo Available
<i>Malacothamnus helleri</i>	Heller's bushmallow	Malvaceae	perennial deciduous shrub	May-Jul	None	None	G2Q	S2	3.3	Chaparral (sandstone), Riparian woodland (gravel)		1000	2085	Yes	 © 2017 Keir Morse
<i>Microseris sylvatica</i>	sylvan microseris	Asteraceae	perennial herb	Mar-Jun	None	None	G4	S4	4.2	Chaparral, Cismontane woodland, Great Basin scrub, Pinyon and juniper woodland, Valley and foothill grassland	Serpentine (rarely)	150	4920	Yes	No Photo Available
<i>Monardella viridis</i>	green monardella	Lamiaceae	perennial rhizomatous herb	Jun-Sep	None	None	G3	S3	4.3	Broadleafed upland forest, Chaparral, Cismontane woodland		330	3315	Yes	No Photo Available

<https://rareplants.cnps.org/Search/result?frm=T&qsl=9&quad=3812283:3812281:3812271:3812282:3812261:3812263:3812273:3812272:3812262:&el...> 5/7

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<i>Navarretia cotulifolia</i>	cotula navarretia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.2	Chaparral, Cismontane woodland, Valley and foothill grassland	Adobe	15	6005	Yes	 © 2020 Zoya Akulova
<i>Navarretia jepsonii</i>	Jepson's navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Chaparral, Cismontane woodland, Valley and foothill grassland	Serpentine	575	2805	Yes	 © 2011 Vernon Smith
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G4T2	S2	1B.1	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools	Mesic	15	5710	Yes	 © 2018 Barry Rice
<i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i>	adobe navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4T3	S3	4.2	Valley and foothill grassland (vermally mesic), Vernal pools (sometimes)	Clay, Serpentine (sometimes)	330	3280	Yes	 © 2008 Zoya Akulova
<i>Plagiobothrys hystericulus</i>	bearded popcornflower	Boraginaceae	annual herb	Apr-May	None	None	G2	S2	1B.1	Valley and foothill grassland (mesic), Vernal pools (margins)		0	900	Yes	 © 2006 Robert E. Preston
<i>Senecio clevelandii</i> var. <i>clevelandii</i>	Cleveland's ragwort	Asteraceae	perennial herb	Jun-Jul	None	None	G4?T3Q	S3	4.3	Chaparral (seeps, serpentinite)		1200	2955	Yes	No Photo Available
<i>Sidalcea keckii</i>	Keck's checkerbloom	Malvaceae	annual herb	Apr-May (Jun)	FE	None	G2	S2	1B.1	Cismontane woodland, Valley and foothill grassland	Clay, Serpentine	245	2135	Yes	No Photo Available
<i>Streptanthus hesperidis</i>	green jewelflower	Brassicaceae	annual herb	May-Jul	None	None	G2G3	S2S3	1B.2	Chaparral (openings), Cismontane woodland	Rocky, Serpentine	425	2495	Yes	No Photo Available
<i>Streptanthus morrisonii</i> ssp. <i>kruckebergii</i>	Kruckeberg's jewelflower	Brassicaceae	perennial herb	Apr-Jul	None	None	G2T1	S1	1B.2	Cismontane woodland (serpentinite)		705	3395	Yes	No Photo Available

<https://rareplants.cnps.org/Search/result?frm=T&qsl=9&quad=3812283:3812281:3812271:3812282:3812261:3812263:3812273:3812272:3812262:&el...> 6/7

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<i>Thelypodium brachycarpum</i>	short-podded thelypodium	Brassicaceae	perennial herb	May-Aug	None	None	G3	S3	4.2	Chaparral, Lower montane coniferous forest, Meadows and seeps	Adobe, Alkaline, Serpentine	2200	8400		© 2016 Dana York
<i>Toxicoscordion fontanum</i>	marsh zigadenus	Melanthiaceae	perennial bulbiferous herb	Apr-Jul	None	None	G3	S3	4.2	Chaparral, Cismontane woodland, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps	Serpentine (often), Vernal Mesic	50	3280	Yes	No Photo Available

Showing 1 to 54 of 54 entries

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Suggested Citation:

California Native Plant Society, Rare Plant Program. 2026. Rare Plant Inventory (online edition, v9.5.1). Website <https://www.rareplants.cnps.org> [accessed 11 May 2026].

