South Santa Cruz 9
Capital Preventive Maintenance Project

Southern State Route 9 in Santa Cruz County
05-SCR-009 - PM 0.046/7.500
Project ID Number 0519000036/EA 05-1K890 and
Project ID Number 0522000060/EA 05-1M551

Initial Study with Proposed Mitigated Negative Declaration and Section 4(f) Evaluation

Volume 1 of 2

Prepared by the
State of California Department of Transportation

January 2025

Caltrans

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 Cruz 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. This document may be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-5/district-5-current-projects. Printed copies will also be available for public review at the Felton Public Library, the Santa Cruz Public Library (Downtown Branch), the Santa Cruz County Regional Transportation Commission office in Santa Cruz, and the Caltrans District 5 office in San Luis Obispo.

- Tell us what you think. If you have any comments regarding the proposed project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Matt Fowler, Environmental Branch Chief, District 5 Environmental Division, 50 Higuera Street, San Luis Obispo, California 93401. Submit comments via email to: SR9_SantaCruzCAPM@dot.ca.gov

- Attend the public meeting from 5:00 p.m. to 7:00 p.m. on January 15, 2025 at the Felton Community Hall, 6191 Highway 9, Felton, California 95018.

- Submit comments by the deadline: January 31, 2025

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

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For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Matt Fowler, Environmental Branch Chief, District 5 Environmental Division, 50 Higuera Street, San Luis Obispo, California 93401; phone number 805-779-0793 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

05-SCR-009-PM 0.046/7.500
Project ID: 0519000036
Project EA: 05-1K890

Roadway and drainage rehabilitation and infrastructure improvement
on State Route 9 between Santa Cruz and Felton,
from post miles 0.046 to 7.500 in Santa Cruz County

INITIAL STUDY
with Proposed Mitigated Negative Declaration
and Section 4(f) Evaluation

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

THE STATE OF CALIFORNIA
Department of Transportation

Responsible Agency: California Transportation Commission

Scott Smith Digitally signed by Scott Smith
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-08'00'

Scott Smith
Office Chief for Environmental Analysis
California Department of Transportation, District 5
CEQA Lead Agency

12/18/2024

Date

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

Matt Fowler, Environmental Branch Chief, California Department of Transportation, District 5, 50 Higuera Street, San Luis Obispo, California 93401; phone 805-779-0793, email: SR9_SantaCruzCAPM@dot.ca.gov

DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: Pending

District-County-Route-Post Mile: 05-SCR-009-PM 0.046/7.500

EA/Project Number: 05-1K890/0519000036

Project Description

The California Department of Transportation (Caltrans) proposes to preserve 14.668 lane miles of existing Class 3 Flexible Pavement on State Route 9 in Santa Cruz County from the intersection with State Route 1 (Cabrillo Highway) to El Solyo Heights Drive in the community of Felton. The project would use a Capital Preventive Maintenance strategy, including but not limited to dig outs and cold planing, followed by placing Hot Mix Asphalt to avoid decreasing the vertical clearance, upgrading guardrail to Manual for Assessing Safety Hardware standards, repairing or replacing five culverts as needed, replacing two traffic census stations, replacing sign panels, and upgrading curb ramps to Americans with Disabilities Act standards where applicable. Through coordination with the Santa Cruz County Regional Transportation Commission, the project also includes some pedestrian and bicyclist improvements outlined in the Highway 9/San Lorenzo Valley Complete Streets Corridor Plan and the San Lorenzo Valley Schools Access Study.

Determination

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

Caltrans District 5 has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment.

The project would have no effect on agricultural and forest resources, land use and planning, mineral resources, population and housing, public services, or recreation.

The project would have less than significant effects on aesthetics/visual resources, air quality, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, transportation, tribal cultural resources, utilities and service systems, and wildfire.

With the following CEQA mitigation measures incorporated, the project would have less than significant effects on biological resources and noise:

- Trees that may be removed would be replaced at a 1-to-1 ratio for temporary impacts or 3-to-1 ratio for permanent impacts.

- Restoration (re-establishment) is proposed at a 1-to-1 ratio (acreage) for temporary impacts. Compensatory mitigation is proposed at a 3-to-1 ratio (acreage) for permanent impacts to jurisdictional areas. Replacement plantings would include appropriate native tree and understory species. To ensure success, post miles 3.60, 4.73, and 5.15 would require a one-year plant establishment period. Riparian trees that are removed would be replanted at a ratio of 3 to 1.

- Impacts to vegetation would be offset by replacement plantings within the project limits, which would also replace potential bird nesting habitat. An assemblage of native plant species would be replanted in coordination with Caltrans District 5 Landscape Architecture to facilitate bird nesting habitat replacement within the project limits. No additional compensatory mitigation is proposed.

- Impacts to vegetation would be offset by replacement plantings within the project limits, which would also replace in-kind bat roosting habitat. An assemblage of native plant species would be replanted in coordination with Caltrans District 5 Landscape Architecture to facilitate bat roosting habitat replacement within the project limits. If bats are found to be present during pre-construction surveys, compensatory mitigation may include the addition of bat boxes to new structures or incorporating features into structure design that would facilitate bat roosting. No additional compensatory mitigation is proposed.

- Residents affected by anticipated nighttime cold planing shall be offered noise canceling headphones or hotel vouchers if requested. The construction contractor shall purchase noise canceling headphones prior to the onset of construction, and these should be provided as the first line of noise reduction measures for affected residents. For temporary accommodation, the State will need to approve the number of nights and verify that the resident is on the list of affected sensitive receptors in the Noise Control Plan. Affected residents will be reimbursed at the State rate.

_____

Scott Smith
Office Chief for Environmental Analysis
California Department of Transportation, District 5

_____

Date

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA) and is also the lead agency under the National Environmental Policy Act (NEPA). As the State of California lead agency, Caltrans has prepared this Initial Study with Proposed Mitigated Negative Declaration and Section 4(f) Evaluation for the project.

Caltrans proposes to preserve 14.668 lane miles of existing Class 3 Flexible Pavement on State Route 9 in Santa Cruz County from the intersection with State Route 1 (Cabrillo Highway) to El Solyo Heights Drive in the community of Felton.

The project is included in the Association of Monterey Bay Area Governments Metropolitan Transportation Improvement Program for Federal Fiscal Year 2022-2023 to Federal Fiscal Year 2025-2026, which was adopted September 14, 2022. The project is programmed for funding from the 2020 State Highway Operation and Protection Program, Roadway Preservation (program code 201.121). Start of construction is set for May 2027 and completion is anticipated in July 2029.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of this project is to preserve and extend the life of the existing pavement, restore drainage in poor condition to maintain the functionality of the culverts, maintain an efficient transportation system, and upgrade guardrail and sign panels to current standards. Additional project objectives include improving spot locations in the pedestrian path for Americans with Disabilities Act compliance, improving multimodal access, enhancing crosswalk visibility and pedestrian accessibility as well as access to transit, and improving bicycle facilities and traffic operations.

