

North Nojoqui Grade Capital Preventative Maintenance and Drainage Project

On U.S. 101 near Buellton
District 5-SB-101 PM R52.34-R56.09
Project Number 0518000209/EA 05-1K450



**Initial Study
with Proposed Mitigated Negative Declaration**

Volume 1 of 2

Prepared by the
State of California Department of Transportation

July 2022



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 Santa Barbara County 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 5 Office at 50 South Higuera Street, San Luis Obispo, California 93401. This document is also accessible at the following website: <https://dot.ca.gov/caltrans-near-me/district-5/district-5-current-projects>.
- Tell us what you think. If you have any comments regarding the project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Lara Bertaina, District 5 Environmental, California Department of Transportation, 50 Higuera Street, San Luis Obispo, California 93401. Submit comments via email to: lara.bertaina@dot.ca.gov.
- Submit comments by the deadline: September 19, 2022.

What happens next:

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

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North Nojoqui Grade Capital Preventative Maintenance
and Drainage Improvement on U.S. 101 from
post miles R52.34 to R56.09 in Santa Barbara County

**INITIAL STUDY
with Proposed Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA
Department of Transportation
and
California Transportation Commission



John Luchetta
D5 Deputy District Director, Environmental Analysis
California Department of Transportation
CEQA Lead Agency

July 5, 2022

Date

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

Lara Bertaina, District 5 Environmental, 50 Higuera Street, San Luis Obispo, California
93401; phone: 805-779-0792; email: lara.bertaina@dot.ca.gov



Draft

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: District 5-SB-101-R52.34-R56.09

EA/Project Number: 05-1K450/0518000209

Project Description

The California Department of Transportation (Caltrans) proposes to rehabilitate 14.41 lane miles of existing pavement, replace asphalt concrete dikes, reconstruct existing guardrail, upgrade guardrail connections to bridge railing, improve five drainage systems, and repair a failing slope on the U.S. Highway 101 (U.S. 101) between 0.4 mile south of Santa Rosa Road and 0.1 mile north of Nojoqui Creek near Buellton in Santa Barbara County.

Determination

An Initial Study has been prepared by Caltrans, District 5. On the basis of this study, it is determined that the proposed action with the incorporation of the identified mitigation measures will not have a significant effect on the environment for the following reasons:

The project would have no effect on agriculture and forest resources, air quality, cultural resources, energy, hazards and hazardous materials, hydrology and water quality, land use planning, mineral resources, population and housing, public services, recreation, transportation, tribal cultural resources, geology and soils, noise, or utilities and service systems.

The project would have no significant effect on aesthetics, greenhouse gas emissions, and wildfire.

The project would have no significant effect on biological resources because the following mitigation measure would bring the level of effects to less than significant:

- Mitigation is proposed at a 1-to-1 ratio (acreage) for temporary impacts to stream and riparian habitats and a 3-to-1 ratio (acreage) for permanent impacts to stream and riparian habitats.

John Luchetta
District 5 Deputy District Director, Environmental Analysis
California Department of Transportation

Date

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Chapter 1 **Proposed Project**

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to rehabilitate 14.41 lane miles of existing pavement, replace asphalt concrete dikes, reconstruct existing guardrail, upgrade guardrail connections to bridge railing, improve five drainage systems, and repair a failing slope on the U.S. Highway 101 (U.S. 101) between 0.4 mile south of Santa Rosa Road and 0.1 mile north of Nojoqui Creek near Buellton in Santa Barbara County.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to preserve and extend the service life of existing pavement, protect the embankments and roadway from potential failure, and maintain the functionality of five drainage systems on U.S. 101 from post miles R52.34 to R56.09 in Santa Barbara County.

1.2.2 Need

The pavement within the project limits is deteriorating which, if left uncorrected, will continue and result in increasing maintenance costs or more costly reconstruction. Corrosion and scouring have led to damaged inverts, shape loss, joint separation, and undermined backfill in five culverts identified within the project limits. If culvert deterioration is not corrected, future roadway failure is possible. Also, a sackrete (concrete mix) wall retaining the southbound embankment slope is deteriorating and, if not repaired, could lead to slope failure.

1.3 Project Description

The project lies along U.S. 101 south of Buellton from post miles R52.34 to R56.09 in Santa Barbara County (see Figure 1-1 and Figure 1-2). The existing facility is a four-lane expressway in a rural environment. No on-ramps or off-ramps exist within the project limits; however, there are several at-grade intersections.

Figure 1-1 Project Vicinity Map

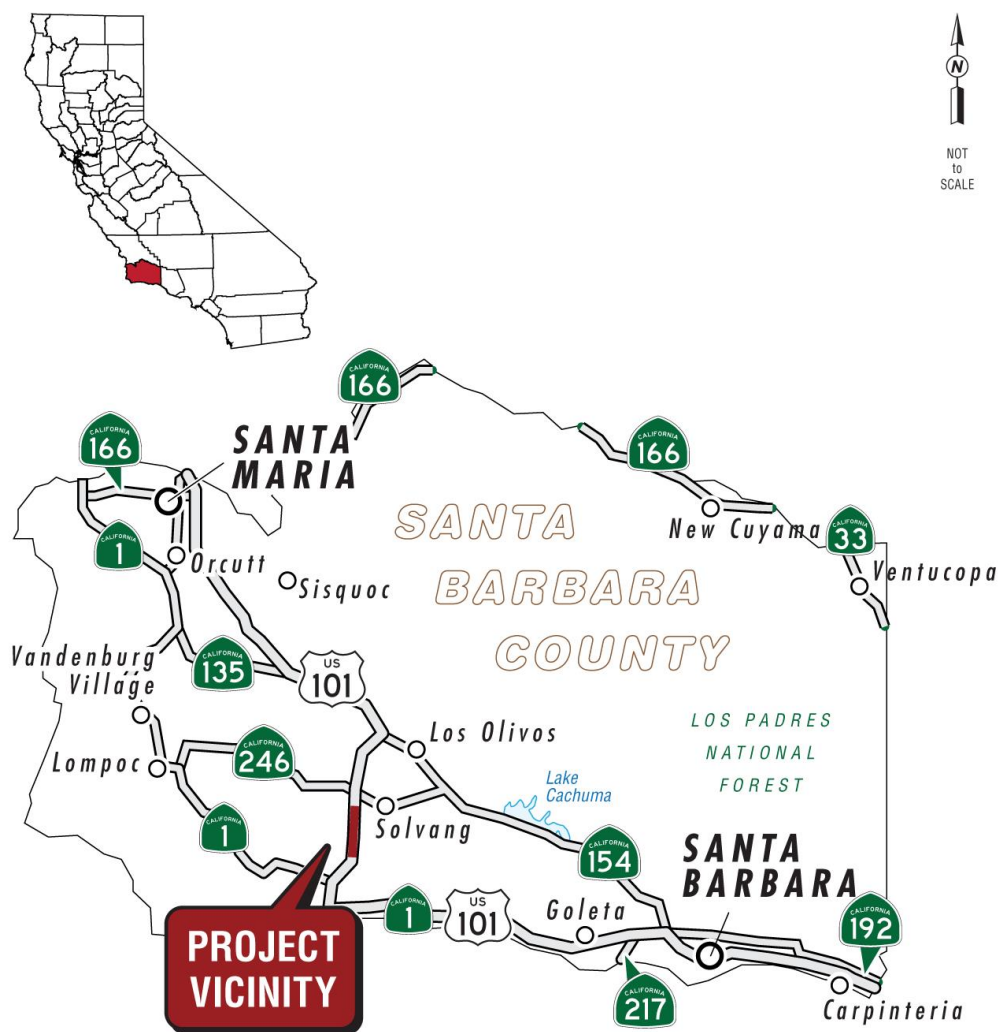
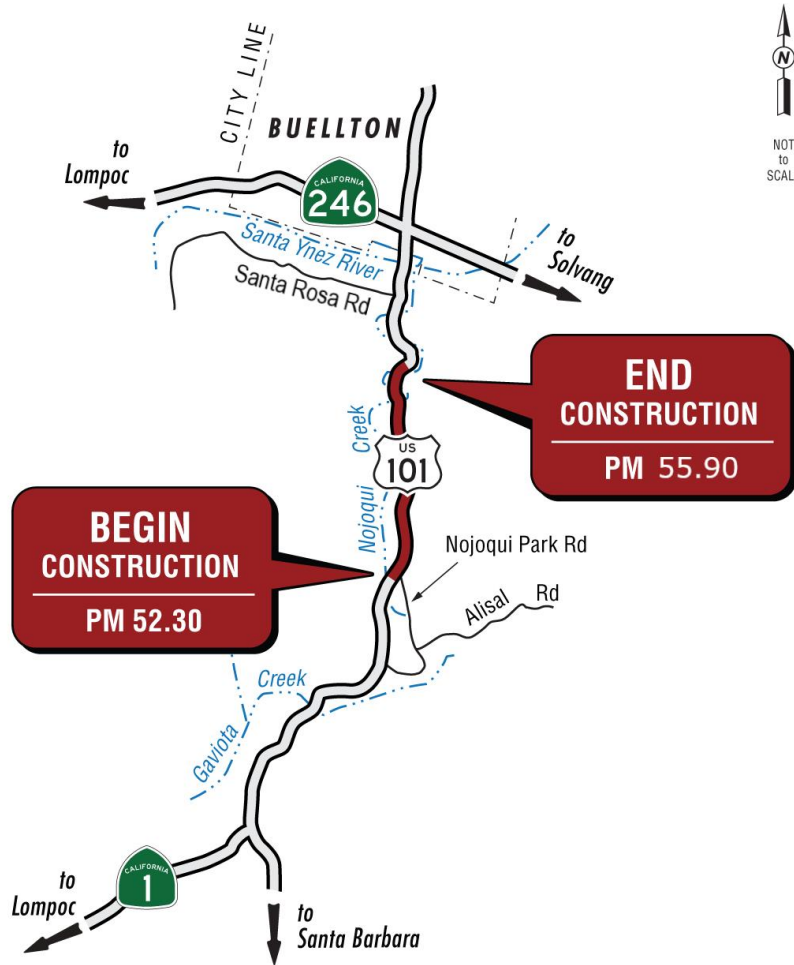


Figure 1-2 Project Location Map



The project would require a Traffic Management Plan to minimize and manage traffic delays during construction of the project. Signing, including portable changeable message signs and a public awareness campaign would be used to inform the public of current and upcoming construction activities. The Construction Zone Enforcement Enhancement Program would be used to monitor traffic and operations through the construction zone.

