Tuolumne 49 Pavement Anchor Project

TUOLUMNE COUNTY, CALIFORNIA

DISTRICT 10-TUO-49-12.8/18.8 & TUO-108-R2.2

1022000068

Initial Study with Proposed Mitigated Negative Declaration

Volume 1 of 2

Prepared by the

State of California Department of Transportation

July 2026

General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in Tuolumne in California. The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, potential impacts of each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans district office at 1976 East Doctor Martin Luther King Junior Boulevard, Stockton, California from 8:00 AM to 5:00 PM, Monday through Friday; Tuolumne County City Branch Library at 18636 Main Street, Tuolumne, CA 95379, 2:00 PM to 6:00 PM, Tuesday through Thursday and 10:00 AM to 2:00 PM, Friday and Saturday and; Tuolumne County Sonora Main Branch Library at 480 Greenley Road, Sonora, CA 95370, from 9:00 AM to 6:00 PM, Monday through Friday, and on Saturday from 10:00 AM to 6:00 PM .This document may be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-10/district-10-current-projects/10-1p090

- Tell us what you think. If you have any comments regarding the proposed project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Jonathan Coley, District 10 Environmental Division, California Department of Transportation, 1976 East Doctor Martin Luther King Junior Boulevard, Stockton, California 95205. Submit comments via email to: Jonathan.Coley@dot.ca.gov.

- Submit comments by the deadline: September 24, 2026

What happens next:

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

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District 10-TUO-49,108-12.8/18.8, R2.2
1022000068

Rehabilitate pavement and upgrade transportation facilities on State Route 49 from post miles 12.8 to 18.8 and on State Route 108 at post mile R2.2 in Tuolumne County.

INITIAL STUDY
with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation
and
Responsible Agency: California Transportation Commission

C Scott Guidi
C. Scott Guidi
Office Chief, District 10
Environmental
CEQA Lead Agency

07/01/2026
Date

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

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DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: 10-TUO-049,108-12.8/18, R2.2

EA/Project Number: EA 10-1P090/Project Number 1022000068

Project Description

The project would rehabilitate pavement and improve multimodal access along State Route 49 between post miles 12.8 and 18.8, widen Woods Creek Bridge on State Route 49 at post mile 13.2, and overlay the bridge deck at Mono Way Undercrossing on State Route 108 at post mile R2.2. The pavement rehabilitation portion of the project would also include drainage, signs, guardrails, and curb ramp upgrades.

Determination

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

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

The project would have less than significant effects to aesthetics, cultural resources, hazards and hazardous waste, and tribal resources.

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

- **BIO-38. Compensatory Mitigation – Wetlands and Other Waters of the U.S.:** Construction of the proposed project is expected to result in the permanent loss of up to approximately 179.13 square feet (0.03 acres) of wetlands and 266.23 square feet (0.006 acres) of intermittent and ephemeral streams potentially qualifying as waters of the U.S.

  The permanent loss of potentially jurisdictional waters of the U.S. is proposed to be compensated by Caltrans' participation in the Sacramento U.S. Army Corps of Engineers' and National Fish and Wildlife Foundation's "In-Lieu Fee" program to ensure "no net loss" of functions and values of potentially jurisdictional waters of the U.S. The Program operates by making available mitigation credits (Credits) for purchase by permittees (with the approval of the applicable regulatory

agencies), and the Credits may be used to satisfy the compensatory mitigation requirements applicable to such permittees for their impacts to aquatic resources. Credits would be purchased in the "Merced-Tuolumne Rivers Aquatic Service Area.

- **BIO-39. Compensatory Mitigation – Riparian Vegetation:** Construction of the proposed project is preliminarily expected to result in the trimming or removal of 113 inches diameter breast height of streamside arroyo willow riparian vegetation. This loss of riparian vegetation is expected to require a 3:1 compensation ratio by the California Department of Fish and Wildlife. Caltrans therefore proposes to compensate for the loss of 113 inches of riparian vegetation with the establishment of 339 inches diameter breast height of riparian vegetation at an undetermined on-site (within the project limits) or offsite location.

_____

C. Scott Guidi
Office Chief, District 10
Environmental

_____

Date

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans), as the lead agency under the California Environmental Quality Act (CEQA), proposes a pavement rehabilitation and multimodal safety improvement project along State Route 49 in Tuolumne County, between post miles 12.8 and 18.8, and on State Route 108 at post mile R2.2. The project is located within and between the communities of Jamestown and Sonora and serves as an important regional corridor for commuters, goods movement, and emergency response. The purpose of the project is to restore pavement condition, extend the service life of the roadway, and enhance safety and mobility for all users, including motorists, pedestrians, and bicyclists. The project responds to deteriorating pavement conditions and the need for improved multimodal infrastructure along the corridor.

State Route 49 is a two-lane conventional highway with passing zones in Tuolumne County that provides inter-county service to the Mother Lode Counties, commuter service, as well as recreational travel. State Route 49 provides a critical link between the northern and southern regions of Tuolumne County. The route provides a direct connection to east/west routes State Route 120 and State Route 108. This helps facilitate travel to Central Valley communities, mountain communities, national park lands, and Nevada. State Route 49 runs concurrent with State Route 120 from Moccasin to Chinese Camp and State Route 108 runs concurrent with State Route 49 from Montezuma Junction to Sonora. State Route 49 serves the two communities of Jamestown and Sonora in Tuolumne County.

State Route 108 is an east-to-west route originating from State Route 132 in Modesto and ending at US-395 (north of Bridgeport). The route is subject to winter closure past the community of Strawberry. The State Route 108/120 corridor serves as a direct commute to urban workplaces in Modesto, Stockton, and the San Francisco Bay Area. Recreational travelers increase traffic during weekends and holidays, as Bay Area residents travel to Yosemite National Park, Dodge Ridge Ski Resort, and other recreational opportunities along the corridor. State Route 108 serves as the sole access to several communities including Twain Harte, Confidence, Mi-Wuk Village, Long Barn, Cold Springs, Strawberry, and Tuolumne City.

The project is included in the 2025 Federal Statewide Transportation Improvement Program and the Caltrans State Highway Operations and Protection Program in the Bridge Preservation and Roadway Preservation categories. It is included in the Tuolumne County Transportation Council, 2024-2029 Regional Transportation Plan.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to rehabilitate and extend pavement service life, repair infrastructure, provide pedestrian and bicyclist facilities, and improve access to public transit.

1.2.2 Need

The project is needed to rehabilitate deteriorating pavement along State Route 49, provide pedestrian, bicyclist, and transit facilities within Jamestown, upgrade curb ramps to comply with Americans with Disabilities Act requirements, and rehabilitate and replace culverts. There is also a need to rehabilitate deteriorating bridge deck at Mono Way Undercrossing (Bridge No. 32-0066) on State Route 108 at post mile R2.2 and to widen Woods Creek Bridge (Bridge No. 32-0004) on State Round 49 at post mile 13.5 to accommodate evacuation traffic as well as provide safe pedestrian and bicycle facilities.

The primary purpose of this pavement rehabilitation project is to extend the service life of the existing pavement structural section by resurfacing the roadway. The project would provide benefits to the State, the Cities of Jamestown and Sonora, and the traveling public by reducing the need for future preventive maintenance and improving ride quality along the corridor.

Several existing curb ramps within Sonora do not currently meet Americans with Disability Act standards. These curb ramps would be upgraded to comply with current Americans with Disability Act requirements or replaced with curb extensions/bulb-outs to enhance accessibility. Complete Streets improvements included in the project would enhance pedestrian and bicycle mobility and safety along State Route 49 through Jamestown. Additionally, roadway lighting, signage, and striping would be updated to current standards, improving multi-modal safety and reducing the need for future maintenance throughout the project limit.

1.3 Project Description

The California Department of Transportation (Caltrans) proposes to rehabilitate and extend the pavement service life along State Route 49 between post miles 12.8 and 18.8. This work would include cold planing and asphalt overlay to improve roadway durability. In Jamestown, the project would enhance pedestrian and bicyclist facilities by constructing sidewalks, Class IV bike lanes, park and ride, and Americans with Disabilities Act compliant curb ramps. Retaining walls would also be built where needed to support these improvements. The project proposes to rehabilitate deteriorating bridge deck at Mono Way Undercrossing (Bridge No. 32-0066) on State Route 108 at post mile R2.2 and to widen Woods Creek Bridge (Bridge No. 32-0004) on State Round 49 at post mile 13.5.

Additional work includes:

- Upgrading curb ramps and replacing asphalt concrete (AC) dikes.
- Performing dig outs and shoulder backing.
- Rehabilitating and replacing culverts.
- Upgrading and installing roadway signs and guardrails.
- Modifying signals, lighting, and traffic monitoring systems.

Bridge improvements are also part of the project:

- Applying a concrete overlay to the deck and approach slabs of Mono Way Undercrossing (Bridge No. 32-0066) on State Route 108 to address deterioration.
- Widening Woods Creek Bridge deck (Bridge No.32-0004) on State Route 49 to improve evacuation routes and provide safe pedestrian and bicycle access.

Figure 1-1 Project Vicinity Map

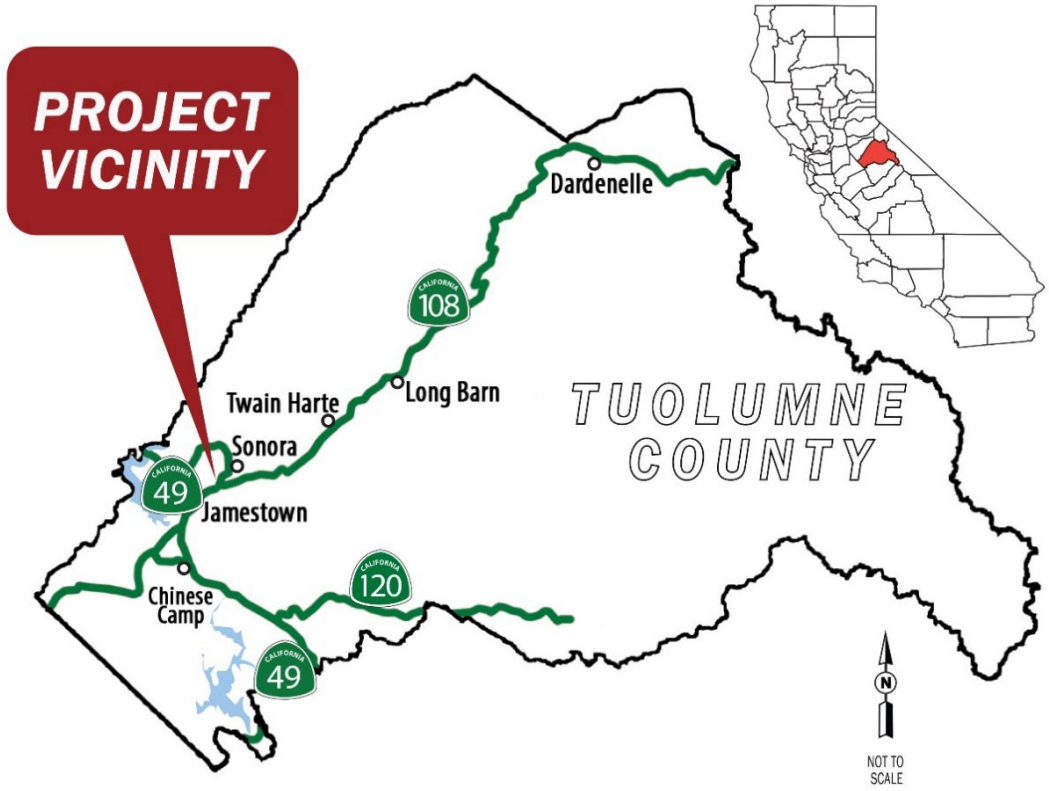
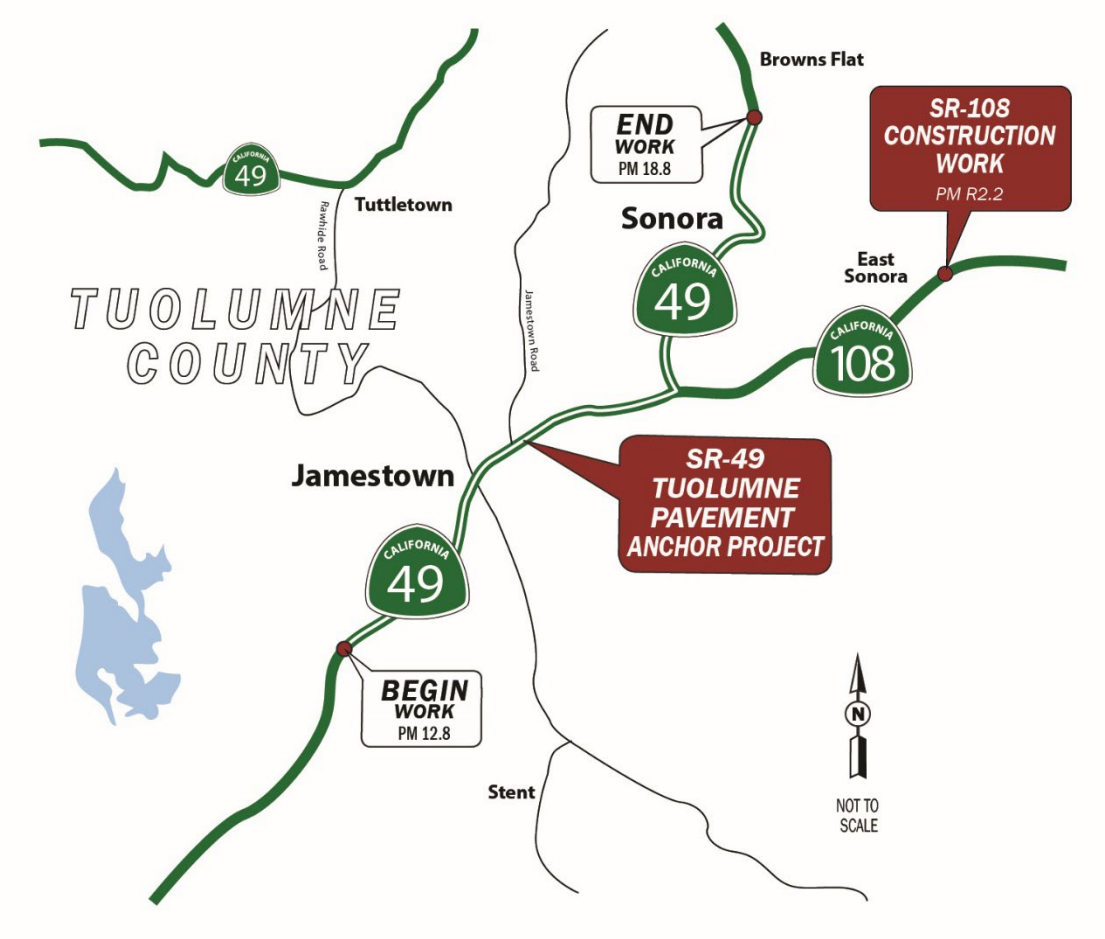


Figure 1-2 Project Location Map



1.4 Project Alternatives

Under consideration for the proposed project are a Build Alternative and a No-Build Alternative.

