State Route 166 Capital Preventive Maintenance Project

Pavement Rehabilitation Project on State Route 166 in San Luis Obispo County from post mile 8.9 to post mile 16.0

05-SLO-166-PM 8.9 to 16.0

0521000171

Initial Study with Proposed Mitigated Negative Declaration

Volume 1 of 2

Prepared by the
State of California Department of Transportation

February 2026

General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in San Luis Obispo 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 50 Higuera Street, San Luis Obispo, California 93401, Monday through Friday 8:00 AM to 5:00 PM. This document may be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-5/district-5-current-projects/05-1p120

- Tell us what you think. If you have any comments regarding the proposed project, please send your written comments to Caltrans by the deadline. Or if you'd like Caltrans to host a public meeting, please request for a meeting by the deadline. Submit comments via U.S. mail to: Lucas Marsalek, District 5 Environmental Division, California Department of Transportation, 50 Higuera Street, San Luis Obispo, California 93401. Submit comments via email to: lucas.marsalek@dot.ca.gov.

- Submit comments by the deadline: March 28, 2026.

What happens next:

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

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For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Lucas Marsalek, District 5 Environmental Division, 50 Higuera Street, San Luis Obispo, California 93401; phone number 805-458-5408 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

05-SLO-166-8.9/16.0
0521000171

Preserve 14.2 lane miles of Class 3 pavement, restore three drainage systems, and upgrade five guardrail locations to Manual for Assessing Safety Hardware standards.

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
California Transportation Commission

Scott Smith Digitally signed by Scott Smith
Date: 2026.02.09 11:53:49 -08'00'

Scott Smith
Office Chief, Environmental Analysis, District 5
California Department of Transportation
California Environmental Quality Act Lead Agency

2/9/2026

Date

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

Lucas Marsalek, District 5 Environmental Analysis Division, 50 Higuera Street, San Luis Obispo, California 93401, (805) 458-5408, lucas.marsalek@dot.ca.gov

DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: Pending

District-County-Route-Post Mile: 05-SLO-166-8.9/16.0

EA/Project Number: 05-1P120/0521000171

Project Description

The California Department of Transportation (Caltrans) proposes to preserve approximately 14.2 lane miles of asphalt pavement through an overlay, restore two culverts in poor or critical condition, and upgrade guardrails to current Manual of Assessing Safety Hardware standards. The proposed project is located on Highway 166 in San Luis Obispo County from post mile 8.9 to 16.0. The project limits begin at the junction of U.S Route 101/166 to 0.45 miles west of the Huasna River Bridge.

Determination

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

This Initial Study has been prepared by Caltrans District 5 and pending public review, determines that the proposed action will not have a significant effect on the environment for the following reasons:

- The project would have no impact on cultural resources, mineral resources, tribal cultural resources, and land use.
- The project would have less than significant impacts on aesthetics, air quality, greenhouse gas emissions, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, public services, recreation, transportation, utilities and service systems, and wildfire.
- With the following mitigation measure incorporated, the project would have less than significant impacts on biological resources:

BIO-57: Restoration (re-establishment) is proposed at a one-to-one ratio (acreage) for temporary impacts to jurisdictional areas. Compensatory mitigation is proposed at a three-to-one ratio (acreage) for permanent impacts to jurisdictional areas. Native trees removed will be replaced and mitigated based on size. Exact mitigation ratio for trees will be determined during permitting. Replacement plantings will include appropriate native tree and understory species. In order to ensure success, a three-year plant establishment period will be implemented.

With implementation of this measure, the project would not result in significant environmental impacts under California Environmental Quality Act.

_____

Scott Smith
Branch Office Chief, Central Region
Environmental Central Coast Office
California Department of Transportation

_____

Date

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Chapter 1 Proposed Project

1.1 Introduction

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 U.S. Code 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. Moving Ahead for Progress in the 21 Century Act (Public Law 112-141), signed by President Barack Obama on July 6, 2012, amended 23 U.S. Code 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered into a Memorandum of Understanding pursuant to 23 U.S. Code 327 (National Environmental Policy Act Assignment Memorandum of Understanding) with the Federal Highway Administration. The National Environmental Policy Act Assignment Memorandum of Understanding became effective October 1, 2012, and was renewed on May 27, 2022, for a term of 10 years. In summary, Caltrans continues to assume Federal Highway Administration responsibilities under National Environmental Policy Act and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes.

With National Environmental Policy Act Assignment, the Federal Highway Administration assigned and Caltrans assumed all of the U.S. Department of Transportation Secretary’s responsibilities under National Environmental Policy Act. This assignment includes projects on the State Highway System and Local Assistance projects off of the State Highway System within the State of California, except for certain categorical exclusions that Federal Highway Administration assigned to Caltrans under the 23 USC 326 Categorical Exclusion Assignment Memorandum of Understanding, projects excluded by definition, and specific project exclusions.

Caltrans proposes to preserve pavement on State Route 166 from the junction of U.S. Route 101 / State Route 166 to 0.45 miles west of the Huasna River Bridge. The project will also replace two drainage culverts, add a new culvert and drainage inlets to an existing drainage system, upgrade guardrails to current standards, construct concrete barriers, install bike lanes at the U.S. Route 101 / State Route 166 interchange with conflict striping, and add bicycle way-finding signage.

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act. Caltrans, as assigned by the Federal Highway Administration, is the lead agency under the National Environmental Policy Act. As California Environmental Quality Act lead, Caltrans has prepared this Initial Study with Proposed Mitigated Negative Declaration for the project. As the National Environmental Policy Act lead, Caltrans will prepare a separate Categorical Exclusion for the project.

The project is programmed in the 2024 State Highway Operation and Protection Program with funding from the Roadway Pavement Preservation Program. Project construction will start in 2028 and is expected to be completed in 2030. A Build Alternative and a No-Build Alternative are being evaluated. The current estimated construction cost for the Build Alternative is $15,840,800 and the escalated cost is $18,865,432.

The project is a Capital Preventive Maintenance project which proposes to preserve pavement on State Route 166 from approximately post mile 8.9 to post mile 16.0 at the north junction of U.S. Route 101/166 to 0.45 miles west of Huasna River Bridge. The project will also replace two existing drainage culverts, add a new culvert and drainage inlets to an existing drainage system, upgrade guardrails and end treatments to current Manual for Assessing Safety Hardware standards, construct concrete barriers, add slope paving under the 166/101 separation structures, construct Class II buffered bike lanes at the Route 166/101 interchange with conflict striping and add bicycle way-finding signage. Figure 1 shows the project location within San Luis Obispo County and proximity to the City of Santa Maria and Nipomo. The purpose of the project is to preserve pavement, improve drainage, and upgrade safety features along State Route 166.

1.2 Purpose and Need

1.2.1 Purpose

- Pavement - Preserve and extend the service life of the existing pavement.
- Drainage - Restore culverts in poor or critical condition to maintain the purpose of the drainage system, avoid highway flooding and prevent erosion of highway foundation or adjacent slopes resulting in road washout and closures.
- Guardrail - Replace existing guardrails with new guardrails or concrete barriers that meet American Association of State Highway and Transportation Officials Manual for Assessing Safety Hardware criteria.
- Complete Streets - Improve the ride quality, multi-modal mobility, and equity.

1.2.2 Need

- Pavement - The pavement within the approximate post miles 8.9 to 16.0 is exhibiting deterioration. If left untreated, deterioration will continue and could result in increasingly higher maintenance costs in the future.

- Drainage - As documented in Drainage System Reports from the Culvert Inventory, two culverts have been identified within the project limits that show varying degrees of damage caused by corrosion, deformation, perforation, damaged inverts, shape loss, and overall deterioration. If culverts are allowed to deteriorate any more, future roadway failure is possible.

- Guardrail - Existing guardrails do not meet current Manual for Assessing Safety Hardware standards.

1.3 Project Description

The proposed project is located on State Route 166 in San Luis Obispo County from post mile 8.9 to 16.0, beginning at the north junction of U.S Route 101/166 and ending 0.45 miles west of the Huasna River Bridge. The project will preserve approximately 14.2 lane miles of flexible Class 3 pavement using Capital Preventive Maintenance strategies, restore two drainage culverts in poor or critical condition, upgrade guardrails to current Manual for Assessing Safety Hardware standards, construct concrete barriers, and implement complete streets elements at the U.S. Route 101/166 interchange.

Pavement Rehabilitation:

The mainline pavement will be rehabilitated using Partial Depth Recycling and Cold In-Place Recycling to a depth of 0.35 feet (4 inches), followed by a 0.20-foot (2.4-inch) Rubberized Hot Mix Asphalt overlay. Cold planning will be used at the U.S Route 101/166 separation on/off ramp approaches, local roadway approaches, and vehicle pullout locations, followed by Rubberized Hot Mix Asphalt overlay to match the mainline. At intersections, the overlay will extend to the state’s right of way, with a 150-foot transition length to conform to existing pavement. The anticipated performance life of the pavement is 10 years.

Guardrail and Barrier Upgrades:

Existing metal beam guardrail will be removed and replaced with Midwest Guardrail System. At locations with steep fill slopes and insufficient hinge points, guardrail will be replaced with concrete barriers on a barrier slab. The existing barrier under U.S. Route 101 overcrossing will be replaced with Type 60 SD Concrete barrier. All end treatments will be upgraded to Manual for Assessing Safety Hardware-approved systems. Approximately 3,160 linear feet of guardrail will be upgraded, and concrete barriers will be installed as needed.

Drainage Improvements:

Two existing culverts at post mile 14.24 and post mile 14.65 will be replaced with 36-inch reinforced concrete pipe using trenchless installation (jack and bore method). Jacking pits will be accessed via new 15-foot-wide access roads. The culvert at post mile 14.24 will be realigned to improve flow and reduce sharp bends. Headwalls will be installed at inlets and outlets, and existing culverts will be abandoned in place. Additional drainage improvements at the Route 166/101 interchange include new inlets and an 18-inch High Density Polyethylene culvert connecting to the existing drainage system. Rock slope protection will be installed as needed for erosion control.

Vegetation, Tree Removal, and Planting:

Construction activities, including access road construction and jacking pit excavation may require the removal of up to 10 coast live oak trees at post mile 14.24 and up to five at post mile 14.65. Vegetation disturbance will be minimized through prescriptive clearing and grubbing. Restoration (re-establishment) is proposed at a one-to-one ratio (acreage) for temporary impacts. Compensatory mitigation is proposed at a three-to-one ratio (acreage) for permanent impacts. Native tree removed will be replaced and mitigated based on size. Exact mitigation ratio for trees will be determined during permitting. Replacement plantings will include appropriate native tree and understory species. In order to ensure success, a three-year plant establishment period will be implemented.

Erosion Control and Environmental Protection:

Disturbed areas will be stabilized using permanent erosion control measures tailored to site-specific conditions, including hydroseeding, mulch, fiber rolls, compost socks, and bioengineering techniques at creek banks. Environmentally sensitive areas will be delineated and protected with high-visibility fencing or approved markers. Construction Best Management Practices will be implemented for stormwater and sediment control.

Traffic Handling and Staging:

Construction will be staged to minimize impacts to traffic and maintain access for vehicles, bicycles, and emergency services. Daily lane and shoulder closures will be used for pavement, guardrail, and barrier work. Temporary barrier systems and changeable message signs will be deployed for traffic control. Reversing traffic control may be used during paving. Temporary construction easements will be acquired for access roads and jacking pits. Staging areas will be located in previously disturbed or paved areas where feasible.

Sequence of Work:

1. Mobilization and setup of staging and traffic control devices.

2. Installation of environmentally sensitive area fencing and initial clearing/grubbing.
3. Construction of access roads and jacking pits for culvert replacement.
4. Trenchless installation (jack and bore) of new culverts and installation of headwalls and rock slope protection.
5. Pavement rehabilitation (Partial Depth Recycling/Cold In-Place Recycling and Rubberized Hot Mix Asphalt overlay) and cold planning at ramps and intersections.
6. Guardrail and barrier removal and replacement, including installation of new end treatments.
7. Drainage improvements at the Route 166/101 interchange.
8. Installation of Class II buffered bike lanes, bicycle conflict striping, and wayfinding signage at the interchange.
9. Erosion control, slope stabilization, and replacement planting.
10. Demobilization, site cleanup, and plant establishment period.

Equipment:

Major equipment will include excavators, backhoes, bulldozers, graders, paving machines, rollers, jack and bore rigs, hydroseeders, water trucks, and traffic control devices (barriers, signs, cones, message boards).

Utilities and Right of Way:

Utility verification and potholing will be conducted during design. No major utility relocations are anticipated. Approximately 0.12 acres of temporary construction easement will be required for culvert replacement.

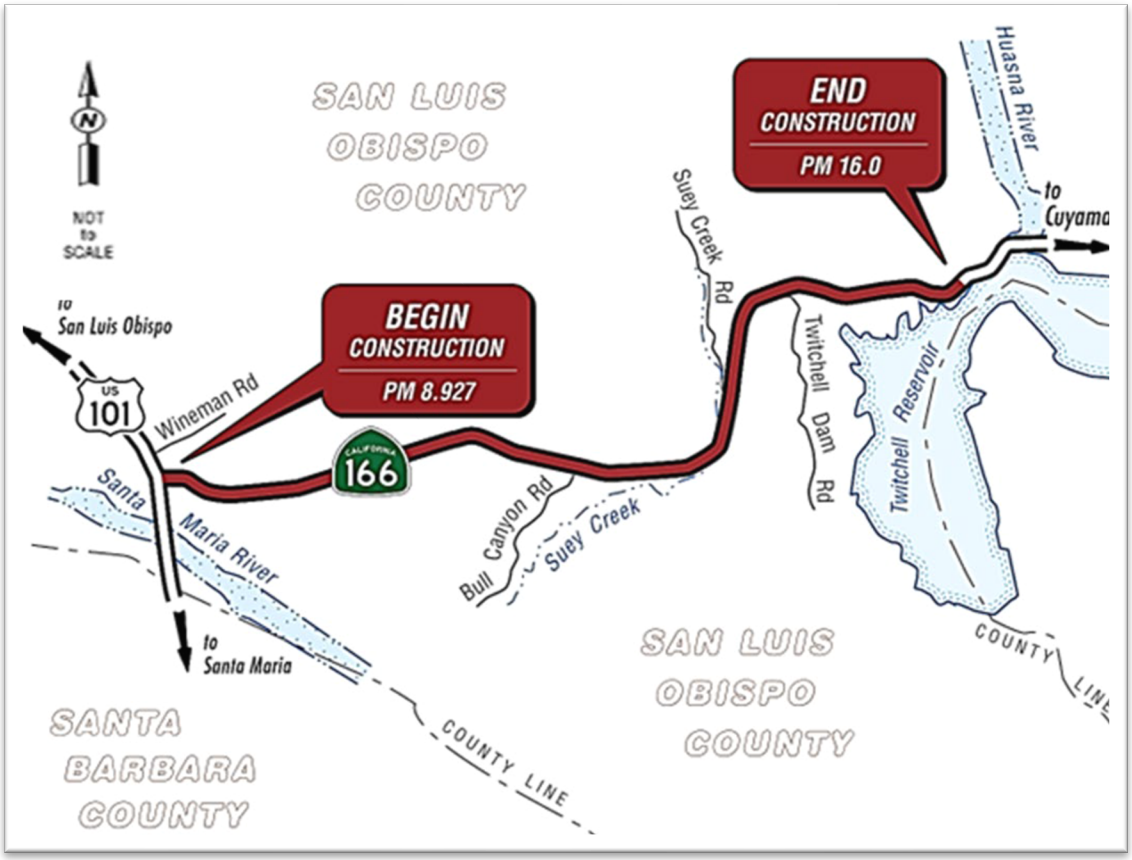
Complete Streets Elements:

The project will install approximately 640 linear feet of Class II buffered bike lanes and approximately 10 bicycle wayfinding signs at the Route 166/101 interchange, as well as bicycle conflict striping at intersections.

Environmental Commitments:

All work will comply with permit conditions, environmental commitments, and mitigation measures as outlined in the environmental document.

Figure 1: Project Location Map



1.4 Project Alternatives

Two alternatives are under consideration for the project: a Build Alternative and a No-Build Alternative.

An interdisciplinary team developed the alternatives that are under consideration. Several criteria were taken into consideration when evaluating the various alternatives for the project, including the project's purpose and need, cost, design, construction strategies, and environmental impacts.

1.4.1 Build Alternative

The Build Alternative proposes a comprehensive pavement preservation and safety upgrade project on State Route 166 from post mile 8.9 to post mile 16.0. Key features include:

Pavement Rehabilitation:

The mainline will be rehabilitated using Partial Depth Recycling and Cold In-Place Recycling to a depth of 0.35 feet, followed by a 0.20-foot Rubberized

Hot Mix Asphalt overlay. Cold planning and Rubberized Hot Mix Asphalt overlay will be used at ramps, intersections, and pullouts to ensure a smooth transition and consistent pavement quality.

Guardrail and Barrier Upgrades:

Existing metal beam guardrail will be removed and replaced with Midwest Guardrail System to meet current Manual for Assessing Safety Hardware standards. At locations with steep fill slopes and insufficient hinge points, concrete barriers will be installed. All end treatments will be upgraded to Manual for Assessing Safety Hardware-approved systems.

Drainage Improvements:

Two existing culverts at post mile 14.24 and post mile 14.65 will be replaced with 36-inch Reinforced Concrete Pipe using jack and bore methods. Jacking pits will be accessed via new 15-foot-wide access roads. Headwalls and rock slope protection will be installed as needed. Additional drainage improvements at the Route 166/101 interchange include new inlets and an 18-inch High Density Polyethylene culvert.

Vegetation and Tree Removal:

Construction may require removal of up to 15 coast live oak trees for culvert access and jacking pits. Vegetation disturbance will be minimized. Restoration (re-establishment) is proposed at a 1:1 ratio (acreage) for temporary impacts. Compensatory mitigation is proposed at a 3:1 ratio (acreage) for permanent impacts. Native tree removed will be replaced and mitigated based on size. Exact mitigation ratio for trees will be determined during permitting. Replacement plantings will include appropriate native tree and understory species. In order to ensure success, a three-year plant establishment period will be implemented.

Complete Streets Elements:

The project will install approximately 640 linear feet of Class II buffered bike lanes and 10 bicycle wayfinding signs at the Route 166/101 interchange, as well as bicycle conflict striping at intersections.

Construction Methods and Staging:

Construction will be staged to minimize traffic impacts, using daily lane and shoulder closures, temporary barrier systems, and changeable message signs. Major equipment will include excavators, backhoes, bulldozers, graders, paving machines, rollers, jack and bore rigs, hydroseeders, and water trucks. Staging areas will be located in previously disturbed or paved areas where feasible.

Sequence of Work:

1. Mobilization and setup of staging areas and traffic control devices.
2. Installation of environmentally sensitive area fencing and initial clearing/grubbing.
3. Construction of access roads and jacking pits for culvert replacement.
4. Trenchless installation of new culverts and installation of headwalls and rock slope protection.
5. Pavement rehabilitation and cold planning at ramps/intersections.
6. Guardrail and barrier removal and replacement.
7. Drainage improvements at the interchange.
8. Installation of bike lanes, conflict striping, and signage.
9. Erosion control, slope stabilization, and replacement planting.
10. Demobilization, site cleanup, and plant establishment period.

Environmental Commitments:

All work will comply with permit conditions, environmental commitments, and mitigation measures as outlined in the environmental document.

1.4.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, no improvements would be made to the existing pavement, drainage, or safety features within the project limits. The existing pavement would continue to deteriorate, leading to increased maintenance costs, reduced ride quality, and potential safety hazards. The two culverts in poor or critical condition would not be replaced, increasing the risk of roadway failure due to drainage issues. Guardrails would remain non-compliant with current Manual for Assessing Safety Hardware standards, and no new bicycle facilities or wayfinding signage would be provided.

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

The project would include Caltrans standard measures that are typically used on all Caltrans projects. Caltrans standard measures are considered features of the project and are evaluated as part of the project. Caltrans standard measures are not implemented to address any specific effects, impacts, or

circumstances associated with the project but are instead implemented as part of the project's design to address common issues encountered on Caltrans projects. The measures listed below are those related to environmental resources and are applicable to the project. These measures can be found in the Caltrans 2023 Standard Specifications document.

7-1 Legal Relations and Responsibility to the Public

10-4 Water Usage

10-5 Dust Control

10-6 Watering

12-1 Temporary Traffic Control

12-3 Temporary Traffic Control Devices

12-4 Traffic Control Systems

13-1 Water Pollution Control

13-2 Water Pollution Control Program

13-4 Job Site Management

13-6 Temporary Sediment Control

13-7 Temporary Tracking Control

13-10 Temporary Linear Sediment Barriers

14-1 Environmental Stewardship

14-2 Cultural Resources

14-6 Biological Resources

14-7 Paleontological Resources

14-8 Noise and Vibration

14-9 Air Quality

14-10 Solid Waste Disposal and Recycling

14-11 Hazardous Waste and Contamination

14-12 Other Agency Regulatory Requirements

17-2 Clearing and Grubbing

18-1 Dust Palliatives

20-1 Landscape

20-3 Planting

20-4 Plant Establishment Work

21-2 Erosion Control Work

Additional standard measures would be added to the project as necessary or appropriate.