The project components are described below.

1.3.1 Minor Pavement Rehabilitation

Pavement work would include the following:

- Cold-planing (scraping off the top surface) to remove open-grade and conform to inside shoulder.
- Cold-planing left-turn pockets to meet sight distance and the concrete barriers.
- Placing a 0.15-foot rubberized hot-mix asphalt overlay. At at-grade intersections, the overlay would include the local road up to the state's right-of-way line with a 75-foot transition to meet existing pavement.
- Grouting or digging out at post mile 53.32 where pavement settlement is a concern.
- Replacing dikes where needed.
- Placing shoulder backing where needed.
- Replacing rumble strips.
- Replacing traffic stripe and pavement markings.

Night work may occur for paving and striping work.

1.3.2 Traffic Safety Systems

Existing guardrail needs updating to meet current standards. Metal beam guardrail would be removed and replaced with approximately 21,000 feet of Midwest Guardrail System. Vegetation control with shale is proposed between the edge of the pavement and the hinge point at all Midwest Guardrail System locations.

1.3.3 Embankment Scour Repair

The project would repair the embankment scour along Nojoqui Creek at post mile 55.82. The existing sackrete slope protection is leading to localized embankment slope failure. The project would remove the remaining failed sackrete and construct an approximately 500-linear-foot vegetated rock slope protection embankment to protect the slope. The vegetated rock slope protection would be placed along approximately 450 linear feet of stream. To construct the rock slope protection wall, the project would establish a dirt access road in the southbound shoulder of U.S. 101 and extend it to the streambed.

Construction equipment would do most of the grading and rock slope protection placement from the dirt access road. The rock slope protection would be placed from the access road in layers. Each layer would be built on top of the preceding layer, and the contractor crew would build its way out of the creek, back up toward the roadway. It is possible that some construction

equipment may need to enter the streambed to construct the key-way at the toe of the rock slope protection; the key-way is a ditch dug at the toe of the rock slope protection that provides stability for the first layer of rock slope protection and is dug below ground-level to prevent future scouring of the toe. Diversion of Nojoqui Creek is anticipated to be needed to construct the vegetated rock slope protection bank.

1.3.4 Drainage Culverts

The project would improve drainage at five locations. Based on inventory and hydraulic analysis activities performed by the Culvert Inspection Program of the District Hydraulic Branch, five drainage culverts within the project limits were identified as needing repair or replacement. Table 1.1 lists the drainage locations, current conditions, and the proposed methods and strategies for rehabilitation. All drainages have varying levels of damage. The strategy for each culvert varies depending on each site condition.

Two culverts would be replaced with the cut and cover method, usually accomplished by digging a trench with an excavator. The other culverts would be repaired with trenchless methods for invert repairs, liner replacement, joint repairs, and spall repairs.

Table 1.1 Drainage Culvert Rehabilitation Locations and Strategies

Location Number	Post Mile	Description	Deficiency	Proposed Strategy
1	52.38	The existing culvert is 229 feet long with a 6-foot-diameter corrugated steel pipe under the southbound lane transitioning to a 30-foot-long 6-foot by 6-foot concrete box culvert under the northbound lane.	The pipe needs a joint repair. The last 20-foot segment at the outlet is misaligned. The inlet shows signs of corrosion along the corrugated steel pipe. Sediment has accumulated at both the inlet and outlet.	A segment (20 feet) of the corrugated steel pipe at the outlet would be removed and replaced. The headwall at the outlet would also be replaced. Any cracks within the concrete box culvert would be sealed. The channel would be re-graded at both the inlet and outlet.
2	52.62	The existing culvert is a concrete circular pipe and is 18 inches in diameter and has a length of 78 feet. Sediment is at the outlet only.	The existing 18-inch culvert lacks the hydraulic capacity needed at that location due to the small size of the pipe.	Replace the existing pipe with a 24-inch diameter reinforced concrete pipe using the cut and cover method. Drainage inlets at the median will be replaced and minor grading and a flare end section will be needed at the outlet.
3	52.92	The existing culvert is an 8-foot by 8-foot box culvert with a length of 101 feet under the northbound side and 8-inch-diameter concrete circular pipe with a length of 208 feet at the southbound side.	The pipe needs a joint repair, debris removal, various spot repairs, and vegetation removal.	Repairs include paving the invert and performing various spot repairs inside the culvert, including repairing the spalled hollow invert, replacing the corrugated metal pipe riser with concrete, and repairing a damaged joint. Also, sediment that has accumulated in the reinforced concrete pipe would be cleared. It is also proposed to re-grade the channel both upstream and downstream to prevent future sedimentation within the culvert. Rock slope protection would be added at the culvert outlet.

Location Number	Post Mile	Description	Deficiency	Proposed Strategy
4	53.15	The existing culvert is a 3-foot-diameter corrugated steel circular pipe under the northbound side of the roadway. The pipe has a maximum cover of 10 feet and a length of 78 feet.	The pipe is experiencing joint failure and inlet sediment accumulation.	The existing 36-inch corrugated steel pipe would be replaced with a 36-inch reinforced concrete pipe using the cut and cover method. The drainage inlet would be placed at the median. The headwall would be replaced at both the inlet and outlet. Rock slope protection would be placed as energy dissipation control at the outlet. A flare end section would be placed at the inlet. K-rail is needed at this location. Work would occur at night, and traffic would be limited to one lane.
5	55.82	On the southbound side of the roadway, a 36-inch-diameter culvert is exposed due to scour at the old sackrete wall location causing slope failure along Nojoqui Creek.	There is approximately 300 to 400 feet of failed sackrete slope that exposes approximately 20 feet of the culvert. The erosion caused the slope to be almost vertical at a height of 20 feet from the ground to the top.	The exposed portion of the culvert would be cut and replaced during the construction of the vegetated rock slope protection installation. A flared end section would be used.

1.4 Project Alternatives

There are two alternatives being considered for this project: the Build Alternative and the No-Build Alternative.

1.4.1 Build Alternative

The Build Alternative would preserve and extend the life of the pavement and roadway, repair a failing embankment, and include needed asset management components along U.S. 101 from post miles R52.34 to R56.09 in Santa Barbara County. The Build Alternative is described in Section 1.3 of this document.

This project contains a number of standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are listed later in this chapter under “Standard Measures and Best Management Practices (BMPs) Included in All Build Alternatives.”

1.4.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, the pavement distress would continue to increase over time, Nojoqui Creek scour would continue to threaten the roadway at post mile 55.82, and culverts in poor condition would continue to deteriorate. The No-Build Alternative would require costly major pavement rehabilitation work in the future and a potential emergency scour repair project at post mile 55.82. In addition, it could result in future roadway failure where culverts are not repaired.

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

- The project would include a Transportation Management Plan that would reduce delays and related short-term increases in greenhouse gas emissions from disruptions in traffic flow during construction.
- Caltrans Standard Specifications Section 14-9, Air Quality, a part of all construction contracts, requires contractors to comply with all federal, state, regional, and local rules, regulations, and ordinances related to air quality. Requirements of the Santa Barbara County Air Pollution Control District will apply to this project. Requirements that reduce vehicle emissions, such as limits on idling time, may help reduce greenhouse gas emissions.
- All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware

of and will comply with all the California Air Resources Board emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

- Caltrans Standard Specifications Section 14-8.02 requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 dBA L_{max} at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. The contractor shall consult the District Noise Specialist if complaints are received during the construction process.
- During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of at the end of each work week. Following construction, all trash and debris shall be removed from work areas.
- Construction equipment will be free of excessive dirt that may contain weed seed before entering the construction site. If necessary, wash stations either onsite or offsite will be established for construction equipment under guidance of Caltrans to avoid/minimize the spread of invasive plants and/or seed within the construction area.
- Water quality-related Best Management Practices include job site management and preparation of a water pollution control plan.
- Temporary Best Management Practices may include hydraulic mulch, check dams, drainage inlet protection, fiber rolls, concrete washout, and Environmentally Sensitive Area fencing.
- All project-related hazardous materials spills within the project site will be cleaned up immediately. Readily accessible spill prevention and cleanup materials will be kept by the contractor onsite, at all times during construction.
- 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. 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.