1.4.1 Build Alternative

The build alternative for the project proposes to repair existing pavement along State Route 49 via cold planning, hot mixed asphalt, or rubberized hot mixed asphalt overlay. The project would also improve drainage infrastructure by rehabilitating and replacing culverts. The project also proposes Class II bike lanes, sidewalks, Americans with Disabilities Act-compliant curb ramp upgrades, and transit stops along the route. Minor temporary construction easements and permanent acquisitions would be required from numerous parcels along the project route for the proposed curb ramp upgrades. Other work proposed along the route includes dig outs, asphalt concrete dike replacements, shoulder backing and widening, upgrading and/or installing

roadway signs and guardrails, and modifying signals, lighting, and traffic monitoring systems.

In Jamestown, the Woods Creek Bridge deck would be widened to accommodate traffic in an evacuation and include pedestrian and bicycle infrastructure. A new park and ride lot and drainage basin are proposed near the State Route 49/Lemon Drop Lane intersection in Jamestown, requiring approximately 0.65, and 0.51, acres of permanent acquisition, respectively. Retaining walls are also proposed at the 5th Avenue/State Route 49 and Jamestown Road/State Route 49 intersections. On State Route 108 in East Sonora, the Mono Way undercrossing deck would be also repaved. Additional construction activities may include excess soil removal, night work, staging areas, striping removal, traffic detours, treated wood waste, utility work, vegetation removal, and ground disturbance to a maximum depth of 20 feet.

1.4.2 No Build Alternative

The other alternative is “no build” and the locations and infrastructure would remain unchanged. The pavement would remain deteriorated along State Route 49. The decks of Woods Creek Bridge and Mono Way Undercrossing would not be replaced. In addition, there would be no addition of pedestrian and bicycle facilities, Americans with Disabilities Act curb ramps, or a park and ride lot.

1.5 Standard Measures and Best Management Practices Included in All Alternatives

The following Best Management Practices and Caltrans Standard Specifications are anticipated to be implemented on the project, where applicable. The final list of Best Management Practices and Caltrans Standard Specifications would be submitted by the contractor and approved for inclusion in the construction contract by Caltrans later in the project design phase.

- Section 4-1.13: Scope of Work—Cleanup
- Section 7-1.02A: General (Legal Compliance)
- Section 7 1.02C: Emissions Reduction
- Section 7-1.02K(6)(j)(iii): Earth Material Containing Lead
- Section 10-5: Dust Control
- Section 13: Water Pollution Control

- Section 14-2.03A: Previously Unidentified Archaeological Resources
- Section 14-8.02: Noise Control
- Section 14-9.02: Air Pollution Control
- Section 20-1.03C(3): Weed Control
- Section 72-2: Rock Slope Protection

1.6 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, has been prepared in accordance with the National Environmental Policy Act. When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special-status species by the U.S. National Marine Fisheries Service and the U.S. Fish and Wildlife Service—that is, species protected by the Federal Endangered Species Act).

1.7 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	California Fish and Game Code Section 1600 Lake and Streambed Alteration Agreement	The permit would be obtained during the design phase of the project.
Central Valley Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	The permit would be obtained during the design phase of the project.
US Army Corps of Engineers	404 Nationwide Verification	The permit would be obtained during the design phase of the project.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant Impact With Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A "No Impact" answer reflects this determination. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below.

"No Impact" determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report (bound separately in Volume 2), and no further discussion is included in this document.

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment Memorandum dated September 24, 2025, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	**No Impact**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	**Less Than Significant Impact**

Question—Would the project:	CEQA Significance Determinations for Aesthetics
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	**No Impact**
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	**No Impact**

Affected Environment

This section incorporates information from the Visual Impact Assessment prepared for the State Route 49 Pavement Anchor Project, dated September 24, 2025, which documents potential visual change in the project area caused by the project.

The project location and setting provide the context for determining the type of changes to the existing visual environment: the proposed project is located on State Route 49 between post miles 12.8 and 18.8 and on State Route 108 at post mile R2.2, in Tuolumne County, California. The landscape is characterized by rolling foothills, lakes and old historic mining towns. The visual character of the area is rural, made up of ranching, mining, and foothill landscapes. The landscape visual quality for the project limits rates moderate to moderately high for intactness and unity, and moderately low to moderately high for vividness of natural, cultural, and existing visible project environments.

The project is not located within a designated scenic corridor, but both State Route 49 and State Route 108 in Tuolumne County are eligible scenic routes. No formal vista points exist within the project limits. There are multiple historic buildings and structures within the project location through the City of Jamestown and City of Sonora, however. The density of historically significant buildings and structures has established historic districts through both the City of Jamestown and the City of Sonora.

Environmental Consequences

The proposed project and scope would not degrade the existing visual character or quality of public views of the site and its surroundings. The

project would also not conflict with any applicable zoning or other regulations or create any new or substantial lighting or glare. The project would not significantly affect any of the historic buildings, structures, or districts, but certain project elements would be in close proximity to these resources. Incorporation of the appropriate aesthetic treatments and element selections would maintain the visual character through both historic districts. With the incorporation of these measures the project is not expected to cause a long-term or substantial visual modification to the project area.

Avoidance, Minimization, and/or Mitigation Measures

Avoidance and minimization measures have been proposed to lessen the visual impact of the project. The implementation of these avoidance and minimization measures would protect the historic districts in both Jamestown and Sonora and minimize any impacts on those resources. The avoidance and minimization measures would be designed and implemented with the concurrence of the District Landscape Architect.

The following avoidance and minimization measures would avoid or minimize negative visual effects and/or improve aesthetics:

- Appropriate selection of bridge railing.
- Appropriate selection of aesthetic treatment on retaining wall to fit the location and setting.
- Guardrail “Natina” staining.
- Natina staining of curb detection devices.

2.1.2 Agriculture and Forestry Resources

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

Considering the information in the Community Impact Analysis dated January 5, 2026, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	**No Impact**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	**No Impact**
c) Conflict with existing zoning, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	**No Impact**
d) Result in the loss of forest land or conversion of forest land to non-forest use?	**No Impact**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	**No Impact**

2.1.3 Air Quality

Considering the information in the Air Quality Memorandum dated November 10, 2025, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Air Quality
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	**No Impact**
c) Expose sensitive receptors to substantial pollutant concentrations?	**No Impact**
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	**No Impact**

2.1.4 Biological Resources

Considering the information in the Natural Environment Study dated February 26, 2026, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration Fisheries?	**Less Than Significant Impact**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	**Less Than Significant Impact With Mitigation Incorporated**
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**Less Than Significant Impact With Mitigation Incorporated**

Question—Would the project:	CEQA Significance Determinations for Biological Resources
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?	**Less Than Significant Impact**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**No Impact**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	**No Impact**

Affected Environment

This section incorporates information from the Natural Environment Study prepared for the State Route 49 Pavement Anchor Project, dated February 26, 2026, which documents existing biological conditions within the project's environmental study limits. The environmental study limits encompass all areas determined by Caltrans Engineering, Construction, and Environmental staff as areas to be affected directly or indirectly by the project including areas required for the placement and construction of project features, and areas required for the access, operation, storage, and staging of construction equipment and personnel. The environmental study limits of the proposed Tuolumne County Route 49 Pavement Anchor Project include all areas within the Caltrans State Highway Right-of-Way within the project limits, any adjacent lands proposed for acquisition, and any adjacent private lands for which temporary construction easements may be required to construct the proposed project features. Field surveys were conducted to evaluate vegetation communities, wildlife habitat, aquatic resources, and the potential for special-status species. Surveys performed include reconnaissance-level assessments and focused evaluations of riparian areas, drainages, and suitable habitat features using standard protocols where applicable.

The project is located in Tuolumne County within the Sierra Nevada foothill region of California. The area is characterized by a Mediterranean climate, with hot, dry summers and cool, wet winters. Average annual precipitation occurs primarily as rainfall, supporting oak woodland, annual grassland, and riparian vegetation communities. The project corridor is largely disturbed due to its location along an existing highway; however, natural habitats persist adjacent to and within portions of the Environmental Study Limits, particularly near Woods Creek and other drainage features. Overall, the project area consists of a mix of disturbed transportation corridor and adjacent natural

habitats, with biological resources primarily concentrated in riparian areas and localized patches of less disturbed vegetation.

Natural Communities

Botanical inventory and vegetation mapping surveys were conducted on August 6 and August 26, 2025. Vegetation communities within the project area include mixed blue oak and foothill pine woodland, valley-foothill riparian, annual grassland, urban/ornamental, and ruderal. Riparian habitats provide important ecological functions, including wildlife habitat, bank stabilization, and shading of aquatic systems.

Common Fish and Wildlife, Fish Passage, and Wildlife Connectivity

The project was assessed as part of the project planning effort to determine whether the proposed project might result in adverse impacts to common fish and wildlife based on fish passage and terrestrial wildlife habitat connectivity. The project vicinity may be expected to support common migratory birds and wildlife species associated with urban zones, oak woodlands, annual grasslands, and stream zones.

No waters designated as Essential Fish Habitat by the National marine Fisheries Service occur within the project environmental study limits. However, Wood's Creek and Sonora Creek are perennial fish-bearing streams within the environmental study limits.

Habitat for common wildlife species occurs within and adjacent to the project environmental study limits. Physical features potentially representing barriers to terrestrial wildlife within and adjacent to the environmental study limits were noted during field studies and background research. The highway system, local roads, and adjacent land uses, including business and residential development (roads, structures, fences, et cetera) represent potential barriers to regional terrestrial wildlife movement for some species.

Wetlands and Other Waters

Field work was conducted from August to November 2025 to preliminarily identify areas potentially qualifying as wetland waters of the U.S. and waters of the State of California within the project's environmental study limits. All water bodies found, including potential wetlands and other special aquatic sites as well as potential "other waters" of the U.S. were evaluated to determine if they qualified as Waters of the U.S. or waters of the State of California. Waters potentially subject to federal and state jurisdiction occur within the project area and include Woods Creek and several associated drainage features, culverts, and roadside ditches, as described in Table 2.1 below. These features exhibit a range of hydrologic characteristics, including ephemeral and intermittent flow regimes, and support riparian vegetation in some locations. These aquatic resources may fall under the jurisdiction of

Sections 401 and 404 of the Clean Water Act and Section 1600 of the California Fish and Game Code.

Table 2.1: Potential Jurisdictional Waters of the U.S. and Waters of the State of California within Project Environmental Study Limits

Project Location	Aquatic Feature Type(s)	Potential Jurisdiction
State Route 49, post mile 13.50 – Wood's Creek Bridge	Perennial Stream, Woods Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 14.41 – Culvert Basin 1 Culvert L-5	Wetland	Clean Water Act Section 404 and 401
State Route 49, post mile 14.41 – Culvert Basin 1 Culvert L-6	Wetland	Clean Water Act Section 404 and 401
State Route 49, post mile 14.53 – Basin 2	Wetland	Clean Water Act Section 404 and 401
State Route 49, post mile 16.36 – Culvert L-11	Ephemeral stream, tributary to Wood's Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 16.36 – Culvert L-12	Ephemeral stream, tributary to Wood's Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 16.55 – Culvert L-13/14	Ephemeral stream, tributary to Wood's Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 16.77 – Culvert L-16	Ephemeral stream, tributary to Wood's Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 17.02 – Culvert I-19	Ephemeral stream, tributary to Wood's Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 17.30 – Culvert L 20	Perennial Stream, Woods Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 17.35 – Culvert L-21	Perennial Stream, Sonora Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 17.38 – Culvert L-22	Perennial Stream, Sonora Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600

Project Location	Aquatic Feature Type(s)	Potential Jurisdiction
State Route 49, post mile 17.45 – Culvert L-23	Perennial Stream, Sonora Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 17.60 – Culvert L-24	Perennial Stream, Sonora Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 17.62 – Culvert L-25	Perennial Stream, Sonora Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 17.76 – Culvert L-27	Perennial Stream, Sonora Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600
State Route 49, post mile 17.87 – Culvert L-28	Perennial Stream, Sonora Creek	Clean Water Act Section 404 and 401; California Fish and Game Code Section 1600

Plant Species

Field surveys were conducted in August 2025 to determine and map the vegetative communities, provide an inventory of plant species, and determine the presence of special-status plant species or communities present in the project environmental study limits. Botanical surveys evaluated the potential for special-status plant species within the project limits. While suitable habitat for some species may occur in undisturbed areas, no special-status plants were observed during field surveys, and the likelihood of occurrence is considered low due to the disturbed nature of much of the corridor.

Animal Species

Field surveys for wildlife, including sensitive wildlife species and aquatic wildlife, were conducted from August through November 2025. Wildlife species observed or expected to occur include common mammals, birds, reptiles, and amphibians typical of foothill and riparian environments. Habitat connectivity was evaluated using available regional datasets, and the project area is not located within a designated wildlife movement corridor or essential habitat connectivity area.

Roosting Bats

Several species of special-status and non-special-status bats could potentially roost in the environmental study limits. The project has the potential to impact the Hoary bat, the silver-haired bat, Yuma Myotis, the Western mastiff bat, and the Western red bat. The Western mastiff bat and the Western red bat are both considered species of Special Concern in California. State laws also protect all bats and their occupied roosts from harassment and destruction. The project area contains potential suitable roosting habitat for tree-roosting and structure-roosting bats, including mature

trees and bridge structures. Expansion joints associated with the structure of the existing Wood's Creek Bridge are suitable as bat day roosts, and day roosting bats have been observed occupying these structures.