1.6 Discussion of the National Environmental Policy Act Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act 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 California Environmental Quality Act, this document may contain references to federal laws and/or regulations (California Environmental Quality Act, 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 1602 – Lake or Streambed Alteration Agreement	To be completed during the design phase
Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	To be completed during the design phase

Agency	Permit/Approval	Status
U.S. Army Corps of Engineers	Clean Water Act Section 404 Nationwide Permit	To be completed during the design phase
State Water Quality Board	Notice of Intent/Notice of Termination (Stormwater)	To be completed during the design phase
U.S. Fish and Wildlife Service	Programmatic Biological Opinion	Received 10/7/2024

Lake or Streambed Alteration Agreement (California Department of Fish and Wildlife 1602):

Purpose: The agreement is required for any project that will divert, obstruct, or change the natural flow or bed, channel, or bank of a river, stream, or lake. This applies to culvert replacements and riparian impacts.

Timing: The agreement will be submitted after final design. The agreement must be in hand before work in jurisdictional areas begins. Allow several months for processing.

Section 401 Water Quality Certification (Regional Water Quality Control Board):

Purpose: The certification ensures compliance with water quality standards for any activity needing federal permit to discharge into waters of the U.S.

Timing: Apply for certification after Section 404 application. The certification must be obtained before construction in jurisdictional waters.

Section 404 Nationwide Permit (U.S. Army Corps of Engineers):

Purpose: The permit is required for discharge of dredged or fill material into waters of the U.S., such as for culvert replacement or streambed impacts.

Timing: The permit will be submitted after final design. The permit must be in hand before construction in jurisdictional waters.

Notice of Intent/Notice of Termination for Construction Stormwater (State Water Board/Regional Water Quality Control Board):

Purpose: The Notice of Intent is required to obtain coverage under the Construction General Permit for stormwater discharges; the Notice of Termination is filed at project completion.

Timing: The Notice of Intent must be filed before construction starts; the Notice of Termination must be filed at project closeout.

Programmatic Biological Opinion (U.S. Fish and Wildlife Service):

Purpose: The opinion provides Endangered Species Act compliance for projects that may affect federally listed species or designated critical habitat. It typically applies to activities such as culvert replacements, riparian vegetation removal, or work in streams where listed species may occur.

Timing: Coordination occurs early in project planning; consultation generally begins after final design but before any ground-disturbing activities. The opinion must be completed and documented prior to initiating work in areas with potential listed species or critical habitat. Allow several months for formal consultation and issuance.

Chapter 2 California Environmental Quality Act Evaluation

2.1 California Environmental Quality Act 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 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 an integral part of the project and have been considered prior to any significance determinations documented below.

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

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment dated October 20, 2025, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	California Environmental Quality Act Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	**Less Than Significant Impact**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	**No Impact**
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	**Less Than Significant 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

State Route 166 within the project limits is a rural two-lane highway that extends from U.S. Route 101/State Route 166 Separation Bridge to approximately 0.5 mile west of the Huasna River Bridge. The corridor traverses a predominantly agricultural and rural landscape, with views that include vineyards, row crops, pastureland, low rolling hills, and distant ridgelines. Portions of Twitchell Reservoir are intermittently visible, contributing to the visual diversity of the broader viewshed. State Route 166 is eligible for designation as a State Scenic Highway throughout the project limits.

Roadside conditions include narrow paved shoulders, mown ruderal grasses and low ground vegetation, and metal-post wire fencing that marks the Caltrans right-of-way. Scattered areas of mature riparian vegetation occur at drainage crossings and culverts, providing localized areas of higher visual interest and contrast with the viewshed. The topography varies from relatively flat agricultural bottomlands near the western end of the corridor to more rugged, undulating terrain toward the eastern end.

Viewer groups consist primarily of motorists, including commuters, agricultural workers, regional travelers, and goods movement operators. Viewer sensitivity is considered moderate due to the rural setting and the speed at which views are experienced. A small unpaved pullout near post mile 8.95 provides an informal

stopping area used by trucks and seasonal fruit vendors, but the majority of views are experienced at highway speeds with short-duration exposure.

Overall, the existing visual character of the project area is defined by open rural landscapes, agricultural uses, and natural landforms, with minimal built features aside from the existing highway infrastructure.

Table 1: Project Segments in Area of Visual Effect

Post mile Range	Location	Setting	Visual Character	Viewer Sensitivity
8.9–10.5	U.S. Route 101/State Route 166 Separation to rolling hills	Transition zone between U.S. Route 101 interchange and rural corridor; agricultural fields and roadside pullouts	Blend of agricultural land and natural slopes; open views framed by distant coastal mountains	**Moderate**
10.5–12.5	Midwestern segment along Cuyama River	Rural corridor with curvilinear alignment; riparian vegetation along drainage crossings	Natural topography with oak woodlands and coastal scrub; panoramic views of hillsides	**Moderate**
12.5–14.5	Approaching culvert locations	Steeper terrain with rocky cut slopes; intermittent riparian corridors	Rugged slopes with guardrails and rock outcrops; visual texture from mixed vegetation	**Moderate**
14.5–16.0	Eastern segment near Twitchell Reservoir	Remote rural setting; agricultural valley transitioning to reservoir views	Open vistas with agricultural patchwork and distant water body; strong scenic quality	**Moderate**

Environmental Consequences

Construction of the proposed project would result in localized and temporary visual changes associated with construction equipment, staging, ground disturbance, and vegetation removal near culvert locations. These effects would be short term and would cease once construction is complete.

Long-term visual changes would result primarily from the installation of new safety features, including upgraded Manual for Assessing Safety Hardware-compliant guardrail, new concrete barrier beneath the U.S. Route 101/State Route 166 separation structure, and slope paving at select locations. These features are

common components of rural highway corridors and would be visually consistent with existing roadway infrastructure. Because these elements are low in profile, largely positioned at the roadside edge, and appear in visually complex areas, they would not substantially alter the visual character or quality of the corridor.

Vegetation removal would include the loss of mature riparian vegetation and several oak trees at drainage crossings, which would create localized increases in visual contrast until replacement vegetation becomes established. However, these areas represent small portions of the overall viewshed, and implementation of restoration and revegetation measures would reduce long-term visual effects. With these measures in place, the project would not substantially degrade the existing visual quality of public views.

No new lighting is proposed, and the project would not create sources of glare that could affect day or nighttime views. The project would not block or substantially diminish views of scenic resources or scenic vistas along State Route 166, and overall scenic qualities of the corridor would remain intact.

With implementation of standard visual treatment and revegetation measures, the project's visual impacts would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

AES-1: Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques which save the most existing vegetation possible shall be employed.

AES-2: All disturbed areas shall receive permanent erosion control to be determined by Caltrans District 5 Landscape Architecture.

AES-3: Replacement plantings shall include aesthetic considerations as well as the inherent biological goals. Revegetation shall include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architecture. Revegetation shall occur at the maximum extent horticulturally viable and be maintained until established.

AES-4: If vegetation control under guardrail is deemed necessary, then it shall be inert material such as shale, as determined by Caltrans District 5 Landscape Architecture.

AES-5: Following construction, re-grade, and re-contour all new construction staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

2.1.2 Agriculture and Forestry Resources

Lead agencies, such as Caltrans, are required by the California Department of Conservation to provide notice when a proposed project will acquire land enrolled in a Williamson Act Contract or be located in an agricultural preserve. 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.

The project area is situated in a rural region of San Luis Obispo County, traversing agricultural lands and open space, but is entirely confined to the existing State Route 166 right-of-way. The corridor does not pass through areas identified by the U.S. Forest Service Forest Legacy Assessment Program or Forest Inventory Analysis Programs as being under threat of conversion, nor does it intersect any U.S. Forest Service boundaries. Adjacent parcels include agricultural lands and Williamson Act-contracted properties, but the project does not require acquisition or conversion of any such lands. According to Farmland Mapping and Monitoring Program (FMMP) data, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occurs within the project limits. The project footprint is limited to paved roadway, shoulders, and previously disturbed roadside areas.

North and south of the project area, agricultural parcels are present, but project activities will not interfere with any active or ongoing agricultural operations. The project will not acquire or convert FMMP-mapped farmland or Williamson Act-contracted land. Review of county zoning maps and FMMP data confirms that the project will not conflict with existing zoning for agricultural use or Williamson Act contracts.

No forest land, timberland, or Timber Production Zone (TPZ) lands, as defined by Public Resources Code sections 12220(g) and 4526 and Government Code section 51104(g), occur within the project footprint. The project area is not within or adjacent to lands identified for forest resource protection or conversion, and no activities are proposed that would affect forest land or timberland resources. The project does not pass through areas identified by California Department of Forestry and Fire Protection as being under threat of conversion, nor does it intersect any mapped forest resources.

Based on review of Farmland Mapping and Monitoring Program data, Williamson Act maps, California Department of Forestry and Fire Protection forestry classifications,

and county zoning information, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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

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

Considering the information in the Caltrans Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memo dated March 3, 2025, the following significance determinations have been made:

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

Affected Environment

The proposed project is located within the South-Central Coast Air Basin, which includes San Luis Obispo, Santa Barbara, and Ventura Counties. Air quality in San Luis Obispo County is regulated by the San Luis Obispo Air Pollution Control District. The county is currently designated as non-attainment for the State Ambient Air Quality Standard for particulate matter 10, but is in attainment for all federal ambient air quality standards, including ozone, particulate matter 2.5, and carbon monoxide.

The Federal Highway Administration first issued air quality conformity guidelines in 1993, which have been amended over time. Because the project area is in attainment for all federal ambient air quality standards, federal conformity requirements do not apply. The project is not capacity-increasing and does not involve changes to the horizontal or vertical alignment of the highway. Therefore, it is not expected to result in long-term operational air quality impacts. The project is also not located in or near any sensitive receptor areas such as schools, hospitals, or senior centers.

Environmental Consequences

The proposed project would not result in long-term operational air quality impacts because it does not add capacity, alter traffic patterns, or change horizontal or vertical alignment of the highway. As such, no increase in vehicle miles traveled or operational emissions is anticipated. Therefore, no detailed long-term air quality modeling or analysis is required.

Short-term air quality impacts may occur during construction due to equipment exhaust and fugitive dust emissions. However, the scope of construction is limited to

pavement overlay, culvert restoration, and guardrail upgrades, which involve minimal earthwork. As a result, dust generation and construction-related emissions are expected to be minor.

Emissions estimates prepared using the Caltrans Construction Emissions Tool (2021) indicate that daily and annual emissions of criteria pollutants such as Nitrogen Oxides, particulate matter 10, and particulate matter 2.5 are well below the thresholds established by the San Luis Obispo County Air Pollution Control District. Therefore, the project is not expected to expose sensitive receptors to substantial pollutant concentrations or result in a cumulatively considerable net increase in any criteria pollutant.

With implementation of standard Caltrans construction practices and minimization measures, the project would not result in significant air quality impacts under California Environmental Quality Act.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required.

2.1.4 Biological Resources

Considering the information in the Natural Environment Study dated January 2025, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration Fisheries?	**Less Than Significant Impact With Mitigation Incorporated**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	**Less Than Significant Impact With Mitigation Incorporated**

Question—Would the project:	California Environmental Quality Act Significance Determinations for Biological Resources
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**Less Than Significant Impact With Mitigation Incorporated**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	**Less Than Significant Impact With Mitigation Incorporated**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**No Impact**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	**No Impact**

Affected Environment

The project is located on State Route 166 in southern San Luis Obispo County, extending from post mile 8.9 to 16.0, beginning at the north junction of U.S. Route 101 and State Route 166 and ending approximately 0.45 miles west of the Huasna River Bridge. The biological study area for the project encompasses all areas that may be directly, indirectly, temporarily, or permanently impacted by construction activities, include the Area of Potential Impact and a 25-foot buffer to ensure comprehensive evaluation of biological resources. The biological study area traverses a rural landscape characterized by primarily agricultural lands, grasslands, oak woodlands, and riparian corridors, with elevations ranging from approximately 218 to 881 feet. Land use within the biological study area is predominantly agricultural and undeveloped, with the corridor bordered by grasslands and agricultural parcels to the north and south. Natural communities mapped within the biological study area include coastal scrub (dominated by coyote brush, California sagebrush, and white sage), oak woodland (primarily coast live oak), poison oak scrub, willow scrub, non-native annual grassland, rocky outcroppings, ruderal/disturbed areas, landscaped zones, and developed lands. The biological study area also includes ephemeral and intermittent drainages, with riparian habitat and associated streambeds present near drainage crossings and culvert locations.

Natural Communities and Habitats of Concern

Caltrans biologists conducted botanical surveys and general wildlife surveys within the biological study area throughout 2024 and 2025, following protocols established by the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife. Surveys were timed to coincide with the flowering periods of target plant species, ensuring optimal detection despite slightly below-average rainfall and a delayed bloom period due to prolonged winter storms in early 2024. These conditions provided adequate opportunities to observe and document plant species with potential to occur in the biological study area, and several species were recorded during their appropriate phenological windows.

A variety of natural communities were mapped and observed during field surveys, including coastal scrub (comminated by coyote brush California sagebrush, and white sage), oak woodland (primarily coast live oak), poison oak scrub, willow scrub, non-native annual grassland, rocky outcroppings, ruderal/disturbed areas, landscaped zones, and developed land. The biological study area also includes ephemeral and intermittent drainages with associated riparian habitat. None of the natural communities within the biological study area are classified as sensitive or special-status under current state or federal definitions. Developed and ruderal areas, as well as ornamental vegetation, are considered non-sensitive, anthropogenic communities. The distribution, structure, and ecological functions of these communities are described in detail in the Natural Environment Study.

Coastal Scrub: Coastal scrub is in the biological study area mostly as small, fragmented stands along the hillslopes on the western and eastern ends of the project limits, typically adjacent to drainages or on cut slopes in the hills. This community is largely dominated by coyote brush, California sage brush, white sage, and purple sage. The dominant species varies throughout the project limits. None of these communities are considered sensitive.

Coyote Brush Scrub: Coyote brush scrub is very common in the biological study area and typically grows on hillside cut slopes and along drainages. Typically, coyote brush dominates and is often virtually the only shrub present, but California sage may be intermixed. Canopy cover ranges from dense closed stands to scattered shrubs growing in non-native grassland.

California Sagebrush: California sagebrush is common within the biological study area and typically occurs on hillslopes. It is dominant in patches throughout the biological study area with small amounts of coyote brush and white sage intermixed.

White Sage Scrub: White sage occurs in small but dense patches along the roadside near Wineman Road, and along some hillside cut slopes. Within these patches it is the dominant plant, surrounded by ruderal vegetation or non-native grassland.

Oak Woodland: The sole tree species in this community is the coast live oak. Oak woodland occurs on hillslopes and along drainages. The oak woodland in the biological study area is mostly closed canopy stands with an occasional solitary oak.

Where canopy cover is high there is little to no understory; where the canopy is more open there may be a sparse shrub layer consisting mostly of poison-oak and coyote brush. This community is not considered a special-status natural community.

Poison Oak Scrub: Poison oak is the dominant species at the inlet of the drainage at post mile 14.65 on the westbound side. This area is co-dominated by poison hemlock and is intermixed with blue elderberry and coyote brush. This community only occurs at this location and is not considered a special-status natural community.

Willow Scrub: Willow scrub primarily consists of scrubby streamside thickets, varying from open to impenetrable, dominated by any of several willow species. Within the biological study area, the dominant willow species is Arroyo willow. The understory supports species such as California blackberry, poison oak, stinging nettle, and an assemblage of other species adapted to the moist shaded environment. On the central coast, riparian scrub occurs on relatively fine-grained sand and gravel bars that are close to groundwater, at or near the mouths of the most perennial and many intermittent streams of the Coast Ranges. This community is sparse within the biological study area.

Non-native Annual Grassland: Non-native grassland is very common and covers a large percent of the biological study area. It is dominated by non-native grasses, mostly annuals, and a mix of native and non-native forbs. The dominant annual grasses are slender wild oat, ripgut brome, and rattail rescue. Throughout most of the biological study area, the non-native grasslands are highly disturbed from regular mowing and vehicle use.

Rocky Outcropping: These areas are dominated by steep rock faces with little to no vegetation. When vegetation is present, it is typically California sagebrush or other coastal scrub species, though it is sparse. Rocky outcroppings are mostly present in the eastern half of the project areas within the cut-slopes of the hills.

Ruderal/Disturbed: In addition to areas dominated by annual grasses, portions of the study area support invasive non-native herbs. The term ruderal is used to describe non-native vegetation dominated by non-native forbs (i.e., herbaceous plants that are not grasses). Ruderal vegetation is abundant throughout the biological study area, growing on disturbed road shoulders, pullouts, and road banks. The vegetation includes small to extensive patches, often monocultures, of mustards, fennel, geraniums, and plantains.

Landscaped: Landscaped areas are generally vegetated with a variety of ornamental trees, ornamental shrubs, herbs, and perennial grasses, and the plantings tend to be interspersed with ruderal herbs and non-native grasses. Within the biological study area, the landscaped category includes primarily pepper trees and ice plant on Wineman Road and near residential property at post mile 11.3.

Developed: Developed areas are locations that have been constructed or otherwise physically altered to an extent that native vegetation is no longer supported.

Developed land is characterized by permanent or semi-permanent structures, and pavement or hardscape. Areas where no natural land is present due to frequent use that prevents vegetation from growing or areas that have materials such as gravel being placed upon it may also be considered developed. This includes State Route 166 and shoulders, Wineman Road, private driveways, and pullouts.

Regional Habitats of Concern

The California Natural Diversity Database (2025) did not document any regional habitats of concern that are considered sensitive occurring within the search area.

Wetlands, Other Waters, and Riparian Areas

The biological study area traverses two watersheds: the Upper Santa Maria River watershed and the Twitchell Reservoir–Cuyama River watershed. These watersheds contain smaller tributaries, such as Suey Creek and unnamed tributaries, which ultimately provide water to the Santa Maria River. The biological study area includes areas that may be directly or indirectly impacted by project activities, as well as a buffer to ensure adequate study of surrounding natural areas. Wetlands, other waters, and riparian areas within the biological study area are regulated by federal and state agencies, including the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife:

- The U.S. Army Corps of Engineers defines jurisdictional areas as either Wetlands, or Other Waters. The U.S. Army Corps of Engineers Wetlands exhibit all three wetland characteristics (hydrophytic vegetation, hydric soil, and wetland hydrology), and are confined to the ordinary high-water mark of a drainage feature, or exhibit connectivity to jurisdictional waters. Other Waters meet these same criteria but may be missing one or more of the three defining wetland characteristics.

- The Regional Water Quality Control Board jurisdiction is equivalent to the U.S. Army Corps of Engineers jurisdiction except that it extends to the streambank and riparian zone.

- The California Department of Fish and Wildlife jurisdiction is equivalent to both agencies but extends to the top of the surrounding banks and/or outer edge of adjacent riparian vegetation, whichever is greater.

On September 3, 2025, a jurisdictional delineation of the ordinary high water mark and riparian area was conducted at two culvert locations within the biological study area at post mile 14.24 and post mile 14.65. At post mile 14.24, no jurisdictional features were identified. This location is a concrete lined stormwater runoff culvert and does not have an ordinary high water mark, no streambed or bank, and no wetland parameters (hydrophytic vegetation, hydric soils, or wetland hydrology). The culvert at post mile 14.24 is not jurisdictional.

The culvert at post mile 14.65 falls under U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife

jurisdiction. The ordinary high water mark was identified based on water staining, debris deposits, visible dry stream channel, and vegetation. No wetland delineation was conducted since there were no wetland parameters observed. Global positioning system data was collected at existing culvert inlet and outlet, stream channel, ordinary high water mark, and riparian zone. The ordinary high water mark and riparian area was further refined with ArcGIS Pro software using one-foot contour line topography data. A total of approximately 0.012 acres of U.S. Army Corps of Engineers jurisdictional features and 0.176 acres of Regional Water Quality Control Board and California Department of Fish and Wildlife jurisdictional features were delineated within the biological study area.

Special-Status Plant Species

The Natural Environment Study identifies 17 special-status plant species as having been documented in the region and project vicinity. The project limits were found to contain marginally suitable habitat for nine of these 17 species, and none of these species were observed within the biological study area during appropriately timed surveys. A complete list of regional and special-status plant species is provided in Table 3 of the Natural Environment Study. Botanical surveys were conducted within the biological study area on March 22 and June 14, 2024. While marginal habitat may occur in the biological study area for several special-status taxa, none of these taxa were observed within the biological study area during botanical surveys and none are anticipated to occur. No federally designated critical habitat or federally listed plant species occurs within the biological study area.

Special Status Animal Species

The Natural Environment Study identifies 24 special-status animal species as having the potential to occur within the project vicinity. Of these 24 species, the project was found to contain potentially suitable for 12 of these 24 species. Two of these species, Crotch’s bumble bee and western monarch, were observed in the biological study area during general wildlife surveys. A complete list of regional and special-status wildlife species is provided in Table 4 of the Natural Environment Study. General wildlife surveys were conducted throughout 2024 and 2025. No federally designated critical habitat occurs within the biological study area. The biological study area contains potentially suitable habitat for the following species.