1.6 Discussion of the NEPA Categorical Exclusion

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

1.7 Permits and Approvals Needed

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

Agency	Permit/Approval	Status
U.S. Army Corps of Engineers	Clean Water Act Section 404 Nationwide Permit	To be obtained before construction
Central Coast Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	To be obtained before construction
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement	To be obtained before construction
California Department of Fish and Wildlife	Section 2081 incidental take permit for Southern California steelhead	To be obtained before construction
National Marine Fisheries Service	Formal Section 7 Consultation and a Biological Opinion for Southern California steelhead	To be obtained before construction
U.S. Fish and Wildlife Service	Section 7 Consultation and a Biological Opinion for California red-legged frog, least bell's vireo and southwestern willow flycatcher	Obtained May 2022

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

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

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

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

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment dated March 2022, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	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

Question—Would the project:	CEQA Significance Determinations for Aesthetics
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	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

U.S. 101 is the main north-south transportation corridor in Santa Barbara County. The landform of the region is a transitional area of land along the northern side of the Gaviota Pass that flattens out toward the Santa Ynez Mountains. The coastal mountains create a visual backdrop to the east, west, and south. The area around Buellton is more developed, surrounded by more open space and an agricultural landscape in the project vicinity. Oak woodland and chaparral are the predominant plant communities, with riparian corridors along the drainages and creeks.

The visual quality of the setting is moderately high due to the rural character, topographic variety, adjacent mountain range, and patterns of native vegetation. Santa Barbara County planning policies emphasize the protection of visual resources along U.S. 101 and highlight the concern and sensitivity regarding aesthetic issues along this route.

Environmental Consequences

Implementation of the project would result in visual changes as seen from public viewpoints such as U.S. 101 and some local frontage streets. An increased visual scale of the highway facility would be the main result of the introduction of additional drainage structures, tree and vegetation removal, and other roadside elements such as guardrail. While they would not be unexpected elements in the roadway environment, their increased size and contrasting appearance would make these otherwise visually neutral features potentially more noticeable and would contribute somewhat to the increased visual scale of the highway facility. The reduction in roadside trees and vegetation would also result in a somewhat more engineered appearance of the highway facility.

Although potential visual changes would occur, the same type of elements proposed with this project are seen elsewhere along the highway and are not by themselves inconsistent with the rural roadway character of the region or

throughout the state. As a result, the proposed drainage structures and guardrail would be subordinate to the overall experience of traveling along the highway. It is also expected that following project construction and revegetation, the project would be generally unnoticed by the casual observer on U.S. 101 and other public viewpoints in the area. If noticed, the project would not appear out of place with the setting.

Although most of the project elements would not be uncharacteristic for the setting, viewer sensitivity may be heightened because of the project's proximity to the beginning post miles of a designated State Scenic Highway. Because of this increased sensitivity, avoidance and minimization measures would be included in the project.

Avoidance and Minimization Measures

With implementation of the following measures, the project would be consistent with the aesthetic and visual resource protection goals along U.S. 101, and potential visual impacts would be reduced:

- Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques that save the most existing vegetation possible should be used.
- Revegetate all disturbed areas with native plant species appropriate to each specific work location.
- Replacement planting 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. See section 2.1.4 Biological Resources for information on replacement plantings.
- All visible concrete drainage elements including but not limited to headwalls, drain inlet aprons, etc. should be colored to blend with the surroundings and reduce reflectivity. The specific colors of these concrete elements shall be determined by Caltrans District 5 Landscape Architecture.
- All visible metal components related to down drains and inlets, including but not limited to flared end sections, connectors, anchorage systems, safety cable systems, etc. should be darkened or colored to blend with the surrounds and reduce reflectivity. The specific color shall be determined by Caltrans District 5 Landscape Architecture.
- All visible rock slope protection should be placed in natural-appearing shapes rather than in geometric patterns to the greatest extent possible to reduce its engineered appearance.

- Following placement of rock slope protection, the visible rock should be colored to blend with the surroundings and reduce reflectivity. The specific color shall be determined by Caltrans District 5 Landscape Architecture.
- 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 Forest Resources

Land uses within the areas of potential impact for the project are mostly designated as grazing land. There is one area of the project that is within farmland designated as prime farmland. However, access would be temporary for construction and would not prevent the continuation of existing farmland activities in the area. This project would not require any acquisition of property, and no farmland (neither directly nor indirectly) would be converted to nonagricultural use. No forest land or timberland is identified in the project vicinity that would be converted to non-forest use. Considering this information, the following significance determinations have been made:

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

2.1.3 Air Quality

Considering the information in the Air Quality, Greenhouse Gas, Noise and Water Quality Technical Assessment Memo dated March 2022, the following significance determinations have been made:

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

2.1.4 Biological Resources

Considering the information in the Natural Environment Study dated April 2022, the following significance determinations have been made:

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

Question—Would the project:	CEQA 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
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

Within the project limits, U.S. 101 passes through a rural setting south of the Santa Ynez Valley near Buellton in Santa Barbara County where the land use is dominated by rangeland, vineyards, and other agricultural production. U.S. 101 passes over Nojoqui Creek and riparian habitat of varying quality at multiple spots along the 14-mile-long area of potential impact from post miles R52.34 to R56.09. Project activity is mostly confined to areas right next to highway facilities and ruderal/disturbed habitats (including the road surface and shoulders) but is expanded in areas surrounding proposed drainage work at five locations.

To determine potential biological impacts of the project, a desktop review and field surveys were conducted within the Biological Study Area. The Biological Study Area is defined as the area that may be directly, indirectly, temporarily, or permanently impacted by construction and construction-related activities. For this project, the Biological Study Area includes the area of potential impact and buffer areas where work in Nojoqui Creek would occur. However, to ensure evaluation of all potential effects on biological resources, the Biological Study Area was expanded beyond the proposed construction footprint at some locations to include adjacent habitats.

Queries and official species lists were used to determine the special-status species and sensitive natural communities that have the potential to occur within the Biological Study Area. Sensitive species and habitats potentially present in the project impact area were further researched during field surveys.

Studies conducted by Caltrans biologists included botanical surveys for sensitive plant species, habitat mapping and evaluation, and general inspection wildlife surveys. Botanical surveys were conducted when target species would be flowering and identifiable. General inspection wildlife surveys coincided with the botanical surveys. Species that were found were documented.

Natural Communities and Habitats of Concern

Based on information obtained from literature review and the results of the field surveys, it was determined that no sensitive natural communities or habitats of concern have the potential to occur within the Biological Study Area.

Jurisdictional Wetlands, Other Waters, and Riparian Habitat

Jurisdictional wetlands, other waters, and riparian habitat are regulated by the U.S. Army Corps of Engineers, Regional Water Quality Control Board and California Department of Fish and Wildlife. Wetlands function to improve water quality, detain stormwater runoff, recharge groundwater, and provide wildlife habitat. Riparian habitat along streams provides wildlife habitat, insects for food for aquatic species, and shade and cover for aquatic species, which helps regulate stream temperature.

No three-parameter wetlands are present within the Biological Study Area, so no jurisdictional U.S. Army Corps of Engineers wetlands would be impacted. However, impacts to jurisdictional features including riparian habitats, intermittent drainage streams, and ephemeral drainage streams (temporary water channels formed by water during or immediately after rains) would occur at four of the five project culvert locations within the Biological Study Area:

- Location 1 at post mile 52.38
- Location 3 at post mile 52.92
- Location 4 at post mile 53.15
- Location 5 at post mile 55.82

The culvert at Location 1, an ephemeral drainage stream, conveys flow from an unnamed tributary to Nojoqui Creek. Upstream, the main land uses consist of rangeland and agriculture with coast live oak woodland habitat surrounding the creek. The upstream portion of the stream is narrow with steep banks and contains several stormwater erosion features that feed into the main channel. Downstream, there is a concrete apron between wing walls with a scoured pool of about 12-18 inches deep downstream of the apron. The downstream habitat along the stream banks consists of poison oak, elderberry, and arroyo willow.

The culvert at Location 3, an ephemeral drainage stream, conveys an unnamed tributary to Nojoqui Creek. Upstream, the main land use is rangeland with a riparian canopy of coast live oak woodland over the stream. Just upstream of the culvert is fallen tree debris partially blocking the flow of the stream as well as a barbed wire fence at the right-of-way line that has collected debris from flows. There is significant siltation within the culvert and

evidence of frequent wildlife use. Downstream, the vegetation above the streambed consists mostly of red willow, black cottonwood, and poison oak.

At Location 4, an ephemeral drainage stream, a grassy swale is visible in the hills above the site, east of the culvert. The swale lacks a defined bed for most of its length, and vegetation appears the same as on adjacent slopes. But, as the swale nears the highway, the channel becomes more defined. A mix of arroyo willow, coast live oak, coyote brush and poison oak overhangs the culvert inlet. Understory (underlying layer) plant species are mostly upland grasses. On the downstream side (west side) of Location 4, the existing corrugated metal pipe culvert is perched, and as a result, a deep hole has scoured at the outlet. Poison oak partially blocks views but standing water was seen at the outlet in March 2021. The outlet section of stream is surrounded by coastal scrub species, mostly poison oak and coyote brush. This ephemeral stream flows into a larger tributary that joins Nojoqui Creek farther northwest.

At Location 5, the intermittent stream, Nojoqui Creek, takes a sharp turn toward the U.S. 101 road embankment, which was historically armored with a sackrete wall. The current conditions reveal severe bank erosion, especially where portions of the old sackrete wall have been washed away. The streambed here consists of exposed bedrock with cobble, gravel, and sand. The streambed has riffles, runs, and shallow pools as well as aquatic plants and overhanging riparian vegetation.

Remaining culvert locations within the Biological Study Area were not identified as jurisdictional.

Special-Status Plant and Animal Species

The term “special-status species” refers to plants or animals that are federally or state listed as endangered, threatened, or rare, species that are candidates or proposed for federal or state listing, and species considered special concern species by federal or state agencies.

Although several special-status plant species had the potential to occur within the Biological Study Area, no special-status plant species were found during field surveys. None of those species are expected to occur within the Biological Study Area, and no special-status plant species are anticipated to be impacted by the project. There would be no effect on any federally or state listed plants or their critical habitat.