Crotch's Bumblebee and Western Bumblebee

Crotch's bumblebee and Western bumblebee are candidates for listing as endangered under the California Endangered Species Act. The project environmental study limits are within the historic and current ranges of these bumblebees, and plant species potentially used as forage occur within the limits. No formal surveys for bumblebees were conducted, however, and no species of bumblebees were observed during site visits. However, bumblebee species could potentially occur within occur within the project environmental study limits.

Monarch Butterfly

The monarch butterfly is a candidate species under the federal Endangered Species Act. Habitat for monarch butterflies may be present within the project area where nectar sources and milkweed species occur in roadside and disturbed habitats. No formal surveys for monarch butterflies were conducted for this study, and no monarch butterflies were observed during site visits. However, migratory and non-migratory monarch butterflies could potentially occur within the project environmental study limits.

Central California Roach

The Central California roach is considered a Species of Special Concern by the California Department of Fish and Wildlife. The project environmental study limits are located within the historic and current range of the Central California roach. Woods Creek is known to support the fish; however, no formal surveys for this species were conducted as part of the studies for this project.

Button's Sideband Snail and Trinity Spot Snail

Button's sideband snail and Trinity spot snail have no formal listing or protection status but appear in the California Natural Diversity Database due to their conservation status ranking. The project environmental study limits are within the historic and current ranges of the Button's sideband snail and Trinity spot snail, and annual grassland, oak woodland, and riparian habitat could provide potential habitat for these species.

Threatened and Endangered Species

Field surveys for special-status plant and animal species were conducted from August through November 2025. Focused surveys and habitat assessments did not detect special-status species during field reviews; however, suitable habitat is present for some species, including foothill yellow-legged frog and California red-legged frog, in localized aquatic environments. The project area also provides limited but suitable habitat for

roosting bats in mature trees and bridge structures, and aquatic species within Woods Creek.

Foothill Yellow-Legged Frog and California Red-Legged Frog

The Eastern/Southern Sierra Clade of foothill yellow-legged frogs is listed as endangered under the California Endangered Species Act, and the South Sierra Distinct Population Segments are listed as endangered under the federal Endangered Species Act. The California red-legged frog is listed as threatened under the federal Endangered Species Act. Suitable habitat for foothill yellow-legged frog and California red-legged frog may occur within Woods Creek and associated drainage features in the project area, and the project environmental study limits are located within the historic and current ranges of both the foothill yellow-legged frog and California red-legged frog.

Migratory Birds and Raptors

The Migratory Bird Treaty Act makes it unlawful to take any migratory bird listed in Section 50 of the Code of Federal Regulations. Additionally, the burrowing owl is considered a Species of Special Concern by the California Department of Fish and Wildlife. Suitable nesting habitat for nesting migratory birds and raptors, including for burrowing owls, occurs within the Environmental Study Limits. Migratory birds and raptors may be expected to attempt to nest in appropriate habitats including, but not limited to, structures, vegetation, mammal burrows, and ground nesting sites between February 1st and September 30th. Shallow mud nests were observed on the existing Wood's Creek bridge during surveys.

Northwestern Pond Turtle

The northwestern pond turtle is considered a Species of Concern by the California Department of Fish and Wildlife and is proposed to be listed as "Threatened" under the federal Endangered Species Act. Wood's Creek, wetlands adjacent to Wood's Creek, and Sonora Creek could potentially serve as potential aquatic foraging and dispersal habitat for western pond turtles. Upland habitats adjacent to Wood's Creek may potentially serve as breeding, dispersal, or over-wintering areas for northwestern pond turtles.

Invasive Species

Field surveys for plant and animal species were conducted from August through November 2025. Several invasive plant species were identified within the project area, particularly along roadside and previously disturbed areas, where they have established in open and disturbed soils.

Environmental Consequences

Natural Communities

The project would result in disturbances to the paved roadway and adjacent shoulder and embankment areas at drainage system culvert inlets and

outfalls and at Wood's Creek bridge. The implementation of avoidance and minimization measures including the designation of Environmentally Sensitive Areas, pre-construction surveys, limiting vegetation removal, and restoring temporarily disturbed areas would ensure that construction activities would avoid disturbance of natural vegetation communities and habitats supporting common wildlife species to the greatest extent feasible.

Common Fish and Wildlife, Fish Passage, and Wildlife Connectivity

The project would result in disturbances to the paved roadway and adjacent shoulder and embankment areas at drainage system culvert inlets and outfalls and at Wood's Creek bridge. Project construction activities would avoid disturbance of natural vegetation communities and habitats supporting common wildlife species to the greatest extent feasible.

Project structures or culverts that occur on or near perennial streams which may bear fish species were identified as Wood's Creek Bridge (post mile 13.50) and one of the highway drainage culvert Location 28 (post mile 17.87). The Wood's Creek Bridge may require temporary diversion to accomplish the proposed widening work, resulting in temporary impediments to fish passage in this creek during construction activities at this location. A segment of Sonora Creek may require temporary diversion in order to access the outfall of culvert Location 28 to perform the proposed culvert outfall repair.

None of the proposed project drainage culvert features are expected to result in any additional permanent adverse effects on the ability for most size-classes of terrestrial wildlife to pass through the project environmental study limits. Widening of the Wood's Creek bridge would result in a reduction in openness, or spaciousness of undercrossing, through each bridge span, but the resulting openness would still be within ranges appropriate for use by large terrestrial wildlife species, such as mule deer.

Wetlands and Other Waters

The project would result in both temporary and permanent impacts to waters that may qualify as waters of the U.S. and waters of the State of California. These features include Woods Creek and several associated drainage features, culverts, and roadside ditches exhibiting ephemeral and intermittent flow characteristics. Impacts are described in the tables below.

Table 2.2: Preliminary Impacts to Potential Waters of the U.S. and Waters of the State of California – Wetlands

Project Location	Scope of Work	Permanent Impacts (square feet)	Permanent Impacts (cubic yards)	Temporary Impacts (square feet)	Temporary Impacts (cubic yards)

State Route 49 post mile 14.41-14.46 Basin	Regrade/expand detention basin	0	0	4,032.85	0
State Route 49 post mile 14.42 Culvert for Basin	Permanent fill for flared end section and rock slope protection at culvert outfall	100.96	5.61	533.46	0
State Route 49 post mile 14.43 Culvert for Basin	Permanent fill; flared end section and rock slope protection at culvert outfall	78.17	4.34	0	0
State Route 49 post mile 14.53 Culvert for Basin	Temporary impact zone; install culvert from proposed basin	0	0	11.13	0

Table 2.3: Preliminary Impacts to Potential Waters of the U.S. and Waters of the State of California – Streams to Ordinary High-Water Mark

Project Location	**Scope of Work**	**Permanent Impacts (square feet)**	**Permanent Impacts (cubic yards)**	**Temporary Impacts (square feet)**	**Temporary Impacts (cubic yards)**
State Route 49, post mile 13.50 – Woods Creek Bridge	Permanent fill to extend bridge piers	47.95	2.66	0	0
State Route 49, post mile 13.50 – Wood's Creek Bridge	Temporary channel access for potential water diversion	0	0	4698.21	0
State Route 49, post mile 13.50 –	Temporary fill for cofferdam	0	0	78.39	4.36

Project Location	Scope of Work	Permanent Impacts (square feet)	Permanent Impacts (cubic yards)	Temporary Impacts (square feet)	Temporary Impacts (cubic yards)
Wood's Creek Bridge					
State Route 49, post mile 16.36 – Culvert L-11, L-12	Permanent fill; flared end section and rock slope protection inlet	62.59	3.45	0	0
State Route 49, post mile 16.36 – Culvert L-11, L-12	Temporary disturbance zone inlet	0	0	83.46	0
State Route 49, post mile 16.55 – Culvert L-13, L-14	Permanent fill for flared end section inlet	26.58	1.48	0	0
State Route 49, post mile 16.55 – Culvert L-13, L-14	Temporary disturbance zone inlet	0	0	110.75	0
State Route 49, post mile 16.55 – Culvert L-13, L-14	Temporary disturbance zone outfall	0	0	74.56	0
State Route 49, post mile 16.77 – Culvert L-16	Permanent fill for rock slope protection outfall	41.41	2.30	0	0
State Route 49, post mile 16.77 – Culvert L-16	Temporary disturbance zone outfall	0	0	394.53	0

Project Location	Scope of Work	Permanent Impacts (square feet)	Permanent Impacts (cubic yards)	Temporary Impacts (square feet)	Temporary Impacts (cubic yards)
State Route 49, post mile 17.02 – Culvert L-19	Temporary disturbance zone inlet	0	0	164.09	0
State Route 49, post mile 17.02 – Culvert L-19	Temporary disturbance zone outfall	0	0	192.36	0
State Route 49, post mile 17.02 – Culvert L-19	Permanent fill for rock slope protection outfall	87.70	4.87	0	0
State Route 49, post mile 17.35 – Culvert L-20	Temporary disturbance zone outfall	0	0	14.38	0
State Route 49, post mile 17.35 – Culvert L-21	No disturbance below the ordinary high-water mark	0	0	0	0
State Route 49, post mile 17.38 – Culvert L-22	Temporary disturbance zone outfall	0	0	55.35	0
State Route 49, post mile 17.45 – Culvert L-23	No disturbance below the ordinary high-water mark	0	0	0	0
State Route 49, post mile – Culvert L-24	Temporary disturbance zone outfall	0	0	159.79	0
State Route 49, post mile 17.62 – Culvert L-25	No disturbance below the ordinary high-water mark	0	0	0	0

Project Location	Scope of Work	Permanent Impacts (square feet)	Permanent Impacts (cubic yards)	Temporary Impacts (square feet)	Temporary Impacts (cubic yards)
State Route 49, post mile 17.76 – Culvert L-27	Temporary disturbance zone outfall	0	0	111.65	0
State Route 49, post mile 17.87 – Culvert L-28	Temporary disturbance zone outfall	0	0	423.76	0

Table 2.4: Preliminary Impacts to Potential Waters of the U.S. and Waters of the State of California – Streams, Ordinary High-Water Mark to Top of Bank

Project Location	Scope of Work	Permanent Impacts (square feet)	Permanent Impacts (cubic yards)	Temporary Impacts (square feet)	Temporary Impacts (cubic yards)
State Route 49, post mile 13.50 – Wood's Creek Bridge	Permanent fill for bridge piers and abutments	0	0	0	0
State Route 49, post mile 13.50 – Wood's Creek Bridge	Temporary channel access, potential water diversion	0	0	4947.46	0
State Route 49, post mile 13.50 – Wood's Creek Bridge	Temporary disturbance zone outfall	0	0	19.93	1.11
State Route 49, post mile 17.30 – Culvert L-20	Temporary disturbance zone outfall	0	0	339.48	0

Project Location	Scope of Work	Permanent Impacts (square feet)	Permanent Impacts (cubic yards)	Temporary Impacts (square feet)	Temporary Impacts (cubic yards)
State Route 49, post mile 17.35 – Culvert L-21	Temporary disturbance zone outfall	0	0	170.69	0
State Route 49, post mile 17.38 – Culvert 22	Temporary disturbance zone outfall	0	0	338.90	0
State Route 49, post mile 17.45 – Culvert L-23	Temporary disturbance zone outfall	0	0	159.88	0
State Route 49, post mile 17.60 – Culvert L-24	Temporary disturbance zone outfall	0	0	272.35	0
State Route 49, post mile 17.62 – Culvert L-25	Temporary disturbance zone outfall	0	0	120.98	0
State Route 49, post mile 17.76 – Culvert L-27	Temporary disturbance zone outfall	0	0	111.65	0

Project activities such as culvert replacement, end treatments, and drainage improvements would result in minor permanent impacts from the placement of fill below the top of bank, as well as from temporary disturbances associated with construction access, equipment staging, and in-channel work. Temporary impacts may also occur from activities such as clear water diversion and localized excavation within drainage features.

Some locations, such as Wood's Creek, may contain standing or flowing water during the in-channel work window and could require temporary diversion methods such as cofferdams or bypass systems. These activities would result in short-term disturbance to aquatic habitat and streambed substrates.

The project would result in a total of approximately 179.13 square feet (0.004 acres) of permanent fill in potentially jurisdictional wetlands in the form of culvert end treatments, including the placement of rock slope protection and culvert flared end sections.

Up to approximately 4,577.44 square feet (0.11 acres) of potentially jurisdictional wetlands may be temporarily disturbed by regrading/expanding existing stormwater infiltration basins and by contractor equipment and crew access within the project limits.

The project would result in approximately 14.76 cubic yards of permanent fill in an area of approximately 266.23 square feet (0.006 acres) below the ordinary high-water mark of potentially jurisdictional ephemeral, intermittent, and perennial streams through the project limits in the form of bridge pier extension at Wood's Creek bridge and by culvert end treatments, including rock slope protection and flared end sections.

Approximately 6,561.28 square feet (0.15 acres) of potentially jurisdictional waters below the ordinary high-water mark of potentially jurisdictional ephemeral, intermittent, and perennial streams throughout the project limits would be temporarily disturbed by contractor equipment and crew access to culvert inlets and outfalls and/or by temporary water diversion activities and their associated cofferdams. Additionally, because Wood's Creek is expected to have flowing or standing water during the proposed seasonal in-channel work window, it is expected that temporary cofferdams may be used for temporary water diversion activities during the appropriate stage of construction. The installation of temporary cofferdams during construction activities at Wood's Creek is expected to result in temporary fills totaling 4.36 cubic yards of temporary fill below the ordinary high-water mark of Wood's Creek.

Approximately 6,431.82 square feet (0.15 acres) of potentially jurisdictional waters between the ordinary high-water mark and the top of bank of potentially jurisdictional and perennial streams throughout the project limits would be temporarily disturbed by contractor equipment and crew access to culvert inlets and outfalls and/or by temporary water diversion activities and their associated cofferdams. The installation of temporary cofferdams during construction activities at Wood's Creek is expected to result in temporary fills totaling 1.11 cubic yards of temporary fill between the ordinary high-water mark and the top of bank of Wood's Creek.

Due to these impacts, the project would require compliance with applicable regulatory requirements, including a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers, a Clean Water Act Section 401 water quality certification from the Regional Water Quality Control Board, and a California Fish and Game Code Section 1600 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife.

With implementation of avoidance and minimization measures, impacts to aquatic resources and riparian vegetation would be reduced to the extent feasible.

Plant Species

Riparian vegetation, including willow-dominated communities adjacent to Woods Creek, may be temporarily affected by trimming or removal at culvert locations. Common vegetation may also be removed. These impacts are expected to be localized and limited to the immediate construction footprint.