California Red-Legged Frog

California red-legged frog is a federally threatened species and a state Species of Special Concern that occurs in coast range watersheds from Marin County to northern Baja California. It historically occurred in California’s Central Valley and Sierra Nevada foothills, where it is now known from only a few isolated foothill occurrences.

California red-legged frogs generally inhabit still or slow-moving water in streams, deep pools, backwaters, marshes, ponds, sag ponds, dune ponds, reservoirs, and lagoons from sea level to around 3,500 feet, with historical sightings up to 5,200 feet in elevation. Breeding occurs from November through April, and breeding adults are

often found in still or slow-moving water of depths greater than two feet with dense vegetation. Although highly aquatic, some individuals may make overland excursions through upland habitats during wet conditions; terrestrial dispersal distances depend on habitat availability and environmental conditions but have been observed up to one mile in San Luis Obispo County, and over two miles in northern Santa Cruz County. Dispersal under dry conditions is rare but can occur as water recedes. During the summer, if water is not available in their breeding habitat, California red-legged frogs will disperse and utilize spaces under boulders, downed trees or logs, moist leaf litter, small mammal burrows, large cracks in dried ponds, industrial debris, and agricultural features (e.g., watering troughs).

No focused surveys were conducted, and no California red-legged frogs were observed during reconnaissance surveys. While no California red-legged frogs were observed during surveys, the biological study area contains potentially suitable breeding, upland, and dispersal habitat. Potential breeding habitat occurs at a culvert inlet at post mile 0.85 on U.S. Route 101 at the north-east corner of the U.S. Route 101 and State Route 166 interchange. The inlet typically contains standing water, and the culvert conveys intermittent water from an unknown tributary to the Nipomo and Santa Maria rivers. Another unnamed tributary parallels the biological study area to the south from post mile 9.2-11.3 that drains into the Santa Maria River may also provide potential breeding and dispersal habitat. Both unnamed tributaries are outside of the biological study area.

Additionally, a few ponds occur just outside of the biological study area that may provide breeding habitat. These include a permanent agricultural pond 0.25 miles south of the biological study area near U.S. Route 101 and an intermittent pond 0.20 miles south of the biological study area near Wineman Rd along the same tributary. These ponds are outside of the biological study area but the grasslands surrounding them provide suitable upland habitat.

Twitchell Reservoir may contain suitable breeding habitat for California red-legged frog, though there are no known occurrences of California red-legged frog breeding and the reservoir is outside of the biological study area. The culvert at post mile 14.65 drains ephemeral water to Twitchell Reservoir approximately one mile downstream. The oak woodland riparian along that tributary therefore may provide suitable dispersal habitat for California red-legged frog. The grassland and oak woodland habitat surrounding the reservoir that extend into the biological study area may also provide suitable upland habitat.

There are six California Natural Diversity Database California Natural Diversity Database occurrences of California red-legged frog within five miles of the biological study area. The closest record is from 2002 approximately 0.35 miles north of State Route 166 along Wineman Road at the unnamed tributary to the Nipomo River. The record is one adult on top of a dirt pile and riprap within a ruderal area adjacent to a riparian woodland. The other occurrences primarily occur near the Santa Maria River or the Cuyama River.

Crotch's Bumble Bee

Crotch's bumble bee is a candidate for listing as endangered under California Endangered Species Act. The current range of this species is from coastal California to the Sierra-Cascade Crest, extending into western and southern Nevada, and into Baja California, Mexico. Habitat for this species includes grassland and scrub, but it is not specific because food plants used by Crotch's bumble bee are widely distributed in different habitats. Like most other species of bumble bees, Crotch's bumble bees typically nest in underground cavities such as animal burrows, though nests have also been reported in aboveground structures that provide suitable cavities. The flight period for Crotch's bumble bee queens in California is from late February to late October, and the period for workers and males in California is from late March through September. Little is known about overwintering sites for queens, but other bumble bee species are known to overwinter in soft soil or under leaf litter and debris.

No focused surveys were conducted for bumble bees, however one Crotch's bumble bee worker was observed during reconnaissance surveys on June 14, 2024. The bumble bee was within the Caltrans right-of-way on the eastbound side of the highway just to the west of Wineman Road. The bee was foraging on white sage mixed with several other foraging bumble bees within a larger patch of white sage.

There are patches of white and purple sage within and adjacent to the biological study area sporadically throughout the project limits, along with other plants that provide suitable foraging habitat for bumble bees such as narrow-leaf milkweed, black sage, and California poppy. Non-native grassland and scrub provide potentially suitable habitat, and rodent and mammal burrows provide nesting habitat. While suitable foraging habitat is present within the right-of-way, larger patches of higher quality habitat occur farther beyond the right-of-way within the grassland and coastal scrub communities.

Southwestern Pond Turtle

The southwestern pond turtle is a federally proposed threatened species by U.S. Fish and Wildlife Service and a species of special concern by California Department of Fish and Wildlife. It is a medium-sized (up to 8.5 inches) olive, brown, or blackish turtle with a relatively low shell occasionally without pattern but usually with a network of spots, lines, or dashes of brown or black often radiating from the growth centers of the shell shields.

Pond turtle species range includes most Pacific slope drainages between the Oregon and Mexican borders. However, the former species has been split into two species. Southwestern pond turtles are restricted to the central coast of California between San Francisco Bay, the Mojave River, and Baja California. Pond turtles live where water persists year-round in ponds along foothill streams or in broad washes near the coast. The ponds favored by turtles typically support emergent and floating vegetation such as cattails and algal mats. They also bask on half-submerged logs, rocks, or flat shorelines close to the edge of water. The southwestern pond turtle is

mostly aquatic, leaving its aquatic site to reproduce, estivate, and overwinter. It may overwinter on land or in water but may remain active in water during the winter season. In warmer areas along the central and southern California coast, pond turtles may be active all year.

Breeding for pond turtles occurs typically in late April to July. Upland nesting sites are required near the aquatic site, and are typically located in open, clay or silt slopes to ensure proper incubation temperature. Nesting typically occurs in sunny areas within approximately 15 to 330 feet of water (occasionally up to 1.25 miles). The eggs either hatch in late fall or remain dormant through the winter and hatch in early spring.

No focused surveys for southwestern pond turtles were conducted, and none were observed during reconnaissance surveys. The biological study area contains potentially suitable breeding and upland habitat. Potential breeding and upland habitat are similar to that described for California red-legged frog above, however the culvert locations are farther from permanent water sources such as Twitchell Reservoir than pond turtles typically disperse for egg laying. It is unlikely southwestern pond turtles utilize the oak woodland habitat around the culverts as upland habitat.

There is one California Natural Diversity Database occurrence of a southwestern pond turtle within 5 miles of the biological study area. This record is from 1987 approximately 2 miles east of the project end along Alamo Creek, just upstream of Twitchell Reservoir.

Western Spadefoot

The western spadefoot is considered a species of special concern by California Department of Fish and Wildlife and is Proposed Threatened under federal listing. It is a small, 1.5- to 2.5-inch toad that is dusky green on top with orange or reddish skin tubercles. The eyes are usually pale gold and have been described as “cat-like” with vertical pupils. There is a wedge-shaped, keratinous, and glossy black spade on each hind foot. During the dry season, western spadefoot toads are inactive, retreating to self-made burrows or burrows made by other animals such as ground squirrels, kangaroo rats, and other small mammals. Dispersal distances are unknown, but it is presumed that upland movements are not very far. Western spadefoot toads breed January through May in pools that form in heavy rain, or in slow streams, reservoirs, or irrigation ditches. As with the California red-legged frog, western spadefoot toad breeding pools usually lack crawfish, fishes, and bullfrogs because these invasive predators reduce larvae.

No focused surveys were conducted for western spadefoot and none were observed during reconnaissance surveys. The potential aquatic and upland habitat for western spadefoot is similar to that described for southwestern pond turtle.

There are four California Natural Diversity Database occurrences within five miles of the biological study area, three of which are south of the Santa Maria River, or within

or to the west of the City of Santa Maria between 1923-1995. The fourth occurrence is three miles west of the biological study area just south of Nipomo from 1995.

Pallid Bat and Other Roosting Bats

Roosting bat species are addressed as a group because they have similar habitat requirements, project-related impacts, and avoidance and minimization measures. Bats utilize space for different roosting purposes such as thermal regulation, protection from predators, and rearing young. Bats typically use day roosting sites for caring for young and sleeping while night roosting sites are typically used for resting and digesting food. Maternity roosting varies seasonally and is typically associated with bat colonies.

The pallid bat is considered a species of special concern by California Department of Fish and Wildlife. Pallid bats range over much of the western United States, from central Mexico to British Colombia. They are found throughout California, especially in lowland areas below 6,400 feet. Pallid bats are apparently not migratory, but make local, seasonal movements. This nocturnal species resides in colonies consisting of a dozen to over 100 individuals. Pallid bats roost in deep crevices, caves, mines, rock faces, bridges, and buildings. Like many bat species, pallid bats maintain both day and night roosts. Night roosts are used for feeding and are typically 0.25 miles from the day roosts, which are used for sleeping. Their primary food source is ground dwelling insect species including crickets, grasshoppers, beetles, and centipedes. They maintain nursery colonies with 30 to over 100 individuals. Females have one to two pups for each pregnancy, usually born between mid to late June.

No pallid bats were observed during surveys. There is minimal opportunity for pallid bats to roost within the biological study area due to the lack of cliffs, crevices, caves, abandoned buildings, and bird boxes. However, the trees within the oak woodland, riparian woodland, scrub, ornamental trees, and rural-residential areas as well as Suey Creek bridge may provide marginally suitable roosting habitat. The culverts at post mile 14.24 and post mile 14.65 are too small to house roosting bats.

There is one California Natural Diversity Database record of a day roost that occurred eight miles south of the biological study area from 1993 in the expansion joints of a bridge over the Sisquoc River.

Burrowing Owl, American Badger, and San Joaquin Kit Fox

Burrowing owl, American badger, and San Joaquin kit fox are addressed here as a group because they have similar habitat requirements, potential project-related impacts, and avoidance and minimization measures.

Burrowing owls are a candidate for listing on the California Endangered Species Act and one of the most diurnal of all California’s owls. This species breeds from Baja California up to Canada’s southern prairies. The Imperial Valley near the Salton Sea is home to 70 percent of the California’s breeding burrowing owl population, with about 4,000 pairs. The species primarily utilizes grasslands, but it can persist in some highly altered environments such as agricultural areas where the birds nest

along roadsides or water conveyance structures, surrounded by crops. Most declines in burrowing owl populations have been along the central and southern coast of California. It is considered extirpated as a breeding species from San Luis Obispo down to San Diego County.

American Badger

American badger is listed as a species of special concern by California Department of Fish and Wildlife. It is a stocky low-slung member of the weasel family with distinctive white and black head markings, short powerful legs, and long claws adapted for digging. Suitable habitat for badgers consists of herbaceous, shrub, and other open habitats with dry, friable soils. Badgers dig burrows in friable soil for cover and frequently reuse old burrows. Dens are typically greater than six inches in diameter and horizontally oval-shaped, frequently with claw marks along the sides of the den opening.

Badgers are active year-round, nocturnally and diurnally, with variable periods of torpor over the winter months during colder temperatures. They mate in summer and early fall and two to three young are born in March and April. Badgers are carnivorous and eat fossorial rodents, preying on rats, mice, chipmunks, and especially ground squirrels and pocket gophers. Badger diets shift seasonally and yearly in response to availability of prey.

San Joaquin Kit Fox

San Joaquin kit fox are a small canid endemic to California that is federally listed as endangered and state listed as threatened. Historically, their range stretched between Contra Costa County in the north down through the Central Valley to eastern Santa Barbara County and southern Kern County. Its range has been reduced by half, mostly in the southern and western San Joaquin Valley and foothills. The largest extant populations exist in western Kern County on and around the Elk Hills and Buena Vista Valley and in the Carrizo Plain National Monument in San Luis Obispo County. An urban population of San Joaquin kit fox also inhabit the city of Bakersfield; however, this population has had a severe decline in recent years as a result of sarcoptic mange which can be fatal to the foxes if left untreated.

San Joaquin kit fox are a primarily nocturnal species that utilizes burrows year-round for pupping, shelter, and protection from larger predators. As a result, they prefer habitat with soil types conducive to burrowing and burrow modifications. The kit fox subspecies typically inhabit areas of low vegetation including grasslands and chenopod scrub communities. Their diet mainly consists of small mammals such as kangaroo rats, but they are also opportunistic and will consume large quantities of insects when locally abundant.

No burrowing owls, American badgers, or San Joaquin kit foxes were observed within the biological study area during surveys. The biological study area contains potentially suitable grassland habitat and sandy soils, however burrows that are large enough for any of these species were not observed.

There is one unprocessed California Natural Diversity Database record of a burrowing owl from 2019 approximately 0.5 miles north of the biological study area adjacent to Wineman Road. The burrowing owl was observed flushing 50 feet from a drainage.

There is one California Natural Diversity Database record of a roadkilled American badger approximately two miles east of the biological study area along State Route 166 from 1989.

There are no California Natural Diversity Database occurrences of San Joaquin kit fox within the Nipomo, Santa Maria, Huasna Peak, or Twitchell Dam USGS 7.5-minute quadrangles.

Western Monarch

The monarch butterfly overwintering population is a candidate to be listed under Federal Endangered Species Act. The western population can be found overwintering along the California coast. Adult females lay eggs singly on milkweed species, which the caterpillars rely upon for energy and protective toxins. Once an egg is laid, the full cycle to adulthood may last 20 to 35 days depending on temperature. During the spring and summer, an adult monarch spends its 2-5 week lifespan mating and nectaring on flowers, with females searching for milkweed upon which to lay their eggs. Multiple generations are produced during this time, with the final fall generation migrating to overwintering sites and living for 6-9 months.

The western population arrive at overwintering sites in September, forming fall aggregations (clusters) in protected, forested groves of eucalyptus, pine, oaks, and cypress along the Pacific Coast from Mendocino County south to Baja California, Mexico. The butterflies cluster in dense groups on the branches, leaves, and occasionally, the trunks of trees. Distribution of overwintering can be dynamic, changing both seasonally and annually. Recently the western population has experienced dramatic swings, for a low of less than 2,000 in 2020-21 to over 200,000 in 2021-22.

Focused surveys for western monarchs were not conducted, however one monarch was observed flying through the biological study area during reconnaissance surveys. Scattered individuals of narrow-leaf milkweed also occur throughout the biological study area. The project location occurs near the edge of the overwintering range.

One overwintering site (number 2676) occurs approximately one mile southwest of the biological study area in Santa Maria at Preisker Park. This site had 450 overwintering monarchs in 2000, however only zero to two monarchs as recently as 2022. Lone eucalyptus trees occur in the biological study area but do not occur as groves suitable for overwintering monarchs.

California Legless Lizard and Coast Horned Lizard

Coast horned lizard and northern California legless lizard have been addressed as a group because they have similar habitat requirements, potential project-related impacts, and avoidance and minimization measures.

The coast horned lizard is a flat-bodied lizard with enlarged, pointed scales on the body and head. They occur in open, arid areas of sandy soil and low vegetation in valleys and foothills. They occur along sandy washes with scattered shrubs for cover. They have declined due to urbanization and agricultural operations.

The northern California legless lizard is a small slender lizard with no legs. They have eyelids, a shovel-shaped snout with smooth scales and a blunt tail. The dorsal coloration varies from metallic silver, beige, dark brown, to black and their ventral coloration varies from whitish to bright yellow. This species occurs in oak woodland, chaparral, riparian woodland, oak-pine forests, and desert scrub. It frequents areas that contain at least some loose fine soil or litter through which it burrows, including sand, loam, alluvium, leaf litter, or sand mixed with humus. Other requirements are adequate soil moisture, warmth, and surface cover such as rocks, logs, bushes, or mat-like herbaceous growth. Much time is spent just beneath the surface, but individuals have been found at depths of about two feet. It feeds on a variety of ground-dwelling insects and their larvae. Feeding takes place on the surface or just below, usually in the leaf litter beneath bushes.

Northern California legless lizard and coast horned lizard were not observed during surveys. The coastal scrub, non-native grassland, and coast live oak woodland within the biological study area provide habitat for both of these species.

The nearest California Natural Diversity Database record for legless lizard occurs 2.4 miles east of the biological study area along Alamo Creek from 1985 found in oak woodland.

There are two California Natural Diversity Database records of coast horned lizard in the Santa Maria River within 2.5 miles of the biological study area. The nearest one is approximately 0.7 miles west of the biological study area on the other side of US Route 101 from 2008 in sandy soils.

Nesting Birds

Numerous bird species are protected by both the Migratory Bird Treaty Act and California Fish and Game Code Section 3503. Nesting bird species are expected to utilize a variety of habitats within and adjacent to the biological study area. Nesting birds have been addressed as a group because they have similar habitat requirements, potential project-related impacts, and avoidance and minimization measures.

No nesting birds were observed during surveys. The immediate roadside and regularly maintained areas are unlikely to be used by birds for nesting. Many bird species will avoid nesting in regularly disturbed areas when there is more protected

habitat nearby. Any special status bird is likely to avoid nesting in the area of potential impact. However, the ground, trees, and shrubs within the non-native grassland, coast live oak woodland, scrub, willow thickets, and landscaped areas, or bridges and culverts within the project limits, may provide nesting habitat for various other bird species protected under the federal Migratory Bird Treaty Act and California Fish and Game Code Section 3503.

Invasive Plant Species

A total of 42 invasive plant species, as identified by the California Invasive Plant Council, were observed within the biological study area.

Ground disturbance and other aspects of construction (e.g., erosion control, landscaping) could potentially spread or introduce invasive species within the biological study area. The distribution of most invasive plant species is sparsely scattered throughout the biological study area and most common in ruderal/disturbed areas along the edges of State Route 166.

Wildlife Connectivity

The biological study area does not fall within a California Essential Habitat Connectivity area or an Essential Connectivity Area. Additionally, the majority of the biological study area and surrounding area is mapped as Connectivity Rank 1–*Limited Connectivity Opportunity* in the Terrestrial Connectivity Areas of Conservation Emphasis, however the area between post mile 14.5 and post mile 15.6 is mapped as Rank 2–*Large Natural Habitat Areas*, and the area between post mile 15.6 and post mile 16.0 is mapped as Rank 3–*Connections with Implementation Flexibility*. The project extent of State Route 166 was reviewed for wildlife-vehicle collision hot spots (WVC), which are based on a combination of California Highway Patrol crash records involving collision with animals and the California Roadkill Observation System of large roadkill incidents. The highest ranking WVC hotspot in the biological study area occurs from post mile 13.0 (Suey Creek) to post mile 14.9 with an average of less than or equal to two incidents per mile per year.

Suey Creek and its surrounding riparian habitat likely serves as a migration and travel corridor to the Santa Maria River for fish, amphibians, reptiles, birds, and mammals. Additional riparian drainages within the biological study area present opportunities for fish and wildlife migration and travel through the landscape. A California Department of Fish and Wildlife Movement Barrier occurs within the project limits from post mile 13.5 to well beyond the project limits. The target species for this barrier include black bear, blunt-nosed leopard lizard, foothill yellow-legged frog, giant kangaroo rat, mountain lion, deer, San Joaquin kit fox, and western spadefoot. The two culvert replacements proposed in the project and occurring within the barrier limits will be upsized to 36-inch diameters, aiding wildlife movement for the small to medium sized animals.

Environmental Consequences

The proposed project has the potential to affect a range of biological resources within the biological study area, including natural communities, wetlands and riparian areas, special-status plant and animal species, invasive plant species, and wildlife connectivity. The following section evaluates the potential direct, indirect, and cumulative impacts of project activities on these resources, considering both temporary and permanent effects. Where appropriate, avoidance, minimization, and mitigation measures are identified to ensure that impacts are reduced to the greatest extent practicable and that regulatory requirements are met.

Habitats and Natural Communities of Special Concern

Habitats are considered to be of special concern based on federal, state, or local laws regulating their development; limited distributions; and/or the habitat requirements of special-status plants or animals occurring on site.

Impacts have been quantified based on estimated ground disturbance, disturbed vegetation, et cetera. These impact areas are represented as the area of potential impact, which was overlain with habitat mapping to quantify project impacts.

Permanent impacts will result from the installation of the concrete barrier below the U.S. Route 101/State Route 166 separation bridges, as well as the installation of new rock slope protection and headwalls at the inlets and outlets of the culverts at post mile 14.24 and post mile 14.65. Additionally, permanent impacts may result from vegetation control at the replaced guardrails where vegetation control does not currently exist.

Sources of temporary impacts would be primarily from the use of construction equipment and associated worker foot-traffic. Trucks, bulldozers, backhoes, compactors, asphalt concrete rollers, clamshells, excavators, compressors, man lifts, scrapers, pavers, water trucks, sweepers, and any other equipment necessary in the course of construction would be used. Equipment would be temporarily staged along disturbed areas of State Route 166.