1.2.2 Need

This project is needed because the condition of the pavement within the project limits is exhibiting minor surface distress and unacceptable ride quality which, if left uncorrected, will deteriorate to the degree that a major roadway rehabilitation would be needed. Two existing temporary traffic loops need to be upgraded to a permanent traffic census station to maintain the State Route 9 traffic information that is currently collected. Six large and 34 small sign

panels in the project limits do not meet federal requirements for retro-reflectivity and need to be upgraded to current standards. Five existing culverts have been identified as suffering from damaged inverts, shape loss, joint separation, and undermined backfill, which could potentially cause the roadway to fail in the future if not addressed. The existing metal beam guardrail between post mile 0.046 and post mile 7.500 does not meet current Manual for Assessing Safety Hardware (MASH) standards and needs to be upgraded to meet the current standards. Thirty-nine curb ramps within the project limits do not comply with current Americans with Disabilities Act standards. Also, limited multimodal access has been identified within the project limits. Improvements are needed to address pedestrian and bicycle access issues such as the lack of sidewalks, crosswalks, and bike lanes.

1.3 Project Description

The California Department of Transportation (Caltrans) proposes to preserve 14.668 lane miles of existing Class 3 Flexible Pavement on State Route 9 in Santa Cruz County from the intersection with State Route 1 (Cabrillo Highway) to El Solyo Heights Drive in the community of Felton. The project would use a Capital Preventive Maintenance strategy, including but not limited to dig outs, cold planing followed by placement of Hot Mix Asphalt to avoid decreasing the vertical clearance, upgrading guardrail to Manual for Assessing Safety Hardware standards, repairing or replacing culverts as needed, replacing census stations, replacing sign panels, and upgrading curb ramps to the Americans with Disabilities Act standards where applicable.

In addition, through coordination with the Santa Cruz County Regional Transportation Commission, the project includes some pedestrian and bicyclist improvements outlined in the Highway 9/San Lorenzo Valley Complete Streets Corridor Plan and the San Lorenzo Valley Schools Access Study. These elements include Americans with Disabilities Act curb ramp upgrades, new sidewalks, curb extensions at selected crosswalks, remodeling of transit stops, a new crosswalk, upgraded crosswalks using high-visibility striping, modification of traffic signals/phasing, adding a two-left-turn-central-lane between Graham Hill Road and Hihn Street in Felton, striping new bike boxes, restriping existing intersection guidelines, and creating or upgrading pedestrian islands.

The project would require work off the paved roadway, trenching, grading, and other ground disturbance, access roads, temporary construction easements, drainage work/alterations, night work, utility relocation, and tree and vegetation removal. All of the proposed improvements are at spot locations (see Section 1.4.1, Build Alternative). State Route 9 geometric features (horizontal alignment, vertical profile, superelevation, sight distance, and cross slope) would remain unchanged.

Figure 1-1 is a map of the general project vicinity within Santa Cruz County; Figure 1-2 shows the project location in greater detail.

Figure 1-1 Project Vicinity Map

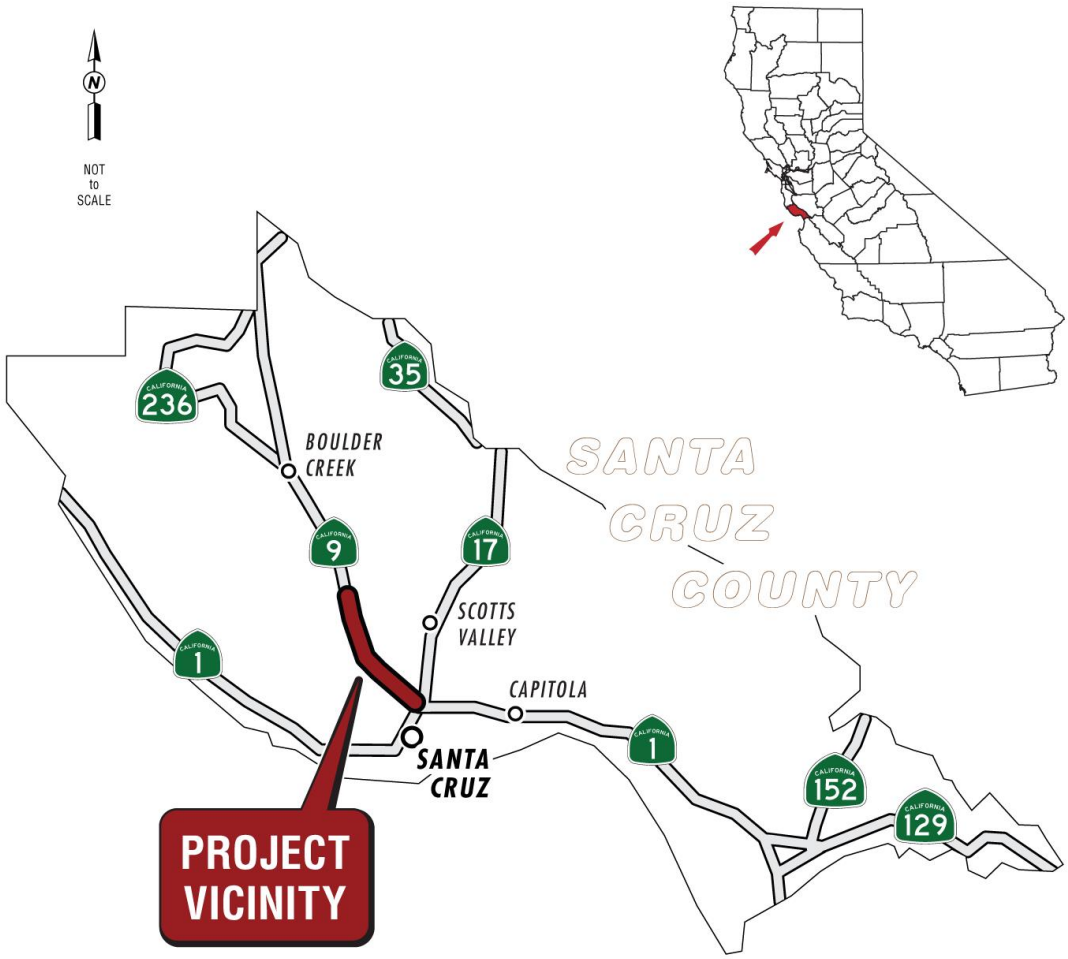
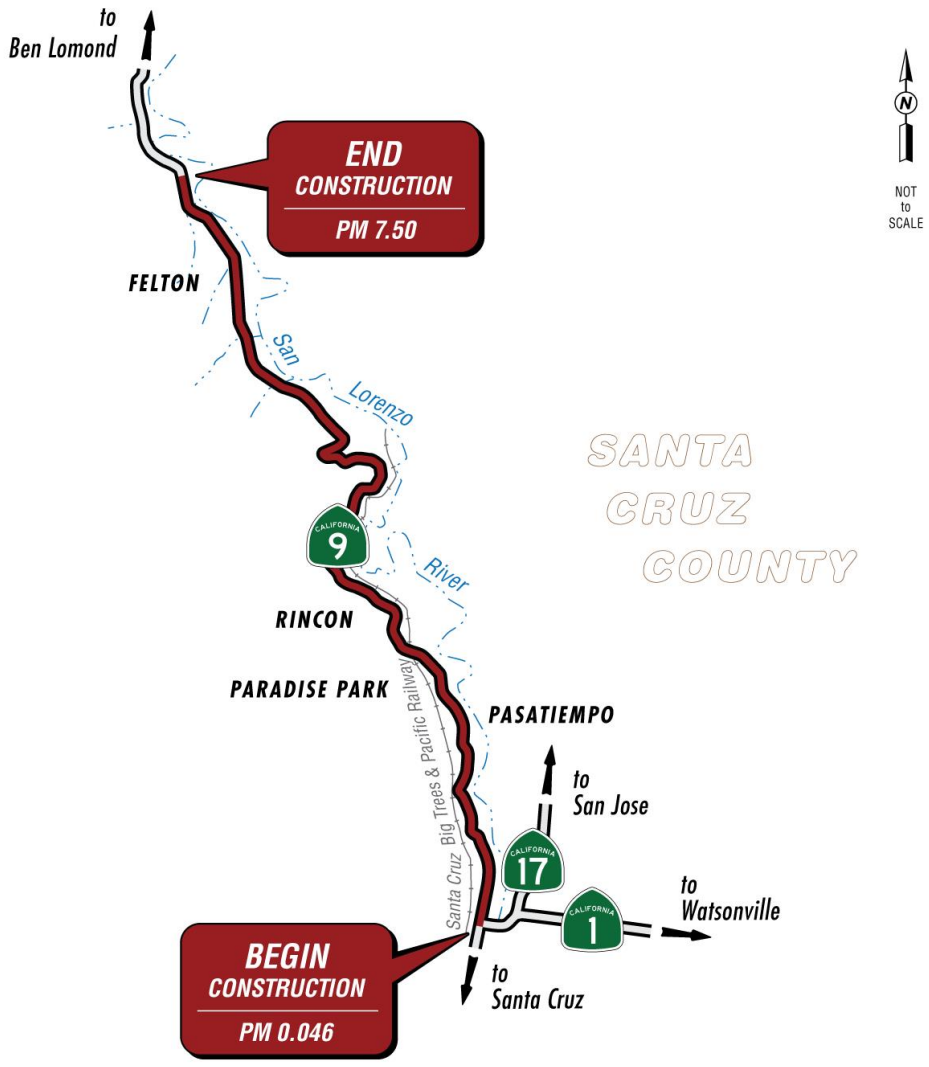