Animal Species

The project occurs within an existing highway corridor and would primarily affect already disturbed habitats. Wildlife movement through the area is expected to continue during and after construction, as the project does not introduce substantial new barriers or fragmentation.

Impacts to common wildlife species would include temporary disturbance from noise, equipment, and human activity, as well as minor habitat loss within the construction footprint. These impacts are expected to be short-term and localized**.**

The project is not expected to substantially interfere with wildlife movement or result in the take of common wildlife species, consistent with California Fish and Game Code provisions.

Roosting Bats

Vegetation removal and bridge work could result in temporary disturbance to or loss of roosting habitat, but there would be more structural roosting habitat available after construction. The widened Wood's Creek Bridge would be approximately 16.7 feet wider than the existing bridge, and the widening would result in a net increase in potentially occupiable day-roost habitat. With implementation of measures such as pre-construction surveys, seasonal avoidance where necessary, and coordination with resource agencies, the project is not expected to result in take of roosting bats.

Crotch's Bumblebee and Western Bumblebee

The project may result in adverse effects to plant species that may be used as food plants by bumblebees. However, activities that may ultimately result in the take, or perusal, capture, or intentional or accidental killing, of bumblebees are not expected to occur as a result of the proposed project. With implementation of the following avoidance and minimization measures, the proposed construction activities would have low potential to result in take of bumblebees: pre-construction surveys, construction phase biological monitoring, limiting vegetation removal, restoring and revegetating temporarily disturbed areas, specifying use of weed free construction equipment, weed control during construction, and weed free erosion control and revegetation.

Monarch Butterfly

Construction activities, including vegetation removal, may result in temporary impacts to nectar plants or milkweed, which could affect foraging habitat for monarch butterflies and could potentially result in impacts to monarch butterfly eggs and larvae. With implementation of avoidance and minimization measures, however, such as pre-construction surveys, limiting vegetation removal to the minimum necessary, and restoring disturbed areas, the proposed construction activities have a low potential to result in the take of monarch butterflies.

Central California Roach

The project may result in adverse effects to aquatic habitat that may support the Central California roach. Activities that may ultimately result in the take of Central California roach may occur as a result of the proposed project if water is present at the project site during construction. With the implementation of best management practices and avoidance and minimization measures, such as the designation of Environmentally Sensitive Areas, biological monitoring, limiting vegetation removal, and restoring and revegetation temporarily disturbed areas onsite, the project would have a low potential to result in the take of Central California roach.

Button's Sideband Snail and Trinity Spot Snail

Construction activities have the potential to temporarily disturb habitat that could potentially support the Button's sideband snail and the Trinity spot snail. The implementation of avoidance and minimization measures, such as pre-construction surveys, limiting vegetation removal, and restoring and revegetation temporarily disturbed areas onsite, would reduce the potential of the project to result in take of these species to very low.

Threatened and Endangered Species

Special-status plant species with potential to occur in the region were evaluated in the Natural Environment Study. While suitable habitat may exist in limited undisturbed areas, no special-status plant species were observed during field surveys, and the likelihood of occurrence within the project limits is considered low due to the predominantly disturbed nature of the corridor. With implementation of avoidance and minimization measures, including pre-construction surveys if required, the project is not expected to adversely affect special-status plant species.

Due to the project area being outside the range of the species or due to the lack of suitable habitat or habitat components in the project area, or because the project would not harm individuals or alter the species' habitat, the project would have no affect on the following species listed under the Federal Endangered Species Act or their critical habitat: gray wolf, vernal pool fairy shrimp, Chinese Camp brodiaea, red hills vervain.

Due to the project area being outside the range of the species, due to the lack of suitable habitat or habitat components in the project area, and or because the project would not harm individuals or alter the species' habitat, the project would not result in take of the following species listed under the California Endangered Species Act: tricolored blackbird, bald eagle, foothill yellow-legged frog, red hills vervain.

Foothill Yellow-Legged Frog and California Red-Legged Frog

These species were not observed during field surveys; however, suitable aquatic and adjacent upland habitat is present in localized areas. Project activities may result in temporary disturbance to aquatic habitat and adjacent upland areas, particularly during in-channel work and vegetation removal near drainages. Impacts would be limited in extent and duration and confined to the immediate construction footprint. With implementation of avoidance and minimization measures such as pre-construction surveys, designation of Environmentally Sensitive Areas, exclusion measures if required, and work timing restrictions; the project is not likely to adversely affect these species. Therefore, the project may affect but is unlikely to adversely affect the foothill yellow-legged frog and California red-legged frog.

Migratory Birds and Raptors

Construction activities occurring during the nesting season could result in disturbance or loss of active nests. However, with the implementation of avoidance and minimization measures, such as pre-construction nesting bird surveys and work buffers consistent with the Migratory Bird Treaty Act, the proposed construction activities are not expected to result in the take of migratory birds, including raptors and burrowing owls, and their nests.

Northwestern Pond Turtle

There is a moderate potential for northwestern pond turtles to be exposed to adverse effects due to temporary and permanent impacts in upland habitats potentially supporting turtle nesting sites within the Environmental Study Limits. Potential effects to northwestern pond turtles due to project construction activities include habitat modification due to impacts to the streambed, water column, streambanks, and adjacent uplands, exposure to heightened levels of suspended sediment in the water column, exposure to the introduction or re-suspension of contaminants to the water column, increased water temperature or increased solar radiation inputs to aquatic areas, and/or noise vibrations, artificial light, and other physical disturbances. With implementation of avoidance and minimization measures, such as biological monitoring, designating Environmentally Sensitive Areas, limiting vegetation removal to the minimum necessary, and restoring disturbed areas, the project is not expected to result in take of northwestern pond turtles.

Invasive Species

Construction activities have the potential to spread invasive species through soil disturbance and equipment movement. The project would implement best management practices, including equipment cleaning, use of weed-free materials, and site restoration, to prevent the introduction and spread of invasive species. The project is not expected to result in the introduction or substantial spread of invasive plant or animal species**.**

Avoidance, Minimization, and/or Mitigation Measures

Common Fish and Wildlife, Fish Passage, and Wildlife Connectivity

The following measures would be required to avoid or minimize potential impacts to common fish and wildlife, fish passage, and wildlife connectivity. Full descriptions of these measures are included in Appendix B of this document.

- BIO-1. Environmentally Sensitive Area Designation.
- BIO-2. Designated Biologist.
- BIO-3. Containment Measures/Construction Site Best Management Practices.
- BIO-5. Limited Operation Period – In Water Construction Activities.
- BIO-6. Limit Vegetation Removal.
- BIO-7. Restore and Revegetate Temporarily Disturbed Areas Onsite.
- BIO-23. Aquatic Species Management Plan – Aquatic Wildlife Exclusion/Salvage.
- BIO-24. Temporary Construction Lighting Minimization at Aquatic Habitats.
- BIO-25. Construction Lighting – Color Temperature.
- BIO-26. Construction Lighting – Shielding.
- BIO-29. Entrapped Wildlife – Construction Site Practices.
- BIO-30. Noise Minimization – Daily Activity.
- BIO-31. Noise Minimization – Internal Combustion Engines.

Wetlands and Other Waters

The following measures would be required to avoid or minimize potential impacts to potential wetlands and waters of the U.S., potential waters of the

State of California, and riparian vegetation along non-federal waters. Full descriptions of these measures are included in Appendix B of this document.

- BIO-1. Environmentally Sensitive Area Designation.
- BIO-2. Designated Biologist.
- BIO-3. Containment Measures/Construction Site Best Management Practices.
- BIO-4. Worker Environmental Awareness Training for Construction Personnel.
- BIO-5. Limited Operation Period – In Water Construction Activities.
- BIO-6. Limit Vegetation Removal.
- BIO-7. Restore and Revegetate Temporarily Disturbed Areas Onsite.

The following mitigation measures would be required to compensate for impacts to potential wetlands and waters of the U.S., potential waters of the State of California, and riparian vegetation along non-federal waters. Full descriptions of these measures are included in Appendix B of this document.

- BIO-38. Compensatory Mitigation – Wetlands and Other Waters of the U.S.: Loss of 0.006-acre of intermittent and ephemeral streams and 0.03-acre of wetlands potentially qualifying as waters of the U.S. would be compensated through the purchase of mitigation credits through the Sacramento U.S. Army Corps of Engineers' and National Fish and Wildlife Foundation's in-lieu fee program.
- BIO-39. Compensatory Mitigation – Riparian Vegetation. Impacts to the removal and trimming of 113 inches diameter of riparian vegetation would be compensated at a 3-to-1 ratio with the establishment of 339 inches diameter breast height of riparian vegetation at an undetermined onsite or offsite location.

Plant Species

Special-Status Plants

The following measure would be required to avoid or minimize potential impacts to special-status plant species. Full descriptions of the measure are included in Appendix B of this document.

- BIO-8. Pre-Construction Surveys – Special-Status Plants.

Animal Species

Roosting Bats

The following measures would be required to avoid or minimize potential impacts to roosting bats. Full descriptions of the measures are included in Appendix B of this document.

- BIO-1. Environmentally Sensitive Area Designation
- BIO-2. Designated Biologist.
- BIO-4. Worker Environmental Awareness Training for Construction Personnel.
- BIO-6. Limit Vegetation Removal.
- BIO-20. Roosting Bats – Pre-Construction Surveys and Construction Phase Monitoring.
- BIO-21. Roosting Bats – Bat Roost Management Plan.
- BIO-22. Roosting Bats – Tree Trimming and Tree Removal.

Crotch's Bumblebee and Western Bumblebee

The following measures would be required to avoid or minimize potential impacts to Crotch's bumblebee and Western bumblebee. Full descriptions of the measures are included in Appendix B of this document.

- BIO-6. Limit Vegetation Removal.
- BIO-7. Restore and Revegetate Temporarily Disturbed Areas Onsite.
- BIO-9. Weed Free Construction Equipment and Vehicles.
- BIO-10. Weed Control During Construction.
- BIO-11. Weed Free Erosion Control and Revegetation Treatments.
- BIO-12. Bumblebee Hive Avoidance – Pre-Construction Surveys and Construction Stage Monitoring.
- BIO-13. Bumblebee Hive Avoidance – Protective Buffers.

Monarch Butterfly

The following measures would be required to avoid or minimize potential impacts to the monarch butterfly. Full descriptions of the measures are included in Appendix B of this document.

- BIO-6. Limit Vegetation Removal.

- BIO-7. Restore and Revegetate Temporarily Disturbed Areas Onsite.
- BIO-9. Weed Free Construction Equipment and Vehicles.
- BIO-10. Weed Control During Construction.
- BIO-11. Weed Free Erosion Control and Revegetation Treatments.
- BIO-14. Monarch Butterfly – Pre-Construction Surveys and Construction Stage Monitoring.
- BIO-15. Monarch Butterfly – Protective Buffers.

Central California Roach

The following measures would be required to avoid or minimize potential impacts to the Central California Roach. Full descriptions of the measures are included in Appendix B of this document.

- BIO-1. Environmentally Sensitive Area Designation.
- BIO-2. Designated Biologist.
- BIO-3. Containment Measures/Construction Site Best Management Practices.
- BIO-4. Worker Environmental Awareness Training for Construction Personnel.
- BIO-5. Limited Operation Period – In Water Construction Activities.
- BIO-6. Limit Vegetation Removal.
- BIO-7. Restore and Revegetate Temporarily Disturbed Areas Onsite.
- BIO-23. Aquatic Species Management Plan – Aquatic Wildlife Exclusion/Salvage.
- BIO-24. Temporary Construction Lighting Minimization at Aquatic Habitats.
- BIO-25. Construction Lighting – Color Temperature.
- BIO-26. Construction Lighting – Shielding.

Button's Sideband Snail and Trinity Spot Snail

The following measures would be required to avoid or minimize potential impacts to the Button's sideband snail. Full descriptions of the measures are included in Appendix B of this document.

- BIO-6. Limit Vegetation Removal.
- BIO-7. Restore and Revegetate Temporarily Disturbed Areas Onsite.
- BIO-16. Button's Sierra Sideband Snail – Pre-Construction Surveys and Construction Phase Monitoring.
- BIO-17. Button's Sierra Sideband Snail – Protective Buffers.

The following measures would be required to avoid or minimize potential impacts to the Trinity spot snail. Full descriptions of the measures are included in Appendix B of this document.

- BIO-18. Trinity Spot Snail – Pre-Construction Surveys and Construction Phase Monitoring.
- BIO-19. Trinity Spot Snail – Protective Buffers.

Threatened and Endangered Species

Foothill Yellow-Legged Frog and California Red-Legged Frog

The following measures would be required to avoid or minimize potential impacts to the foothill yellow-legged frog and California red-legged frog. Full descriptions of the measures are included in Appendix B of this document.

- BIO-1. Environmentally Sensitive Area Designation.
- BIO-2. Designated Biologist.
- BIO-3. Containment Measures/Construction Site Best Management Practices.
- BIO-4. Worker Environmental Awareness Training for Construction Personnel.
- BIO-5. Limited Operation Period – In Water Construction Activities.
- BIO-6. Limit Vegetation Removal.
- BIO-7. Restore and Revegetate Temporarily Disturbed Areas Onsite.
- BIO-23. Aquatic Species Management Plan – Aquatic Wildlife Exclusion/Salvage.
- BIO-24. Temporary Construction Lighting Minimization at Aquatic Habitats.

- BIO-25. Construction Lighting – Color Temperature.
- BIO-26. Construction Lighting – Shielding.
- BIO-27. Foothill Yellow-Legged Frog and California Red-Legged Frog – Pre-Construction Surveys and Construction Phase Monitoring.
- BIO-28. Foothill Yellow-Legged Frog and California Red-Legged Frog – Protective Buffers.
- BIO-29. Entrapped Wildlife – Construction Site Practices.
- BIO-30. Noise Minimization – Daily Activity.
- BIO-31. Noise Minimization – Internal Combustion Engines.

Migratory Birds and Raptors

The following measures would be required to avoid or minimize potential impacts to migratory birds and raptors. Full descriptions of the measures are included in Appendix B of this document.