Temporary impacts will result from the proposed culvert replacement at post mile 14.24 which will remove up to ten coast live oak trees. Temporary impacts will also result from the proposed culvert replacement at post mile 14.65 which will include the removal of up to five additional coast live oak trees. A total of 15 coast live oak trees may be removed due to project activities.

Coastal Scrub: Temporary impacts to coastal scrub habitat may occur because of construction equipment usage, staging locations, access areas, and worker foot traffic. A total of approximately 307 square feet (0.01 acre) would be temporarily impacted as part of this project. Approximately 274,204 square feet (6.29 acres) of coastal scrub habitat is anticipated to be permanently impacted.

Oak Woodland: Temporary impacts to oak woodland habitat may occur because of construction equipment usage, staging locations, access areas, and worker foot

traffic. A total of approximately 555 square feet (0.01 acre) would be temporarily impacted as part of this project. Approximately 135,254 square feet (3.11 acres) of oak woodland habitat is anticipated to be permanently impacted.

Poison Oak Scrub: Temporary impacts to poison oak scrub habitat may occur because of construction equipment usage, staging locations, access areas, and worker foot traffic. A total of approximately 220 square feet (0.01 acre) would be temporarily impacted as part of this project. Approximately 21,103 square feet (0.48 acre) of poison oak scrub habitat is anticipated to be permanently impacted.

Willow Scrub: No temporary impacts to willow scrub habitat are anticipated. Approximately 2,424 square feet (0.06 acre) of willow scrub habitat is anticipated to be permanently impacted.

Non-native Annual Grassland: No temporary impacts to non-native annual grassland habitat are anticipated. Approximately 165,499 square feet (3.80 acres) of non-native annual grassland habitat is anticipated to be permanently impacted.

Rocky Outcropping: No temporary impacts to rocky outcropping habitat are anticipated. Approximately 4,580 square feet (0.11 acre) of non-native annual grassland habitat is anticipated to be permanently impacted.

Ruderal/Disturbed: Temporary impacts to ruderal/disturbed areas may occur because of construction equipment usage, staging locations, access areas, and worker foot traffic. A total of approximately 1,999 square feet (0.05 acre) would be temporarily impacted as part of this project. Approximately 627,627 square feet (14.41 acres) of ruderal/disturbed areas is anticipated to be permanently impacted.

Landscaped: No temporary impacts to landscaped areas are anticipated. Approximately 6,590 square feet (0.15 acre) of landscaped areas is anticipated to be permanently impacted.

The area of anticipated permanent and temporary project-related impacts to natural communities and habitats of concern is depicted in Table 6 of the project's Natural Environment Study.

Wetlands, Waters and Other Riparian Areas

Estimated impacts to jurisdictional streams, streambank, and riparian habitat were determined by overlaying the project area of potential impact with the preliminary jurisdictional determination for the project biological study area location.

The impacts to jurisdictional waters would be of limited scale, consisting of temporary stream diversions, if necessary, removal of forbs and brush, replacement of existing culverts with new facilities, and installation of rock slope protection to prevent erosion. Permanent impacts to jurisdictional features will occur from the installation of new rock slope protection and a new headwall at the culvert. Temporary impacts to jurisdictional features will occur from temporary access,

potential staging, and jacking and receiving pits. A total of approximately 0.008 acre of Regional Water Quality Control Board and California Department of Fish and Wildlife jurisdictional riparian habitat will be permanently impacted. A total of 0.155 acre of Regional Water Quality Control Board and California Department of Fish and Wildlife jurisdictional riparian habitat will be temporarily impacted. A total of 0.003 acre of U.S. Army Corps of Engineers and Regional Water Quality Control Board jurisdictional other water and California Department of Fish and Wildlife streambed will be permanently impacted. A total of 0.01 acre of U.S. Army Corps of Engineers/Regional Water Quality Control Board jurisdictional other water and California Department of Fish and Wildlife streambed will be temporarily impacted.

An estimated total of approximately five coast live oak trees with a Diameter at Breast Height of four inches or greater may need to be removed from the riparian area for temporary access.

The proposed project will impact U.S. Army Corps of Engineers jurisdictional waters, Regional Water Quality Control Board waters of the state, California Department of Fish and Wildlife stream and riparian jurisdictional areas within the area of potential impact. Avoidance and minimization measures will be implemented to reduce the potential impacts to these jurisdictional areas resulting from the project.

The goal of compensatory mitigation is to prevent a net loss of wetlands, waters, or other aquatic resource acreage, function, and value. Several types of compensatory mitigation are available to offset impacts on Waters of the United States, including creation, restoration, enhancement, and preservation. Compensatory mitigation can either be on-site or off-site, although on-site mitigation is typically preferred.

Restoration (re-establishment) is proposed at a one-to-one ratio (acreage) for temporary impacts. Compensatory mitigation is proposed at a three-to-one ratio (acreage) for permanent impacts. Native trees removed will be replaced and mitigated based on size. Exact mitigation ratio for trees will be determined during permitting. Replacement plantings will include appropriate native trees and understory species. In order to ensure success, a three-year plant establishment period will be implemented.

Project activities will result in both temporary and permanent impacts to habitats and jurisdictional features. The table below summarizes these impacts:

Table 2: Impacts to Natural Communities and Jurisdictional Waters

Habitat/Jurisdictional Feature	Permanent Impact (acres)	Permanent Impact (square feet)	Temporary Impact (acres)	Temporary Impact (square feet)
Streambed (U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife)	0.003 acre	110 square feet	0.01 acre	337 square feet
Riparian (California Department of Fish and Wildlife, Regional Water Quality Control Board)	0.008 acre	367 square feet	0.155 acre	6,756 square feet
Coastal Scrub	0.01 acre	307 square feet	6.29 acres	274,204 square feet
Oak Woodland	0.01 acre	555 square feet	3.11 acres	135,254 square feet
Poison Oak Scrub	0.01 acre	220 square feet	0.48 acre	21,103 square feet
Willow Scrub	None	None	0.06 acre	2,424 square feet
Non-native Annual Grassland	None	None	3.80 acres	165,499 square feet
Rocky Outcrop	None	None	0.11 acre	4,480 square feet
Ruderal/Disturbed	0.05 acre	1,999 square feet	14.41 acres	627,627 square feet
Landscaped	None	None	0.15 acre	6,590 square feet

Special-Status Plant Species

The proposed project is not anticipated to impact any special-status plant species. Although the biological study area supports suitable habitat for several special-status plant species, none were observed during appropriately timed floristic surveys and none are expected to occur within the biological study area. The Federal Endangered Species Act Section 7 effects determination is that the proposed project will have no effect on California jewelflower, La Graciosa thistle, Gambel's watercress, and spreading navarretia. The California Endangered Species Act determination is the proposed project will have no take on California jewelflower, La Graciosa thistle, and Gambel's watercress. No avoidance and minimization

measures are required. No compensatory mitigation for special-status plant species is required and none is proposed.

Special-Status Animal Species

With the implementation of avoidance and minimization measures, the proposed project is anticipated to have minimal impacts on special-status animal species within the project limits. This determination is described on a species-by-species basis below.

California Red-Legged Frog

The potential breeding habitat at post mile 0.85 on U.S. Route 101 will be fully avoided by project activities, and therefore no impacts to potential breeding habitat are expected. Project activities in the vicinity of this culvert and potential breeding habitat are limited to the pavement and existing road shoulder. Upgrades will be made to improve access for bicyclists in the form of Class II buffered bike lanes, conflict markings, and rumble strips at the U.S. Route 101 and State Route 166 junction. Additionally, existing metal beam guardrail will be upgraded to a Midwest Guardrail System per Manual for Assessing Safety Hardware standards. Around the location of potential breeding habitat at post mile 0.85, there will be no anticipated impacts to potential California red-legged frog breeding or upland/dispersal habitat.

Although potentially suitable upland habitat occurs throughout the rest of the biological study area which is in a more rural setting, project activities will primarily occur directly alongside the highway within the regularly disturbed and compacted shoulders. The quality of the habitat in this area is very poor and California red-legged frog are unlikely to occur directly adjacent to the highway. No impacts to California red-legged frog individuals or California red-legged frog suitable habitat are anticipated as a result of the project activities associated with pavement rehabilitation.

The culvert replacement work at post mile 14.24 and post mile 14.65 may impact California red-legged frog upland/dispersal habitat. Temporary impacts will be caused by vegetation clearing for temporary construction access, equipment staging, temporary excavation, and replacement of existing features. Permanent impacts will be caused by placing rock slope protection where it doesn’t currently exist and installing new headwalls at the culverts.

Minimal direct and indirect impacts to California red-legged frog may occur as a result of this project. Project construction could result in the injury or mortality of California red-legged frogs, if present. The potential need to capture and relocate California red-legged frogs could subject these animals to stresses that could result in adverse effects. Injury or mortality could occur via accidental crushing by worker foot-traffic or construction equipment. The potential for impacts to California red-legged frog are anticipated to be low due to no observations of the species within the biological study area during recent reconnaissance surveys, but this could change through time, where the species could potentially disperse and/or expand populations throughout the biological study area.

The Federal Endangered Species Act Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect California red-legged frog. The basis for this determination is that California red-legged frog presence has been inferred and there would be a low but possible potential for take of the species due to project activities.

Caltrans anticipates the proposed project will qualify for Federal Endangered Species Act incidental take coverage under the Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program. Avoidance and minimization measures are required.

All temporary impacts to native vegetation would be offset by replacement plantings within the project limits. The mitigation proposed for jurisdictional aquatic resources described will also mitigate impacts to California red-legged frog habitat. Additionally, each of the culverts will be upsized to 36 inches making it easier for amphibians and other wildlife to utilize to cross under the highway and therefore improving connectivity opportunities. No additional compensatory mitigation is required and none is proposed.

Crotch's Bumble Bee

Although suitable foraging habitat occurs within the biological study area, project activities will primarily occur on the pavement or directly alongside the highway within the regularly disturbed and compacted shoulders. Foraging bumble bees can travel various distances from nests, anywhere between 0.01-1.24 miles with 0.20-0.38 miles being commonly observed. The quality of the habitat in this area is poor for nesting and bumble bees are unlikely to nest directly adjacent to the highway, and therefore it is unlikely that the bumble bee observed foraging in the area of potential impact was also nesting within the area of potential impact. Impacts to Crotch's bumble bee are not anticipated because work will be contained to a narrow strip along the existing roadway within highly disturbed areas along the shoulders. Additionally, the location of headwalls and rock slope protection at culverts is in areas not suitable for the species to nest or forage.

While Crotch's bumble bee is not anticipated to be nesting directly in the project area, additional focused surveys will be conducted prior to construction of the project to identify potential nests within the right of way.

The California Endangered Species Act effects determination is that there will be no take of Crotch's bumble bee as a result of the project.

Avoidance and minimization measures will be implemented to avoid impacts to Crotch's bumble bee. No impacts to Crotch's bumble bee are anticipated therefore no compensatory mitigation is required. However, if a Crotch's bumble bee nest is identified within the project area, California Department of Fish and Wildlife will be consulted, and an Incidental Take Permit will be acquired if project activities cannot avoid impacts to the nest. During the permitting process, compensatory mitigation

would be proposed by Caltrans and required by California Department of Fish and Wildlife for impacts to the species.

Southwestern Pond Turtle

The potential breeding habitat at post mile 0.85 on U.S. Route 101 will be fully avoided by project activities, and therefore no impacts to potential breeding habitat are expected. The potential breeding habitat at post mile 0.85 on U.S. Route 101 will be fully avoided by project activities, and therefore no impacts to potential breeding habitat are expected. Project activities in the vicinity of this culvert and potential breeding habitat are limited to the pavement and existing road shoulder. Upgrades will be made to improve access for bicyclists in the form of Class II buffered bike lanes, conflict markings, and rumble strips at the U.S. Route 101 and State Route 166 junction. Additionally, existing metal beam guardrail will be upgraded to a Midwest Guardrail System per Manual for Assessing Safety Hardware standards. Around the location of potential breeding habitat at post mile 0.85, there will be no anticipated impacts to potential pond turtle breeding or upland/dispersal habitat. Although potentially suitable upland habitat occurs throughout the rest of the biological study area which is in a more rural setting, project activities will primarily occur directly alongside the highway within the regularly disturbed and compacted shoulders. The quality of the habitat in this area is very poor and pond turtles are highly unlikely to occur directly adjacent to the highway. No impacts to southwestern pond turtle individuals or their suitable upland habitat are anticipated as a result of the project activities associated with pavement rehabilitation.

The culvert replacement work at post mile 14.24 and post mile 14.65 is unlikely to impact southwestern pond turtles as they are at least one mile or more from a permanent water source (Twitchell Reservoir) with topographical challenges. The oak woodland at the outlet of the culvert at post mile 14.65 is unlikely to be suitable upland habitat for pond turtles given there is higher quality habitat surrounding Twitchell Reservoir that is less disturbed. No impacts to southwestern pond turtle individuals or their upland habitat are anticipated as a result of project activities associated with culvert replacement.

The project is not likely to jeopardize the continued existence of the proposed listed southwestern pond turtle. If the species is listed prior to or during construction, the Federal Endangered Species Act determination is that the project will have no effect on the species.

Implementation of the measures outline for California red-legged frog will avoid and minimize impacts to southwestern pond turtle. Additionally, Best Management Practices implemented to avoid impacts on water quality will avoid impacts on potential aquatic habitat for the southwestern pond turtle. Avoidance and minimization measures will be implemented for southwestern pond turtle. With avoidance and minimization measures implemented, no impacts to southwestern pond turtle are anticipated and no compensatory mitigation is required.

Western Spadefoot

Potential impacts to suitable breeding habitat for this species are similar to the impacts described for southwestern pond turtle. Potential spadefoot breeding habitat will not be impacted by the project.

Potential impacts to suitable upland habitat for western spadefoot are similar to the impacts to upland habitat described for southwestern pond turtle. The chances of a spadefoot burrowing within the project area are low due to poor habitat conditions immediately adjacent to the highway where most of the work will take place due to repeated maintenance disturbance. Additionally, the culvert replacement work at post mile 14.24 and post mile 14.65 is unlikely to impact western spadefoot given the distance from seasonal ponds and permanent water sources.

The project is not likely to jeopardize the continued existence of the proposed listed western spadefoot. If the species is listed prior to or during construction, the Federal Endangered Species Act determination is that the project will have no effect on the species.

Avoidance and minimization measures for California red-legged frog and southwestern pond turtle have been assessed to also minimize impacts to western spadefoot. A qualified biologist will conduct a pre-construction survey for western spadefoot and if any are found within the area of potential impact, work will not begin within a 100-foot buffer of the discovery until the relevant regulatory agencies are notified. No work will occur within the established buffer unless approved by the relevant regulatory agencies. With the avoidance and minimization measures implemented, no impacts to western spadefoot are anticipated and no compensatory mitigation is required.

Pallid Bat and Other Roosting Bats

Although no bat roosts or bat roost signs were observed during surveys, there is marginal potential that bats could establish new roosts or in trees, culverts, or the Suey Creek bridge within the biological study area. There is potential that the oak trees proposed for removal could support roosting bats. However, the likelihood is low due to the lack of structural features known for roosting pallid bats and the lack of known occurrences in the area.

If bats were to be present during construction, indirect impacts could result from noise and disturbance associated with construction, which could alter roosting behaviors. Much like with bird species, the removal of trees and other vegetation could directly impact roosting bats, if present. Direct impacts could occur to bats if they are roosting in trees scoped for removal or in culverts during project activities. Direct effects could result in injury or mortality of bats and harassment could alter roosting behaviors. The implementation of pre-activity surveys, deterrent methods, and exclusion zones (if necessary) will reduce the potential for adverse effects to roosting bat species.

Avoidance and minimization measures will be implemented to minimize and avoid impacts to roosting bats. With the avoidance and minimization efforts specific to roosting bats as well as mitigation described for jurisdictional aquatic features, no additional compensatory mitigation is proposed for roosting bats.

Burrowing Owl, American Badger, and San Joaquin Kit Fox

The project is not anticipated to require large amounts of ground disturbance in areas off the pavement and road shoulder that could be potential habitat for these species, and surveys of the culvert locations where the off-pavement work will occur did not reveal any potential burrows for these species. Indirect impacts could result from noise and disturbance associated with construction, which could alter foraging, and/or nesting behaviors. Noise, light, and other disturbances associated with construction could affect foraging and dispersal behaviors, if these species are present during project construction. With the implementation of avoidance and minimization measures, impacts to burrowing owl, American badger, and San Joaquin kit fox are not anticipated.

The California Endangered Species Act determination is that there will be no take of burrowing owl or San Joaquin kit fox. The Federal Endangered Species Act Section 7 effects determination is that the project will have no effect on San Joaquin kit fox.

Measures will be implemented to minimize and avoid impacts to burrowing owl, American badger, and San Joaquin kit fox. No impacts to burrowing owl, American badger, or San Joaquin kit fox are expected. Therefore, no compensatory mitigation is required and none is proposed.

Western Monarch

The project is not anticipated to impact western monarch because work will primarily be limited to the existing roadway and within highly disturbed areas along the shoulders. Additionally, no milkweed was observed at the culvert replacement locations, where most of the off-pavement activities will occur. It is unlikely that monarchs are reproducing on milkweed plants directly adjacent to the highway; however, milkweed within the project area will be avoided or surveyed prior to removal of any plants. The project will not impact any groves of eucalyptus trees and therefore, will not impact western monarch overwintering habitat.

The project is not likely to jeopardize the continued existence of the candidate listed western monarch. If the species is listed prior to or during construction, the Federal Endangered Species Act determination is that the project will have no effect on the species.

Measures will be implemented to minimize and avoid impacts to western monarch. With the implementation of the proposed avoidance and minimization measures, no impacts to western monarchs are anticipated. No compensatory mitigation is required.

California Legless Lizard and Coast Horned Lizard

The proposed project has the potential to impact coast horned lizard and legless lizard if found burrowing or breeding in the area of potential impact. However, the chances are low due to poor habitat conditions from repeated maintenance disturbance immediately adjacent to the highway where most of the work will take place.

Avoidance and minimization measures apply to California legless lizard and coast horned lizard. With the small scale of permanent impacts to potentially suitable habitat for coast horned lizard and northern legless lizard and with the implementation of avoidance and minimization efforts listed above, no impacts to these species are anticipated and no compensatory mitigation nis required.

Nesting Birds

Vegetation removal and site grading could impact active bird nests and any eggs or young residing in nests. Indirect impacts could also result from noise and disturbance associated with construction, which could alter foraging or nesting behaviors. While temporary loss of vegetation supporting potential nesting habitat could occur, this would be offset by revegetation efforts for the project. The implementation of avoidance and minimization measures will reduce the potential for negative impacts to nesting bird species.

Avoidance and minimization measures will be implemented to minimize impacts to nesting migratory birds. Impacts to vegetation would be offset by replacement plantings within the project limits, which will also replace nesting habitat. No additional compensatory mitigation is necessary or proposed.

Invasive Plant Species

Ground disturbance and other aspects of construction (e.g., erosion control, landscaping) could potentially spread or introduce invasive species within the biological study area. The distribution of most invasive plant species is sparsely scattered throughout the biological study area and most common in ruderal/disturbed areas along the edges of State Route 166. Avoidance and minimization measures will be implemented. No compensatory mitigation for invasive plant species is proposed.

Wildlife Connectivity

The project activities will not create additional barriers and are not expected to impact wildlife connectivity. Additionally, the project will not add a traffic lane and because it will also not significantly impair wildlife connectivity, it is not subject to California Assembly Bill 2344.

Avoidance, Minimization, and/or Mitigation Measures

BIO-1: Prior to construction, Caltrans shall obtain a Section 404 Nationwide Permit from U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from Regional Water Quality Control Board, and a Section 1602 Streambed Alteration

Agreement from California Department of Fish and Wildlife. All permit terms and conditions will be incorporated into construction plans and implemented.

BIO-2: Prior to any ground-disturbing activities, environmentally sensitive area fencing, flagging, or another boundary marking system shall be installed around jurisdictional features, and the dripline of trees to be protected within the project limits. Caltrans-defined environmentally sensitive areas shall be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-3: Construction activities in jurisdictional areas and temporary stream diversion, if needed, shall be timed to occur during the dry season, typically between June 1 and October 31 in any given year, or as otherwise directed by the regulatory agencies, when the surface water is likely to be dry or at a seasonal minimum. Deviations from this work window will only be made with permission from the relevant regulatory agencies.

BIO-4: No work shall occur in areas of standing or flowing surface water. If dewatering or diversion operations are necessary, a detailed dewatering/diversion plan inclusive of water quality monitoring requirements will be prepared and implemented.

BIO-5: During construction, all project-related hazardous materials spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor on-site at all times during construction.

BIO-6: During construction, erosion control measures shall be implemented. Silt fencing, fiber rolls, barriers, and other Best Management Practices shall be installed as needed at the project site. Jurisdictional areas shall be stabilized for winter prior to November 1, either by completing construction in these areas, including installation of permanent erosion control measures, or by implementing winterization stabilization measures that ensure disturbed soils in jurisdictional areas are stabilized to withstand the 10-year, 24-hour storm event. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.

BIO-7: All equipment must be cleaned and free of weed propagules prior to entry into jurisdictional features.