Several special-status animal species have the potential to occur in the Biological Study Area. The special-status animal species are shown in Table 2.1, along with a general description of the habitat requirements for each species and the potential for each to occur within the Biological Study Area. Special-status animal species that were absent during field surveys and that have no suitable habitat within the Biological Study Area are not in the table.

Table 2.1 Animal Species of Concern Potentially Present in the Biological Study Area

Scientific Name	Common Name	Habitat Presence Within Biological Study Area	Federal Endangered Species Act Effects Determination
Amphibians <i>Rana draytonii</i>	California red-legged frog	Suitable habitat is present within the Biological Study Area. The California red-legged frog was not detected during general wildlife surveys but is expected to occur within Nojoqui Creek. Avoidance and minimization measures are recommended.	The project may affect and is likely to adversely affect the California red-legged frog.
Amphibians <i>Taricha torosa</i>	Coast Range newt	Suitable habitat is present in Nojoqui Creek within the Biological Study Area. The Coast Range newt was not detected during surveys but has the potential to occur. Avoidance and minimization measures are recommended.	Not Applicable
Birds <i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	Marginally suitable migration and foraging habitat may be present in Nojoqui Creek within the Biological Study Area. Avoidance and minimization measures are recommended.	The project may affect but is not likely to adversely affect the southwestern willow flycatcher and no take of this species will occur.
Birds <i>Progne subis</i>	purple martin	Suitable nesting habitat is present in large riparian tress along Nojoqui Creek within the Biological Study area. Purple martin was not detected during surveys but have the potential to occur. Avoidance and minimization measures are recommended.	Not Applicable
Birds <i>Vireo bellii pusillus</i>	least Bell's vireo	Marginally suitable willow riparian habitat is present at Nojoqui Creek. There is very low potential for the least Bell's vireo to be present within the area of potential impact. Avoidance and minimization measures are recommended.	The project may affect, but is not likely to adversely affect the least Bell's vireo. No take of the species would occur.
Fish <i>Oncorhynchus mykiss irideus</i>	steelhead trout - Southern California DPS	Suitable habitat is present within the Biological Study Area in Nojoqui Creek. Avoidance and minimization measures are recommended.	The project may affect and is likely to adversely affect the steelhead trout. The project will have no effect on steelhead trout critical habitat.
Mammals <i>Antrozous pallidus</i>	pallid bat	Suitable roosting habitat is present in box culverts within the Biological Study Area. No pallid bats were observed during the 2020/2021 surveys. Avoidance and minimization measures are recommended.	Not Applicable

Scientific Name	Common Name	Habitat Presence Within Biological Study Area	Federal Endangered Species Act Effects Determination
Mammals <i>Corynorhinus townsendii</i>	Townsend's big-eared bat	Suitable roosting habitat is present in box culverts within the Biological Study Area. This species was seen during multiple visits in low numbers using two of the culverts as day roosts. Avoidance and minimization measures are recommended.	Not Applicable
Mammals <i>Puma concolor</i>	mountain lion	Suitable habitat is present throughout the Biological Study Area. No mountain lion was detected during wildlife surveys. With implementation of recommended avoidance and minimization measures, no take of this species would occur.	Not Applicable
Mammals <i>Taxidea taxus</i>	American badger	Suitable habitat is present throughout the Biological Study Area. The American badger was not detected during wildlife surveys. Avoidance and minimization measures are recommended.	Not Applicable
Mammals <i>Neotoma lepida intermedia</i>	San Diego desert woodrat	Suitable habitat is present in coastal scrub habitat within the Biological Study Area. This species was not detected during wildlife surveys. Avoidance and minimization measures are recommended.	Not Applicable
Reptiles <i>Anniella pulchra</i>	Northern California legless lizard	Suitable habitat is present in soils under leaf litter in oak woodlands within the Biological Study Area. The Northern California legless lizard was not detected within the Biological Study Area. However, avoidance and minimization measures are recommended during tree removal activities.	Not Applicable
Reptiles <i>Emys marmorata</i>	western pond turtle	Suitable habitat is present in Nojoqui Creek and surrounding riparian areas. This species was observed within the Biological Study Area during wildlife surveys. Avoidance and minimization measures are recommended.	Not Applicable
Reptiles <i>Thamnophis hammondi</i>	two-striped garter snake	Suitable habitat is present in Nojoqui Creek. This species was not detected during surveys. Avoidance and minimization measures are recommended.	Not Applicable
Reptiles <i>Phrynosoma blainvillii</i>	coast horned lizard	Suitable habitat is present in coastal scrub habitat and adjacent open areas. This species was not detected during surveys. Avoidance and minimization measures are recommended.	Not Applicable

Invasive Species

A total of 27 invasive plant species identified by the online California Invasive Plant Council Inventory Database (2021) were found within the Biological Study Area. Invasive plant species were scattered throughout the Biological Study Area and most common in ruderal/disturbed areas along the edges of U.S. 101.

Environmental Consequences

Jurisdictional Wetlands, Other Waters, and Riparian Habitat

Impacts to jurisdictional features would occur from culvert replacement at Location 1, culvert repairs and channel re-grading at Location 3, culvert replacement at Location 4, and construction of the vegetated rock slope protection embankment and associated culvert repair at Location 5. The impacts to jurisdictional waters would consist of temporary stream diversions, if needed, removal of vegetation in the construction area, removal of the existing damaged sackrete wall to be replaced with vegetated rock slope protection, installation of headwalls and rock slope protection at culvert replacement or repair locations, and channel re-grading where necessary.

Estimated permanent and temporary impacts to jurisdictional areas are quantified in Table 2.2. Permanent impacts to jurisdictional features would occur from replacement or repair of culverts where installation of rock slope protection is necessary. A total of approximately 0.016 acre of jurisdictional other waters and streambed may be permanently impacted. A total of approximately 0.028 acre of jurisdictional riparian habitat may be permanently impacted. Temporary impacts to jurisdictional features would occur due to temporary access, staging areas, channel re-grading, and temporary stream diversion/dewatering. A total of approximately 0.642 acre of jurisdictional other waters and streambed may be temporarily impacted. A total of approximately 1.371 acres of jurisdictional riparian habitat may be temporarily impacted. Based on field surveys and all available information, the project is likely to impact jurisdictional areas.

Table 2.2 Summary of Impacts to Jurisdictional Areas

Regulatory Authority/Habitat Type	Total Area in Biological Study Area (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)
U.S. Army Corps of Engineers	1.08	0.642	0.016
Stream Habitat (Other Waters)	1.08	0.642	0.016
Regional Water Quality Control Board	3.16	2.013	0.044
Stream Habitat (Other Waters)	1.08	0.642	0.016
Riparian Zone	2.08	1.371	0.028
California Department of Fish and Wildlife	3.16	2.013	0.044
Streambed and Stream Habitat	1.08	0.642	0.016
Riparian Zone	2.08	1.371	0.028

Migration and Travel Corridors

The Biological Study Area does not sit within an Essential Connectivity Area. However, the natural and semi-natural (rangeland) landscapes that the project bisects provide suitable habitats and migration corridors for a variety of wildlife species. Nojoqui Creek and other tributaries and drainages within the Biological Study Area that flow toward and under the highway can be used for the movement of aquatic and terrestrial species without the risk of harm from traffic.

The project would not permanently alter crossing of the roadway. No new concrete median barriers are proposed. Wildlife movement may be temporarily impacted during construction of the project. Work zone exclusion fencing may temporarily block portions of the project area from wildlife. Temporary disturbance may occur from construction noise and lighting if night work occurs. Culverts suitable for wildlife passage that are proposed for repair would retain the same function for wildlife movement after construction. Construction activities relating to scour repair along Nojoqui Creek may temporarily impact wildlife movements using the creek corridor but would be restored and revegetated after construction and are not expected to adversely affect the wildlife corridor long term.

Special-Status Animal Species

California Red-legged Frog

The California red-legged frog was not found during general wildlife surveys, but jurisdictional drainages within the Biological Study Area provide suitable breeding habitat for California red-legged frogs. Therefore, presence of the species is inferred. Also, there is one known occurrence record (2008) for the California red-legged frog within the Biological Study Area in Nojoqui Creek, but the Biological Study Area is not within critical habitat for the species.

Construction work within Nojoqui Creek for scour repair and work activities for replacement or repair of culverts or other drainage improvements have the potential to impact the California red-legged frog, especially those areas that are associated with other waters or streams. The potential need to capture and relocate California red-legged frogs would subject these animals to stresses that could result in adverse effects. Injury or death could occur via accidental crushing by worker foot-traffic or construction equipment.

Because California red-legged frog presence has been inferred and there would be potential for take of the species during construction, the Federal Environmental Species Act Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, the California red-legged frog. However, with implementation of avoidance and minimization measures, the impact from the project would be reduced to a less than significant level. There would be no threat to California red-legged frog critical habitat because no critical habitat is present in the Biological Study Area.

Southern California Steelhead Trout

Steelhead trout were not found within the Biological Study Area during surveys conducted for this project; however, suitable habitat for steelhead trout is present within Nojoqui Creek. Based on available information, steelhead trout have a low potential to be present in Nojoqui Creek and even lower potential to be present during the summer season when in-stream work would take place (June 1 to October 31) for the project.

It is anticipated that direct effects to steelhead trout would be minimal due to the use of U.S. Fish and Wildlife Service-approved biologists and timing of in-stream work when steelhead trout presence would be seasonally low. Overall, the short-term releases of sediment from the relatively small in-stream work area are not anticipated to appreciably affect the survival, reproduction, or distribution of aquatic species within the project area. Construction activities would involve the use of motorized equipment, posing the risk of contamination and potential harm to steelhead trout; however, Caltrans would implement standard pollution control measures to minimize this risk. Nojoqui Creek is not designated as critical habitat for steelhead trout, and therefore the project would have no impacts to critical habitat; however, the Section 7 effects determination is that this project may affect, and is likely to adversely affect, the steelhead trout. With implementation of avoidance and minimization measures, the impact would be reduced to a less than significant level.