- BIO-1. Environmentally Sensitive Area Designation
- BIO-2. Designated Biologist.
- BIO-4. Worker Environmental Awareness Training for Construction Personnel.
- BIO-6. Limit Vegetation Removal.
- BIO-32. Nesting Bird Avoidance – Limited Operation Period
- BIO-33. Nesting Birds and Raptors – Pre-Construction Surveys and Construction Stage Monitoring During Nesting Season.
- BIO-34. Migratory Birds and Raptors – Protective Buffers.
- BIO-35. Nesting Migratory Birds – Migratory Bird Nest Management.

Northwestern Pond Turtle

The following measures would be required to avoid or minimize potential impacts to the northwestern pond turtle. Full descriptions of the measures are included in Appendix B of this document.

- BIO-1. Environmentally Sensitive Area Designation.
- BIO-2. Designated Biologist.
- BIO-3. Containment Measures/Construction Site Best Management Practices.
- BIO-4. Worker Environmental Awareness Training for Construction Personnel.
- BIO-5. Limited Operation Period – In Water Construction Activities.
- BIO-6. Limit Vegetation Removal.
- BIO-7. Restore and Revegetate Temporarily Disturbed Areas Onsite.
- BIO-23. Aquatic Species Management Plan – Aquatic Wildlife Exclusion/Salvage.
- BIO-24. Temporary Construction Lighting Minimization at Aquatic Habitats.
- BIO-25. Construction Lighting – Color Temperature.
- BIO-26. Construction Lighting – Shielding.
- BIO-29. Entrapped Wildlife – Construction Site Practices.
- BIO-30. Noise Minimization – Daily Activity.
- BIO-31. Noise Minimization – Internal Combustion Engines
- BIO-36. Northwestern Pond Turtle – Pre-Construction Surveys and Construction Phase Monitoring.
- BIO-37. Northwestern Pond Turtle – Protective Buffers.

Invasive Species

The following measures would be required to avoid or minimize potential impacts from the spread of invasive species. Full descriptions of the measures are included in Appendix B of this document.

- BIO-9. Weed Free Construction Equipment and Vehicles.
- BIO-10. Weed Control During Construction.
- BIO-11. Weed Free Erosion Control and Revegetation Treatments.

2.1.5 Cultural Resources

Considering the information in the Historic Property Survey Report, dated March 26, 2026, and in the Archaeological Survey Report, dated March 2026, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	**Less than Significant Impact**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**Less than Significant Impact**
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**Less than Significant Impact**

Affected Environment

Cultural resource identification efforts for the project included review of Central California Information Center records searches conducted for recent projects within the project area; review of the Caltrans Cultural Resources Database; literature review of previously recorded cultural resources within the Area of Potential Effects; archival and historical research; review of Caltrans bridge as-built plans; consultation with the Native American Heritage Commission, Native American tribes and interested individuals; consultation with local government agencies and historical societies; and field review of the project area. The Area of Potential Effects was established as the existing Caltrans right-of-way on State Route 49 between postmiles 12.8 and 18.8 and on State Route 108 at postmile R2.2, including areas of proposed right-of-way acquisition, historic and built-environment resources intersecting the right-of-way, and the boundaries of the assumed National Register of Historic Places (National Register)-eligible Jamestown and Sonora Historic Districts. The vertical Area of Potential Effects extends approximately 20 feet below ground surface to account for bridge work and other ground-disturbing activities.

No new cultural resources were identified during field review efforts. Cultural resources that were identified within the Area of Potential Effects include previously recorded archaeological sites and built-environment resources.

Seven archaeological sites are considered eligible for listing in the National Register for the purposes of this project only because they will be avoided in their entirety from any potential effects through the establishment of an Environmentally Sensitive Area, in accordance with Section 106 PA Stipulation VIII.C.3.

Three archaeological sites, two Historic Districts (City of Sonora Historic District and Jamestown Historic District), and one historic segment of State Route 49 are being considered eligible for inclusion in the National Register for the purposes of this project only because evaluation was not possible or the properties will be protected from adverse effects, in accordance with Section 106 PA StipulationVIII.C.4.

Seven built-environment resources were previously evaluated and determined eligible for listing in the National Register and those determinations remain valid. Eleven bridges listed as Category N (previously determined not eligible for listing in the National Register) in the Caltrans Historic Bridge Inventory are also present within the Area of Potential Effects and those determinations also remain valid. One bridge, Woods Creek Bridge (Br. No. 32 0025), while not individually eligible for the National Register, is considered a contributing element of the historic segment of State Route 49, located between postmile 0.0 and 27.0.

Previously identified archaeological resources, built-environment resources, and historic districts within the Area of Potential Effects are also considered historical resources for purposes of CEQA.

Environmental Consequences

Based on the findings of the Historic Property Survey Report and Archeological Survey Report, cultural resources are present within the Area of Potential Effects; however, the project has been designed to avoid or protect these resources. Archaeological and built-environment resources within the Area of Potential Effects would be protected through the establishment of horizontal and vertical Environmentally Sensitive Areas, which would prevent direct impacts to resources that can be completely avoided and protect significant archaeological deposits and character-defining features of resources that cannot be entirely avoided. In addition, archaeological and, if warranted, Native American monitoring would be implemented in sensitive areas during construction to ensure that any previously unidentified subsurface materials encountered during project activities are identified and appropriately managed.

With implementation of avoidance, minimization, and mitigation measures, the undertaking would not alter the characteristics that qualify identified cultural resources for inclusion in the National Register of Historic Places or California Register of Historical Resources. Accordingly, the undertaking is anticipated to result in a Finding of No Adverse Effect pursuant to Section 106 of the National Historic Preservation Act. Impacts to Cultural resources would therefore be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Impacts to the archaeological sites identified in the project's Area of Potential Effects would be avoided or minimized through implementation of the following standard measures. Full descriptions of the measures are included in Appendix B of this document.

- CU-1. Environmental monitoring during construction – Archaeologist and Native American Monitor.
- CU-2. Environmentally Sensitive Areas Designation – Cultural.
- CU-3. Special procedures for human remains.

These measures ensure that project activities avoid adverse effects to cultural resources and support the Section 106 finding of No Adverse Effect.

2.1.6 Energy

Considering the information in the Energy Analysis Technical Memorandum dated November 10, 2025, the inclusion of pavement rehabilitation in the project, and the anticipated operational efficiency of the new pavement, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Energy
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	**No Impact**
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	**No Impact**

2.1.7 Geology and Soils

Considering the information in the California Earthquake Hazards Zone Application from the California Department of Conservation, accessed in April 2026, and the Paleontological Identification Report, dated March 25, 2026, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	**No Impact**
ii) Strong seismic ground shaking?	**No Impact**
iii) Seismic-related ground failure, including liquefaction?	**No Impact**
iv) Landslides?	**No Impact**
b) Result in substantial soil erosion or the loss of topsoil?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	**No Impact**
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	**No Impact**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	**No Impact**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**No Impact**

2.1.8 Greenhouse Gas Emissions

Considering the information in the Climate Change/Greenhouse Gas Analysis dated December 31, 2025, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**Less Than Significant Impact**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	**Less Than Significant Impact**

Affected Environment

The California Air Resources Board sets regional targets for California's 18 metropolitan planning organizations to use in their Regional Transportation Plan/Sustainable Communities Strategy to plan future projects that will cumulatively achieve greenhouse gas reduction goals. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels. The project area is not within the jurisdiction of a metropolitan planning organization and therefore not subject to California Air Resources Board greenhouse gas reduction targets. However, the Tuolumne County Transportation Council is the regional transportation planning agency for the project area. In the Final Regional Transportation Plan (2024), the Tuolumne County Transportation Council identifies Rural Sustainable Strategies (RSS) that would help Tuolumne County to achieve State transportation goals by reducing greenhouse gases in the transportation sector.

Environmental Consequences

The purpose of the project is to rehabilitate and extend pavement service life, repair infrastructure, provide pedestrian and bicyclist facilities and improve access to public transit. This type of project generally causes minimal or no increase in operational greenhouse gas emissions. Because the project would not increase the number of travel lanes on State Route 49, no increase in vehicle miles traveled would occur due to project implementation. While some greenhouse gas emissions during the construction period would be unavoidable, no increase in operational greenhouse gas emissions is expected.

Construction greenhouse gas emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would 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.

Construction greenhouse gas emissions for the project were calculated using Caltrans' Construction Emissions Tool V1.1. The project's construction activities are expected to generate about 1,208 tons of carbon dioxide during 390 working days.

Avoidance, Minimization, and/or Mitigation Measures

Standard conditions and best management practices would be implemented to reduce or eliminate construction Greenhouse Gas emissions. All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7 1.02C: Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all California Air Resources Board emission reduction regulations. Additionally, Section 14-9.02: Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes.

Additionally, the following project-specific measures would be included to reduce greenhouse gas emission impacts from temporary construction activities. Full descriptions of the measures are included in Appendix B of this document.

- GHG-1. Limit equipment idling.
- GHG-2. Schedule truck trips.
- GHG-3. Equipment fuel efficiency.
- GHG-4. Construction environmental training

2.1.9 Hazards and Hazardous Materials

Considering the information in the Initial Site Assessment dated November 12, 2025, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**No Impact**
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	**No Impact**
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	**Less Than Significant Impact**
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	**Less Than Significant Impact**
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	**No Impact**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	**No Impact**
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	**No Impact**

Affected Environment

This section incorporates information from the Initial Site Assessment prepared for the State Route 49 Pavement Anchor Project, dated November 12, 2025. The proposed project is located in the foothills in Tuolumne County near the cities of Jamestown and Sonora. The project would involve rehabilitating pavement on State Route 49 between post miles 12.8 and 18.8, including cold planning and asphalt overlay. Bridge improvements are also proposed, including applying a concrete overlay to the deck and approach slabs of Mono Way Undercrossing (Bridge No. 32-0066) on State Route 108, post mile R2.2, and widening Wood's Creek Bridge (Bridge No.32-0004) on State Route 49, post mile 13.5.

The project is located within one-quarter mile of a school, Sonora High School. The project is also located approximately three miles from a public airport in Tuolumne County, Columbia Airport. This airport is included in the Tuolumne County Airport Land Use Compatibility Plan which promotes compatibility between the airports in Tuolumne County and the land uses which surround them.

Information on the site and the surrounding area was obtained through mapping and records from Caltrans, the State Water Resources Control Board, and the Department of Toxic Substances Control. The surrounding areas were also assessed for their potential to include remediation sites, aerially deposited lead, asbestos-containing material, lead-based paint, naturally occurring asbestos, yellow thermoplastic or painted striping, pavement markings, and treated wood waste. A preliminary site investigation of the gasoline range organics, diesel range organics, oil range organics, and aerially deposited lead in the project area was conducted in January 2026, and a preliminary site investigation for structures containing asbestos containing material and lead based paint was conducted in February 2026.

Environmental Consequences

The project would install two drainage basins with depths up to 20 feet near Sierra Motors, which is an open leaking underground storage tank site. However, testing found that no gasoline range organics or their associated volatile organic compounds were detected at concentrations exceeding acceptable environmental screening levels. Cleanup site Rotelli Burn Dump is also located in the area, but no work is planned in the vicinity, or within 500 feet. Sierra Launderers & Cleaners is another cleanup site in the area, but the work proposed nearby would be localized and with shallow excavation. Twenty-nine closed sites also exist within a 500 feet radius of state right-of-way, but these have been appropriately remediated.

Treated wood waste is anticipated for this project since signposts and guardrails are proposed to be replaced and upgraded. Aerially deposited lead

is also anticipated to be encountered. The preliminary site investigation for structures did not detect any asbestos containing material in any bridge samples, but lead-based paint was detected in the yellow traffic striping on Wood's Creek. Naturally occurring asbestos was also detected.

Because the project involves minimal land use change and no elements that would interfere with flight paths, the project would not conflict with the Columbia Airport or with the objectives of the Tuolumne County Airport Land Use Compatibility.

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

Avoidance, Minimization, and/or Mitigation Measures

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

- HW-1: Hazardous materials management.
- HW-2: Liners under stockpiles.
- HW-3: Naturally Occurring Asbestos management.

2.1.10 Hydrology and Water Quality

Considering the information in the Water Compliance Memorandum dated June 20, 2025, and Location Hydraulic/Floodplain Study, dated October 2025, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	**No Impact**
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation onsite or offsite;	**No Impact**
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	**No Impact**
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	**No Impact**
(iv) impede or redirect flood flows?	**No Impact**
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	**No Impact**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	**No Impact**

2.1.11 Land Use and Planning

Considering the information in the Community Impact Memorandum dated March 10, 2026 the following significance determination has been made:

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
a) Physically divide an established community?	**No Impact**
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	**No Impact**

2.1.12 Mineral Resources

Considering the information in the Tuolumne County General Plan, 2018 the following significance determination has been made:

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	**No Impact**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	**No Impact**

2.1.13 Noise

Considering the information in the Noise Compliance Memorandum dated December 3, 2025, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**No Impact**
b) Generation of excessive groundborne vibration or groundborne noise levels?	**No Impact**
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	**No Impact**

2.1.14 Population and Housing

Considering the information in the Community Impact Memorandum dated March 10, 2026, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Population and Housing
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	**No Impact**
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	**No Impact**

2.1.15 Public Services

Considering the information in the Community Impact Memorandum dated March 10, 2026, the following significance determinations have been made:

Question:	CEQA Significance Determinations for Public Services
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection?	**No Impact**
Police protection?	**No Impact**
Schools?	**No Impact**
Parks?	**No Impact**
Other public facilities?	**No Impact**

2.1.16 Recreation

Considering the information in the Community Impact Memorandum dated March 10, 2026, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Recreation
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	**No Impact**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	**No Impact**

2.1.17 Transportation

Considering the information in the Tuolumne County General Plan, 2018, and Caltrans Transportation Management Plans, dated March 2026, the following significance determination has been made:

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

2.1.18 Tribal Cultural Resources

Considering the information in the Historic Property Survey Report, dated March 26, 2026, and the Archaeological Survey Report, dated March 2026, the following significance determinations have been made:

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	**Less than Significant Impact**

Question:	CEQA Significance Determinations for Tribal Cultural Resources
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**Less than Significant Impact**

Affected Environment

As described in Section 2.1.4 of this document, cultural resource identification efforts for the project included review of cultural resources databases, records searches, previous studies conducted within the Area of Potential Effects, and field review. The project area contains a recorded archaeological resource that is considered sensitive for buried cultural materials.