BIO-8: Work will not occur in jurisdictional areas when rain is falling, or when the National Weather Service forecast predicts a 25 percent chance or greater of at least 0.1 inch of rain within a 24-hour period. Work can resume if rain does not occur, or after rain has stopped, the forecast predicts at least 72 hours of clear weather, and site conditions are dry enough to avoid discharges of sediment into jurisdictional areas.

BIO-9: Staging, parking, and refueling of equipment and vehicles must occur at least 100 feet from jurisdictional areas. If staging equipment and materials must occur

closer than 100 fee from jurisdictional areas, the staging areas must have adequate Best Management Practices to prevent discharges from leaving the staging area and entering jurisdictional areas. If fueling must occur in areas less than 100 feet from streams, a refueling plan outlining secondary containment and spill prevention measures must be prepared and approved by Caltrans and agency staff.

BIO-10: At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills. Drip pans must be placed under equipment that is stationary for more than 12 hours. Stationary equipment used in jurisdictional areas, such as generators, must be placed in secondary containment. Equipment must be removed from the channel if the National Weather Service predicts a chance of at least 0.1 inch of rain within a 24-hour period for Santa Maria, California.

BIO-11: During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.

BIO-12: Only clean fill will be imported. When practicable, invasive plants in the project site will be removed and properly disposed. All invasive vegetation removed from the construction site will be taken to a landfill to prevent the spread of invasive species. If soil from weedy areas must be removed off-site, the top six inches containing the seed layer must be disposed of at a landfill. Inclusion of any species that occurs on the California Invasive Plant Council Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project must be avoided.

BIO-13: To minimize the introduction of invasive plant species, all vehicles, machinery, and equipment must be in a clean and soil free condition before entering the project limits. Construction equipment must be inspected as “weed-free” by Caltrans before entering the construction site.

BIO-14: Plant species that contain the California Invasive Plant Council, California Department of Agriculture, California Department of Fish and Wildlife, or other resource organizations consider to be invasive or potentially invasive will not be used in erosion control seed mix or to revegetate areas of disturbance. Caltrans erosion control mix will only contain native species to the central coast of California.

BIO-15: Only U.S. Fish and Wildlife Service-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

BIO-16: Ground disturbance shall not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.

BIO-17: A U.S. Fish and Wildlife Service-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found, and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to

move them from the site before work begins. The U.S. Fish and Wildlife Service-approved biologist shall relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The relocation site shall be in the same drainage to the extent practicable. Caltrans shall coordinate with U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.

BIO-18: Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, with a qualified person on hand to answer any questions. The training will also include descriptions of other special-status species with the potential to occur in the project area.

BIO-19: A U.S. Fish and Wildlife Service-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of habitat has been completed. After this time, Caltrans shall designate a person to monitor on-site compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist shall ensure this monitor receives the training outlined in BIO-18 above and in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and U.S. Fish and Wildlife Service during review of the proposed action, they shall notify the resident engineer immediately. The resident engineer shall resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, U.S. Fish and Wildlife Service shall be notified as soon as possible.

BIO-20: During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and debris shall be removed from work areas.

BIO-21: All refueling, maintenance and staging equipment and vehicles shall occur at least 60 feet from riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat, unless otherwise preapproved by the necessary agencies. The monitor shall ensure contamination of habitat does not occur during operations. Prior to the onset of work, Caltrans shall ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO-22: Habitat contours shall be returned to a natural configuration at the end of the project activities. This measure shall be implemented in all areas disturbed by

activities associated with the project, unless U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible, or modification of original contours would benefit the California red-legged frog.

BIO-23: The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project. Environmentally sensitive areas shall be established to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

BIO-24: Caltrans shall attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.

BIO-25: To control sedimentation during and after project completion, Caltrans shall implement Best Management Practices outline in any authorizations or permissions issued under the authorities of the Clean Water Act received for the project. If Best Management Practices are ineffective, Caltrans shall attempt to remedy the situation immediately, in coordination with U.S. Fish and Wildlife Service.

BIO-26: If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed will be minimized to the maximum extent possible; any imported material will be removed from the stream bed upon completion of the project.

BIO-27: Unless approved by the U.S. Fish and Wildlife Service, water will not be impounded in a manner that may attract California red-legged frogs.

BIO-28: A U.S. Fish and Wildlife Service-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs, signal and red swamp crayfish, and centrarchid fishes from the project area to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist shall be responsible

for ensuring his or her activities are in compliance with the California Fish and Game Code.

BIO-29: If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

BIO-30: To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.

BIO-31: Project sites will be re-vegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

BIO-32: Caltrans will not use herbicides as the primary method used to control invasive, exotic plants. However, if Caltrans determines the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, it will implement the following additional protective measures for the California red-legged frog:

- Caltrans will not use herbicides during the breeding season for the California red-legged frog;
- Caltrans will conduct surveys for the California red-legged frog immediately prior to the start of any herbicide use. If found, California red-legged frogs will be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur;
- Gian reed and other invasive plants will be cut and hauled out by hand and then painted with glyphosate or glyphosate-based products, such as Aquamaster® or Rodeo®;
- Licensed and experienced Caltrans staff or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster ® or Rodeo® where large monoculture stands occur at an individual project site;
- All precautions will be taken to ensure that no herbicide is applied to native vegetation;
- Herbicides will not be applied on or near open water surfaces (no closer than 60 feet from open water);

- Foliar applications of herbicide will not occur when wind speeds are in excess of three miles per hour;
- No herbicides will be applied within 24 hours of forecasted rain.
- Application of all herbicides will be done by a qualified Caltrans staff or contractors to ensure that overspray is minimized, that all application is made in accordance with label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.
- All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Caltrans will ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO-33: A qualified biologist will conduct surveys prior to initial ground or vegetation disturbing activities in suitable habitat for Crotch's bumble bee to search for active nests.

BIO-34: If a Crotch's bumble bee nest is found within 50-feet of the work area, no work will begin until California Department of Fish and Wildlife is contacted. No work will occur within 50-feet of an active Crotch's bumble bee nest unless approved by California Department of Fish and Wildlife.

BIO-35: Any blooming flowering plants that are scoped for removal in suitable Crotch's bumble bee habitat would be inspected immediately prior to work to ensure that no bumble bees are on or near the plant. If a bumble bee is identified on or adjacent to vegetation that is to be removed, work in that area would not proceed until the bumble bee leaves the area of its own accord.

BIO-36: A worker environmental awareness training will be provided for all construction personnel prior to the start of any ground-disturbance or vegetation removal to discuss Crotch's bumble bee identification, ecology, habitat, and avoidance and minimization measures.

BIO-37: Prior to any ground-disturbing activities, environmentally sensitive area fencing shall be installed, as appropriate, around Crotch's bumble bee foraging and nesting habitat to be avoided. Environmentally sensitive areas shall be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-38: Caltrans will limit all project-related vehicle and pedestrian access to established roads and staging areas. Caltrans will locate staging areas within previously disturbed areas to the extent possible, clearly delineate them, and they will contain all project-related parking and storage needs. Caltrans will limit the number of access routes, size of staging areas, and the total area of activity to the maximum extent feasible to achieve the project.

BIO-39: Prior to the start of excavation or construction activities, a qualified biologist will conduct a pre-construction survey for southwestern pond turtle. If any are found within the area of potential impact, work will not begin within a 100-foot buffer of the discovery until the relevant regulatory agencies are notified. No work will occur within the established buffer unless approved by the relevant regulatory agencies. The qualified biologist will use the most current survey protocols available for the species to ensure highest level of species detection including visual encounter surveys and nesting survey techniques.

BIO-40: Before any activities begin, the approved biologist will conduct a worker environmental awareness training for all persons employed or otherwise working on the project site prior to performing any work on-site. The worker environmental awareness training will include a discussion of the biology of the southwestern pond turtle, its protected status, proximity to the project site, project-specific avoidance and minimization measures, and the implications of violating Federal Endangered Species Act and permit conditions. Upon completion of the program, employees will sign a form stating they attended the program and understand all protection measures.

BIO-41: Tree removal shall be scheduled to occur from September 2 to January 31, outside of the typical bat maternity roosting season if possible, to avoid potential impacts to roosting bats.

BIO-42: If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the bat maternity roosting season (February 1 to September 1), a bat roost survey shall be conducted by a biologist determined qualified by Caltrans within 14 days prior to construction. The biologist(s) conducting the pre-construction surveys will also identify the nature of the bat utilization (i.e., no roosting, night roost, day roost, maternity roost) and determine if passive bat exclusion will be necessary and feasible. If an active day roost is found, a qualified Caltrans biologist shall determine an appropriate buffer based on the habits and needs of the species. The buffer area shall be avoided until a qualified biologist has determined that roosting activity has ceased or exclusionary methods have successfully evicted roosting bats.

BIO-43: If bats are found by a qualified biologist to be maternally roosting, the roost(s) will be designated as an environmentally sensitive area and all construction activities shall be avoided within 100 feet until the end of the maternity roosting season (beginning of September) or until pups are capable of flight.

BIO-44: No less than 14 days and no more than 30 days prior to any project activities within suitable habitat for burrowing owl, American badger, or San Joaquin kit fox, a pre-construction survey shall be conducted. The biologist will survey for potential dens within the project area. The biologist will also survey for burrows with molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near the burrow entrance. The biologist will also listen for burrowing owl calls.

BIO-45: During pre-construction surveys, the status of all dens will be determined and mapped. Known dens, if found occurring within the footprint of the activity, shall be monitored for three days with tracking medium and/or cameras to determine the current use. If burrowing owl, American badger, or San Joaquin kit fox activity is observed during this period, the den shall be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity.

BIO-46: Active burrowing owl dens shall be marked with highly visible construction fencing at least 50 meters to 500 meters based on the time of year and level of activities. The area will be off limits to construction equipment and personnel. If an area cannot be avoided, agency consultation shall be initiated.

BIO-47: A worker environmental awareness training will be provided for all construction personnel prior to the start of any ground-disturbance or vegetation removal to discuss burrowing owl, American badger, and San Joaquin kit fox identification, protected status, ecology, habitat, and avoidance and minimization measures.

BIO-48: All construction pipes, culverts, or similar structures with a diameter of 3 inches or greater stored in the construction site overnight will be thoroughly inspected for burrowing owl, American badger, and San Joaquin kit fox prior to being buried, capped, or otherwise used or moved. If a burrowing owl, American badger, or San Joaquin kit fox is discovered inside a pipe, the pipe shall not be moved until the species moves during its normal activity and the appropriate agency will be contacted. If the burrowing owl, American badger, or San Joaquin kit fox is in direct harm's way, the pipe may be moved to a safe location one time under the direct supervision of a qualified biologist.

BIO-49: Maintenance and construction excavations greater than 2 feet in depth shall be covered (for example, with plywood, sturdy plastic, steel plates, or equivalent), filled at the end of each working day, or have earthen escape ramps no greater than 200 feet apart to prevent trapping sensitive species.

BIO-50: Prior to construction, vegetation removal in areas containing narrow leaf milkweed will be scheduled to occur from October 1 to May 31, outside of milkweed blooming period and monarch reproductive period. If any narrow leaf milkweed is proposed for removal during the blooming season (June 1 to September 30), a focused survey must be conducted by a qualified biologist no more than three days prior to construction.

BIO-51: If monarch eggs, larvae, or pupae are observed on narrow leaf milkweed or other milkweed species, Caltrans will coordinate with U.S. Fish and Wildlife Service to determine and appropriate buffer based on the habitats and needs of the species. The buffer area will be avoided until a qualified biologist has determined that all reproductive cycle activities have ceased. If a monarch is observed on or near milkweed but no reproductive behaviors, eggs, larvae, or pupa are observed, work will not continue until the adult monarch has left on its own accord.

BIO-52: A worker environmental awareness training will be provided for all construction personnel prior to the start of any ground-disturbance or vegetation removal to discuss western monarch identification, Federal Endangered Species Act status, ecology, habitat, and avoidance and minimization measures.

BIO-53: Prior to any ground-disturbing activities, environmentally sensitive area fencing will be installed, as appropriate, around milkweed habitat to be avoided. Environmentally sensitive areas will be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-54: If coast horned lizard or northern California legless lizard are detected in the project limits during pre-construction surveys or construction, individuals will be relocated by a qualified biologist to a nearby location outside of the construction area with suitable habitat.

BIO-55: Caltrans will schedule vegetation removal between October 1 to January 31, outside of the typical nesting bird season, as feasible. If construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 1 to September 30), a nesting bird survey will be conducted by a qualified biologist no more than three days prior to construction. Partially built nests may only be removed if they have been monitored by a qualified biologist and determined to be inactive. If an active nest is found, the qualified biologist will determine an appropriate buffer based on the habitats and needs of the species. The buffer area will be avoided until a qualified biologist has determined that juveniles have fledged and are no longer dependent on the nest.

BIO-56: Active bird nests must not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code must not be killed, destroyed, injured, or harassed at any time.

BIO-57: Restoration (re-establishment) is proposed at a one-to-one ratio (acreage) for temporary impacts to jurisdictional areas. Compensatory mitigation is proposed at a three-to-one ratio (acreage) for permanent impacts to jurisdictional areas. Native trees removed will be replaced and mitigated based on size. Exact mitigation ratio for trees will be determined during permitting. Replacement plantings will include appropriate native tree and understory species. In order to ensure success, a three-year plant establishment period will be implemented.

All measures will be incorporated into project plans and specifications. Pre-construction surveys and worker environmental awareness training must be completed prior to ground disturbance. Environmentally sensitive area fencing and buffers will be maintained throughout construction. Restoration and compensatory mitigation will be monitored for success in accordance with permit requirements.

With implementation of these measures, the project would have less than significant impacts to biological resources under California Environmental Quality Act.

2.1.5 Cultural Resources

Considering the information in the Cultural Resources Screened Undertaking Memo for the San Luis Obispo Route 166 Capital Preventive Maintenance project dated February 12, 2025, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	**No Impact**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**No Impact**
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**No Impact**

2.1.6 Energy

Implementation of the project would result in short-term use of fossil fuels, electricity, and natural gas by construction vehicles and equipment. This energy use would be temporary and minimized through standard Caltrans practices, including recycling materials and implementing greenhouse gas reduction strategies.

Because the project does not increase or alter traffic patterns, it would not result in increased operational energy consumption.

Caltrans incorporates energy efficiency, conservation, and climate change measures into transportation planning, project development, design, operations, and maintenance of transportation facilities, fleets, buildings, and equipment to reduce fuel use and reduce greenhouse gas emissions.

No direct or indirect effects related to wasteful, inefficient, or unnecessary energy consumption will occur. The project will not conflict with or obstruct any state or local plans for renewable energy or energy efficiency.

The project would not result in wasteful, inefficient, or unnecessary energy consumption and would not conflict with any state or local plans for renewable energy or energy efficiency.

Considering the information in the Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memo dated March 3, 2025, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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 Paleontological Identification Report dated December 4, 2025, the San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan dated October 2019, the Natural Resources Conservation Service Soil Maps, the U.S. Department of Agriculture Official Soil Descriptions, and the California Department of Conservation online resources, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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?	**Less Than Significant Impact**
iii) Seismic-related ground failure, including liquefaction?	**No Impact**

Question—Would the project:	California Environmental Quality Act Significance Determinations for Geology and Soils
iv) Landslides?	**No Impact**
b) Result in substantial soil erosion or the loss of topsoil?	**No Impact**
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	**Less Than Significant 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**

Affected Environment

The project corridor is located within the Coast Ranges Geomorphic Province of California, a region characterized by northwest-trending mountain ranges and valleys shaped by tectonic activity along the Pacific and North American plate boundary. The project alignment crosses the West Huasna Fault but is not located within an Alquist-Priolo Earthquake Fault Zone, as designated by the California Department of Conservation.

Geologic mapping and soil data from the Natural Resources Conservation Service and the U.S. Department of Agriculture indicate that the project area is underlain by sedimentary and volcanic formations including Holocene surficial deposits and the Obispo Formation. These units are generally considered to have low paleontological sensitivity due to their composition and depositional history. The upper few feet of soil within Caltrans right-of-way are assumed to consist of artificial fill and previously disturbed materials from past construction and maintenance activities.

The project area is not located within zones identified as susceptible to liquefaction, landslides, or expansive soils. According to the San Luis Obispo County Hazard Mitigation Plan, the corridor does not intersect mapped geologic hazard zones. The

terrain consists of gently sloping hills and alluvial plains, with no evidence of unstable geologic conditions that would pose a risk to the proposed improvements.

No unique geologic features or paleontological resources have been identified within the Area of Potential Impact. The Paleontological Identification Report confirms that earthwork associated with culvert replacement and pavement rehabilitation will not disturb geologic units with high paleontological potential. The likelihood of encountering scientifically significant fossils during construction is extremely low, and paleontological monitoring is not recommended.

Environmental Consequences

The proposed project would not result in substantial adverse effects related to geology or soils. The project corridor is not located within an Alquist-Priolo Earthquake Fault Zone, although it crosses the West Huasna Fault. No new structures are proposed, and the project scope is limited to pavement rehabilitation, culvert replacement, and guardrail upgrades. These activities do not increase seismic vulnerability or introduce new risks associated with fault rupture or ground shaking.

Based on mapping from the Natural Resources Conservation Service and the California Department of Conservation, the project area is not located within zones susceptible to liquefaction, landslides, or expansive soils. Earthwork will be shallow and confined to previously disturbed areas, including artificial fill and Holocene surficial sediments. These units are considered to have low or no paleontological sensitivity, and the likelihood of encountering scientifically significant fossils is extremely low. The Paleontological Identification Report confirms that no adverse impacts to paleontological resources are expected.

The project will not result in substantial soil erosion or the loss of topsoil. Drainage improvements, including culvert replacement and slope stabilization, are designed to reduce sediment transport and prevent erosion during heavy runoff events. These features will help maintain the integrity of the roadway and adjacent slopes, minimizing the potential for sedimentation and washouts.

The project does not involve the use of septic systems or alternative wastewater disposal methods, and the soils within the project footprint are capable of supporting the proposed improvements. No unique geologic features will be disturbed, and the project will not result in the destruction of paleontological resources or significant geologic formations.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are proposed. Caltrans Standard Specifications and Best Management Practices will be implemented during construction to minimize erosion, maintain slope stability, and ensure soil protection. The project does not involve deep excavation or construction on unstable or expansive soils. In the unlikely event that paleontological resources are encountered

during earthwork, Caltrans Standard Specification 14-7.03 provides protocols for the evaluation and treatment of unanticipated discoveries.

2.1.8 Greenhouse Gas Emissions

Considering the information in the Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memo dated March 3, 2025, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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?	**No Impact**

Affected Environment

The proposed project spans 14.2 lane miles of State Route 166 beginning at post mile 8.9 at the U.S. Route 101/ 166 interchange and ending 0.45 miles west of the Huasna River Bridge at post mile 16.0. Per the California Department of Conservation, the corridor traverses a mix of rural residential and agricultural land uses, with terrain consisting of soft sloping hills and steep rock outcroppings composed of marine sedimentary and volcanic rocks. Vegetation along the route includes oak savanna and coastal scrub.

State Route 166 is designated as a two-lane expressway and conventional highway that serves as a key east-west connector between the Central Coast and the San Joaquin Valley. It supports both passenger and commercial vehicle travel and is a major truck route for agricultural goods. According to the San Luis Obispo Council of Governments Regional Transportation Plan 2023, truck traffic accounts for approximately 16 percent of total traffic volume along the corridor.

The region’s climate is arid, with hot, dry summers and mild, wet winters. Average high temperatures exceed 73degrees Fahrenheit from June through mid-October, with August being the hottest month. The coolest month is December, with average lows around 41degrees Fahrenheit. Per Weather Spark 2024, annual precipitation averages 13.5 inches, with February typically being the wettest month.

Environmental Consequences

The proposed project would not increase the number of travel lanes or change the alignment of the roadway. As a result, it would not increase vehicle capacity or vehicle miles traveled, and no operational greenhouse gas emissions are expected.

Construction activities would result in short-term greenhouse gas emissions from material processing, equipment operation, worker travel, and traffic delays. These emissions are unavoidable but typical for a pavement preservation project. While construction emissions are temporary in duration, they have long-term atmospheric effects and are therefore considered in the environmental analysis.

Construction greenhouse gas emissions were estimated using the Caltrans Construction Emissions Tool with default settings for a pavement preservation project. The model estimated approximately 195 tons of carbon dioxide emissions over a 200-working-day construction period. These estimates are based on planning-phase assumptions and are considered a general approximation of energy use.

Caltrans Standard Specifications require contractors to implement emissions reduction measures, including compliance with California Air Resources Board regulations and local air pollution control rules. Section 7-1.02C (Emissions Reduction) and 14-9.02 (Air Pollution Control) of the 2022 Standard Specifications apply.

In addition, the project will implement greenhouse gas minimization strategies such as use of recycled materials, warm mix asphalt, and Rubberized Hot Mix Asphalt, as outlined in measures GHG-1 through GHG-8.

Based on the project scope and emissions estimates, the project would not result in a significant impact related to greenhouse gas emissions.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will also be implemented in the project to reduce construction-related greenhouse gas emissions and potential climate change impacts from the project.