National Marine Fisheries Service consultation under Section 7 of the Endangered Species Act for this species will occur during the design phase of the project. A Section 2081 Incidental Take Permit from the California Department of Fish and Wildlife is required for steelhead trout and would be obtained during the design phase of the project.

Least Bell's Vireo

Based on observations made during field surveys, there is suitable foraging and nesting habitat along Nojoqui Creek for the least Bell's vireo. Though a small amount of suitable least Bell's vireo riparian and willow-mulefat thicket habitat is in the Biological Study Area, there is a low potential for the species to be present in the area of potential impact. This is based on historical data and recent protocol-level surveys. With implementation of avoidance and minimization measures, the Section 7 effects determination is that the project may affect, but is not likely to adversely affect, the least Bell's vireo.

Southwestern Willow Flycatcher

Based on observations during field surveys, potentially suitable willow-mulefat thicket and riparian habitats along Nojoqui Creek are not sufficient in height or area for southwestern willow flycatcher nesting habitat. Though willow-mulefat thicket and stream habitat may be used by southwestern willow flycatchers during migration and may provide marginal foraging habitat, there is very low potential for this species to occur in the Biological Study Area.

The project would temporarily impact suitable willow-mulefat riparian habitat at Nojoqui Creek. Based on historical data and recent protocol-level surveys within the Biological Study Area, there is very low potential for southwestern flycatchers to be present within the area of potential impact. With implementation of avoidance and minimization measures, the project is not anticipated to adversely affect the southwestern willow flycatcher. The Section 7 effects determination is that the project may affect, but is not likely to adversely affect, the southwestern willow flycatcher.

Coast Horned Lizard, Northern California Legless Lizard, Two-Striped Garter Snake, Coast Range Newt, and Western Pond Turtle

The following amphibian and reptile Species of Special Concern have been addressed as a group because they have similar habitat requirements, potential project-related impacts, and avoidance and minimization measures.

The western pond turtle was found within the Biological Study Area on the banks of Nojoqui Creek near Location 5 (post mile 55.82) during surveys for this project. None of the other species listed in this section were detected during surveys; however, suitable habitat is present within the Biological Study Area.

Suitable habitat for the coast horned lizard is present as coastal scrub habitat within the Biological Study Area. Suitable habitat for the Northern California legless lizard occurs within the Biological Study Area and is described as coast live oak woodland with moist loamy soils and leaf litter.

Two-striped garter snakes are known from the area, and suitable habitat for the species is present. The Coast Range newt could use the aquatic and upland habitat of Nojoqui Creek.

Project construction could result in the injury or death of the coast horned lizard, Northern California legless lizard, two-striped garter snake, and western pond turtle (if present) during clearing and grubbing operations, subsequent vehicular travel, and diversion/dewatering (if necessary). The potential need to capture and relocate these species could subject these animals to stresses that could result in adverse effects. Injury or death could occur via accidental crushing by worker foot-traffic or construction equipment. The potential for these impacts is anticipated to be low because of the avoidance and minimization measures below.

Mountain Lion

Mountain lion movement may be temporarily impacted during construction of the project. Work zone exclusion fencing may temporarily block portions of the project area from use by wildlife. Temporary disturbances may occur from construction noise and lighting, if night work occurs. Culverts suitable for large mammal passage that are proposed for repair or replacement would retain

the same function for wildlife movement after construction. Construction activities for scour repair along Nojoqui Creek may temporarily impact wildlife movements using the creek corridor. No mountain lions were found during surveys, so no take of the species is expected; therefore, the project is not likely to adversely affect the mountain lion.

American Badger

The Biological Study Area provides suitable habitat for the American badger, but it is unlikely that the species will den onsite, though the badger may occur during foraging activities. There could be direct impacts to the American badger if present during construction activities. There is potential for the species to be entombed during grading/excavating or otherwise injured by construction equipment. Noise, light, and other disturbance associated with construction could affect foraging and dispersal behaviors, if this species is present during project construction.

San Diego Desert Woodrat

Woodrat nests were seen at several spots within the Biological Study Area during surveys, though all nests were found within coast live oak woodland. Based on habitat conditions, local records, and species ranges, the nests are likely constructed by the common big-eared woodrat. If woodrat nests are found within coastal scrub during preconstruction surveys, harm could occur to the species as a result of vegetation removal and ground disturbance.

Townsend's Big-eared Bat, Pallid Bat, and Other Roosting Bats

Based on surveys done in 2020 and 2021, suitable bat-roosting habitat was found within two of the project culverts at Locations 1 and 3. Occupancy was low but consistent and indicative of potential year-round use. Suitable bat-roosting habitat is also present in tree snags within riparian habitat in the Biological Study Area. Townsend's big-eared bats were seen within both culverts. Although pallid bats were not found within the Biological Study Area, evidence of night roosting by pallid bats was found.

Construction activities to repair the culverts at Locations 1 and 3 would temporarily displace bats. Repair of the culverts, clearing of sedimentation, and channel re-grading would require exclusion for an approximately 3- to 6-month period. Roosting habitat would then be restored once repairs are complete. Townsend's big-eared bats are highly sensitive to disturbances and may abandon roosts and, although habitat would be restored after construction, it is unknown whether bats would return to the site. A post-construction monitoring program is recommended to assess whether temporary impacts to the roosting habitat have a permanent effect on the species.

Though maternity-roosting bats were not seen during surveys for the project, the culverts at Locations 1 and 3 may be suitable as maternity roosts. Also, suitable snag- and tree-roosting habitat is present within the Biological Study

Area. Tree removal is expected for the project, and potential roosting habitat would require pre-activity surveys and appropriately timed tree removal to reduce the potential for adverse effects to tree-roosting bats.

Purple Martin and Other Nesting Birds

Numerous nesting bird species are expected to use a variety of habitats within and adjacent to the Biological Study Area. Many common bird species were seen during surveys, along with potential tree and shrub nesting habitat throughout the Biological Study Area. No purple martins were found during biological surveys. An inactive raptor-sized stick nest was present in a large sycamore near the northern end of the Nojoqui Creek scour repair location, though it was not occupied during the 2021 nesting season.

Although no active bird nests were found during surveys, potential nesting habitat for a variety of bird species occurs throughout the Biological Study Area. Direct impacts to nesting birds including the purple martin, if present, could result if removal of vegetation occurs during the nesting season. These direct effects would result in the injury or death of nesting birds or harassment that could alter nesting behaviors. Indirect impacts could also result from noise and disturbance associated with construction during the nesting season, which could alter nesting behaviors. The implementation of preconstruction nesting surveys and buffer exclusion zones (if necessary) would reduce the potential for adverse effects to nesting birds.

Invasive Species

Ground disturbance and other aspects of project construction could potentially spread or introduce invasive species within the Biological Study Area. The project has the potential to cause an increase in invasive species into communities and areas not currently dominated by them. However, the project also can reduce the abundance and spread of invasive species through avoidance and minimization efforts and restoration plantings.

Avoidance, Minimization, and/or Mitigation Measures

Jurisdictional Wetlands, Other Waters, and Riparian Habitat

The project would impact U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdictional areas within the area of potential impact. The following avoidance, minimization, and mitigation measures would be implemented to reduce the potential impacts to the jurisdictional areas resulting from the project:

- Prior to construction, Caltrans shall obtain a Section 404 Nationwide Permit from the U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife. All permit terms and conditions will be incorporated into construction plans and implemented.

- Prior to any ground-disturbing activities, environmentally sensitive area fencing 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.
- Construction activities in jurisdictional waters and temporary stream diversion, if needed, shall be timed to occur 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 be made only with permission from the relevant regulatory agencies.
- 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 onsite at all times during construction.
- During construction, erosion control measures shall be implemented. Silt fencing, fiber rolls, and barriers shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.
- During construction, the staging areas shall conform to Best Management Practices. 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.
- Stream contours shall be restored as close as possible to their original condition after construction.
- To prevent a net loss of wetlands or other aquatic resource acreage, functions, and values, compensatory mitigation is proposed at a 1-to-1 ratio (acreage) for temporary impacts to stream and riparian habitats and a 3-to-1 ratio (acreage) for permanent impacts to stream and riparian habitats. To ensure success, monitoring and an appropriate plant establishment period will be required, which will include regular inspections, weeding, and replacement. A Mitigation and Monitoring Plan will be prepared when more detailed construction plans are developed and will be finalized through the permit review process with regulatory agencies. Restoration plantings will consist of native riparian species and associated riparian understory and bank species.

Special-Status Animals Species

California Red-legged Frog

The project qualifies 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* (U.S. Fish and Wildlife Service 2011a). Caltrans received the Biological Opinion from the U.S. Fish and Wildlife Service in May 2022. The following avoidance, minimization, and mitigation measures will be implemented for this project:

- Only a U.S. Fish and Wildlife Service-approved biologist shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs. Biologists authorized under this Programmatic Biological Opinion do not need to re-submit their qualifications for subsequent projects conducted pursuant to this Programmatic Biological Opinion unless we have revoked their approval at any time during the life of this Programmatic Biological Opinion.
- Ground disturbance will not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work unless the individual has been approved previously and the U.S. Fish and Wildlife Service has not revoked that approval.
- A U.S. Fish and Wildlife Service-approved biologist shall survey the project site no more than 48 hours before the onset of work activities. If the species is found, 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.
- 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.
- A U.S. Fish and Wildlife Service-approved biologist shall be present at the project site until all California red-legged frogs have been removed, workers have been instructed, and initial disturbance of habitat has been completed. If work is stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the U.S. Fish and Wildlife Service during review of the proposed action, staff shall notify the Resident Engineer immediately. When work is stopped, the U.S. Fish and Wildlife Service shall be notified as soon as possible.