Figure 1-2 Project Location Map



1.4 Project Alternatives

One Build Alternative and one No-Build Alternative are under consideration for this project.

1.4.1 Build Alternative

The Build Alternative proposes to preserve the pavement on State Route 9 in Santa Cruz County within the project limits (post miles 0.046 to 7.500). Pavement conditions have triggered the need for this pavement preservation project. This Capital Preventive Maintenance project would maintain the

facility in a serviceable and safe condition for the traveling public, correct ride quality and minor structural defects in the pavement, and reduce roadway worker exposure to traffic by minimizing their need to repeatedly visit deteriorating pavement locations.

The work would rehabilitate 14.668 lane miles of Class 3 Flexible pavement using strategies including, but not limited to, dig outs and cold planing 0.20-foot, profile grinding, placing a 0.20-foot Hot Mix Asphalt overlay, and placing shoulder backing to account for erosion or weathering at the edge of the pavement.

The Build Alternative also includes upgrading guardrail to Manual for Assessing Safety Hardware standards, replacing culverts as needed, replacing census stations, replacing sign panels, and upgrading curb ramps to Americans with Disabilities Act standards where applicable. All geometric features of vertical and horizontal alignment would remain the same, so existing vertical and horizontal clearances within the project limits would be maintained.

Also included in the Build Alternative are Complete Streets elements outlined in the Highway 9/San Lorenzo Valley Complete Streets Corridor Plan and the San Lorenzo Valley Schools Access Study, and coordinated through the Santa Cruz County Regional Transportation Commission.

The scope of work for the Build Alternative involves the following:

On the Mainline

- Perform Capital Preventive Maintenance by cold planing 0.20 foot of pavement and placing 0.20 foot of Hot Mix Asphalt (14.668 linear miles).

- Perform dig outs and profile grinding (remove patches of asphalt from the surface layer and repave) at spot locations from post mile 0.046 to post mile 5.698, and from post mile 6.46 to post mile 7.500 (11.689 lane miles total).

- Place shoulder backing to account for erosion or weathering at the edge of the pavement in locations with steep grades and severe erosion from runoff. This includes most of the project area, except for urbanized locations (for example, Felton) where a drainage system exists (curb and gutter or concrete ditches) or segments are adjacent to existing State Route 9 culverts.

Guardrail

- Remove and replace existing metal beam guardrail with approximately 7,000 feet of Midwest Guardrail System with appropriate end treatments.

Drainage System Restoration

- Post mile 3.6: Replace approximately 50 feet of 18-inch corrugated steel pipe with 24-inch reinforced concrete pipe under the two lanes using the cut and

cover method, add a pipe down drain if needed and abandon the remaining 310-foot culvert since the terrain is very steep and access is limited.

- Post mile 4.45: Remove and replace the pipe network using the cut and cover method, starting at Node 2 to 40 feet off the northbound edge of the traveled way. Place a new 24-inch reinforced concrete pipe culvert and abandon the 18-inch corrugated steel pipe at Node 1.

- Post mile 4.67: Replace 100 feet of 1.8-foot-by-1.2-foot elliptical corrugated steel pipe with 24-inch reinforced concrete pipe using the cut and cover construction method from inlet Node 2 that is 1.7 feet deep, 7 feet from the edge of the traveled way to the outlet Node 1 approximately 50 feet from the northbound edge of the traveled way.

- Post mile 4.73: Replace 110 linear feet of 48-inch reinforced concrete pipe with 60-inch reinforced concrete pipe using the jack and bore construction method from Node 1, 35 feet from the northbound edge of the traveled way to Node 2, 30 feet from the southbound edge of the traveled way.

- Post mile 5.15: Replace 40 linear feet of 30-inch corrugated steel pipe with 30-inch reinforced concrete pipe using the cut and cover construction method from Node 1 (which is buried and would need to be relocated) to Node 2, 10 feet off the southbound edge of the traveled way. A temporary construction easement may be needed to locate Node 1, which appears to be underneath a fence.

Transportation Management System

- Upgrade two existing temporary traffic loops (at post miles 0.15 and 0.63) to permanent traffic census stations.

Sign Panels

- Replace six large and 34 small sign panels to meet federal requirements for retro-reflectivity.

Curb Ramps

- Upgrade 39 curb ramps to conform to Americans with Disabilities Act standards.

Complete Streets Improvements

- New sidewalks (3,068 linear feet):

  Add sidewalk on the northbound side of the highway, from the mid-block crossing to the Graham Hill Road/State Route 9 intersection.

  Add sidewalk on the northbound side of the highway, from Kirby Street to Russell Drive.

Add sidewalk on the southbound side of the highway, from Kirby Street to Laurel Drive.

- Construct new Class II bike lanes in the community of Felton (4,600 linear feet) between Graham Hill Road/State Route 9 intersection and Laurel Drive (both northbound and southbound).