Pursuant to Public Resources Code Section 5024.1, the archaeological site may qualify as a Tribal Cultural Resource due to its potential cultural significance to California Native American tribes. Consultation and outreach efforts were conducted in accordance with applicable state requirements. The project incorporates avoidance and minimization measures designed to avoid disturbance to sensitive subsurface deposits, including limiting the allowable depth of ground disturbance within identified sensitive areas.

Environmental Consequences

No new cultural resources were identified as a result of the cultural studies referenced in this document. However, as discussed in Section 2.1.4, a previously recorded archaeological resource that may constitute a Tribal Cultural Resource is present within the project's Area of Potential Effects.

Project work will involve culvert replacements, grading, and other potentially ground-disturbing activities within the horizontal boundaries of the recorded resource. The resource is based on historical accounts documenting the possible presence of buried cultural materials and remains unevaluated. Project activities will not extend to the depth at which cultural deposits have been reported, approximately six feet below the existing ground surface or deeper. To ensure these deposits are not disturbed, a vertical Environmentally Sensitive Area will be established to restrict the depth of excavation within sensitive areas. Construction monitoring by an archaeologist and Native American monitor will verify compliance with these

restrictions and ensure the vertical Environmentally Sensitive Area is not breached.

Avoidance, Minimization, and/or Mitigation Measures

With implementation of these avoidance and monitoring measures, the project would avoid disturbance of the potential Tribal Cultural Resource. Therefore, impacts to Tribal Cultural Resources would be less than significant with the use of the following standard measures. Full descriptions of these measures are included in Appendix B of this document.

- CU-1. Environmental monitoring during Construction – Archaeologist and Native American Monitor.
- CU-2. Environmentally Sensitive Areas (ESA) Designation – Cultural.
- CU-3. Special procedures for human remains.

2.1.19 Utilities and Service Systems

Considering the information in the Water Compliance Study dated June 20, 2025, and the Initial Site Assessment dated March 23, 2026, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	**No Impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	**No Impact**
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	**No Impact**
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**No Impact**

2.1.20 Wildfire

The project is partially located in a very high fire hazard severity zone. However, considering the information in the Climate Change Assessment, dated March 30, 2026, and the scope of the proposed project, including the fire prevention plan and the use of heat-resilient materials such as metal or reinforced concrete for the proposed culvert replacements and rehabilitations over polyvinyl chloride, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	**No Impact**
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	**No Impact**
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	**No Impact**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	**No Impact**

2.1.21 Mandatory Findings of Significance

Considering the information in this document, and given the scope and location of the proposed project, the following significance determinations have been made:

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	**Less than Significant Impact with Mitigation Incorporated**
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	**Less Than Significant Impact**
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**No Impact**

Affected Environment

The proposed project is located in Tuolumne County near the cities of Jamestown and Sonora. The project has the potential to affect environmental resources near State Route 49 between post miles 12.8 and 18.8, based on the construction-related activities, cold planing, and asphalt overlay proposed; near State Route 108 post mile R2.2 for the construction-related activities and bridge improvements proposed at Mono Way Undercrossing (Bridge No. 32-0066); and near State Route 49 post mile 13.5 based on the construction-related activities and widening proposed at Wood's Creek bridge (Bridge No.32-0004), respectively.

Project impacts are anticipated to be less than significant, with the exception of potential impacts to riparian habitat and to potentially jurisdictional wetlands and other Waters of the U.S. These resources are discussed in Section 2.1.4, Biological Resources, of this document.

East Sonora Bypass Stage II is a past project in the vicinity of the proposed project. It constructed a two-lane expressway along new alignment on State Route 108 between postmiles 4.0 and 6.0 and a new interchange at Standard Road. The project resulted in impacts to approximately 47.81 acres of oak woodland habitat. This loss was compensated for through the purchase of a 59-acre mitigation parcel, containing approximately 50 acres of oak woodland habitat. The project also resulted in approximately 462 linear feet of impacts to the riparian channel of an unnamed tributary to Curtis Creek. This loss was compensated for through on-site replanting of riparian vegetation at a 3-to-1 ratio. The project also resulted in impacts to 0.393 acres of open water habitat located at four unnamed tributaries to Curtis Creek, which were compensated for through the purchase of mitigation credits through the National Fish and Wildlife Foundation's Sacramento District Wetlands Conservation Fund.

Peaceful Oak Ramps is another past project in the vicinity, planned as an extension of the East Sonora Bypass project, to add a westbound off-ramp and an eastbound on-ramp to the new bypass at the SR 108/Peaceful Oak Road interchange on State Route 108 at postmile 4.6. Project construction completed in 2023. The project extended the Little Creek culvert by 50 feet which resulted in the fill and permanent loss of 0.05 acres of Little Creek and riparian vegetation loss along 50 linear feet of the channel. These losses were compensated for through the purchase of mitigation credits through the National Fish and Wildlife Foundation's Sacramento District California In-Lieu Fee Program and the on-site replanting of riparian vegetation at 3-to-1 ratio.

Metal Beam Guardrail Upgrades is another past project in the vicinity. It upgraded existing metal beam guardrails and replaced end treatments to meet current standards along State Routes 108, 120, and 49 in Stanislaus and Tuolumne Counties. Project locations in Tuolumne County included State Route 108 post miles R0.97 to 53.03, State Route 120 post miles 6.01 to 11.29, and State Route 49 post mile 17.6. The project resulted in the loss of approximately 0.11 acres of riparian habitat. These losses were compensated for through the purchase of conservation credits from the River Ranch Valley Elderberry Longhorn Beetle Conservation Bank in Yolo County.

Calaveras 4 Culvert Replacement is a project currently being constructed in the vicinity. It will replace approximately 22 culverts along State Route 4 and State Route 49 in Calaveras and Tuolumne Counties, respectively. The culverts to be replaced in Tuolumne County are located along State Route 49 between post miles 12.67 and 13.08. The project is preliminarily expected to result in the permanent loss of approximately 0.01 acres of wetlands and streams determined to be Waters of the U.S. It is also expected to result in

impacts to approximately 0.17 acres of riparian vegetation. These losses will be compensated for through participation in the National Fish and Wildlife Foundation's Sacramento District California In-Lieu Fee Program.

Tuolumne Heritage Trail Phase Two is another project planned in the vicinity. It would develop a Class I multi-use path along State Route 49 between post miles 18 and 20.4, from Sonora High School to Parrotts Ferry Road. Due to the preliminary nature of this project, environmental impacts are unknown at the time of writing this report.

Tuolumne 108 Surface Transportation Assistance Act Truck Improvement project is another project being planned in the vicinity. It would widen the southwest corner of the State Route 108/49 intersection, at State Route 108 postmile L2.808, by 8,836 square feet to accommodate Surface Transportation Assistance Act Truck turns. No significant environmental impacts are anticipated as a result of the project at the time of writing this report.

Merced, Stanislaus, and Tuolumne Transportation Management System Replacement is another project being planned in the vicinity. It would upgrade, install new, or replace existing inefficient and outdated Transportation Management System elements and pave areas for maintenance vehicle pullouts at various locations in Merced County on Interstate 5 and State Route 99 and 140; in Stanislaus County on State Route 99; and in Tuolumne County on State Route 120. No significant environmental impacts are anticipated as a result of the project at the time of writing this report.

Although these projects are in proximity to the proposed project, each project would include or have included individual environmental analysis outlining avoidance, minimization, and mitigation measures to reduce the potential for adverse environmental impacts. Therefore, the proposed project is not anticipated to result in cumulatively considerable impacts when viewed in connection with past, current, or planned projects in the vicinity.

Environmental Consequences

The proposed project would result in the minor but permanent loss of 0.006 acres of intermittent and ephemeral streams and 0.03 acres of wetlands potentially qualifying as waters of the U.S. These losses would be compensated for through the purchase of mitigation credits through the Sacramento U.S. Army Corps of Engineers' and National Fish and Wildlife Foundation's in-lieu fee program. The project would also result in impacts to riparian habitat through the removal and trimming of 113 inches in diameter of riparian vegetation. This loss would be compensated for at a 3-to-1 ratio with planting of riparian vegetation at an undetermined onsite or offsite location.

The project may also impact aesthetics, other biological resources, cultural resources, greenhouse gas emissions, hazardous materials, and tribal resources.

Avoidance and minimization measures are proposed as part of this project to further reduce the less than significant impacts anticipated as a result of the project. With the implementation of the avoidance, minimization, and mitigation measures, the project's impacts and incremental contribution are not cumulatively considerable.

Avoidance, Minimization, and/or Mitigation Measures

The permanent loss of wetlands and other Waters of the U.S. would be compensated for with the following measure.

- **BIO-38. Compensatory Mitigation – Wetlands and Other Waters of the U.S.:** Construction of the proposed project is expected to result in the permanent loss of up to approximately 179.13 square feet (0.03 acres) of wetlands and 266.23 square feet (0.006 acres) of intermittent and ephemeral streams potentially qualifying as waters of the U.S.

  The permanent loss of potentially jurisdictional waters of the U.S. is proposed to be compensated by Caltrans' participation in the Sacramento U.S. Army Corps of Engineers' and National Fish and Wildlife Foundation's "In-Lieu Fee" program to ensure "no net loss" of functions and values of potentially jurisdictional waters of the U.S. The Program operates by making available mitigation credits (Credits) for purchase by permittees (with the approval of the applicable regulatory agencies), and the Credits may be used to satisfy the compensatory mitigation requirements applicable to such permittees for their impacts to aquatic resources. Credits would be purchased in the "Merced-Tuolumne Rivers Aquatic Service Area."

The loss of riparian vegetation would be compensated for with the following measure.

- **BIO-39. Compensatory Mitigation – Riparian Vegetation:** Construction of the proposed project is preliminarily expected to result in the trimming or removal of 113 inches diameter breast height of streamside arroyo willow riparian vegetation. This loss of riparian vegetation is expected to require a 3:1 compensation ratio by the California Department of Fish and Wildlife. Caltrans therefore proposes to compensate for the loss of 113 inches of riparian vegetation with the establishment of 339 inches diameter breast height of riparian vegetation at an undetermined on-site (within the project limits) or offsite location.

With the implementation of avoidance, minimization, and mitigation measures, the project would have a less than significant impact on the natural

and human environment. All other impacts would be minimized through the implementation of Caltrans best management practices, Standard Specifications, and Standard Special Provisions. Therefore, the project would not have a significant impact on or based on forest resources, hydrology or water quality, land use and planning, noise, population and housing, public services, recreation, transportation, utilities and service systems, or wildfire. A full list of avoidance, minimization, and mitigation measures can be found in Appendix B of this document.

Chapter 3 Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

Coordination to determine impacts to biological resources included:

- A California Natural Diversity Database list of sensitive species referencing the Sonora, Columbia, and Standard 7.5-minute U.S. Geologic Survey quadrangles was downloaded on January 13, 2026.
- The National Marine Fisheries Service Essential Fish Habitat Mapper was accessed on January 13, 2026.
- A U.S. Fish and Wildlife Service Official Species List for the project was downloaded from the U.S. Fish and Wildlife Service on January 23, 2026.
- Caltrans transmitted the project Biological Assessment to the U.S. Fish and Wildlife Service on March 9, 2026, and obtained a Letter of Concurrence from the U.S. Fish and Wildlife Service for the proposed project on April 28, 2026.
- The aquatic resource delineation for waters and wetlands in the project area was coordinated with the U.S. Army Corps of Engineers and the Regional Water Quality Control Board to determine the need for Clean Water Act Section 404 and 401 permits. The 401 Pre-Certified permit was received on January 21, 2026. The 404 Non-Reporting permit was received on January 15, 2026. The 404 Nationwide Verification permit and the 401 project permit would be obtained prior to project construction.
- Coordination with the California Department of Fish and Wildlife also identified the requirement for a Lake and Streambed Alteration Agreement for work within Wood's Creek, Sonora Creek, and associated tributaries. The Lake and Streambed Alteration Agreement for the geotechnical work associated with the project was issued on January 6, 2026. The project 1600 permit would be obtained prior to project construction.

Coordination to determine impacts to Tribal Cultural Resources included:

- Native American consultation was conducted in accordance with Assembly Bill-52 notification requirements for projects pursuant to CEQA.
- A request was submitted to the Native American Heritage Commission for a Sacred Lands File search and Native American Contacts List Request for Tuolumne County via email on October 14, 2024.

- A Sacred Lands File Inventory File and Native American Contact List was received on October 31, 2024. Initial Assembly Bill-52 Notification and Section 106 Consultation Request letters with proposed project descriptions and aerial maps were sent to all tribes who are known to have Cultural Affiliation in Tuolumne County via email on November 4, 2024. If any interested tribes respond, consultation would continue.

Appendix A Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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September 2024

TITLE VI/NON-DISCRIMINATION POLICY STATEMENT

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

Caltrans is committed to complying with 23 C.F.R. Part 200, 49 C.F.R. Part 21, 49 C.F.R. Part 303, and the Federal Transit Administration Circular 4702.1B. Caltrans will make every effort to ensure nondiscrimination in all of its services, programs, and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin (including LEP). In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

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

TONY TAVARES
Director

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

Appendix B Avoidance, Minimization, and Mitigation Measures

The following measures would avoid or minimize the project's potential impacts to biological resources as discussed in Section 2.1.4 of this document.

- **BIO-1. Environmentally Sensitive Area Designation**: All areas outside of the proposed construction footprint or determined by a qualified biologist shall be considered as Environmentally Sensitive Areas and would be implemented as a first order of work and remain in place until all construction activities are complete. Environmentally Sensitive Area information would be shown on contract plans and discussed in Section 14-1.02 of the Caltrans Standard Specifications or any Special Provisions in Section 14-1.02. Temporary high visibility fencing and signage would be included in the Standard Special Provisions for the project to delineate the Environmentally Sensitive Area boundaries during construction. Contractor encroachment into Environmentally Sensitive Areas would be prohibited. If they are breached, immediate work stoppage and notification to the Caltrans resident engineer is required.

- **BIO-2. Designated Biologist**: One or more designated biologists with demonstrated field experience working with the regulated species or performing the specialized task and regulatory agency approval shall be on-site and monitoring any activities that have the potential to affect sensitive biological resources. They would immediately notify the Caltrans resident engineer of any take of regulated species, disturbances to regulated habitats, or breaches of Environmentally Sensitive Areas, and would prepare, submit, and sign notifications and reports. If the contractor supplies the biologist instead of Caltrans, Section 14-6.03D(1-3) of the Caltrans Standard Specifications or any Special Provisions in Section 14-6.03D(1-3) would specify the necessary qualifications, responsibilities, and submittals. Contractor-supplied biologists would prepare a "Natural Resources Protection Program" within seven days of contract approval and must have it approved by Caltrans prior to the onset of construction activities.