GHG-1: Limit idling to five minutes for delivery and dump trucks and other diesel-powered equipment when not in active operation.

GHG-2: Schedule truck trips outside of peak morning and evening commute hours when possible.

GHG-3: For improved fuel efficiency from construction equipment:

- Maintain equipment in proper tune and working condition
- Use right sized equipment for the job

GHG-4: Use alternative fuels such as renewable diesel or solar power for construction equipment where feasible.

GHG-5: Reduce construction waste. Maximize use of recycled materials in the project construction to the extent feasible. See standard spec Section 14-10- Solid Waste Disposal Recycling.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Hazardous Waste Initial Site Assessment dated July 7, 2025, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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?	**Less Than Significant 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?	**Less Than Significant Impact**
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	**No Impact**
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	**No 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**

Question—Would the project:	California Environmental Quality Act Significance Determinations for Hazards and Hazardous Materials
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	**No Impact**

Affected Environment

The area surrounding the project corridor is primarily characterized by agricultural land use. The project begins at the north junction of Route 101/166, where State Route 166 underpasses U.S. 101 at post mile 8.9. West of this underpass and outside the project limits, land use transitions to a mix of commercial and industrial uses. Directly east of the underpass, the land use quickly shifts to predominantly agricultural, best described as undeveloped land used for livestock grazing, crop production, and orchards. The corridor itself is largely rural, with minimal residential or sensitive land uses in the immediate vicinity. No hazardous materials cleanup or sensitive receptors such as schools or hospitals are present within 1,000 feet of the project limits.

Environmental Consequences

The proposed project may encounter routine hazardous materials and waste streams commonly associated with Caltrans pavement preservation projects. These include aerially deposited lead, yellow thermoplastic or traffic stripe, treated wood waste, and, less likely, naturally occurring asbestos or lead-containing paint/asbestos-containing materials. No hazardous materials sites are present within or adjacent to the project limits.

Aerially deposited lead: The historic use of leaded gasoline has resulted in elevated lead concentrations in soils along California roadways. Soil with lead concentrations exceeding regulatory thresholds must be managed under the July 1, 2026, aerially deposited lead agreement between Caltrans and the California Department of Toxic Substances Control. Aerially deposited lead may be present in regulated quantities along the entire project corridor, with the greatest potential near exposed soil slopes at the State Route 166/U.S. Route 101 interchange. If soil is exported from the site, a site-specific aerially deposited lead study may be required. Initial screening may use handheld X-ray Fluorescence; if regulated levels are found, laboratory analysis will follow. Appropriate Standard Special Provisions for aerially deposited lead management will be determined during design, and a Lead Compliance Plan will be required. With implementation of these measures, no adverse effects to human health or the environment are anticipated.

Yellow thermoplastic or traffic stripe: Yellow traffic paint purchased by Caltrans prior to 2006 may contain hazardous levels of lead. Some hazardous yellow striping was removed in 2007 (Expenditure Authorization 05-0C6604), but not all. There is still

potential for hazardous stripe within the project limits. If hazardous, Standard Special Provision 14-11.12 will be included; if nonhazardous, Standard Special Provision 36-4 or 84-9.03B may be used. A Lead Compliance Plan will be required. No significant impacts are anticipated with proper management.

Naturally Occurring Asbestos: Geologic mapping indicates that while naturally occurring asbestos-bearing rock units are found in the vicinity, no naturally occurring asbestos is present within the project's area of potential impact. The project is unlikely to encounter naturally occurring asbestos, and no impacts are anticipated.

Lead-containing paint and Asbestos containing materials: No structural work is proposed; therefore, lead-containing paint or asbestos-containing materials are not anticipated to be disturbed, removed, or disposed of.

Treated Wood Waste: Guardrail supports and signposts may generate treated wood waste, which is a California hazardous waste but subject to alternative management standards. If treated wood waste will be disposed of, Standard Special Provision 14-11.14 will be included in the contract for proper management and disposal.

Electrical Equipment: No electrical equipment will be replaced as part of the project; therefore, no hazardous electrical waste is anticipated.

Avoidance, Minimization, and/or Mitigation Measures

The project is not anticipated to result in adverse effects to human health or the environment. Caltrans Standard Specifications and Standard Special Provisions will be implemented to properly account for any routine hazardous waste products that may be encountered during construction, including aerially deposited lead, treated wood waste, and hazardous traffic stripe, if present. If required, a Lead Compliance Plan and site-specific hazardous materials management measures will be included in the construction contract.

2.1.10 Hydrology and Water Quality

Considering the information in the Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memo dated March 3, 2025, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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?	**Less Than Significant Impact**

Question—Would the project:	California Environmental Quality Act Significance Determinations for Hydrology and Water Quality
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	**No Impact**
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation onsite or offsite;	**No Impact**
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	**No Impact**
(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**

Affected Environment

The project corridor is located on State Route 166 in San Luis Obispo County, extending from the junction of Route 101/166 to 0.45 miles west of the Huasna River Bridge (post mile 8.9 to 16.0). The project area traverses a rural landscape characterized primarily by agricultural and undeveloped land uses, with minimal urban development or sensitive receptors in the immediate vicinity.

The project alignment crosses two watersheds. The western portion of the project, beginning at post mile 8.9, is within the Santa Maria Hydrologic Unit, Guadalupe

Hydrologic Area, and an undefined Hydrologic Sub-Area (HAS number 312.10). The eastern portion, ending at post mile 16.0, is within the Santa Maria Hydrologic Unit, Cuyama Valley Hydrologic Area, and an undefined Hydrologic Sub-Area (HAS number 312.30). Receiving waters in the project vicinity include the Cuyama River (Santa Maria Watershed) and Twitchell Reservoir, which is located near the eastern project limits.

A review of the project's location relative to adjacent receiving waters indicates that, according to the 2024 Clean Water Act Section 303(d) list, Huasna Creek is not currently listed. However, other nearby receiving water bodies–such as the Cuyama River, Nipomo Creek, and Santa Maria River–are listed on the 303(d) list for various constituents. The project will not result in any change in pollutant load to these watersheds, and no specific treatment is required regardless of Total Maximum Daily Load status. Twitchell Reservoir is within the project limits, but the project will not impact any existing or planned Best Management Practices associated with the reservoir.

There are no mapped groundwater basins within the project vicinity, and the project will not impact any Temporary Best Management Practices. If any existing Temporary Best Management Practices are affected during construction, they will be reconstructed as needed.

No work in any waterbody or drainage is currently anticipated, or such work will be kept to a minimum. The project does not involve substantial alteration of drainage patterns, nor does it increase impervious surface area in a manner that would affect runoff or flooding. The project area is not located within a designated flood hazard, tsunami, or seiche zone.

Overall, the project is not anticipated to result in significant long-term impacts to water quality. Short-term water quality impacts may occur during construction, primarily due to minor earthwork activities, but these will be minimized through the use of appropriate engineering design and robust stormwater Best Management Practices in accordance with Caltrans Standard Specifications.

Environmental Consequences

The proposed project would not result in significant long-term impacts to water quality. The project does not add capacity, alter the horizontal or vertical alignment of the highway, or substantially change the existing drainage patterns within the project limits. As a result, there will be no increase in impervious surface area, no change in pollutant load to receiving waters, and no anticipated impacts to groundwater resources.

Short-term water quality impacts may occur during construction activities, primarily due to minor earthwork associated with pavement overlay, guardrail replacement, and culvert restoration. These activities could result in temporary increases in sediment-laden runoff if not properly managed. However, no work in any waterbody or drainage is currently anticipated, or such work will be kept to a minimum. If any

existing Temporary Best Management Practices are affected during construction, they will be reconstructed as needed.

The project area includes receiving waters such as Cuyama River, Twitchell Reservoir, Nipomo Creek, and Alamo Creek, and is near Huasna Creek. Nipomo Creek, Cuyama river, and Huasna Creek are listed on the Clean Water Act Section 303(d) list for several constituents. The project will not result in any change in pollutant load to these water bodies, and no specific treatment is required regardless of Total Maximum Daily Load status.

To minimize potential short-term impacts, the contractor will be required to implement robust stormwater Best Management Practices in accordance with Caltrans Standard Specifications. These measures will address sediment control, erosion prevention, and proper management of construction-related materials and waste. With the incorporation of these Best Management Practices and adherence to standard engineering design, any temporary water quality impacts are expected to be minimal and localized.

There are no mapped groundwater basins within the project vicinity, and the project will not impact groundwater recharge or quality. The project is not located within a designated flood hazard, tsunami, or seiche zone, and will not impede or redirect flood flows.

With implementation of standard Caltrans Best Management Practices and compliance with all applicable water quality regulations, the project is not anticipated to result in significant impacts to hydrology or water quality during either construction or operation.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required. Standard Caltrans Best Management Practices will be implemented during construction to minimize any temporary water quality impacts.

2.1.11 Land Use and Planning

The project area traverses land within San Luis Obispo County that is designated primarily for transportation use and is governed by the County of San Luis Obispo General Plan. Land use designations adjacent to the project limits include agriculture, open space, and rural residential, as identified in the County’s zoning maps and General Plan Land Use Element.

Project activities will be confined to the existing Caltrans right-of-way on State Route 166. No temporary construction easements or acquisitions of off-site property are required for the completion of project improvements. The project will not alter the alignment, function, or capacity of State Route 166, nor will it introduce new access points, barriers, or features that could divide an established community.

The proposed improvements are consistent with the County of San Luis Obispo General Plan and do not conflict with any local or regional land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating environmental effects. The project does not propose changes to land use impacts. Furthermore, the project does not include any elements that would conflict with applicable plans, policies, or regulations of an agency with jurisdiction over the project, including, but not limited to, the County General Plan, zoning ordinance, or other adopted land use policies.

Based on a review of the County of San Luis Obispo General Plan, zoning maps, and the project's scope, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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

The San Luis Obispo County General Plan Conservation and Open Space Element provides an inventory and description of the mineral resources present within the county. Historically, mineral extraction in San Luis Obispo County included copper, coal, chromite, manganese, and mercury, but today the primary focus is on sand and gravel mining, which supplies essential raw materials for construction and road base. The General Plan identifies the locations of existing mines and designates certain areas as Energy or Extractive Resource Areas to protect significant mineral deposits for current and future use. These designations are supported by zoning overlays and development standards that help ensure mineral resources are available for extraction while minimizing conflicts with other land uses.

Because mineral resources are finite and mining activities can result in environmental impacts such as soil erosion, water quality degradation, and air quality issues, the Conservation and Open Space Element emphasizes the need to balance mineral extraction with the protection of sensitive resources. Policies require that mining operations be evaluated for their effects on open space, scenic, habitat, recreational, and agricultural values, and that reclamation plans be implemented to restore mined lands. The plan also calls for ongoing identification and mapping of mineral extraction areas, preparation of aggregate materials management plans, and the use of Best Management Practices to avoid or minimize environmental impacts.

At present, mineral extraction in San Luis Obispo County is primarily limited to designated areas, and the project area for the project is not located within or adjacent to any active mining districts, significant mineral resource zones, or extractive resource overlays. As such, the project is not anticipated to conflict with or interfere with any mineral resources, mine locations, or mining operations. The Conservation and Open Space Element's policies and implementation strategies ensure that valuable mineral resources are conserved for future generations, while also protecting the county's environmental quality and land use compatibility.

Considering the information in the Caltrans Division of Environmental Analysis Geographical Information Systems Library, the California Department of Conservation Mine Reclamation Maps, The U.S. Geological Service, and the San Luis Obispo General Plan Conservation Element dated May of 2010, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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 Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memo dated March 3, 2025, the following significance determinations have been made:

Question—Would the project result in:	California Environmental Quality Act 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?	**Less Than Significant Impact**
b) Generation of excessive groundborne vibration or groundborne noise levels?	**Less Than Significant Impact**

Question—Would the project result in:	California Environmental Quality Act Significance Determinations for Noise
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**

Affected Environment

The project is located along State Route 166 in San Luis Obispo County, between post mile 8.9 and post mile 16.0. This segment of State Route 166 traverses a predominantly rural area characterized by rolling hills, open space, and sparse residential development. The eastern portion of the project corridor runs adjacent to the Twitchell Reservoir and the Cuyama River, while the western portion begins near the junction with U.S. Route 101. The surrounding land uses are primarily agricultural and open space, with limited sensitive noise receptors such as residences or schools in the immediate vicinity of the project limits.

Ambient noise levels in the area are primarily influenced by existing highway traffic along State Route 166. Due to the rural setting and low population density, background noise levels are generally low, with traffic noise being the dominant source. No major commercial or industrial noise sources are present near the project corridor.

The project does not propose any changes to the existing alignment or capacity of the highway and is classified as a Type III project under Code of Federal Regulations 772. Type III projects do not require a detailed noise analysis under federal regulations, and no long-term operational noise impacts are anticipated. However, temporary increase in noise levels may occur during construction activities. These would be intermittent and short-term in nature and are expected to comply with Caltrans Standard Specifications for construction noise control.

Environmental Consequences

The proposed project would not result in any long-term operational noise impacts. The project is classified as a Type III project under 23 Code of Federal Regulations 772, as it does not involve the addition of through lanes, substantial horizontal or vertical realignment, or other capacity-increasing features. Therefore, no detailed noise study is required under federal or state guidance. Post-construction noise levels are expected to remain consistent with existing conditions, and no permanent noise abatement measures are proposed or warranted.

Temporary increases in ambient noise levels are anticipated during construction due to the use of heavy equipment and machinery. These impacts would be short-term and intermittent, occurring only during active construction periods. Construction noise would be managed in accordance with Caltrans Standard Specifications Section 14-8.02, which limits equipment noise to 86 A-weighted decibals maximum sound level at 50 feet during nighttime hours (9:00 p.m. to 6:00 a.m.). Additional minimization measures, such as public notification, equipment muffling, and scheduling of noisy activities during daytime hours, would be implemented to further reduce potential impacts.

Given the rural setting of the project and the absence of nearby sensitive receptors, construction-related noise is not expected to result in significant adverse effects. Therefore, the project would result in no impact related to long-term noise and less than significant impacts related to temporary construction noise.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required.

2.1.14 Population and Housing

The proposed project would have no impact on population and housing. It does not include the construction of new homes or businesses, nor does it involve the removal or displacement of existing housing or residents. As such, the project would not induce population growth or necessitate the construction of replacement housing elsewhere.

Considering this information, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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

According to the Caltrans Transportation Management Guidelines dated November of 2015, the San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan dated October of 2019, and ongoing coordination with Caltrans Design and Engineering Team, the following determinations have been made:

Question:	California Environmental Quality Act 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?	**Less Than Significant Impact**
Police protection?	**Less Than Significant Impact**
Schools?	**Less Than Significant Impact**
Parks?	**Less Than Significant Impact**
Other public facilities?	**Less Than Significant Impact**

Affected Environment

The project corridor along State Route 166 in San Luis Obispo County is primarily rural and agricultural in character, with limited residential or commercial development in the immediate vicinity. The area is served by the San Luis Obispo County Fire Department, the San Luis Obispo County Sheriff's Office, and the Lucia Mar Unified School District. The nearest fire station is located approximately 1.5 miles (or about 3 minutes) from the project site, providing adequate emergency response coverage for the corridor.

There are no hospitals, schools, or other sensitive public facilities located directly adjacent to the project limits. The corridor is accessed via State Route 166, a two-lane highway that provides regional connectivity but does not serve as a primary access route for dense population centers or critical public infrastructure.

The project does not propose any new development, population growth, or changes in land use that would increase demand for public services. It is a pavement preservation project that will not alter the function or capacity of the highway. As such, it is not expected to result in increased calls for service or require the construction or expansion of public service facilities.

Environmental Consequences

The proposed project is a pavement preservation effort along State Route 166 and does not include any new development, expansion of roadway capacity, or changes in land use that would increase demand for public services. As such, it is not expected to result in increased calls for fire, police, or emergency medical services.

Temporary construction activities may result in minor traffic delays along the corridor; however, these are not anticipated to interfere with emergency response times. Emergency access will be maintained throughout the duration of construction, and coordination with local emergency service providers will ensure that response routes remain open and accessible.

The project does not involve the construction of new public facilities or the expansion of existing ones. It will not increase population, traffic volume, or development pressure in the area. Therefore, it will not generate additional demand for schools, parks, or other public facilities.

Given the limited scope of work and the rural setting of the project, the proposed improvements are not expected to adversely affect the provision or performance of public services. The project would have no impact on public service infrastructure or service levels.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are proposed for public services. The project does not involve the construction of new facilities or the expansion of existing infrastructure that would require additional public service support. Construction activities are limited in scope and duration and are not expected to interfere with emergency response or access to public facilities. Caltrans will implement standard traffic management practices to maintain access for emergency vehicles and coordinate with local agencies as needed to avoid service disruptions. These measures ensure that the project will not adversely affect fire protection, police services, schools, parks, or other public facilities.

2.1.16 Recreation

Considering the information in the Caltrans Standard Environmental Reference Volume 1 Chapter 20, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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 provided by the Caltrans District 5 Safety Team, Caltrans Project Initiation Report dated June of 2023, The Caltrans Transportation Management Guidelines dated November of 2015, California Environmental Quality Act Guidelines section 15064.3, and the San Luis Obispo County Transportation Emergency Plan dated 2024, the following significance determinations have been made:

Question—Would the project:	California Environmental Quality Act 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 California Environmental Quality Act 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?	**Less Than Significant Impact**

Affected Environment

State Route 166 within project limits is a two-lane expressway and conventional highway serving rural San Luis Obispo County, with primary land uses being agricultural and open space. The corridor provides regional connectivity between U.S. Route 101 and communities to the east, and is designated as a Terminal Access Surface Transportation Assistance Act truck route. The project area is open to bicycles, with existing shoulders (four to 10 feet) serving as de facto bike lanes, and no pedestrian facilities present. There is no transit service along this segment. The Annual Average Daily Traffic is projected to range from 3,147 to 4,275 vehicles, with trucks comprising 17.9 percent to 24 percent of the volume.

Environmental Consequences

Circulation System Consistency: The project consists of pavement preservation, culvert restoration, and guardrail upgrades within the existing right-of-way. It does not add capacity, alter alignment, or change the function of the highway. Bicycle improvements (Class II buffered lanes and conflict striping at the U.S. Route 101 interchange) and wayfinding signage are included addressing needs identified in the District 5 Active Transportation Plan and the Transportation Planning Scoping Information Sheet. No changes are proposed for pedestrian or transit facilities, as there is no identified need. The project is consistent with local, regional, and state transportation plans and policies.

California Environmental Quality Act Guidelines Section 15064.3 (vehicle miles traveled): Per California Environmental Quality Act Guidelines section 15064.3, subdivision (b), the project is not capacity-increasing and will not result in a measurable increase in vehicle miles traveled. The project is a pavement preservation action and will not induce growth, alter land use, or generate additional travel demand. Therefore, it is not expected to result in a significant impact related to vehicle miles traveled.

Hazards Due to Geometric Design or Incompatible Uses: The project does not introduce any new geometric design features that would increase hazards. All improvements are designed to current Caltrans standards, including Manual for Assessing Safety Hardware-compliant guardrails and concrete barriers. No new intersections or changes to existing intersection geometry are proposed. The project will not introduce incompatible uses.

Emergency Access: During construction, temporary lane closures and traffic control (including pilot car operations and flagging) may cause minor delays. However, the Caltrans Transportation Management Plan includes strategies such as changeable message signs, public awareness campaigns, incident management, and an emergency detour plan to maintain access for emergency vehicles and minimize disruption. Emergency access will be maintained at all times, and coordination with local emergency service providers is required. The San Luis Obispo County Emergency Preparedness Plan identifies U.S. 101 and State highways as primary evacuation routes; the project will not impede these routes or conflict with

emergency response plans. Therefore, impacts to emergency access are less than significant.

The project would have no impact on the circulation system, vehicle miles traveled, or geometric hazards, and less than significant impact on emergency access due to robust Transportation Management Plan measures and coordination with emergency services. The project is consistent with California Environmental Quality Act Guidelines section 15064.3 and all applicable transportation policies.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are proposed for transportation. The project is not expected to result in significant impacts to traffic operations or transportation infrastructure. Construction activities will be temporary and phased to minimize disruption to vehicular, bicycle, and pedestrian travel. Caltrans will implement a Transportation Management Plan that includes traffic control strategies such as lane closures, signage, and flagging operations to maintain safe and efficient traffic flow during construction. Coordination with local agencies and emergency service providers will ensure that access is maintained and emergency response times are not adversely affected. These measures will help avoid or minimize potential transportation-related impacts during project implementation.

2.1.18 Tribal Cultural Resources

According to the Cultural Resources Screened Undertaking Memo for the San Luis Obispo Route 166 Capital Preventive Maintenance dated February 12, 2025, no eligible cultural resources have been identified within the Area of Potential Effect for the project. Therefore, construction activities proposed for the project would not impact eligible archaeological resources or historic properties. Consultation with local tribal governments was not warranted and was not performed. Considering this information, the following 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:	California Environmental Quality Act Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	**No Impact**

Question:	California Environmental Quality Act 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.	**No Impact**

2.1.19 Utilities and Service Systems

Throughout the project area, utility infrastructure includes but is not limited to traffic lights and signals, overhead and underground powerlines, storm drains manholes, and streetlights. While no utility conflicts have been identified, positive utility location and identification will be performed during the project's design phase. Results of utility identification will determine the need for additional utility relocation efforts.