- Enhance crosswalks with high-visibility striping at 16 locations (1,384 linear feet). See Table 1-1.

Table 1-1 Crosswalks with High-Visibility Striping

Item	Location	Number of Crosswalks	Linear Feet
CW1	State Route 9/State Route 1 (Cabrillo Highway) Intersection	2	475.00
CW2	Encinal Street	2	255.00
CW3	Redwood Drive to North Big Trees Park Road	1	34.00
CW4	Hihn Street	1	51.00
CW5	Kirby Street	1	46.00
CW6	Midblock crossing on State Route 9 between Graham Hill Road and Kirby Street	1	49.00
CW7	State Route 9/Graham Hill Road Intersection	4	264.00
CW8	San Lorenzo Valley High School	2	101.00
CW9	San Lorenzo Valley Elementary School	1	51.00
CW10	Trinity Bible Church	1	58.00

- Add two curb ramp extensions on Russell Avenue in Felton.

- Add pedestrian improvements to the Graham Hill Road/State Route 9 intersection (raised “pork chop-shaped island” for pedestrian refuge between the through lane and right-turn lane crosswalks).

- Add two bike boxes at the State Route 9/Encinal Street intersection, and add a Class II bike lane on State Route 9 between Encinal Street and Golf Club Drive in Santa Cruz.

- Replace existing traffic striping and pavement marking in-kind throughout the project except where the Complete Streets elements, the two-way left-turn lane, new sidewalk, and bike lanes are incorporated.

Additional Complete Streets Elements

- Construct new sidewalk/pedestrian path (420 linear feet):

Add 300 linear feet of new sidewalk between the northeast corner of the Graham Hill Road/State Route 9 intersection and the Covered Bridge Road transit stop.

Add 120 linear feet of new pedestrian path between the Redwood Drive crosswalk on State Route 9 and the San Lorenzo River bridge on North Big Trees Road in Henry Cowell Redwoods State Park.

- Reconstruct two transit stops:

  San Lorenzo Valley High School northbound bus stop at State Route 9 (including Americans with Disabilities Act transit access and curb/gutter paving).

  Southbound bus stop on State Route 9 at El Solyo Heights Drive/San Lorenzo Valley Middle School.

- Modify two traffic signals:

  Modify the existing traffic signal: “No right turn on red” signage from southbound State Route 9 into the San Lorenzo Valley High School driveway.

  New traffic signal: Stoplight at San Lorenzo Valley Elementary School.

- Construct a new bus-only driveway at San Lorenzo Valley High School.

- Widen 5,210 linear feet of shoulder to be bikeable. See Table 1-2.

Table 1-2 Bikeable Shoulder Locations

Item	Description	Linear Feet
9	Bikeable shoulder northbound side from Graham Hill Road to San Lorenzo Valley High School bus-only driveway	3,654.00
15a	Northbound side from a point 148 feet south of El Solyo Heights Drive, to El Solyo Heights Drive	148.00
15b	Southbound side from El Solyo Heights Drive to a point 155 feet south of El Solyo Heights Drive	155.00
15c	Northbound side from the San Lorenzo Valley Elementary School driveway to El Solyo Heights Drive	174.00
15d	Southbound side from the San Lorenzo Valley Elementary School driveway to El Solyo Heights Drive	178.00
15e	Northbound side from the San Lorenzo Valley High School intersection to El Solyo Heights Drive	448.00
15f	Southbound side from the San Lorenzo Valley High School intersection to El Solyo Heights Drive	453.00

- Construct curb extensions at eight locations. See Table 1-3.

Table 1-3 Curb Extension Locations

Item	Location	Number of Curb Ramp Extensions
19	Curb extensions at the crosswalk at Hihn Street	2
21	Curb extensions at the crosswalk at Kirby Street	2
22	Curb extensions at the midblock crossing on State Route 9 between Graham Hill Road and Kirby Street	2
36	Curb extensions at the Redwood Drive crosswalk	2

- Improve pedestrian islands at two locations:

  Curb and gutter paving from the San Lorenzo Valley High School driveway entrance through the southbound high school bus stop to the bus-only entrance.

  Pedestrian refuge island at the midblock crossing on State Route 9 between Graham Hill Road and Kirby Street.

- Install one new crosswalk on Russell Avenue in Felton.

Remove Redwoods

The project would also remove four coast redwoods at post mile 4.45 and one coast redwood at post mile 4.48. Some additional vegetation removal may be required, but would be minimal.

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

1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative would not meet the project's purpose and need because it would not preserve highway pavement or achieve any of the other project objectives. Nor would this alternative meet the objectives set by the Caltrans District 5 Route 9 Transportation Concept Report, the Santa Cruz County Regional Transportation Commission, the County of Santa Cruz Active Transportation Plan, or the Association of Monterey Bay Area Governments' Sustainable Communities Strategy.

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

The project would include Caltrans standard measures that are typically used on all Caltrans projects. Caltrans standard measures are considered features of the project and are evaluated as part of the project. Caltrans standard measures are not implemented to address any specific effects, impacts, or circumstances associated with the project but are instead implemented as part of the project's design to address common issues encountered on projects.

The measures listed below are those related to environmental resources and are applicable to the project. These measures can be found in the Caltrans 2023 Standard Specifications document.

- 7-1 Legal Relations and Responsibility to the Public
- 10-4 Water Usage
- 10-5 Dust Control
- 10-6 Watering
- 12-1 Temporary Traffic Control
- 12-3 Temporary Traffic Control Devices
- 12-4 Maintaining Traffic
- 13-1 Water Pollution Control
- 13-2 Water Pollution Control Program
- 13-4 Job Site Management
- 13-6 Temporary Sediment Control
- 13-7 Temporary Tracking Control
- 13-10 Temporary Linear Sediment Barriers
- 14-1 General (Environmental Stewardship)
- 14-2 Cultural Resources
- 14-6 Biological Resources
- 14-8 Noise and Vibration
- 14-9 Air Quality
- 14-10 Solid Waste Disposal and Recycling
- 14-11 Hazardous Waste and Contamination
- 14-12 Other Agency Regulatory Requirements

- 17-2 Clearing and Grubbing
- 18-1 Dust Palliatives
- 20-1 Landscape
- 20-3 Planting
- 20-4 Plant Establishment Work
- 21-2 Erosion Control Work

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

In addition, prior to project construction a Transportation Management Plan would be developed to manage traffic during project construction.

Best Management Practices that would be implemented to protect water quality during the proposed project activities are discussed further in Section 2.1.10, Hydrology and Water Quality.

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. See Table 1-4 on the next page.