- During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of at the end of each work week. Following construction, all trash and debris shall be removed from work areas.
- All refueling, maintenance and staging of non-stationary 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. If stationary equipment must be refueled within 100 feet of riparian habitat or water bodies, secondary containment Best Management Practices shall be implemented. The Caltrans biologist shall ensure contamination of habitat does not occur during such 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.
- 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 culvert repair/replacement and drainage improvements, unless the 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.
- 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.
- 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).
- To control sedimentation during and after project completion, Caltrans shall implement Best Management Practices outlined in any authorizations or permits issued under the authorities of the Clean Water Act received for the project.
- If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water shall 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 shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed shall be minimized to the maximum extent possible; any imported material shall be removed from the streambed upon completion of the project.

- Unless approved by the U.S. Fish and Wildlife Service, water shall not be impounded in a manner that may attract California red-legged frogs.
- Project sites shall be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Invasive, exotic plants shall be controlled to the maximum extent practicable.
- Caltrans shall not use herbicides as the primary method to control invasive, exotic plants.
- Upon completion of the project, Caltrans shall ensure that a Project Completion Report is completed and provided to the U.S. Fish and Wildlife Service, following the template provided with the Programmatic Biological Opinion.
- No compensatory mitigation is required for the California red-legged frog, however implementation of mitigation described for jurisdictional areas will also minimize impacts to the California red-legged frog and ensure any suitable habitat onsite that is temporarily impacted will be restored.
- A U.S. Fish and Wildlife Service-approved biologist will permanently remove any individuals of non-native species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifastacus leniusculus*; *Procambarus clarkii*), and centrarchid fishes from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.
- 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.

Southern California Steelhead Trout

The following avoidance and minimization measures will be implemented to minimize potential adverse impacts to steelhead trout resulting from project work in Nojoqui Creek:

1. Prior to construction, a National Marine Fisheries Service-approved biologist will conduct an informal worker environmental training program including a description of protected species and habitats, their legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating Federal Endangered Species Act and other relevant permit conditions.
2. Prior to construction, the contractor will prepare and sign a Water Pollution Control Plan or a Stormwater Pollution Prevention Plan that complies with the Caltrans Stormwater Quality Handbook (Caltrans 2017). Provisions of this plan will be implemented during and after construction as necessary to avoid and minimize erosion and stormwater pollution in and near the work area.
3. Prior to any construction work within or adjacent to a waterbody with protected species, a qualified biologist (approved by the National Marine Fisheries Service) will conduct a preconstruction survey to determine if protected species may be present in the work area during construction.
4. If a National Marine Fisheries Service-approved biologist determines that protected species may be present in the work area during construction, the biologist will:
 - a. Prepare a fish handling and relocation plan.
 - b. Conduct, monitor, and supervise all fish capture, handling, exclusion, and relocation activities (ensure that sufficient personnel are available to safely and efficiently collect listed species and that personnel have been properly trained to identify and safely capture and handle listed species).
 - c. Ensure that protected species are relocated the shortest distance possible to suitable habitat unaffected by construction activities.
 - d. Initiate salvage activities within temporarily drained waterbodies within a time frame necessary to avoid injury and mortality of protected species.
 - e. Complete capture, handling, exclusion, and relocation activities no earlier than 24 hours before construction begins to minimize the probability that listed species will recolonize the affected areas.
 - f. Continuously monitor in-water activities (e.g., placement of cofferdams, dewatering of isolated areas) for the purpose of removing and relocating any listed species that were not detected or could not be removed and relocated prior to construction.
5. During construction, in-stream work will be limited to the low-flow period from June 1 and October 31 in any given year, when the surface water is likely to be at seasonal minimum or outside of that period if the stream channel is dry.

6. In-stream construction work will be performed only in a dry work environment. Dewatering and clear water diversions will be performed according to Caltrans Construction Site Best Management Practices, and upstream and downstream passage of adult and juvenile fish will be maintained at all times, according to current National Marine Fisheries Service guidelines. Service-approved biologists will survey, rescue, and relocate aquatic species prior to installing and removing the clear water diversion.
7. During construction, all project-related hazardous materials spills within the project site will be cleaned up immediately. Readily accessible spill prevention and cleanup materials will be kept by the contractor onsite at all times during construction.
8. During construction, erosion control measures will be implemented. Silt fencing, fiber rolls, and barriers will be installed as needed between the project site and jurisdictional waters and riparian habitat.
9. During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area. This area will either be a minimum of 100 feet from aquatic areas or, if the area is less than 100 feet from aquatic areas, the area must be surrounded by barriers (e.g., fiber rolls or equivalent). The staging areas will conform to Caltrans Construction Site Best Management Practices applicable to attaining zero discharge of stormwater runoff.
10. Immediately upon completing in-channel work, temporary fills, cofferdams, diversion cofferdams, and other in-channel structures will be removed in a manner that minimizes disturbance to downstream flows and water quality.
11. All temporary excavations and fills within project limits will be removed in their entirety, and the affected areas returned to preconstruction elevations, where possible.
12. During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes will be completely screened with no larger than 3/32-inch wire mesh to prevent steelhead trout and other sensitive aquatic species from entering the pump system. Pumped water will be directed through a silt filtration bag and/or into a settling basin allowing the suspended sediment to settle out prior to re-entering the stream(s) outside of the isolated area. The form and function of all pumps used during the dewatering activities will be checked weekly, at a minimum, by a qualified biological monitor to ensure a dry work environment and minimize adverse effects to aquatic species and habitats.
13. No compensatory mitigation is required for Southern California steelhead trout, however implementation of mitigation for jurisdictional areas will also

minimize impacts to steelhead trout and ensure any suitable habitat onsite that is temporarily impacted will be restored.

Least Bell's Vireo

Caltrans will implement the following measures for the scour repair construction activities along Nojoqui Creek to avoid or minimize any potential effects to the least Bell's vireo:

- Worker awareness trainings and educational materials will be provided that includes information about the least Bell's vireo and its habitat.
- If a least Bell's vireo is observed within 100 feet of the Biological Study Area during construction, a qualified biologist shall implement an exclusion zone and work shall be avoided within the exclusion zone until the least Bell's vireo is located greater than 100 feet from project-related disturbance. If an active least Bell's vireo nest is observed within 100 feet of the Biological Study Area, all project activities shall immediately cease, and Caltrans shall contact the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife within 48 hours. If required, Caltrans shall then initiate Federal Endangered Species Act Section 7 formal consultation with the U.S. Fish and Wildlife Service and California Endangered Species Act coordination for least Bell's vireo and implement additional measures as necessary.

Southwestern Willow Flycatcher

Caltrans will implement the following measures for the scour repair project along Nojoqui Creek to avoid or minimize any potential effects to the southwestern willow flycatcher:

- Worker awareness trainings and educational materials will be provided and include information about the southwestern willow flycatcher and its habitat.
- If a southwestern willow flycatcher is observed within 100 feet of the Biological Study Area during construction, a qualified biologist shall implement an exclusion zone and work shall be avoided within the exclusion zone until the southwestern willow flycatcher is located greater than 100 feet from project-related disturbance. If an active southwestern willow flycatcher nest is observed within 100 feet of the Biological Study Area, all project activities shall immediately cease, and Caltrans shall contact the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife within 48 hours. If required, Caltrans shall then initiate Federal Endangered Species Act Section 7 formal consultation with the U.S. Fish and Wildlife Service and California Endangered Species Act coordination for the southwestern willow flycatcher and implement additional measures as necessary.

Coast Horned Lizard, Northern California Legless Lizard, Two-Striped Garter Snake, Coast Range Newt, and Western Pond Turtle

The following avoidance and minimization measures will be implemented for potential impacts to the coast horned lizard, Northern California legless lizard, two-striped garter snake, Coast Range newt, and western pond turtle:

- Prior to construction, a qualified biologist shall survey the area of potential impact and, if present, capture and relocate any coast horned lizards, Northern California legless lizards, two-striped garter snakes, Coast Range newts, or western pond turtles to the nearest suitable habitat outside of the area of potential impact. Observations of Species of Special Concern or other special-status species shall be documented on California National Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.
- The project plans shall delineate environmentally sensitive areas to minimize impacts to sensitive areas and species by limiting access to the minimum required for construction within the area of potential impact. No vehicle access within the environmentally sensitive areas would be permitted.

The following additional avoidance and minimization measures will be implemented for potential impacts to the Northern California legless lizard:

- A qualified biologist shall conduct preconstruction surveys for legless lizards within 5 calendar days before initial ground disturbance proposed within coast live oak woodlands and/or prior to tree removal. Where feasible, this survey shall include systematic subsurface searching (raking suitable habitat) because legless lizards are burrowing.
- If any legless lizards are discovered during preconstruction surveys, they will be relocated to a nearby area with suitable habitat similar to where they were discovered (as stated above for other reptile and amphibian species of special concern). Additionally, if discovered during preconstruction surveys, a qualified biologist will be present during oak tree removal to safely relocate any legless lizards that could be uncovered during tree removal.

Mountain Lion

The following avoidance and minimization measures are recommended to reduce potential impacts to the mountain lion:

- Prior to start of construction, a Caltrans-approved biologist shall conduct a worker environmental training program including a description of protected species and habitats, their legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating relevant permit conditions.