- **BIO-3**. **Containment Measures/Construction Site Best Management Practices**: In order to contain construction related material, prevent debris and pollutants from entering receiving waters, and reduce the potential for discharge to receiving waters, the contractor shall follow all applicable guidelines and requirements in Section 13, Water Quality of the Caltrans Standard Specifications or any Special Provisions in Section 13 regarding water pollution control.

The project design team may specify best management practices to be utilized during construction in addition to, or in place of, other temporary measures selected by the contractor. Prior to construction, the contractor would be required to submit either a Water Pollution Control Plan or a Stormwater Pollution Prevention Plan, as appropriate, for Caltrans review prior to construction onset. Caltrans staff and the contractor are required to perform routine inspections of the construction area to verify that field best management practices are properly implemented, maintained, and are operating effectively and as designed.

- **BIO-4. Worker Environmental Awareness Training for Construction Personnel**: Before any work occurs in the project area, a qualified designated biologist would conduct a mandatory contractor/worker environmental awareness training for construction personnel. The training would be provided to both contractors and subcontractors to brief them on the need to avoid and minimize effects to sensitive biological resources and the penalties for not complying with applicable state and federal laws and permit requirements. If a contractor-supplied biologist is used, then they would prepare and submit copies of the worker environmental awareness training and any associated training materials for Caltrans' review and approval prior to the onset of project construction activities, as per Caltrans Standard Specifications Section 14-6.03(D).

- **BIO-5. Limited Operation Period – In Water Construction Activities**: It is proposed that construction activities occurring at sites determined as potentially jurisdictional waters of the U.S. and waters of the State of California shall occur between May 1st and October 15th of any construction season, unless earlier or later dates for in channel construction activities are approved by California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.

- **BIO-6. Limit Vegetation Removal**: Clearing of herbaceous vegetation and/or trimming of woody vegetation may be required at some locations for culvert replacement activities. Vegetation removal shall be limited to the absolute minimum amount required for construction.

- **BIO-7. Restore and Revegetate Temporarily Disturbed Areas Onsite**: Disturbed areas within the construction limits would be graded to minimize surface erosion and siltation into receiving waters. Disturbed areas would be re-contoured to as close to pre-project condition as practicable and would be stabilized as soon as feasible as (and no later than October 15th of each construction season) to avoid erosion during subsequent storms and runoff. Permanent erosion control seeding would be performed at all disturbed sites by hydroseeding over the course of construction as each site is completed, with all sites seeded by the completion of construction activities.

- **BIO-8. Pre-Construction Surveys – Special-Status Plants**: The qualifications of any proposed biological monitor(s) would be presented to the California Department of Fish and Wildlife for review and written approval at least two weeks prior to conducting project activities at the project site. No more than 24 hours prior to any ground disturbance in a given location, pre-construction surveys would be conducted by a California Department of Fish and Wildlife-approved biologist for sensitive plant species using California Department of Fish and Wildlife-approved survey protocols. If sensitive plant species are detected within areas that would be disturbed by construction activities, then no work would take place at these locations until Caltrans has consulted with the California Department of Fish and Wildlife. New sightings of sensitive plant species shall be reported to the California Natural Diversity Database. A copy of the reporting form and a topographic map clearly marked with the location of where the sensitive plant species were observed should also be provided to the California Department of Fish and Wildlife.

- **BIO-9. Weed Free Construction Equipment and Vehicles**: To minimize the potential for the transport of weed propagules to the project area from sources outside of the project area, construction equipment and vehicles are recommended to be cleaned and washed at the contractor's facilities prior to arrival to the construction site. Any vehicle or equipment cleaning that occurs on-site during construction activities shall conform with Caltrans Standard Specifications or any Special Conditions under Section 13-4.03E(3) and Section NS-08 (Vehicle and Equipment Cleaning) of the Caltrans 2017 Construction Site Best Management Practices Manual, which require the contractor to contain and dispose of any waste resulting from vehicle or equipment cleaning.

- **BIO-10. Weed Control During Construction**: To minimize the potential for spreading weed propagules originating from within the project environmental study limits during the course of construction activities, including initial vegetation clearing and at onsite revegetation areas, weed control would be accomplished in accordance with Caltrans Standard Specifications or Special Provisions under Section 20- 1.03C(3). The use of herbicides for weed control activities would be discouraged but may be considered on a case-by-case basis depending upon the weed species, the extent of infestation, or any regulatory restrictions.

- **BIO-11. Weed Free Erosion Control and Revegetation Treatments**: To minimize the risk of introducing weed propagules to the project area from sources outside of the project area, only locally adapted plant species appropriate for the project area would be used in any erosion control or revegetation seed mix or stock. The Caltrans biologist would consult with the Caltrans landscape architect to develop appropriate seed and planting palettes for use in revegetation and/or erosion control applications. Any compost, mulch, fiber, duff, tackifier, straw, topsoil, erosion control

products, or seed must meet Caltrans Standard Specification or any Special Provisions under Section 21-2.02 for these materials. Any hydroseed used for revegetation activities must also be certified weed free as per Caltrans Standard Specifications Section 21-2.02F.

- **BIO-12. Bumblebee Hive Avoidance – Pre-Construction Surveys and Construction Stage Monitoring**: Prior to any ground-breaking activities, a focused survey for bumblebee hives shall be conducted by a qualified biologist within seven days prior to the beginning to project-related activities. A California Department of Fish and Wildlife-approved biologist would be present during all construction-related activities that may affect bumblebee hives. The qualifications of any proposed biological monitor(s) would be presented to the California Department of Fish and Wildlife for review and written approval at least two weeks prior to conducting project activities at the project site. Pre-construction surveys for bumblebee hives shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection).

- **BIO-13. Bumblebee Hive Avoidance – Protective Buffers**: If active bumblebee hives found, a protective no-work buffer of 20 feet would be established and Caltrans shall consult with California Department of Fish and Wildlife to comply with provisions of the Fish and Game Code of California. Protective buffers for bumblebee hives shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection). No work would commence within the buffer until authorization is received from the resident engineer. If construction requires activities that may potentially cause hive destruction or hive abandonment, monitoring of the hive site by a qualified biologist would be required to ensure that protective radii are maintained.

- **BIO-14. Monarch Butterfly – Pre-Construction Surveys and Construction Stage Monitoring:** Prior to any construction activities, a focused survey for all life stages of monarch butterfly shall be conducted by a qualified biologist within seven days prior to the beginning of project-related activities. A U.S. Fish and Wildlife Service-approved biologist would be present during all construction-related activities that may affect bumblebee hives or monarch butterflies. The qualifications of any proposed biological monitor(s) would be presented to the U.S. Fish and Wildlife Service for review and written approval at least two weeks prior to conducting project activities at the project site. Pre-construction surveys for bumblebee hives shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection). Any observation of any life stage of monarch butterfly, including breeding, would be reported to the western monarch butterfly mapper or via iNaturalist (http://xerces.org/milkweed survey/).

- **BIO-15. Monarch Butterfly – Protective Buffers:** If life stages of Monarch butterfly are detected by the Designated Biologist during the surveys or during construction, a 20-foot no-work buffer would be established around the detection until the Designated Biologist determines that the species would not be harmed. No work would commence within the buffer until authorization is received from the Resident Engineer.

- **BIO-16. Button's Sierra Sideband Snail – Pre-Construction Surveys and Construction Phase Monitoring:** Pre-construction surveys for the presence of Button's Sierra sideband snail would be conducted within seven days of ground disturbance. Pre-construction surveys for Button's sideband snail and appropriate protective buffer if the species is detected shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection). Caltrans would notify the California Department of Fish and Wildlife of any discovery of Button's Sierra sideband snail.

- **BIO-17. Button's Sierra Sideband Snail – Protective Buffers:** If Button's Sierra Sideband snails are detected by the Designated Biologist during the surveys or during construction, a 20-foot no-work buffer would be established around the detection until the individual(s) voluntarily move or are relocated by the Designated Biologist to appropriate habitat over 20 feet from the project construction footprint. No work would commence within the buffer until authorization is received from the Resident Engineer.

- **BIO-18. Trinity Spot Snail – Pre-Construction Surveys and Construction Phase Monitoring:** Pre-construction surveys for the presence of Trinity spot snail would be conducted within seven days of ground disturbance, water diversion, or dewatering activities. Pre-construction surveys for Trinity spot snail and appropriate protective buffer if the species is detected shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection). Caltrans would notify the California Department of Fish and Wildlife of any discovery of Trinity spot snail.

- **BIO-19. Trinity Spot Snail – Protective Buffers:** If Trinity spot snails are detected by the Designated Biologist during the surveys or during construction, a 20-foot no-work buffer would be established around the detection until the individual(s) voluntarily move or are relocated by the Designated Biologist to appropriate habitat over 20 feet from the project construction footprint. No work would commence within the buffer until authorization is received from the Resident Engineer.

- **BIO-20. Roosting Bats – Pre-Construction Surveys and Construction Phase Monitoring**: If woody vegetation removal, structures construction, swallow mud nest removal, or other project-related activities in potential bat day-roosting or maternity-roosting sites are scheduled between

February 1 and September 30, a focused survey for day-roosting bats shall be conducted by a Designated Biologist within seven days prior to the beginning of project-related activities. If active day roosts are found, bat roosts shall be managed in accordance with the California Department of Fish and Wildlife approved bat Management Plan in order to comply with provisions of the California Fish and Game Code. If a lapse in project-related work of seven days or longer occurs, another survey and, if required, consultation with California Department of Fish and Wildlife would be required before the work can be reinitiated. If construction or other project-related activities which may potentially result in adverse effects to bats or bat day-roost sites, monitoring of the day-roost site by a Designated Biologist would be required to ensure that protective radii and any exclusionary devices are maintained and functioning properly. Pre-construction surveys and appropriate protective buffers for day-roosting bats shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection).

- **BIO-21. Roosting Bats – Bat Roost Management Plan**: Because construction activities are proposed within the stream zone of Wood's Creek and Sonora Creek, the project would be subject to regulation under Section 1600 et seq. of the California Fish and Game Code. A Bat Roost Management Plan shall be prepared for review and approval of the California Department of Fish and Wildlife prior to the onset of construction activities. The Bat Roost Management Plan must include proposals to avoid adverse effects to day-roosting bats during the maternity season (April 15 to August 31) and may include proposals for the use of bat roost exclusion devices. The Bat Roost Management Plan shall propose the timing, methodology, and materials for structure roost inspection, tree roost inspection, tree removal, culvert inspection, mud nest inspection, mud nest removal, and bat day-roost exclusion devices.

- **BIO-22. Roosting Bats – Tree Trimming and Tree Removal:** Tree Trimming and/or tree removal of mature tree specimens (greater than 4 inches diameter at breast height) shall be scheduled either (1) between approximately March 1 and April 15, prior to parturition of pups; or (2) between September 1 and October 15. Additionally, trees shall be removed in two steps over a period of two days. On the first day, all branches that do not contain roosting habitat shall be removed. All branch removal would be conducted using chainsaws or similar handheld equipment. Tree trimming and/or tree removal may occur outside of this work window only after consultation with California Department of Fish and Wildlife and after confirmation that the suitable habitat is not occupied.

- **BIO-23. Aquatic Species Management Plan – Aquatic Wildlife Exclusion/Salvage:** in the absence of relocation, special-status fish species or other aquatic wildlife exposed to dewatering would suffer thermal stress, desiccation, and/or physical injury from construction

equipment. By excluding and/or removing fish and aquatic wildlife from dewatered stream reaches within the construction areas, the project is expected to significantly reduce the number of special-status fish species and other aquatic wildlife that are injured or killed during the summer work season.

An Aquatic Species Management Plan would be prepared by a Designated Biologist for review and approval by the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife prior to the onset of construction activities. The Aquatic Species Management Plan may include proposals for the use of aquatic species exclusion devices. The Aquatic Species Management Plan shall specific construction-phase aquatic wildlife species monitoring requirements and propose the timing, methodology, and materials for any proposed exclusion devices. Designated Biologists conducting aquatic species salvage activities must be approved by U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife.

During all water diversion and/or dewatering activities, the Designated Biologist would monitor within dewatering areas and within adjacent stream reaches to ensure no aquatic species are stranded or in distress. If conditions causing or contributing to stress and/or injury are observed, Caltrans would take immediate remedial actions directed at lessening sources of stress. The Designated Biologist would check daily for stranded aquatic life as the water level in the dewatered area recedes. The Designated Biologist would make all reasonable efforts to capture and relocate, within the same waterbody, all stranded aquatic life observed. The Designated Biologist shall be available and/or onsite as necessary during all dewatering and diversion activities. If dewatered areas become inundated, additional aquatic species rescue efforts may be necessary following the installation of diversion equipment.

- **BIO-24. Temporary Construction Lighting Minimization at Aquatic Habitats:** Nighttime work at, over, or adjacent to aquatic habitat shall be limited in extent, duration, and brightness to the minimum amount necessary to complete the approved nighttime work. Lighting shall face downward and shall only be used in the immediate workspace. All nighttime work within 50 feet of aquatic features shall be suspended during rain events. If nighttime work occurs at, over, or adjacent to aquatic habitat between May 1 and October 15 (see measure BIO-5. Limited Operation Period – In-Water Construction Activities), then all nighttime work shall be monitored by the Designated Biologist.

- **BIO-25. Construction Lighting – Color Temperature:** All outdoor temporary construction lighting and outdoor temporary signal lighting luminaries must have correlated color temperatures under approximately 3,000 K. Luminaries in this color range are more energy efficient, improve

public health and safety, and are less disturbing to nocturnal wildlife including birds, insects, turtles, fish, amphibians, bats, and other species. Luminaries for both permanent and temporary lighting systems are specified in Caltrans Standard Specifications Section 86-1.02K. Luminaries for all lighting systems must be either low-pressure sodium or light emitting diode-type. Low-pressure sodium lamps have color temperatures that generally range from 2,200 K to 2,700 K, and these types of luminaries easily meet these criteria. Caltrans Standard Specifications specify that all luminaries must have a correlated color temperature range from 2,700 K to 3,500 K. Non-standard special provisions may need to be developed under Caltrans Standard Specifications Section 86-1.02K to specify light emitting diode luminaries with color temperatures under 3,000 K.