Table 1-4 Permitting and Approving Agencies

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	1602 Permit	To be requested during the Plans, Specifications, and Estimates phase.
California Department of Fish and Wildlife	2081 Incidental Take Permit	To be requested during the Plans, Specifications, and Estimates phase.
Regional Water Quality Control Board	401	To be requested during the Plans, Specifications, and Estimates phase.
U.S. Army Corps of Engineers	404 Nationwide Verification	To be requested during the Plans, Specifications, and Estimates phase.
State Office of Historic Preservation (State Historic Preservation Officer)	Finding of Effect	To be received between release of the draft and final environmental documents.
National Marine Fisheries Service	Biological Opinion	To be requested during the Plans, Specifications, and Estimates phase.
U.S. Fish and Wildlife Service	Biological Opinion	Received June 27, 2024.
National Marine Fisheries Service	Technical Assistance	Initiated September 10, 2024.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

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

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

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

2.1.1 Aesthetics

Considering the information in the "Visual Impact Assessment of the Proposed Santa Cruz Route 9 Felton CAPM" report dated December 16, 2024, 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?	**Less Than Significant Impact**

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

Affected Environment

State Route 9 is a two-lane, conventional highway that runs through the rugged, heavily forested Santa Cruz Mountains in a roughly north-south orientation. The highway passes through public open space and recreational areas, including Paradise Park, Pogonip Open Space, and Henry Cowell Redwoods State Park. The San Lorenzo River generally parallels State Route 9 to the east, though the river does not have a high degree of noticeability for highway travelers because of intervening vegetation and topography.

The project area is approximately 7.5 miles long and extends from the urbanized State Route 9/State Route 1 intersection within the City of Santa Cruz to El Solyo Heights Drive in the small, unincorporated community of Felton. Within the Santa Cruz city limits, State Route 9 (River Street) supports a busy mix of commercial, residential, and industrial uses. Sidewalks flank the roadway intermittently, along with paved shoulder of various widths.

In Felton, State Route 9 serves as the town's "main street." The existing visual character here is based on the town's rural environment, rich historical resources, rustic architecture, and natural beauty of Felton's setting within Santa Cruz County's coast redwood forest. Surrounding businesses, schools, and nearby State parks contribute to noticeable pedestrian and bicycle usage.

Between Santa Cruz and Felton, State Route 9 is a curvilinear roadway with very narrow shoulders. The route passes through thick forest with intermittent views of valleys and hills, creating an immersive natural and scenic experience for drivers. One hilltop turnout at post mile 3.8 offers a vista of Henry Cowell Redwoods State Park. Development along the corridor is very low density, supporting the occasional cabin, historic railroad tracks, and stone walls. Entry signs to several public parks and overnight amenities, such

as RV camping, can be seen while traveling along the route. The log entry sign for Henry Cowell Redwoods State Park is of notable interest and is representative of the visual character of the corridor.

Environmental Consequences

The project would result in visual changes that would be noticeable to the public from State Route 9 and some intersecting local streets and public parks. Installation of sidewalks, pedestrian islands, bike lanes, bike boxes, and curb ramps would cause an increase in the urban character of the highway and its surroundings, primarily in Felton. Also, signage, bus stops and other features can add to an urbanizing change in visual character.

In the less urbanized segments of the project, the addition of new guardrail and the reduction in roadside trees and vegetation would also result in a somewhat more engineered appearance of the highway. During and following construction, the most noticeable aspect of the project may be the reduction of trees at culvert locations and guardrail locations. Although some of these actions may be considered temporary and project vegetation removal is expected to be minimal overall, the potential exists for a minor loss of visual quality along the project corridor.

Though most project elements would not be uncharacteristic of a state highway, viewer sensitivity may be heightened because of the scenic and rural character of the project area, the eligibility of the route as a scenic highway, the surrounding public park lands, and the quaint downtown architecture in Felton. Combined, these qualities create an elevated experience for motorists and contribute to the local economy by fostering tourism. Applicable local planning policies, documents, and guidelines also acknowledge a heightened viewer sensitivity for users of State Route 9.

Project-related visual changes, though noticeable, would be minimal for reasons that include the following:

- The proposed improvements would have minimal to no effect on scenic vistas in the area. Though the Manual for Assessing Safety Hardware-compliant guardrail is slightly taller than the existing guardrail that would be replaced, installation of the new guardrail would not reduce scenic views for travelers. Also, structural railings or barriers that may be placed during the project would be “open style” to limit obstruction of views.

- The project would not substantially damage scenic resources along a State Scenic Highway. Though State Route 9 is eligible for inclusion in California’s State Scenic Highway System, it is not presently so designated.

- The elements of the project include retaining walls, guardrails, additional sidewalks, crosswalks, pedestrian islands and ramps, sign replacement, and others. These facilities are not unexpected or inconsistent elements in

highway or “main street” thoroughfare environments. The aesthetic treatments that would be applied as part of the project include subdued colors for concrete and guardrail surfaces, natural-appearing texturing of proposed walls and other surfaces, and less-obtrusive design choices for structures.

At several of the more urbanized locations, widening sidewalks and adding curb ramps would provide visual continuity with adjacent paved areas. Therefore, the project may contribute to a more unified streetscape that would be consistent with adopted planning documents, zoning, and other regulations in the project area. Aesthetic impacts from the project would be further reduced by replanting any removed trees and other impacted vegetation.

Finally, Caltrans would provide opportunities for substantial community involvement as this project progresses. Taken together, the practices, materials, and public outreach involved would reduce the engineered appearance of the improvements and ensure that visual character remains consistent with community expectations.

- The project does not include any new sources of lighting. Project elements such as railing, new guardrail, or other metal facilities would be stained or color-treated to reduce the potential for glare.

Avoidance, Minimization, and/or Mitigation Measures

Though mitigation for visual impacts is not required for this project, the following measures would be implemented to further minimize the visual effects of the project:

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

VIS-2. Replant removed vegetation to the maximum extent feasible. Replacement planting would include aesthetic considerations as well as the inherent biological goals. Revegetation would include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architecture.

VIS-3. If vehicle pullouts are included in the project, they would not be paved.

VIS-4. All metal roadside elements, including but not limited to guardrail, transitions, end treatments, and cable safety railing, should be stained or darkened to be visually compatible with the setting. The color would be determined and approved by District 5 Landscape Architecture.

VIS-5. Railing and barriers would be open style to preserve views and reduce urban appearance.

VIS-6. Retaining walls, if needed and visible from the roadway, would be aesthetically treated to reduce the urbanizing effect and minimize potential graffiti. The aesthetic treatment would be determined and approved by District 5 Landscape Architecture.

VIS-7. Pedestrian and vehicular infrastructure, such as pedestrian channeling devices, should be chosen to be visually compatible with a rural setting, for instance by using low-profile “armadillos” instead of tall, plastic bollards. Devices should be approved by Caltrans District 5 Landscape Architecture.

VIS-8. Drainage features such as headwalls, rock slope protection and down drains that are visible to the public should be stained or color-treated as directed by District 5 Landscape Architecture.

VIS-9. Community involvement is anticipated in the development of the aesthetic treatments. Colors and textures for pedestrian facilities, curb extensions or sidewalk paving, bus stop facilities, and railing types would be approved by District 5 Landscape Architecture in conjunction with Design.

VIS-10. Limit staging and storage areas to existing paved locations to the maximum extent feasible. Impacts within the dripline of redwood trees are not permissible.

VIS-11. Following construction, re-grade and re-contour all new construction staging areas, access roads and other uses to match the surrounding pre-project topography.