Owners of existing utilities will be notified throughout the project design and construction phase to ensure protection in place of existing utilities and avoid utility conflicts. If utilities require relocation, Caltrans will review the proposed locations and ensure that no significant environmental effects occur as a result of the relocation. This project does not propose the installment of new wastewater, stormwater, or natural gas utility lines.

Question—Would the project:	California Environmental Quality Act Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	**No Impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	**No Impact**

Question—Would the project:	California Environmental Quality Act Significance Determinations for Utilities and Service Systems
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	**No Impact**
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	**No Impact**
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**No Impact**

2.1.20 Wildfire

Considering the information in the California Department of Forestry and Fire Protection: CalFire State Responsibility Area Fire Hazard Severity Zone map dated June 15, 2023, San Luis Obispo County zoning maps Fire Hazard Severity zones dated from 2024, maps and goals listed in the San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan dated October 2019, the San Luis Obispo County Transportation Emergency Preparedness Plan dated 2024, and the Caltrans District 5 Climate Change Vulnerability Assessment dated 2019 the following significance determinations have been made:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones:

Question—Would the project:	California Environmental Quality Act 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**

Question—Would the project:	California Environmental Quality Act Significance Determinations for Wildfire
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?	**Less Than Significant Impact**

Affected Environment

The project site spans across moderate, high, and very high fire hazard severity zones as designated by California Department of Forestry and Fire Protection within the State Responsibility Area. The corridor traverses rural terrain with agricultural and oak woodland vegetation, and is subject to seasonal dry conditions and prevailing winds that can elevate wildfire risk. The San Luis Obispo County Hazard Mitigation Plan identifies this region as vulnerable to wildfire due to limited ingress/egress proximity to wildland fuels.

Environmental Consequences

The project site spans across moderate, high, and very high fire hazard severity zones in the State Responsibility Area Map. According to California Department of Forestry and Fire Protection Fire Hazard Severity Zone mapping tool and the Caltrans District 5 Climate Change Vulnerability Assessment, the corridor is exposed to varying wildfire risk under both reinforced concrete pipe 8.5 and reinforced concrete pipe 4.5 scenarios. However, the proposed project would not increase wildfire risk.

During construction, traffic controls will be implemented in a manner that does not impede emergency response or evacuation routes. Emergency responders will be notified in advance of any potential disruptions. The replacement of two deteriorating culverts at post mile 14.24 and post mile 14.65 will improve drainage capacity, which is critical in mitigating post-fire runoff and reducing the risk of flooding or landslides. Additional slope protection measures, including replacement planting and stabilization around culverts, will further reduce vulnerability to post-fire slope instability.

Upon completion, the project will enhance highway reliability without introducing new structures or facilities that could be vulnerable to wildfire. It will not interfere with

emergency response or evacuation plans and is not expected to exacerbate wildfire risks intensified by climate change.

Avoidance and minimization measures include maintaining emergency access during construction and implementing slope stabilization features that reduce post-fire hazards. These measures ensure that the project does not contribute to increased fire risk and supports resilience in fire-prone areas.

Avoidance, Minimization, and/or Mitigation Measures

During project construction, any traffic controls necessary would be implemented to not impede fire evacuation or response traffic. Emergency responders would be made aware of any traffic disruptions, delays, or detours in advance. Additionally, project features including culvert replacement and slope stabilization and protection will help minimize any potential threats to the travelling public from wildfire.

2.1.21 Mandatory Findings of Significance

Question:	California Environmental Quality Act 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 With Mitigation Incorporated**
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**Less Than Significant Impact**

Affected Environment

The project is located along State Route 166 in San Luis Obispo County, from post mile 8.9 to 16.0, traversing a rural landscape of agricultural land, grasslands, oak woodlands, and riparian corridors. The biological study area encompasses all areas subject to direct and indirect impacts from project activities, including temporary construction access and staging. The biological study area contains a mosaic of habitats, including coastal scrub, oak woodland, non-native annual grassland, riparian habitat, and ephemeral/intermittent drainages. Jurisdictional features regulated by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife are present, particularly at the culvert location at post mile 14.65.

The resource study area for the California red-legged frog, was defined as a 2-mile buffer around the area of potential impact, encompassing approximately 25,774 acres and including the Santa Maria–Santa Ynez River Core Area, which provides habitat connectivity for these species. The resource study area for jurisdictional waters and riparian habitat was defined as the Upper Santa Maria River and Twitchell Reservoir–Cuyama River Hydrologic Unit Code 12 watersheds, which include ephemeral and intermittent drainages, streambeds, and riparian corridors.

Within these resource study areas, multiple past, present, and reasonably foreseeable projects have been identified, including road and bridge replacements, agricultural development, flood control, and infrastructure upgrades. Notable projects include the Santa Maria River Bridge Replacement, cannabis cultivation projects near Tar Springs Creek, and sediment management at Twitchell Dam. Regional and local general plans, as well as the Connected 2050 Regional Transportation Plan/Sustainable Communities Strategy, identify additional transportation and infrastructure projects that may affect these resources.

Environmental Consequences

Biological Resources

The project will result in temporary and permanent impacts to natural communities such as coastal scrub, oak woodland, poison oak scrub, and riparian areas, primarily due to culvert replacement and associated vegetation removal, including up to 15 coast live oak trees. Jurisdictional waters and riparian habitat will be affected at post mile 14.65, with compensatory mitigation proposed at ratios of three-to-one for permanent impacts and one-to-one for temporary impacts. No special-status plant species are expected to occur, and the project will have no effect on federally listed plants. For wildlife, the Section 7 determination concludes the project may affect but is not likely to adversely affect California red-legged frog. With implementation of avoidance, minimization, and mitigation measures—including pre-construction surveys, environmentally sensitive area fencing, and restoration planting—impacts to biological resources are anticipated to be less than significant under California Environmental Quality Act.

The project would not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or a wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or eliminate important examples of California history or prehistory. However, the cumulative impact analysis determined that there are existing adverse cumulative impacts to California red-legged frog, and jurisdictional waters and riparian habitat within their respective resource study areas.

Cultural and Paleontological Resources

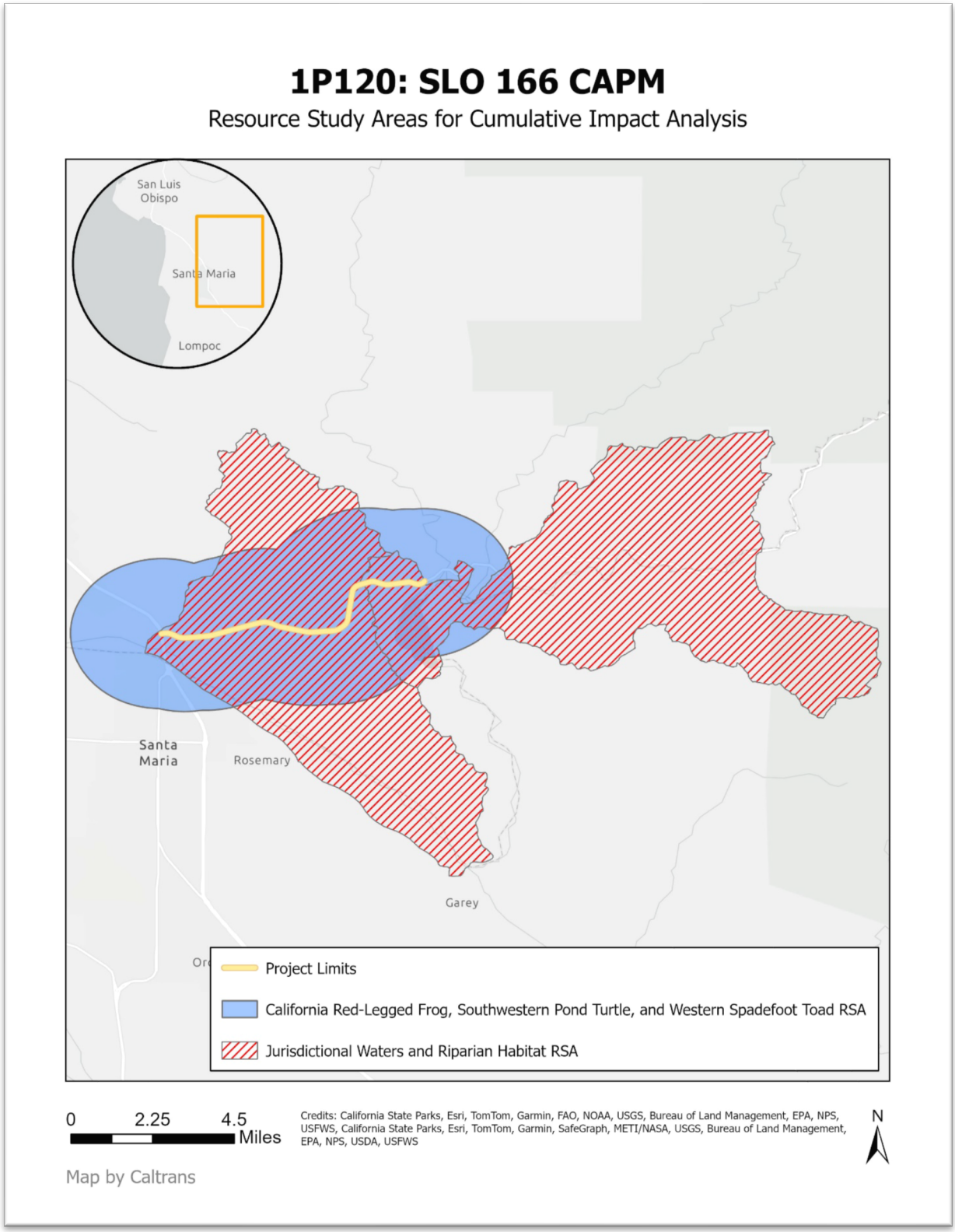
Per the Section 106 Programmatic Agreement between Caltrans and the State Historic Preservation Office, the proposed work qualifies as a "screened undertaking" with no potential to affect historic properties and is therefore exempt from further cultural studies or review. No archaeological resources, historic structures, or human remains would be impacted by project activities. Tribal consultation was not warranted and was not performed, as no eligible tribal cultural resources were identified within the Area of Potential Effect. Although the project corridor crosses geologic units, the scope of earthwork is shallow and confined to previously disturbed areas, and paleontological sensitivity is low; thus, no impacts to paleontological resources are anticipated. Cultural and paleontological considerations are addressed in Sections 2.1.5 (Cultural Resources), 2.1.7 (Geology and Soils), and 2.1.18 (Tribal Cultural Resources).

Cumulative Impacts

The Governor's Office of Land Use Planning and Research defines cumulative impacts as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact analysis should focus on resources significantly impacted by the project, or on resources in poor or declining health or at risk even if project impacts are less than significant. For the purposes of this project, one resource, jurisdictional waters and riparian habitat, was identified to have poor or declining health as a result of compounding impacts.

For cumulative impact analyses, the resource study area was defined using the Upper Santa Maria River watershed for the jurisdictional other waters and riparian habitat and a 2-mile buffer around the projects Area of Potential Impact (area of potential impact) for the California red-legged frog. All foreseeable projects within the resource study area were analyzed for potential impacts to jurisdictional areas to assess any cumulative impacts that may occur due to the proposed project. The resource study area is depicted in Figure 2.

Figure 2: Resource Study Areas for Cumulative Impact Analysis



Jurisdictional Waters and Riparian Habitat

The resource study area under consideration for jurisdictional aquatic features cumulative impacts analysis is the Upper Santa Maria River and Twitchell Reservoir-Cuyama River Hydrologic Unit Code 12 watersheds.

The Upper Santa Maria River watershed (hydrologic unit code 180600080602) is located in southern San Luis Obispo County and northern Santa Barbara County. The watershed is dominated by residential and agricultural land uses including ranches, row crops, greenhouses and orchards. Other land uses include recreation. The primary threats to the watershed include flooding, habitat fragmentation due to development, erosion, sedimentation, invasive species, and groundwater quantity.

The Twitchell Reservoir-Cuyama River watershed (hydrologic unit code 180600080602) largely follows the Cuyama River and includes Twitchell Dam which was built by the United States Bureau of Reclamation between 1956 and 1958. The dam and reservoir provide flood control and water conservation. Twitchell Reservoir is important to both the water supply and the flood protection of the Santa Maria Valley. The primary threat to the reservoir is sedimentation being trapped from the Cuyama River watershed.

With the incorporation of restoration of temporary impacts and compensatory mitigation for permanent impacts, the project will not contribute to a negative cumulative impact to jurisdictional aquatic resources.

Three past, present, and reasonably foreseeable projects within the Resource Study Area were identified that may contribute to direct or indirect cumulative impacts to existing jurisdictional waters and riparian habitat. The projects have the potential to result in impacts to jurisdictional resources; however available sources suggest that avoidance, minimization, and/or mitigation measures were made a condition of their approval which would be implemented to the extent feasible.

Table 3 Summary of Overall Cumulative Impacts

Resource	Would the Proposed Project Contribute to an Existing Adverse Cumulative Impact?	Would the Proposed Project's Contribution Be Considerable?	Considerations for Identifying Cumulative Impacts and Proposed Project's Contribution
California Red-Legged Frog	Yes	No	The resource study area is a 2-mile buffer around the area of potential impact (~25,774 acres), within the Santa Maria-Santa Ynez River Core

			Area. Multiple past, present, and foreseeable projects (e.g., road bridge, infrastructure, agriculture, residential development) have resulted in habitat loss, fragmentation, and other stressors. The State Route 166 Capital Preventive Maintenance project would result in minor, mostly temporary impacts to disturbed upland/dispersal habitat, with no direct impacts to breeding habitat. Avoidance, minimization, and compensatory mitigation measures (e.g., pre-construction surveys, environmentally sensitive area fencing, restoration plantings, up-sized culverts for wildlife passage) will be implemented. The project's scale is small relative to the resource study area, and with mitigation, it is not anticipated to considerably contribute to cumulative impacts to California red-legged frog.
Jurisdictional Waters and Riparian Habitat	Yes	No	The resource study area is the Upper Santa Maria River and Twitchell Reservoir–Cuyama River Hydrologic Unit Code 12 watersheds. Past, present, and foreseeable projects (e.g., agriculture, flood control, infrastructure) have resulted in loss and degradation of riparian and aquatic habitats. The State Route 166 Capital Preventive Maintenance project will result in minor permanent and temporary impacts to streambed and riparian habitat (0.003 acre and 0.008 acre permanent; 0.01 acre and 0.155 acre temporary, respectively), with compensatory mitigation at three-to-one for permanent and one-to-one for temporary impacts. With implementation of avoidance, minimization, and compensatory mitigation measures, the project will not considerably contribute to cumulative impacts.

Aesthetics

The project would result in minor visual changes within a rural corridor characterized by agricultural fields, riparian vegetation, and rolling hills that define its high scenic quality. These changes, primarily from limited vegetation and tree removal for drainage improvements, would be noticeable but not substantial, as replanting and restoration will maintain long-term visual continuity. Upgraded guardrails, concrete barriers, and slope paving will be visually subordinate and treated with aesthetic measures such as integral coloring and rock cobble paving to blend with the surrounding landscape. Overall, the project is compatible with the existing rural context and will not degrade public views, preserving dominant patterns of agriculture, native vegetation, and open space.

Air Quality

The project will not add highway capacity or alter alignment, so no long-term air quality impacts are anticipated. Short-term impacts during construction will include minor increases in emissions and fugitive dust from equipment use and limited earthwork for pavement overlay, guardrail upgrades, and culvert restoration. These temporary effects will be minimized through standard Caltrans dust control and emissions reduction practices, ensuring pollutant levels remain well below regulatory thresholds. With implementation of these measures, air quality impacts will be less than significant under California Environmental Quality Act.

Geology and Soils

The project would not result in substantial adverse effects related to geologic, seismic, or soil conditions and will be designed in accordance with the Highway Design Manual and site-specific geologic context. The corridor is not located within an Alquist-Priolo Earthquake Fault Zone, and earthwork will be shallow and confined to previously disturbed areas, minimizing risks of instability or erosion. Although the project area includes geologic units of varying age, excavation will not extend into sensitive formations, and paleontological sensitivity is low; therefore, the likelihood of encountering significant fossils is extremely low. No monitoring or mitigation for paleontological resources is recommended, and standard Caltrans protocols will apply in the unlikely event of an unanticipated discovery.

Greenhouse Gas Emissions

The project will not increase roadway capacity or induce additional vehicle miles traveled, so no long-term operational greenhouse gas emissions are anticipated. Temporary construction emissions, including carbon dioxide and other greenhouse gases, will occur from equipment use, material transport, and worker travel, but these impacts are short-term and typical for pavement preservation projects. Implementation of Caltrans Standard Specifications and greenhouse gas minimization measures—such as limiting idling, using right-sized equipment, and incorporating recycled materials—will reduce emissions to a less than significant level under California Environmental Quality Act.

Hazardous Waste

The project would implement Caltrans standard measures and Standard Special Provisions for hazardous waste testing and management to protect workers and the public during construction. Routine hazardous materials such as aerially deposited lead, treated wood waste, and potentially hazardous traffic stripe may be encountered, but these will be handled under established protocols, including a Lead Compliance Plan if required. No hazardous waste sites are present within or adjacent to the project limits, and naturally occurring asbestos, lead-containing paint, and asbestos-containing materials are not anticipated to be disturbed. With implementation of these measures, the project is not expected to result in significant impacts to public health or the environment due to hazardous waste.

Noise

The project is not anticipated to result in permanent increases to existing noise levels, as it does not add capacity or alter alignment, and noise conditions will remain the same after construction. Short-term increases in noise during construction are inevitable, but per Caltrans policy, equipment noise will not exceed 86 A-weighted decibels at 50 feet from the source. Construction noise will be temporary and intermittent, and activities will follow Caltrans Standard Specifications, including measures such as scheduling work during daytime hours when feasible and implementing a Noise Control Plan if nighttime work occurs. Because the existing baseline is dominated by traffic noise and all work will comply with Caltrans noise standards, no adverse noise impacts are anticipated.

Hydrology and Water Quality

The project is located within the Santa Maria Hydrologic Unit, including the Guadalupe Hydrologic Area and Cuyama Valley Hydrologic Area, and spans undefined Hydrologic Sub-Areas (Hydrologic Sub-Area number 312.10 and number 312.30). Receiving waters near the project include the Cuyama River and Twitchell Reservoir, with Huasna Creek listed on the Clean Water Act Section 303(d) list for boron, chloride, potential of hydrogen, sodium, specific conductivity, and turbidity. The project corridor is primarily rural and agricultural, and no mapped groundwater basins occur within the vicinity. The project will not alter drainage patterns or increase impervious surfaces, and no long-term impacts to water quality are anticipated.

Temporary water quality impacts may occur during construction due to minor earthwork and potential sediment-laden runoff. These impacts will be minimized through implementation of Caltrans Best Management Practices, including a Water Pollution Control Program and compliance with National Pollutant Discharge Elimination System permit conditions. No work in waterbodies is anticipated, and any affected temporary Best Management Practices will be reconstructed as needed. With these measures, short-term impacts would be reduced to less than significant, and long-term benefits are expected from culvert replacements that improve drainage and reduce sediment discharge.

Transportation

The project would not change the function or capacity of State Route 166 and does not introduce any new geometric design features that could create roadway hazards. Construction activities may cause temporary lane closures and minor traffic delays, but access for vehicles, bicycles, and emergency services will be maintained. A Transportation Management Plan will be implemented to manage traffic flow, ensure safety, and minimize congestion during construction. Therefore, the project is not anticipated to result in transportation-related impacts.

Avoidance, Minimization, and/or Mitigation Measures

No further avoidance, minimization, and/or mitigation measures beyond those listed in the preceding sections of this document, as well as in Appendix B, Avoidance, Minimization, and/or Mitigation Summary, will be required.

Chapter 3 Coordination

Caltrans encourages public participation during the project planning process so that community members who may be affected by agency project activities may provide their feedback, questions, and concerns. Caltrans' team of interdisciplinary specialists incorporates agency and community feedback into the project development process.

Agency coordination, tribal involvement, and public participation have been handled by the Caltrans Project Development Team, which includes environmental specialists, transportation engineers, transportation planners, and the Caltrans District 5 Public Information Office. Coordination and engagement were accomplished with methods such as in-person meetings, public notices, digital communications, and Caltrans website updates.

This chapter summarizes Caltrans' efforts to identify, address, and resolve project related issues through early and ongoing engagement.

3.1 Biological Resources Coordination

3.1.1 U.S Fish and Wildlife Service and National Marine Fisheries Service

September 13, 2022: AnnMarie Blackburn submitted online requests through the U.S. Fish and Wildlife Service Information Planning and Consultation website (Information Planning and Consultation 2022) for an official species list for the project area. The official U.S. Fish and Wildlife Service species list was received that day.

February 2, 2023: AnnMarie Blackburn submitted an email request to National Marine Fisheries Service for an official species list for the project area. The official National Oceanic and Atmospheric Administration/National Marine Fisheries Service species list was received that day.