- Construction work areas must be restored to pre-project conditions, where feasible and no new features which could impede wildlife movement under the highway is permitted.

American Badger

The following avoidance and minimization measures are recommended for the American Badger:

- No less than 14 days and no more than 30 days prior to beginning of ground disturbance and/or construction activities, a qualified biologist would conduct a survey to determine if any American badger dens are present at the project site. If dens are found, they would be monitored for badger activity. If it is determined that dens may be active, the entrances of the dens would be blocked with soil, sticks, and debris for 3 to 5 days to discourage the use of these dens prior to project disturbance activities. The den entrances would be blocked to an incrementally greater degree over the 3- to 5-day period. After it has been determined that badgers have stopped using active dens, the dens would be hand-excavated with a shovel to prevent re-use during construction. No disturbance of active dens would take place when cubs may be present and dependent on parental care.
- Any observations of occupied badger dens or American badgers within the project area would be reported to the California Department of Fish and Wildlife by the project biologist.
- No rodent control pesticides shall be used, including anticoagulant rodenticides such as brodifacoum, bromadiolone, difethialone, and difenacoum. This is necessary to minimize the possibility of primary or secondary poisoning of the American badger or other special-status species.

San Diego Desert Woodrat

The following avoidance and minimization measures are recommended for the San Diego desert woodrat and are applicable to project activities occurring within the area of potential impact:

- Prior to implementation of proposed project activities, a preconstruction visual survey will be conducted within suitable woodrat habitat in the area of potential impact to determine the presence or absence of woodrat nests.
- If woodrat nests are located during this survey, avoid them, and establish an environmentally sensitive area with a 25-foot buffer around each.
- To the extent feasible, project activities requiring grading or vegetation removal within the 25-foot protective buffer should occur only during the non-breeding season (October 1 to December 31) to avoid noise impacts

to any breeding woodrats that may occupy the nest from January through September.

- If project activities cannot avoid impacting or removing the nest, then it should be dismantled by hand prior to grading or vegetation removal activities. The dismantling shall occur during the non-breeding season (October 1 to December 31) and shall be conducted so that the nest material is removed starting on the side where most impacts will occur and ending on the side where the most habitat will be undisturbed, which will allow for any woodrats in the nest to escape into adjacent undisturbed habitat.
- If young are encountered during nest dismantling, the dismantling activity should be stopped and the material replaced back on the nest and the nest should be left alone and rechecked in 2 to 3 weeks to see if the young are out of the nest or capable of being out on their own (as determined by a qualified biologist); once the young can fend for themselves, the nest dismantling can continue.

Townsend's Big-eared Bat, Pallid Bat, and Other Roosting Bats

The following avoidance and minimization measures are recommended for roosting bats:

- 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. 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 preconstruction 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.
- Prior to any culvert construction activities at Location 1 or 3, a preconstruction survey for roosting bats shall be conducted by a biologist determined to be qualified by Caltrans within 14 days prior to construction. The biologist(s) conducting the preconstruction surveys will 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. The qualified biologist will provide oversight on exclusion

methods and installation and will determine whether exclusionary methods have successfully evicted roosting bats.

- If bats are found by a qualified biologist to be maternity roosting, active bat maternity roosts shall not be disturbed or destroyed until pups are capable of flight.
- Efforts will be made to preserve existing habitat features within the culverts at Locations 1 and 3 in consultation with a Caltrans biologist.
- To ensure that roosting Townsend's big-eared bats have access to a known alternative roost of similar habitat function, Caltrans will not repair the culverts at Locations 1 and 3 at the same time. Only after work is complete at one shall construction activities at the other site commence.
- A Caltrans-approved bat biologist shall conduct one daytime site visit annually in conjunction with jurisdictional monitoring efforts required by the Mitigation and Monitoring Plan to assess post-construction utilization of the Locations 1 and 3 culverts.

Purple Martin and Other Nesting Birds

The following avoidance and minimization measures apply to all birds protected by the Migratory Bird Treaty Act and California Fish and Game Code:

- Prior to construction, vegetation removal shall be scheduled to occur from September 2 to January 31, outside of the typical nesting bird season, if possible, to avoid potential impacts to nesting birds. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 1 to September 1), a nesting bird survey shall be conducted by a biologist determined qualified by Caltrans no more than 10 calendar days prior to construction. If an active nest is found, Caltrans shall implement an appropriate buffer or monitoring strategy based on the habits and needs of the species. The buffer area or monitoring strategy shall be implemented until a qualified biologist has determined that juveniles have fledged, or nesting activity has otherwise ceased.
- During construction, active bird nests shall not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code shall not be killed, destroyed, injured, or harassed at any time.
- Trees to be removed shall be noted on design plans. Prior to any ground-disturbing activities, environmentally sensitive area fencing shall be installed around the dripline of trees to be protected within project limits.

- All clearing/grubbing and vegetation removal shall be monitored and documented by a qualified biologist regardless of time of year.

Invasive Species

The following avoidance and minimization measures are recommended for invasive species:

- During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.
- Only clean fill shall be imported. When practicable, invasive exotic plants in the project site shall be removed and properly disposed of. Any plant species rated as “High” on the California Invasive Plant Council’s Invasive Plant Inventory that are removed from the construction site shall be taken to a landfill to prevent the spread of invasive species. Inclusion of any species that occurs on the California Invasive Plant Council’s Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project shall be avoided.
- Project plans will avoid the use of plant species that 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.
- Construction equipment shall be inspected as “weed-free” by Caltrans before entering the construction site. If necessary, wash stations onsite shall be established for construction equipment under the guidance of Caltrans in order to avoid/minimize the spread of invasive plants and/or seed within the construction area.

2.1.5 Cultural Resources

Considering the information in the Cultural Resources Screened Undertaking Memo dated October 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	No Impact

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No Impact

2.1.6 Energy

The project would result in the short-term use of fossil fuels, electricity, and natural gas by construction vehicles and equipment to replace and repair infrastructure such as drainage culverts, guardrail, and pavement. Use of these resources would be temporary and would not result in a significant demand on resources.

No direct or indirect effects related to wasteful, inefficient, or unnecessary energy consumption would occur. The project would not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. Considering the information in the Climate Change Technical Memo dated June 2022 and the Air Quality, Greenhouse Gas, Noise and Water Quality Assessment Memo dated March 2022, the following significance determinations have been made:

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

2.1.7 Geology and Soils

The project site is not in an area that is designated by the California Department of Conservation as an Earthquake Fault Zone within the Alquist-Priolo Earthquake Fault Zoning Map. The Los Alamos Fault runs parallel to U.S. 101 and is closest to the highway between post miles 65.4 and 65.1. According to Santa Barbara County's 2011 Multi-Jurisdiction Hazard Mitigation Plan, the site is not mapped in an area of potential for high severity liquefaction or in an area of high potential for ground shaking.

According to the Natural Resources Conservation Service Web Soil Survey, the soils at the various study areas have a variety of soil substrates, including Botella clay loam, Diablo silty clay, Elder loam, Elder shaly loam, Gaviota sandy loam, Linne clay loam, Lodo loam, Los Osos clay loam, Los Osos-San

Benito clay loam, Maymen stony loam, Mocho fine sandy loam, and Sorrento sandy loam. Most soils in the study area have a high percentage of sand and generally are not considered expansive soils. In addition, the plasticity index for the mapped soils do not plot as expansive soils.

The project does not include the installation of a septic tank or the requirement for wastewater disposal. A construction Stormwater Pollution Prevention Plan will be prepared, and Best Management Practices would be implemented during construction to ensure water quality is protected.

The Paleontological Identification Report dated October 2021 did not identify any potential for encountering paleontological resources as a result of the project. Considering this information, no impacts to geology and soils are anticipated as a result of the project, and the following significance determinations have been made:

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

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

2.1.8 Greenhouse Gas Emissions

Considering the information in the Climate Change Technical Memo dated June 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No Impact

Affected Environment

The project lies along a 14-mile segment of U.S. 101 in Santa Barbara County near Buellton. The project consists of land designated mostly as grazing land. The Santa Barbara County Association of Governments' Regional Transportation Plan guides transportation development in the area.

The California Air Resources Board sets regional targets for California's 18 Metropolitan Planning Organizations to use in their Regional Transportation

Plan/Sustainable Communities Strategy to plan future projects that will cumulatively achieve greenhouse gas reduction goals. Targets are set at a percentage reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels. The regional reduction target for the Santa Barbara County Association of Governments is 17 percent by 2035.

The County of Santa Barbara adopted the Energy and Climate Action Plan in May 2015 with a goal of reducing greenhouse gas emissions in the unincorporated parts of the county by 15 percent below 2007 levels by 2020. Transportation measures were anticipated to contribute 12 percent of the projected greenhouse gas reductions.

Environmental Consequences

Operational Emissions

The purpose of the project is to improve the existing roadway and repair and/or replace existing culverts and would not increase the capacity of U.S. 101. This type of project generally causes minimal or no increase in operational greenhouse gas emissions. Because the project would not increase the number of travel lanes on U.S. 101, no increase in vehicle miles traveled would occur as a result of project implementation. While some greenhouse gas emissions during the construction period would be unavoidable, no increase in operational greenhouse gas emissions is expected.

Construction Emissions

Construction greenhouse gas emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives and traffic management plans, the greenhouse gas emissions produced during construction can be offset by longer intervals between maintenance and rehabilitation activities.

Construction greenhouse gas emissions were estimated using Caltrans' Construction Emissions Tool and default settings for a Pavement Preservation project. The estimated average Carbon Dioxide Equivalent emissions is a total of about 155 tons generated over the 120-day construction period.