2.1.2 Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Considering information from the sources described above as well as from additional sources (California Department of Conservation Farmland Mapping and Monitoring Program; California Department of Conservation Williamson Act Enrollment Finder; County of Santa Cruz Geographic Information

Services; City of Santa Cruz General Plan Land Use Map), 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?	**Less Than Significant 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**

Affected Environment

The project area runs approximately 7.5 miles along State Route 9 between the City of Santa Cruz and the unincorporated community of Felton in Santa Cruz County. The project corridor passes through various urban, parks and recreational, and natural area land uses. Most of the corridor passes through coast redwood forest, including within Henry Cowell Redwoods State Park.

The project area does not contain any land designated or zoned for agricultural uses or pass through any land under Williamson Act contract. Near the southern portion of the project area across the San Lorenzo River from State Route 9, there are roughly 18 acres of land that are designated for agriculture under the Santa Cruz County General Plan. According to the State

of California's Important Farmland Finder, this area contains 17.46 acres of Prime Farmland and 0.40 acre of Unique Farmland.

The project limits do not contain any land designated or zoned as timber or timber production. The project limits pass near, but do not encroach upon, three areas that contain Santa Cruz County General Plan land use designations of Timber Resource and are zoned Timber Production. These areas total roughly 76.4 acres.

Environmental Consequences

The project area does not contain any Prime Farmland, Farmland of Statewide Importance, or Unique Farmland; nor is there any land zoned for agriculture or under Williamson Act contract within the project limits. The project would not require acquisition of any farmland. Because the project limits do not contain resources of these types, and the approximately 18 acres of Prime Farmland and Unique Farmland near the project area would not be affected by project activities (including conversion to other land uses), there would be no impacts to agriculture from the project.

The project also would not conflict with any zoning of forest land, timberland, or timberland zoned as Timber Production. The project may result in the removal of several trees within the state highway right-of-way to allow for construction access; however, the number of trees to be removed would be minimal. The exact number and location of tree removals would be determined in the project's Plans, Specifications, and Estimates phase.

The project limits do not encroach upon the roughly 76 acres of Timber Production-zoned timberland in the area, and the project would not require any right-of-way or property acquisition from lands identified within a Timber Production Zone per the California Timberland Productivity Act of 1982 (California Government Code Sections 51100 and following).

The project would result in permanent impacts to 0.023 acre of redwood forest and woodland. Because the number of trees proposed for removal would be minimal, and potential impacts to forest land would be further reduced through the application of avoidance, minimization, and mitigation measures (see Measures BIO-1, BIO-2, and BIO-11 in Section 2.1.4), project-related impacts to forest land, timberland, or timberland zoned as Timber Production would be considered less than significant.

No other project features would change the existing environment and result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Avoidance, Minimization, and/or Mitigation Measures

Avoidance, minimization, and mitigation measures BIO-1, BIO-2, and BIO-11 would avoid removal of mature redwood and California bay trees to the

greatest extent feasible and require that any removed trees be replaced at a 1-to-1 ratio for temporary impacts and a 3-to1 ratio for permanent impacts. See Section 2.1.4, Biological Resources, for additional information.

2.1.3 Air Quality

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

Considering the information in the Caltrans "Air Quality, Greenhouse Gas, Water Quality, and Noise Technical Memo, San Lorenzo Valley Capital Preventive Maintenance (CAPM) Project" dated October 18, 2024, 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?	**Less Than Significant Impact**
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	**No Impact**
c) Expose sensitive receptors to substantial pollutant concentrations?	**Less Than Significant Impact**
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	**Less Than Significant Impact**

Affected Environment

The project sits in the North Central Coast Air Basin, which consists of Monterey, Santa Cruz, and San Benito counties. The Monterey Bay Air Resources District regulates air quality in the North Central Coast Air Basin. The basin is considered in attainment for all federal ambient air quality standards and non-attainment for state ambient air quality standards for airborne particulates less than 10 microns in diameter (PM10).

The Federal Highway Administration first issued air quality conformity guidelines in 1993, which have been amended throughout the years. Because the project is in attainment for all federal ambient air quality standards, conformity requirements do not apply for this project.

Environmental Consequences

In accordance with the goals of the Monterey Bay Unified Air Pollution Control District's 2012-2015 Air Quality Management Plan, the project would not increase mobile source emissions in the air basin. During construction, project-related air pollutant emissions would be temporary and minimal, and the project would comply with all required California Air Resources Board and Monterey Bay Unified Air Pollution Control District rules, ordinances, and regulations.

The project would not increase the highway's capacity or vehicle miles traveled and would therefore not result in any increase in long-term air pollutant emissions.

Temporary increases in air pollutant emissions and fugitive dust can be expected during the project's construction phase. Because relatively little excavation and earthwork would be needed, generation of fugitive dust is expected to be minimal. The Hot Mix Asphalt overlay that would be used to resurface the highway has the potential to subject surrounding sensitive receptors to inhalable construction emissions and odors because it would require transportation and application of asphalt. However, project-related air pollutant and dust emissions would be minimized through standard construction dust and emission minimization practices and procedures (see Section 1.5) and are anticipated to be well within Monterey Bay Air Resources District daily thresholds. An estimate of greenhouse gas emissions resulting from construction of this project is provided in Section 2.1.8, Greenhouse Gases.

Avoidance, Minimization, and/or Mitigation Measures

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

2.1.4 Biological Resources

Considering the information in the Caltrans "South Santa Cruz Capital Preventive Maintenance Project - Natural Environment Study" dated December 2024, 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 With Mitigation Incorporated**

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

Affected Environment

The project lies along an approximately 7.5-mile segment of State Route 9 in southern Santa Cruz County. The project's Biological Study Area covers roughly 73.5 acres and consists of all areas that would be directly affected by permanent and temporary construction impacts as well as adjacent areas that could potentially be indirectly affected by project activities.

From the project's southern end (in an urbanized area within the City of Santa Cruz), the work area runs uphill through dense coast redwood forest, including within Henry Cowell Redwoods State Park, then descends through the community of Felton to the northern project end at the intersection of State Route 9 and El Solyo Heights Drive. The project generally parallels the San Lorenzo River, which flows just to the east of the highway. Elevation above mean sea level ranges from approximately 34 feet at the southern end to 500 feet in Henry Cowell Redwoods State Park.

Caltrans biologists identified and mapped eight vegetation and land cover types in the Biological Study Area. Four of these are natural communities: redwood forest and woodland, California bay forest and woodland, Douglas-fir–tanoak forest–madrone forest and woodland, and needle grass–melic grass grassland. The first two listed are considered Sensitive Natural Communities by the California Department of Fish and Wildlife. The remaining four communities observed onsite consist of two semi-natural types dominated by nonnative trees and shrubs (eucalyptus–tree of heaven–black locust groves; and Australian wattle–Grevillea–tea tree ruderal patches) and two anthropogenic types: developed and ruderal. Anthropogenic refers to the fact that these two types have been heavily altered and disturbed by human activity.

Six locations within the Biological Study Area (post miles 3.6, 4.73, 5.15, 5.55, 5.95, and 7.0) were identified as containing aquatic resources. Each of these was classified as falling into one or both of the following categories: Riparian Habitat and Streambank, and Other Waters. No wetlands were identified within the project limits.