- **BIO-26. Construction Lighting – Shielding:** To prevent unnecessary outdoor light pollution, temporary outdoor construction lighting as well as outdoor permanent roadway and signal lighting luminaries would be shielded in a manner that prevents light from penetrating above the 90-degree angle.

- **BIO-27. Foothill Yellow-Legged Frog and California Red-Legged Frog – Pre-Construction Surveys and Construction Phase Monitoring**: A focused survey for foothill yellow-legged frogs and California red-legged frogs shall be conducted by a Designated Biologist within seven days prior to beginning project-related activities in aquatic habitat. If a lapse in project-related work of seven days or longer occurs, another survey is required. During stream diversion or dewatering operations, the Designated Biologist would monitor within dewatering areas and within adjacent stream reaches as per BIO-23. Aquatic Species Management Plan – Aquatic Wildlife Exclusion/Salvage. If foothill yellow-legged frogs or California red-legged frogs are found during surveys or during construction, a protective no-work buffer would be established, and Caltrans shall consult with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service to comply with provisions of the Fish and Game Code of California and provisions of the Federal Endangered Species Act. If construction, or other project-related activities may potentially result in adverse effects to foothill yellow-legged frogs or California red-legged frogs, monitoring of the site by a Designated Biologist would be required to ensure that protective radii and any exclusionary devices are maintained and functioning properly. Pre-construction surveys for foothill yellow-legged frogs and California red-legged frogs and appropriate protective buffers if the species is detected shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection).

- **BIO-28. Foothill Yellow-Legged Frog and California Red-Legged Frog – Protective Buffers:** If foothill yellow-legged frogs or California red-

legged frogs are detected by the Designated Biologist during the surveys or during construction, a 100-foot no-work buffer would be established around the detection until the individual(s) voluntarily move to appropriate habitat over 100 feet from the project construction footprint or until the Designated Biologist determines that project activities would not result in take of the species. No work would commence within the buffer until authorization is received from the Resident Engineer.

- **BIO-29. Entrapped Wildlife – Construction Site Practices:** All excavated locations, steep-walled holes or trenches, more than 6 inches deep, would be provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each workday. All steep-walled holes or trenches would be inspected by the Designated Biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight would be inspected for wildlife by the Designated Biologist. The Designated Biologist would conduct thorough visual inspections of holes or trenches for wildlife species before filling. Upon discovery of trapped common wildlife, the Designated Biologist may relocate the species out of the construction zone. Upon discovery of a trapped special-status species, the Designated Biologist may require approval from the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife to handle entrapped regulated wildlife species. The Designated Biologist may place escape ramps or other appropriate structures to allow the entrapped species to escape in lieu of handling or relocating entrapped wildlife. Measures for entrapped wildlife shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection).

- **BIO-30. Noise Minimization – Daily Activity:** Construction would be conducted in accordance with Caltrans Standard Specification Section 14-8 which specifies that sound shall not exceed 86 dBA Lmax at 50 feet from the job site activities from 9 PM to 6 AM.

- **BIO-31. Noise Minimization – Internal Combustion Engines:** Internal combustion engines shall be equipped with the manufacturer-recommended muffler and that the Contractor shall not operate an internal combustion engine on the job site without the appropriate muffler.

- **BIO-32. Nesting Bird Avoidance – Limited Operation Period**: Performing ground-disturbance, vegetation removal, or other construction activities within nesting bird habitat during the non-nesting season (between October 1st and January 31st) would not require pre-construction surveys or nesting bird avoidance measures.

- **BIO-33. Nesting Birds and Raptors – Pre-Construction Surveys and Construction Stage Monitoring During Nesting Season:** If woody

vegetation removal, structures construction, ground-disturbing activities, or other project-related activities are scheduled during the nesting season of protected raptors and migratory birds (February 1 to September 30), a focused survey for active nests of such birds shall be conducted by the Designated Biologist within seven days prior to the beginning of project-related activities. If a lapse in project-related work of seven days or longer occurs, another survey, and if required, consultation with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife would be required before work could be reinitiated

If active nests are found, a protective no-work buffer would be established and Caltrans shall consult with U.S. Fish and Wildlife Service regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918 and with California Department of Fish and Wildlife to comply with provisions of the Fish and Game Code of California. If construction or other project-related activities may potentially result in adverse effects to nesting migratory birds, monitoring of the site by a Designated Biologist would be required to ensure that protective radii and any exclusionary devices are maintained and functioning properly.

Pre-construction surveys for nesting migratory birds and raptors shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection) and/or 14-6.03(B) (Bird Protection).

- **BIO-34. Migratory Birds and Raptors – Protective Buffers:** If nesting migratory birds or nesting raptors are detected by the Designated Biologist during the surveys or during construction, the appropriate no-work buffer would need to be established around the nest. Caltrans shall consult with U.S. Fish and Wildlife Service regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918 and with California Department of Fish and Wildlife to comply with provisions of the Fish and Game Code of California. No work would commence within the buffer until authorization is received from the Resident Engineer. Protective buffer radii for nesting migratory birds and raptors shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection) and/or 14-6.03B (Bird Protection).

  The appropriate no-work buffer radius for raptors would be 300 feet. The appropriate no-work buffer for burrowing owls would be 565 feet from April 1 to October 15 and 165 feet from October 16 to March 31. For non-raptor migratory birds, the no-work protective radius would be 100 feet.

- **BIO-35. Nesting Migratory Birds – Migratory Bird Nest Management:** Because construction activities are proposed within the stream zone of Wood's Creek and Sonora Creek, the project would be subject to regulation under Section 1600 et seq. of the California Fish and Game

Code. A Migratory Bird Nest Management Plan shall be prepared for review and approval of the California Department of Fish and Wildlife prior to the onset of construction activities. The Migratory Bird Nest Management Plan may include proposals for the use of bird nest exclusion devices. The Migratory Bird Nest Management Plan shall propose the timing, methodology, and materials for nesting bird surveys in trees, shrubs, burrows, on the ground, on structures, mud nest inspection, mud nest removal, tree removal, and bird nesting exclusion devices.

- **BIO-36. Northwestern Pond Turtle – Pre-Construction Surveys and Construction Phase Monitoring:** A focused survey for northwestern pond turtles shall be conducted by a Designated Biologist within seven days prior to the beginning of project-related activities in aquatic habitat or within areas designated as northwestern pond turtle upland habitat. If a lapse in project-related work of seven days or longer occurs, another survey would be required. During stream diversion or dewatering operations, the Designated Biologist would monitor within the dewatering area and within adjacent stream reaches, as specified in measure BIO-5. Aquatic Species Management Plan – Aquatic Wildlife Exclusion/Salvage. If northwestern pond turtles are found during surveys or during construction, a protective no-work buffer would be established, and Caltrans shall consult with California Department of Fish and Wildlife to comply with provisions of the Fish and Game Code of California. If construction or other project-related activities may potentially result in adverse effects to northwestern pond turtle, monitoring of the site by a Designated Biologist would be required to ensure that protective radii and any exclusionary devices are maintained and functioning properly. Pre-construction surveys for northwestern pond turtles and appropriate protective buffers if the species is detected shall be specified under Caltrans Standard Specification and/or Standard Special Provision 14-6.03A (Species Protection).

- **BIO-37. Northwestern Pond Turtle – Protective Buffers:** If northwestern pond turtles are detected by the Designated Biologist during the surveys or during construction, a 50-foot no-work buffer would be established around the detection until the individual(s) voluntarily move or are relocated by the Designated Biologist to appropriate habitat over 50 feet from the project construction footprint. No work would commence within the buffer until authorization is received from the Resident Engineer.

The following compensatory mitigation measures would also be required to mitigate impacts to riparian vegetation, as discussed in Section 2.1.4 of this document.

- **BIO-38. Compensatory Mitigation – Wetlands and Other Waters of the U.S.**: Construction of the proposed project is expected to result in the permanent loss of up to approximately 179.13 square feet (0.03 acres) of

wetlands and 266.23 square feet (0.006 acres) of intermittent and ephemeral streams potentially qualifying as waters of the U.S.

The permanent loss of potentially jurisdictional waters of the U.S. is proposed to be compensated by Caltrans' participation in the Sacramento U.S. Army Corps of Engineers' and National Fish and Wildlife Foundation's "In-Lieu Fee" program to ensure "no net loss" of functions and values of potentially jurisdictional waters of the U.S. The Program operates by making available mitigation credits (Credits) for purchase by permittees (with the approval of the applicable regulatory agencies), and the Credits may be used to satisfy the compensatory mitigation requirements applicable to such permittees for their impacts to aquatic resources. Credits would be purchased in the "Merced-Tuolumne Rivers Aquatic Service Area".

- **BIO-39. Compensatory Mitigation – Riparian Vegetation**: Construction of the proposed project is preliminarily expected to result in the trimming or removal of 113 inches diameter breast height of streamside arroyo willow riparian vegetation. This loss of riparian vegetation is expected to require a 3:1 compensation ratio by the California Department of Fish and Wildlife. Caltrans therefore proposes to compensate for the loss of 113 inches of riparian vegetation with the establishment of 339 inches diameter breast height of riparian vegetation at an undetermined on-site (within the project limits) or offsite location.

The following measures would avoid or minimize the project's potential impacts to archaeological resources and tribal cultural resources, as discussed in Sections 2.1.4 and 2.1.18 of this document.

- **CU-1. Construction monitoring – Archaeologist and Native American Monitor**: Archaeological and, if requested, Native American monitoring would be required for all project areas. All monitoring during construction activities within the Archaeological Monitoring Area would be conducted by Caltrans Professionally Qualified Staff archaeologist, or qualified consultant archaeologist. The archaeological monitor would have the authority to temporarily halt construction operations within 60 feet of any significant or potentially significant cultural resources that are encountered during construction operations. In this event, the designated monitor would be responsible for immediately informing the responsible Caltrans archaeologist and resident engineer. The contractor should not resume work within 60 feet of the find until a Caltrans Professionally Qualified Staff archaeologist or qualified consultant equivalent can appropriately consult and assesses the significance of the discovery or damage, and the contractor is authorized to resume work.

  The Native American monitor would have the authority to temporarily halt

the excavation to examine potential cultural materials in consultation with the archaeological monitor.

- **CU-2. Environmentally Sensitive Areas (ESA) Designation – Cultural**: A qualified archaeologist shall designate Environmentally Sensitive Areas for the protection of cultural resources within or near the project's Area of Potential Effects. These Environmentally Sensitive Area boundaries would be established as a first order of work and remain in place until all construction activities are complete. Contractor encroachment into Environmentally Sensitive Areas would be prohibited. If the Environmentally Sensitive Area boundaries are breached, all work within 60 feet of the boundary would be stopped, the area would be secured, and the Caltrans resident engineer must be notified. If the Environmentally Sensitive Area is damaged, Caltrans would determine the necessary remediation and the party to perform this work.

  At the first archaeological site within the area of direct impacts, a horizontal Environmentally Sensitive Area would be utilized. At the second site adjacent to the area of direct impacts, a horizontal Environmentally Sensitive Area would be used. No high-visibility fencing is proposed for either location, as it may impede access to nearby recreational resources and draw unwanted attention to the archaeological sites.

- **CU-3. Special procedures for human remains**: If human remains are encountered during construction, work in the immediate area shall be halted within 60 feet of the find and arrangements made to protect the remains in place until their disposition has been arranged according to this section. The treatment of human remains and associated and unassociated funerary objects discovered during any ground-disturbing activity shall comply with applicable Federal and State laws. The remains would be uncovered sufficiently to identify them as human. If they are so identified, all provisions of California Health and Safety Code Sections 7054 and 7050.5 and Public Resources Code Sections 5097.9 through 5097.99, as amended per Assembly Bill 2641, would be followed.

The following measures will avoid or minimize greenhouse gas emission impacts from temporary construction activities as discussed in Section 2.1.7 of this document.

- **GHG-1: Limit equipment idling**. The construction contractor would limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.

- **GHG-2: Schedule truck trips**. The construction contractor would schedule truck trips outside of peak morning and evening commute hours.

- **GHG-3: Equipment fuel efficiency**. The construction contractor would improve fuel efficiency by maintaining equipment, using the right size equipment for the job, and using equipment with new technologies where feasible.

- **GHG-4: Construction environmental training**. The construction contractor would reduce waste by salvaging demolition material for usable fill, or reusing existing project features and materials on-site where feasible

The following measures would avoid or minimize hazardous materials impacts from temporary construction activities as discussed in Section 2.1.8 of this document.

- **HW-1: Hazardous materials management.** Caltrans Standard Special Provisions 14-11.08 (Regulated Material Containing Aerially Deposited Lead), 14-11.09 (Minimal Disturbance of Regulated Material Containing Aerially Deposited Lead), 14-11.14 (Treated Wood Waste), and 36-4 (Residue Containing Lead from Paint and Thermoplastic) would be included in the construction contract.

- **HW-2: Liner under stockpiles.** A liner must be utilized for materials stockpiling. Caltrans Standard Special Provision 14-11.05B (Liner) would be included in the construction contract.

- **HW-3 Naturally Occurring Asbestos Management.** A Dust Control Plan and an Asbestos Compliance Plan are required. Non-Standard Special Provision 14-11.10 would be included in the construction contract.

List of Technical Studies Bound Separately (Volume 2)

Air Quality Report

Climate Change and Greenhouse Gas Analysis

Community Impact Assessment

Energy Analysis Technical Memorandum

Hazardous Waste Reports

- Initial Site Assessment
- Preliminary Site Investigation (Geophysical Survey)

Historical Property Survey Report

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

Location Hydraulic Study

Natural Environment Study

Noise Study Report

Paleontological Identification Report

Section 4(f) Memorandum

Visual Impact Assessment

Water Quality Report

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

Jonathan Coley
District 10 Environmental Division
California Department of Transportation
1976 East Dr. Martin Luther King Jr. Blvd., Stockton, CA 95205

Or send your request via email to: jonathan.coley@dot.ca.gov
Or call: (209) 479-4083

Please provide the following information in your request:

Project title: Tuolumne 49 Pavement Anchor Project
General location information: Tuolumne County State Route 49 & 108
District number-county code-route-post mile: Tuo-49-12.8/18.8 & Tuo-108-R2.2
Project ID number: 1022000068