Caltrans Standard Specifications Section 14-9, Air Quality, a part of all construction contracts, requires contractors to comply with all federal, state, regional, and local rules, regulations, and ordinances related to air quality. Requirements of the Santa Barbara County Air Pollution Control District will

apply to this project. Requirements that reduce vehicle emissions, such as limits on idling time, may help reduce greenhouse gas emissions.

Avoidance and Minimization Measures

The following measures will be implemented to reduce greenhouse gas emissions and potential climate change impacts from the project:

- The project will use appropriately sized equipment for project activities.
- The project will maintain equipment in proper tune and working condition.
- Where feasible, limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.
- Equipment staging will be planned to minimize traffic conflicts and increase construction efficiency.
- Where feasible, use alternative fuels such as renewable diesel for construction equipment.
- As part of mitigation for potential biological impacts of the project, the project will revegetate any removed vegetation at a ratio of at least 1 to 1, where applicable, following construction completion. Landscaping reduces surface warming and, through photosynthesis, removes carbon dioxide from the atmosphere.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Hazardous Waste Initial Site Assessment Memo dated March 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No Impact

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

2.1.10 Hydrology and Water Quality

The receiving water bodies at the project location are the Santa Ynez River and Nojoqui Creek. The project has potential to directly discharge stormwater within the project limits into Nojoqui Creek. The project does not involve substantial excavation or earthwork activities that would cause or exacerbate existing sedimentation conditions of Santa Ynez River. Also, the drainage improvements should prevent future drainage corrosion and scouring, which adds a water quality benefit to the project scope. By incorporating appropriate engineering design and stormwater Best Management Practices during construction, minimal short-term water quality impacts are anticipated. The project would not result in significant long-term impacts to water quality.

Considering the information in the Air Quality, Greenhouse Gas, Noise and Water Quality Technical Assessment Memo dated March 2022 and Location Hydraulic Study dated March 2022, the following significance determinations have been made:

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

2.1.11 Land Use and Planning

The project work is on existing facilities only and will not require any change of land use, expansion of land use, or conflict with any land use plan, policy, or regulation; nor would it divide an established community. No changes to the alignment, function, or capacity of the highway are proposed.

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

2.1.12 Mineral Resources

Considering the information in the Preliminary Assessment of Potential for Mineral Hazards in California, Department of Transportation District 5 dated February 2020, the following significance determinations have been made:

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

2.1.13 Noise

Considering the information in the Air Quality, Greenhouse Gas, Noise and Water Quality Technical Assessment Memo dated July 2021, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	No Impact

Question—Would the project result in:	CEQA 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

2.1.14 Population and Housing

The project would not have an impact on population and housing. No additional housing or development is proposed, nor does the project remove or displace any existing housing.

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

2.1.15 Public Services

The highway would remain open at all times during construction, and the project would not have an impact on public services.

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

2.1.16 Recreation

The project does not include any recreational components and would not generate an increase in population or a potential resulting demand for recreational facilities. One park—Nojoqui Falls County Park—sits near the project limits, but would not be impacted by the project. The project is not expected to directly or indirectly affect existing recreational facilities or cause increased demand for additional or expanded facilities. Considering this information, the following significance determinations have been made:

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

2.1.17 Transportation

The project would not generate any additional population growth in the project area or region and therefore would not increase traffic volumes along the project route or increase vehicle miles traveled. The project would not alter the existing highway alignment or capacity of U.S. 101. The improvements would not conflict with any existing or planned transportation-related plans, programs, or facilities in the region. No changes to the existing highway capacities (number of lanes or lane widths) or design features would be involved with the proposed improvements; therefore, no design-related hazards or incompatible uses would be generated. Considering this information, the following significance determinations have been made:

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

2.1.18 Tribal Cultural Resources

Considering the information in the Cultural Resources Screened Undertaking Memo dated October 2021, the following significance determinations have been made:

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

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	No Impact
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

Locations of existing utilities would be confirmed during the Plans, Specifications, and Estimates phase of the project, and with that information, Caltrans can confirm whether or not relocations would be necessary. Caltrans will continue communication with the utility owners throughout the Plans, Specifications, and Estimates phase and the construction phase of the project to ensure that construction methods implemented for the project work locations would enable protection-in-place of existing utilities and that no conflicts occur with utility services or equipment. If utilities need to be relocated, Caltrans will review the proposed locations at that time to ensure no significant environmental effects are caused. The project does not include new wastewater, stormwater or natural gas lines.

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater 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:	CEQA 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 Caltrans Division of Environmental Analysis Geographical Information Systems Library, portions of the project are located in or adjacent to an area of very high fire hazard severity zone. The following significance determinations have been made:

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

Affected Environment

The project would improve 14.41 lane miles of U.S. 101 in Santa Barbara County. The project lies in a rural area of the county, characterized by rolling hills and sparse development. Residents in the area depend on U.S. 101 as their main access and emergency evacuation route. In addition, the 2013 Santa Barbara Operational Area Emergency Management Plan designates U.S. 101 as an evacuation route.

Based on the CalFire 2007 Fire Hazard Severity Zone Map, most project work would occur within a designated High Fire Hazard Severity Zone. A portion of the project work would occur within a designated Very High Fire Hazard Severity Zone.

Environmental Consequences

Following the completion of construction, the project would improve reliability of the highway and allow continued access for emergency vehicles. However, during construction, lane closures and traffic detours would be necessary at times. The project would require implementation of a Traffic Management Plan to minimize and manage traffic delays and minimize risk in the event of a wildfire during construction. Signing, including portable changeable message signs and a public awareness campaign, would be used to inform the public of current and upcoming construction activities. In addition, lane closures would also be posted on the Caltrans website during and in advance of closures.

During development of the Traffic Management Plan, Caltrans would coordinate with local emergency responders, including the fire department, sheriff, and police. Local emergency responders would be notified in advance of closures and detours. These measures would ensure that emergency response and evacuation are not significantly impacted during construction.

The project would construct and rehabilitate infrastructure, which would result in impacts to the environment and may increase fire risk during construction activities. Ongoing maintenance of Caltrans infrastructure would also be needed intermittently throughout the service life of the project assets, which may present a fire risk. The project entails roadway surface maintenance, replacement of asphalt concrete dikes, reconstruction of existing guardrail, upgrades to guardrail connections to bridge railing, improvements to five drainage systems, and repair of a failing slope adjacent to the highway. Construction and maintenance activities would require construction workers to temporarily occupy areas that are part of a designated Very High Fire Hazard Severity Zone. During construction, vegetation removal would be required to allow for construction equipment and supply access to work locations. Equipment used during construction and maintenance has the potential to result in involuntary ignition of a fire, particularly when work occurs in or adjacent to dry grass and vegetation during wildfire season. To minimize this risk, the project will implement Caltrans Standard Specifications

for fire prevention and safety as precautionary measures to prevent fire-related incidents during construction. Any vegetation removal would be planned and conducted using techniques and strategies that will avoid and minimize risk of unintentional fire ignition.

Access for emergency vehicles would be maintained in the project limits during construction as specified in the Transportation Management Plan; therefore, the project would not impair an emergency response plan or evacuation plan. No long-term effects on emergency response or evacuation plans would occur after completion of project construction at the project infrastructure locations; traffic management lane closures would be temporary during construction.

Avoidance and Minimization Measures

No avoidance, minimization, and/or mitigation measures are proposed.

2.1.21 Mandatory Findings of Significance

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Less Than Significant Impact
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.)	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No Impact

The project would result in temporary and permanent impacts to jurisdictional wetlands, other waters, and riparian habitat as a result of ground disturbance and vegetation removal necessary to repair the drainage culverts. With implementation of the avoidance, minimization, and mitigation measures, the level of impacts would be reduced to less than significant.

The project would result in permanent and temporary impacts to the California red-legged frog because there would be potential for take of the species during construction. With implementation of the avoidance and minimization measures, the level of impacts would be reduced to less than significant.

The project would result in permanent and temporary impacts to steelhead trout due to in-stream work for drainage improvements during construction. With implementation of the avoidance and minimization measures, the level of impacts would be reduced to less than significant.

Other sensitive species have the potential to occur, but measures would be implemented to avoid or minimize any potential impacts; therefore, the impact would be less than significant.

There may be temporary impacts on visual and aesthetics resources due to vegetation removal that may be required during project construction. However, vegetation would be preserved at the maximum extent possible and would be replaced at ratios determined by the project biologist and landscape architect; therefore, the impact would be less than significant.

Overall, with the implementation of appropriate avoidance, minimization, and mitigation measures, the project would not substantially degrade the quality of the environment.

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION

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



Making Conservation
a California Way of Life.

September 2021

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page:
<https://dot.ca.gov/programs/civil-rights/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

A blue ink signature of Toks Omishakin, consisting of stylized cursive letters.

Toks Omishakin
Director

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

List of Technical Studies Bound Separately (Volume 2)

- Air Quality, Greenhouse Gas, Noise and Water Quality Technical Assessment Memo
- Cultural Resources Screened Undertaking Memo
- Climate Change Technical Memo
- Hazardous Waste Initial Site Assessment
- Location Hydraulic Study
- Natural Environment Study
- Paleontological Review
- 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:

Lara Bertaina
District 5 Environmental Division
California Department of Transportation
50 South Higuera Street
San Luis Obispo, CA 93401

Or send your request via email to: lara.bertaina@dot.ca.gov

Or call: 805-779-0792

Please provide the following information in your request:

Project title: North Nojoqui Grade Capital Preventative Maintenance and Drainage Project
General location information: On U.S. 101 near Buellton
District number-county code-route-post mile: District 5-SB-101 PM R52.34-R56.09
Project ID number: 0518000209/EA 05-1K450