As State Route 9 and the project's Biological Study Area pass through the vegetation and land cover types described above (primarily redwood forest and woodland and California bay forest and woodland), they cross multiple streams within the San Lorenzo River watershed. These drainages support movement of various terrestrial and aquatic animal species, both locally and through the greater Santa Cruz region. According to the California Department of Fish and Wildlife, the northern portion of the Biological Study Area intersects with "Natural Landscape Blocks" and an "Essential Connectivity Area" that maintain ecological connectivity between the Santa Cruz Mountains, the San Francisco Peninsula, and the Diablo Range for a broad range of species in the region. Known and potential barriers to fish passage exist at two creeks within the Biological Study Area: Gold Gulch Creek (post mile 5.55) and Shingle Mill Creek (post mile 5.95). A culvert at post mile 4.73 is not a fish passage barrier because the creek is too steep upstream from the culvert to support anadromous fish (steelhead, coho salmon) even though the downstream habitat is accessible to them.

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.

The potential exists for 26 special-status plant species and 14 special-status animal species to occur within the Biological Study Area and surrounding area.

Special-Status Plant Species

The project's Natural Environment Study identified 60 special-status plant species as having been documented in the region surrounding the project area,

and found that the habitats and microhabitats within the project Biological Study Area provide potentially suitable habitat for 26 of these species. None of these species were seen during appropriately timed floristic surveys in the Biological Study Area, and they are therefore not expected to occur. A complete listing of regional special-status plant species in the project vicinity is provided in Table 3-4 of the Natural Environment Study.

Special-Status Animal Species

The project's Natural Environment Study found that 65 special-status animal species have the potential to occur in the project region; of that number, 14 may occur within the project Biological Study Area due to the presence of suitable habitat. However, no special-status animal species were seen during the reconnaissance-level biological surveys conducted in the Biological Study Area. The 14 potentially occurring special-status animal species are briefly described on the following pages as well as in Table 3-5 of the Natural Environment Study.

Monarch Butterfly

The monarch butterfly occurs throughout California in both migratory and resident populations, including spring and summer breeding areas and overwintering areas primarily along the coast. The migratory and breeding habitat for this species generally consists of all areas with milkweed plants (larval host plants), nectar sources, and roosting trees.

Monarch populations have declined due to habitat loss in breeding and overwintering sites, habitat degradation, disease, pesticide exposure, and climate change. This species is proposed for listing as Threatened under the Federal Endangered Species Act, and the California overwintering population is a State-designated Species of Greatest Conservation Need.

Focused surveys for monarch butterflies were not conducted within the project Biological Study Area. During other surveys conducted by project biologists in the area, neither monarchs nor milkweed plants were seen. In addition, there are no known overwintering populations within the Biological Study Area. However, potentially suitable roosting and foraging habitat is sparsely present throughout the Biological Study Area, and the California Natural Diversity Database records monarch occurrences near the Biological Study Area.

Central California Coast Coho Salmon

The Coho salmon is one of the five Pacific salmon species. Adults spawn in freshwater, while juveniles migrate to the ocean to mature and return to freshwater to reproduce. This species requires deep pools with clean, cool flowing water containing sufficient dissolved oxygen and minimal turbidity for successful holding, spawning, incubation, and rearing. Juveniles require cool stream temperatures year-round.

This species historically occurred in North America from Alaska south to Monterey Bay in California. Populations in Santa Cruz County have declined over the decades due to habitat degradation caused by both human activities (agriculture, logging, water project development) and natural events exacerbated by climate change (drought, wildfire, flooding). The coho salmon population found in the project vicinity is listed as Endangered under both the Federal Endangered Species Act (Central California Coast Coho Evolutionarily Significant Unit) and the California Endangered Species Act (all coho salmon).

Federally designated critical habitat for the Central California Coast coho salmon is present in the general project vicinity in the San Lorenzo River, Gold Gulch Creek, and Fall Creek. The project Biological Study Area also occurs within designated Essential Fish Habitat for this species. Within the project Biological Study Area, the only designated critical habitat for this species is at the proposed culvert replacement location at post mile 4.73. Although this unnamed creek is too steep upstream from the culvert to support coho salmon, the downstream habitat is both suitable and accessible.

Intensive fish survey methods were not conducted in the Biological Study Area for the project, but coho salmon are assumed present due to the presence of suitable habitat and one recorded California Natural Diversity Database occurrence within the Biological Study Area. If present, the species may be affected by project activities, including creek diversion/dewatering and culvert replacement.

Central California Coast Steelhead Trout

The steelhead trout is the oceangoing form of rainbow trout. As with the coho salmon, adults spawn in freshwater while juveniles migrate to the ocean to mature and return to freshwater to reproduce. Steelhead trout may be found in perennial or intermittent streams that do not completely dry in the summer if there are pools with cool water where fish may hold until higher flows allow for spawning and hydration.

Steelhead trout historically ranged from Alaska southward to the California-Mexico border; however, steelhead numbers have steeply declined in Central California due to urbanization, agricultural and water project development, and other factors. The Distinct Population Segment of steelhead trout found in the project area—Central California Coast steelhead trout—is listed as Threatened under the Federal Endangered Species Act.

The Biological Study Area does not overlap with designated critical habitat for steelhead trout, though critical habitat is nearby in the San Lorenzo River, Gold Gulch Creek, and Fall Creek. Due to the presence of suitable habitat and California Natural Diversity Database records of several occurrences within and near the Biological Study Area, steelhead trout are assumed to be present.

As with coho salmon, the culvert at post mile 4.73 is the only work location of concern regarding potential impacts to this species because of the potential effects of creek diversion/dewatering and culvert replacement.

Santa Cruz Black Salamander

The Santa Cruz black salamander is a subspecies of the more widely distributed black salamander, which is found throughout Northern California coastal areas to the Oregon border. This species occurs in mixed deciduous woodland, conifer forests, and coastal grasslands and is active year-round, often being found under rocks along streams, in the rocky slope of road cuts, and on wet soils beneath logs and debris. The Santa Cruz black salamander is a California Species of Special Concern.

No protocol surveys were conducted for the Santa Cruz black salamander in the project Biological Study Area, and the species was not seen by project biologists during other surveys. However, suitable habitat is present throughout the area, and the California Natural Diversity Database documents several occurrences within and near the Biological Study Area. Therefore, the species is assumed present.

California Giant Salamander

The California giant salamander occurs in and around permanent and semi-permanent streams and seepages in damp coastal forests and is found under objects such as rocks, bark, and logs. This species is a California Species of Special Concern.

No protocol surveys were conducted for the California giant salamander, and the species was not seen during surveys. However, suitable upland and aquatic habitat for the species exists in the project area, and the California Natural Diversity Database documents several occurrences within and near the Biological Study Area. Therefore, the species is assumed present.

California Red-Legged Frog

The California red-legged frog is the largest native frog in the western United States. This species uses a variety of landscapes, including aquatic, riparian, and upland habitats. Aquatic habitat with water having little to no flow is preferred.

Formerly found from Mendocino County south to Baja California, the California red-legged frog has declined throughout its range due primarily to habitat loss or alteration from agricultural and urban development, as well as competition from non-native species. This species is listed as Threatened under the Federal Endangered Species Act and is a California Species of Special Concern.