June 10, 2025: AnnMarie Blackburn submitted online requests through the U.S. Fish and Wildlife Service Information Planning and Consultation website (Information Planning and Consultation 2025) and via email to National Marine Fisheries Service for updated official species lists for the project area. The official U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration/National Marine Fisheries Service species lists were received that day.

October 28, 2025: Caltrans student assistant Violet Emerson submitted an online request through U.S. Fish and Wildlife Service Information Planning and Consultation website (Information Planning and Consultation 2025) for an

updated official species list for the project area. The official U.S. Fish and Wildlife Service species list was received that day.

November 4, 2025: Caltrans student assistant Violet Emerson submitted an email request to National Marine Fisheries Service for an updated official species list for the project area. The official National Oceanic and Atmospheric Administration/National Marine Fisheries Service species list was received that day.

3.1.2 California Department of Fish and Wildlife

Caltrans Environmental staff will coordinate with the California Department of Fish and Wildlife starting with their review of this document. California Department of Fish and Wildlife will review this document to ensure that biological avoidance, minimization, and/or mitigation measures are consistent with best available data and protection protocol for special-status plant and animal species. Additional coordination will take place between Caltrans Biologists and California Department of Fish and Wildlife in the project's design phase in support of obtaining the Lake and Streambed Alteration Agreement.

Appendix A Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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September 2025

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.

Dina El-Tawansy (Sep 12, 2025 16:52:12 PDT)
DINA A. EL-TAWANSY
Director

"Improving lives and communities through transportation."

Appendix B Avoidance, Minimization, and/or Mitigation Summary

To ensure that the measures outlined in this document are performed at the proper times, the following measures outlines below would be implemented as part of the project's Environmental Commitments Record. During project design, avoidance, minimization, and/or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. Prior to project construction, all regulatory permits and consultation would be obtained by Caltrans Environmental staff. During construction, Environmental and Construction/Engineering staff will ensure that the commitments contained in this Environmental Commitments Record are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. The Environmental Commitments Record is a draft, and some fields will be updated as they are completed and the project progresses.

2.1.1 Aesthetics

AES-1: Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques which save the most existing vegetation possible shall be employed.

AES-2: All disturbed areas shall receive permanent erosion control to be determined by Caltrans District 5 Landscape Architecture.

AES-3: Replacement plantings shall include aesthetic considerations as well as the inherent biological goals. Revegetation shall include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architecture. Revegetation shall occur at the maximum extent horticulturally viable and be maintained until established.

AES-4: If vegetation control under guardrail is deemed necessary, then it shall be inert material such as shale, as determined by Caltrans District 5 Landscape Architecture.

AES-5: Following construction, re-grade, and re-contour all new construction staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

2.1.4 Biology

BIO-1: Prior to construction, Caltrans shall obtain a Section 404 Nationwide Permit from U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from Regional Water Quality Control Board, and a Section 1602 Streambed Alteration Agreement from California Department of Fish and

Wildlife. All permit terms and conditions will be incorporated into construction plans and implemented.

BIO-2: Prior to any ground-disturbing activities, environmentally sensitive area fencing, flagging, or another boundary marking system shall be installed around jurisdictional features, and the dripline of trees to be protected within the project limits. Caltrans-defined environmentally sensitive areas shall be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-3: Construction activities in jurisdictional areas and temporary stream diversion, if needed, shall be timed to occur during the dry season, typically between June 1 and October 31 in any given year, or as otherwise directed by the regulatory agencies, when the surface water is likely to be dry or at a seasonal minimum. Deviations from this work window will only be made with permission from the relevant regulatory agencies.

BIO-4: No work shall occur in areas of standing or flowing surface water. If dewatering or diversion operations are necessary, a detailed dewatering/diversion plan inclusive of water quality monitoring requirements will be prepared and implemented.

BIO-5: During construction, all project-related hazardous materials spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor on-site at all times during construction.

BIO-6: During construction, erosion control measures shall be implemented. Silt fencing, fiber rolls, barriers, and other Best Management Practices shall be installed as needed at the project site. Jurisdictional areas shall be stabilized for winter prior to November 1, either by completing construction in these areas, including installation of permanent erosion control measures, or by implementing winterization stabilization measures that ensure disturbed soils in jurisdictional areas are stabilized to withstand the 10-year, 24-hour storm event. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.

BIO-7: All equipment must be cleaned and free of weed propagules prior to entry into jurisdictional features.

BIO-8: Work will not occur in jurisdictional areas when rain is falling, or when the National Weather Service forecast predicts a 25 percent chance or greater of at least 0.1 inch of rain within a 24-hour period. Work can resume if rain does not occur, or after rain has stopped, the forecast predicts at least 72 hours of clear weather, and site conditions are dry enough to avoid discharges of sediment into jurisdictional areas.

BIO-9: Staging, parking, and refueling of equipment and vehicles must occur at least 100 feet from jurisdictional areas. If staging equipment and materials must occur closer than 100 fee from jurisdictional areas, the staging areas must have adequate Best Management Practices to prevent discharges from leaving the staging area and entering jurisdictional areas. If fueling must occur in areas less than 100 feet from streams, a refueling plan outlining secondary containment and spill prevention measures must be prepared and approved by Caltrans and agency staff.

BIO-10: At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills. Drip pans must be placed under equipment that is stationary for more than 12 hours. Stationary equipment used in jurisdictional areas, such as generators, must be placed in secondary containment. Equipment must be removed from the channel if the National Weather Service predicts a chance of at least 0.1 inch of rain within a 24-hour period for Santa Maria, California.

BIO-11: During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.

BIO-12: Only clean fill will be imported. When practicable, invasive plants in the project site will be removed and properly disposed. All invasive vegetation removed from the construction site will be taken to a landfill to prevent the spread of invasive species. If soil from weedy areas must be removed off-site, the top six inches containing the seed layer must be disposed of at a landfill. Inclusion of any species that occurs on the California Invasive Plant Council Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project must be avoided.

BIO-13: To minimize the introduction of invasive plant species, all vehicles, machinery, and equipment must be in a clean and soil free condition before entering the project limits. Construction equipment must be inspected as “weed-free” by Caltrans before entering the construction site.

BIO-14: Plant species that contain the California Invasive Plant Council, California Department of Agriculture, California Department of Fish and Wildlife, or other resource organizations consider to be invasive or potentially invasive will not be used in erosion control seed mix or to revegetate areas of disturbance. Caltrans erosion control mix will only contain native species to the central coast of California.

BIO-15: Only U.S. Fish and Wildlife Service-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

BIO-16: Ground disturbance shall not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.

BIO-17: A U.S. Fish and Wildlife Service-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found, and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work begins. The U.S. Fish and Wildlife Service-approved biologist shall relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The relocation site shall be in the same drainage to the extent practicable. Caltrans shall coordinate with U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.

BIO-18: Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, with a qualified person on hand to answer any questions. The training will also include descriptions of other special-status species with the potential to occur in the project area.

BIO-19: A U.S. Fish and Wildlife Service-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of habitat has been completed. After this time, Caltrans shall designate a person to monitor on-site compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist shall ensure this monitor receives the training outlined in BIO-18 above and in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and U.S. Fish and Wildlife Service during review of the proposed action, they shall notify the resident engineer immediately. The resident engineer shall resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, U.S. Fish and Wildlife Service shall be notified as soon as possible.

BIO-20: During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and debris shall be removed from work areas.

BIO-21: All refueling, maintenance and staging equipment and vehicles shall occur at least 60 feet from riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat, unless otherwise preapproved by the necessary agencies. The monitor shall ensure contamination of habitat does not occur during operations. Prior to the onset of work, Caltrans shall ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO-22: Habitat contours shall be returned to a natural configuration at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible, or modification of original contours would benefit the California red-legged frog.

BIO-23: The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project. Environmentally sensitive areas shall be established to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

BIO-24: Caltrans shall attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.

BIO-25: To control sedimentation during and after project completion, Caltrans shall implement Best Management Practices outline in any authorizations or permissions issued under the authorities of the Clean Water Act received for the project. If Best Management Practices are ineffective, Caltrans shall attempt to remedy the situation immediately, in coordination with U.S. Fish and Wildlife Service.

BIO-26: If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain

downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed will be minimized to the maximum extent possible; any imported material will be removed from the stream bed upon completion of the project.

BIO-27: Unless approved by the U.S. Fish and Wildlife Service, water will not be impounded in a manner that may attract California red-legged frogs.

BIO-28: A U.S. Fish and Wildlife Service-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs, signal and red swamp crayfish, and centrarchid fishes from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist shall be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

BIO-29: If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

BIO-30: To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.

BIO-31: Project sites will be re-vegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

BIO-32: Caltrans will not use herbicides as the primary method used to control invasive, exotic plants. However, if Caltrans determines the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, it will implement the following additional protective measures for the California red-legged frog:

- Caltrans will not use herbicides during the breeding season for the California red-legged frog;

- Caltrans will conduct surveys for the California red-legged frog immediately prior to the start of any herbicide use. If found, California red-

legged frogs will be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur;

- Gian reed and other invasive plants will be cut and hauled out by hand and then painted with glyphosate or glyphosate-based products, such as Aquamaster® or Rodeo®;
- Licensed and experienced Caltrans staff or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster ® or Rodeo® where large monoculture stands occur at an individual project site;
- All precautions will be taken to ensure that no herbicide is applied to native vegetation;
- Herbicides will not be applied on or near open water surfaces (no closer than 60 feet from open water);
- Foliar applications of herbicide will not occur when wind speeds are in excess of 3 miles per hour;
- No herbicides will be applied within 24 hours of forecasted rain.
- Application of all herbicides will be done by a qualified Caltrans staff or contractors to ensure that overspray is minimized, that all application is made in accordance with label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.
- All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Caltrans will ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO-33: A qualified biologist will conduct surveys prior to initial ground or vegetation disturbing activities in suitable habitat for Crotch's bumble bee to search for active nests.

BIO-34: If a Crotch's bumble bee nest is found within 50-feet of the work area, no work will begin until California Department of Fish and Wildlife is

contacted. No work will occur within 50-feet of an active Crotch's bumble bee nest unless approved by California Department of Fish and Wildlife.

BIO-35: Any blooming flowering plants that are scoped for removal in suitable Crotch's bumble bee habitat would be inspected immediately prior to work to ensure that no bumble bees are on or near the plant. If a bumble bee is identified on or adjacent to vegetation that is to be removed, work in that area would not proceed until the bumble bee leaves the area of its own accord.

BIO-36: A worker environmental awareness training will be provided for all construction personnel prior to the start of any ground-disturbance or vegetation removal to discuss Crotch's bumble bee identification, ecology, habitat, and avoidance and minimization measures.

BIO-37: Prior to any ground-disturbing activities, environmentally sensitive area fencing shall be installed, as appropriate, around Crotch's bumble bee foraging and nesting habitat to be avoided. Environmentally sensitive areas shall be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-38: Caltrans will limit all project-related vehicle and pedestrian access to established roads and staging areas. Caltrans will locate staging areas within previously disturbed areas to the extent possible, clearly delineate them, and they will contain all project-related parking and storage needs. Caltrans will limit the number of access routes, size of staging areas, and the total area of activity to the maximum extent feasible to achieve the project.

BIO-39: Prior to the start of excavation or construction activities, a qualified biologist will conduct a pre-construction survey for southwestern pond turtle. If any are found within the area of potential impact, work will not begin within a 100-foot buffer of the discovery until the relevant regulatory agencies are notified. No work will occur within the established buffer unless approved by the relevant regulatory agencies. The qualified biologist will use the most current survey protocols available for the species to ensure highest level of species detection including visual encounter surveys and nesting survey techniques.

BIO-40: Before any activities begin, the approved biologist will conduct a worker environmental awareness training for all persons employed or otherwise working on the project site prior to performing any work on-site. The worker environmental awareness training will include a discussion of the biology of the southwestern pond turtle, its protected status, proximity to the project site, project-specific avoidance and minimization measures, and the implications of violating Federal Endangered Species Act and permit conditions. Upon completion of the program, employees will sign a form stating they attended the program and understand all protection measures.

BIO-41: Tree removal shall be scheduled to occur from September 2 to January 31, outside of the typical bat maternity roosting season if possible, to avoid potential impacts to roosting bats.

BIO-42: If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the bat maternity roosting season (February1 to September 1), a bat roost survey shall be conducted by a biologist determined qualified by Caltrans within 14 days prior to construction. The biologist(s) conducting the pre-construction surveys will also identify the nature of the bat utilization (i.e., no roosting, night roost, day roost, maternity roost) and determine if passive bat exclusion will be necessary and feasible. If an active day roost is found, a qualified Caltrans biologist shall determine an appropriate buffer based on the habits and needs of the species. The buffer area shall be avoided until a qualified biologist has determined that roosting activity has ceased or exclusionary methods have successfully evicted roosting bats.

BIO-43: If bats are found by a qualified biologist to be maternally roosting, the roost(s) will be designated as an environmentally sensitive area and all construction activities shall be avoided within 100 feet until the end of the maternity roosting season (beginning of September) or until pups are capable of flight.

BIO-44: No less than 14 days and no more than 30 days prior to any project activities within suitable habitat for burrowing owl, American badger, or San Joaquin kit fox, a pre-construction survey shall be conducted. The biologist will survey for potential dens within the project area. The biologist will also survey for burrows with molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near the burrow entrance. The biologist will also listen for burrowing owl calls.

BIO-45: During pre-construction surveys, the status of all dens will be determined and mapped. Known dens, if found occurring within the footprint of the activity, shall be monitored for three days with tracking medium and/or cameras to determine the current use. If burrowing owl, American badger, or San Joaquin kit fox activity is observed during this period, the den shall be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity.

BIO-46: Active burrowing owl dens shall be marked with highly visible construction fencing at least 50 meters to 500 meters based on the time of year and level of activities. The area will be off limits to construction equipment and personnel. If an area cannot be avoided, agency consultation shall be initiated.

BIO-47: A worker environmental awareness training will be provided for all construction personnel prior to the start of any ground-disturbance or

vegetation removal to discuss burrowing owl, American badger, and San Joaquin kit fox identification, protected status, ecology, habitat, and avoidance and minimization measures.

BIO-48: All construction pipes, culverts, or similar structures with a diameter of 3 inches or greater stored in the construction site overnight will be thoroughly inspected for burrowing owl, American badger, and San Joaquin kit fox prior to being buried, capped, or otherwise used or moved. If a burrowing owl, American badger, or San Joaquin kit fox is discovered inside a pipe, the pipe shall not be moved until the species moves during its normal activity and the appropriate agency will be contacted. If the burrowing owl, American badger, or San Joaquin kit fox is in direct harm's way, the pipe may be moved to a safe location one time under the direct supervision of a qualified biologist.

BIO-49: Maintenance and construction excavations greater than 2 feet in depth shall be covered (for example, with plywood, sturdy plastic, steel plates, or equivalent), filled at the end of each working day, or have earthen escape ramps no greater than 200 feet apart to prevent trapping sensitive species.

BIO-50: Prior to construction, vegetation removal in areas containing narrow leaf milkweed will be scheduled to occur from October 1 to May 31, outside of milkweed blooming period and monarch reproductive period. If any narrow leaf milkweed is proposed for removal during the blooming season (June 1 to September 30), a focused survey must be conducted by a qualified biologist no more than three days prior to construction.

BIO-51: If monarch eggs, larvae, or pupae are observed on narrow leaf milkweed or other milkweed species, Caltrans will coordinate with U.S. Fish and Wildlife Service to determine and appropriate buffer based on the habitats and needs of the species. The buffer area will be avoided until a qualified biologist has determined that all reproductive cycle activities have ceased. If a monarch is observed on or near milkweed but no reproductive behaviors, eggs, larvae, or pupa are observed, work will not continue until the adult monarch has left on its own accord.

BIO-52: A worker environmental awareness training will be provided for all construction personnel prior to the start of any ground-disturbance or vegetation removal to discuss western monarch identification, Federal Endangered Species Act status, ecology, habitat, and avoidance and minimization measures.

BIO-53: Prior to any ground-disturbing activities, environmentally sensitive area fencing will be installed, as appropriate, around milkweed habitat to be avoided. Environmentally sensitive areas will be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-54: If coast horned lizard or northern California legless lizard are detected in the project limits during pre-construction surveys or construction, individuals will be relocated by a qualified biologist to a nearby location outside of the construction area with suitable habitat.

BIO-55: Caltrans will schedule vegetation removal between October 1 to January 31, outside of the typical nesting bird season, as feasible. If construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 1 to September 30), a nesting bird survey will be conducted by a qualified biologist no more than three days prior to construction. Partially built nests may only be removed if they have been monitored by a qualified biologist and determined to be inactive. If an active nest is found, the qualified biologist will determine an appropriate buffer based on the habitats and needs of the species. The buffer area will be avoided until a qualified biologist has determined that juveniles have fledged and are no longer dependent on the nest.

BIO-56: Active bird nests must not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code must not be killed, destroyed, injured, or harassed at any time.

BIO-57: Restoration (re-establishment) is proposed at a one-to-one ratio (acreage) for temporary impacts to jurisdictional areas. Compensatory mitigation is proposed at a three-to-one ratio (acreage) for permanent impacts to jurisdictional areas. Native trees removed will be replaced and mitigated based on size. Exact mitigation ratio for trees will be determined during permitting. Replacement plantings will include appropriate native tree and understory species. In order to ensure success, a three-year plant establishment period will be implemented.

2.1.8 Greenhouse Gas Emissions

GHG-1: Limit idling to five minutes for delivery and dump trucks and other diesel-powered equipment when not in active operation.

GHG-2: Schedule truck trips outside of peak morning and evening commute hours when possible.

GHG-3: For improved fuel efficiency from construction equipment:

- Maintain equipment in proper tune and working condition
- Use right sized equipment for the job

GHG-4: Use alternative fuels such as renewable diesel or solar power for construction equipment where feasible.

GHG-5: Reduce construction waste. Maximize use of recycled materials in the project construction to the extent feasible. See standard spec Section 14-10- Solid Waste Disposal Recycling.

Appendix C List of Preparers

Damaris Wyatt G.I.T., Engineering Geologist, Hazardous Waste and Paleontology Specialist M.S. Geosciences, The Pennsylvania State University, B.S. Earth Science-Geology, University of California, Santa Barbara 3 years of geoprofessional experience in California and Connecticut. Contribution: Supplemental Initial Site Assessment, Paleontological Investigation Report.

Kylen Kennedy, Environmental Scientist – Environmental Generalist/Environmental Scientist. B.S. in Environmental Science, University of California, Berkeley; 1 year of experience in environmental planning. Contribution: Preparation of environmental document.

Hannah Ehrlich, Environmental Scientist - Archaeology, PQS Co-Principal Investigator Prehistoric Archaeology B.S., Anthropology and Geography, California Polytechnic University San Luis Obispo. 7 years of experience in cultural resource management. Contribution: Preparation of archaeological technical studies and tribal coordination.

Haley Aumiller, Environmental Scientist - Air, Noise, Water Quality Specialist, M.S. Environmental Systems Science, Environmental and Natural Resources, University of Iceland, Reykjavik; 6 years professional environmental analysis experience. Contribution: Air, Noise, and Water Quality technical report.

Kristen Langager, Landscape Architect. Bachelor of Science, Landscape Architecture, California Polytechnic State University, San Luis Obispo; 19 years Landscape Architecture experience, 5 years Visual Technical Specialist, Contribution: Visual Impact Assessment.

Lucas Marsalek, Associate Environmental Planner. B.S., Forestry and Natural Resource Management, California Polytechnic State University, San Luis Obispo; 14 years of environmental planning experience. Contribution: Reviewer of environmental document.

Sonia M. Miller. Environmental Scientist (Specialist) – Architecture History, PQS Principal Architectural Historian. BS Anthropology with Archeology at University of East London (UEL), UK; AS Architecture, MA Art History and Visual Studies (Architecture), and MUP Urban and City Planning from San Jose State University (SJSU). Nine years of experience in Cultural Resources Management. Contribution: Built Environment Technical Studies.

List of Technical Studies Bound Separately (Volume 2)

- Air, Noise, and Water Quality technical report
- Hydrology: Location Hydraulic Study
- Biology: Natural Environment Study (Natural Environment Study), Jurisdictional Delineation Report
- Climate Change: Greenhouse Gas / Climate Change Report
- Cultural Resources: Screened Undertaking / Programmatic Agreement Memo
- Hazardous Waste: Initial Site Assessment
- Paleontology: joint Paleontological Identification Report / Paleontological Evaluation Report
- Aesthetics: Visual Impact Assessment

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

Lucas Marsalek
District 5 Environmental Division
California Department of Transportation
50 Higuera Street, San Luis Obispo, CA 93401

Or send your request via email to: lucas.marsalek@dot.ca.gov Or call: (805) 458-5408

Please provide the following information in your request:

Project title: SLO 166 CAPM

General location information: State Route 166 from the junction of State Route 166 / 101 and 0.45 miles west of the Huasna River Bridge

District number-county code-route-post mile: 5-SLO-166-8.9/16.0

Project ID number: 0521000171