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<https://rareplants.cnps.org/Search/result?frm=T&qsl=9&quad=3812283:3812281:3812271:3812282:3812261:3812263:3812273:3812272:3812262:&el...> 7/7

APPENDIX D. SHPO CONCURRENCE LETTER





**DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION**

Armando Quintero, Director

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May 7, 2026

VIA EMAIL

In reply refer to: FHWA_2026_0408_001

David Price, Chief
Cultural Studies Office
Caltrans Division of Environmental Analysis
P.O. Box 942873, MS-27
Sacramento, CA 94273-0001

Subject: Section 106 Consultation for the Cache Creek Rehab Project, State Route 16,
Yolo County, California (03-2J670)

Dear Mr. Price:

The State Historic Preservation Officer (SHPO) is in receipt of a consultation letter dated April 7, 2026, from the California Department of Transportation (Caltrans) for the above referenced undertaking. Caltrans, as assigned by the Federal Highway Administration (FHWA), is initiating consultation with the SHPO to comply with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulation at 36 CFR 800. Caltrans is consulting with the SHPO on the Area of Potential Effects (APE), on its identification efforts, and on its finding of No Historic Properties Affected.

Caltrans proposes to rehabilitate an 8.69 km (5.40-mile) section of State Route (SR) 16 in Capay Valley, between the communities of Guinda and Cadenasso, that is in fair and poor condition. The Undertaking will also widen shoulders, upgrade existing guardrails, and upgrade roadside sign panels and striping to current standards. A portion of the project will be occurring on tribal reservation lands for the Yocha Dehe Wintun Nation. Caltrans is concurrently consulting with the Tribal Historic Preservation Officer (THPO) of the Yocha Dehe Wintun Nation.

Caltrans has defined the APE to encompass the maximum limits of potential ground disturbing construction activities that would reasonably be expected from the proposed project, including but not limited to, all existing and proposed new right-of-way, temporary construction easements, utility relocations, and any borrow, disposal, access, or staging areas. The horizontal APE extends within the Caltrans right-of-way between PM 15.10-20.5. The vertical direct APE is estimated to extend three feet below grade for all project related activities with the exception of bridge abutments at a depth of fifty to seventy feet below grade.

Efforts to identify historic properties included a search of the Caltrans Cultural Resource Database, a pedestrian survey of the APE, a search of the Sacred Lands File at the Native American Heritage Commission, and consultation with Native American groups and local historical societies. Due to the known sensitivity of the area and the ground disturbance associated with the project, an Extended Phase I investigation was also conducted.

As a result of its identification efforts, no historic properties were identified within the APE. Therefore, Caltrans has reached a finding of No Historic Properties Affected pursuant to 36 CFR § 800.4(d)(1).

Caltrans is consulting with the SHPO on the appropriateness of the APE and identification efforts as well as on its finding of effect. Following review of the submittal, I offer the following comments:

- Pursuant to 36 CFR § 800.4(a)(1), I have no comments on Caltrans' APE.
- Pursuant to 36 CFR § 800.4(b)(1), I find that Caltrans has made a reasonable and good faith effort to identify historic properties within the APE.
- Pursuant to 36 CFR § 800.4(d)(1), Caltrans has made a finding of No Historic Properties Affected. **I do not object.**

Be advised that under certain circumstances, such as an unexpected discovery or a change in project description, Caltrans may have additional future responsibilities for this undertaking under 36 CFR 800. If you require further information, please contact Robert Fitzgerald, Associate State Archaeologist, at Robert.Fitzgerald@parks.ca.gov.

Sincerely,



Julianne Polanco
State Historic Preservation Officer