There is no designated critical habitat for the California red-legged frog within 2 miles of the Biological Study Area. However, the red-legged frog is assumed present due to the presence of suitable breeding and upland habitat

and the existence of several California Natural Diversity Database occurrence records near the Biological Study Area.

The culvert at post mile 4.73 is the only work location of concern regarding potential impacts to this species because of the potential effects of dewatering and culvert replacement.

Cooper's Hawk and Other Nesting Birds

Cooper's hawk is a large raptor that ranges throughout the United States and is widely distributed throughout California. This species occupies forests and woodlands, especially near habitat edges, and is commonly found in areas with dense tree stands or patchy woodland habitat. The Cooper's hawk population is declining, and this bird is a State of California Watch List species.

No Cooper's hawks or Cooper's hawk nests were seen during surveys within the Biological Study Area. However, potential foraging and nesting habitats occur in the area, and the California Natural Diversity Database records one occurrence of this species near the Biological Study Area.

Nesting birds and eggs of any species are protected under California Fish and Game Code Sections 3503 and 3503.5, as well as under the federal Migratory Bird Treaty Act. Although focused nesting bird surveys were not conducted in the Biological Study Area, the project area contains suitable nesting habitat. Project biologists observed one dark-eyed junco nest on the ground (this is a ground-nesting species) in the Biological Study Area, in California bay forest and woodland habitat.

Marbled Murrelet

The marbled murrelet is a seabird that occurs mostly from Alaska south to the Pacific Northwest, but is also present in small numbers in Monterey County and along the Central and Southern California coasts. This species nests in old-growth redwood forests along the coast and can be found up to 6 miles inland in Santa Cruz County. Extensive logging of coastal forests has caused this species to decline. The marbled murrelet is listed as Threatened under the Federal Endangered Species Act and listed as Endangered under the California Endangered Species Act.

A portion of the Biological Study Area overlaps with federally designated critical habitat for this species (Unit CA-15, Conservation Zone 6). This critical habitat is found south of Felton, but is otherwise unidentified in the August 4, 2016 final critical habitat determination that was entered into the Federal Register. Caltrans biological resources staff have determined that the project Biological Study Area overlaps with this critical habitat between roughly post miles 2.40 and 4.60 along State Route 9.

No marbled murrelets were seen during surveys conducted by project biologists. The nearest California Natural Diversity Database record of

occurrence for this species is approximately 0.6 mile from the Biological Study Area.

Pallid Bat

The pallid bat occurs throughout most of California in grasslands, shrublands, woodlands, and forests. Open areas below 6,500 feet in elevation are especially preferred. This species uses day roosts, including cliff fissures and other crevices, caves, mines, abandoned buildings, bird boxes, bridges, and hollow trees; night roosts are in more open areas such as porches and open buildings. In winter, pallid bats hibernate near their summer day roost locations. The pallid bat is a California Species of Special Concern.

No bats, nor signs of bats, were seen during surveys conducted by project biologists, but presence of the pallid bat within the Biological Study Area is assumed because of the presence of suitable habitat and California Natural Diversity Database records of occurrence near the Biological Study Area.

Townsend's Big-Eared Bat

Townsend's big-eared bat is found throughout almost all of California. Roosting habitat consists of caves, mines, tunnels, buildings, and other human-made structures. The species is exceptionally sensitive to roost disturbance and uses separate locations for day, night, and maternity roosts. Townsend's big-eared bat is a California Species of Special Concern.

No bats, nor signs of bats, were seen during surveys conducted by project biologists, but presence of Townsend's big-eared bat within the Biological Study Area is assumed because of the presence of suitable habitat and California Natural Diversity Database records of occurrence near the Biological Study Area.

Santa Cruz Kangaroo Rat

The Santa Cruz kangaroo rat is found in the Santa Cruz Mountains chaparral (chamise, black sage, manzanita, buck brush, and coyote brush) and conifer forest (coast redwood, Douglas fir, madrone, and tanoak) habitats with sandy, sandy loam, or loam soils suitable for burrowing. Kangaroo rats forage on seeds and some green vegetation, storing food in underground caches.

The Santa Cruz kangaroo rat is not listed, or a candidate for listing, under the Federal or California Endangered Species Acts but is on the California Special Animals List, meaning that this species is tracked in the California Natural Diversity Database regardless of legal or protection status.

Focused surveys for this species were not conducted within the Biological Study Area. Neither individual kangaroo rats nor potentially suitable burrows for this species were observed during other surveys conducted by project biologists, but its presence within the Biological Study Area is assumed

because of the presence of suitable habitat and California Natural Diversity Database records of occurrences within and near the Biological Study Area.

North American Porcupine

The North American porcupine is found in coniferous forests throughout California, as well as occasionally in lowland habitats. Females den in hollow trees, rock outcrops, and outbuildings during the winter, while males either den or find daytime refugia in trees. Food sources include needles, the bark and cambium of trees, the leaves of herbaceous plants, grasses, roots, stems, berries, and nuts depending on the season. The North American porcupine is on the California Special Animals List.

Focused surveys for this species were not conducted within the Biological Study Area. Neither individuals nor signs of this species (tracks, scat, potential or confirmed dens) were seen during other surveys conducted by project biologists, but the species' presence within the Biological Study Area is assumed due to the presence of suitable habitat and one California Natural Diversity Database record of occurrence near the Biological Study Area.

Hoary Bat

The hoary bat is the most widespread North American bat and can be found across California in deciduous and coniferous forests from dry lowlands up to 9,000 feet in elevation. In winter, the species roosts in tree trunks and artificial structures, including the sides of buildings. Roost locations during the rest of the year include evergreen and deciduous trees. The hoary bat is on the California Special Animals List.

No bats, nor signs of bats, were seen during surveys conducted by project biologists, but presence of the hoary bat within the Biological Study Area is assumed because of the presence of suitable habitat and California Natural Diversity Database records of occurrence within and near the Biological Study Area.

San Francisco Dusky-Footed Woodrat

The San Francisco dusky-footed woodrat is a subspecies of dusky-footed woodrat that is found along the western edge of the San Francisco Bay Area and in the Santa Cruz Mountains in dense chaparral, mixed deciduous forest, coniferous forest, and coastal sage scrub. This species forages on leaves, flowers, nuts, berries, and fungi. Woodrats build houses that are about 3 feet tall and 3 to 7 feet wide from twigs, leaves, and other debris. These structures are usually on the ground at the base of a tree or in dense brush. The San Francisco dusky-footed woodrat is a California Species of Special Concern.

Focused surveys for this species were not conducted by project biologists in the Biological Study Area. No San Francisco dusky-footed woodrats, nor sign of the species such as stick houses, were observed during other surveys.

However, suitable habitat (redwood forest and woodland; Douglas fir–tanoak forest–madrone forest and woodland) and food sources are present in the Biological Study Area. Also, the California Natural Diversity Database records one occurrence near the Biological Study Area. Therefore, this species is assumed present.

Regional Habitats of Concern

According to the California Department of Fish and Wildlife's California Natural Diversity Database, seven regional habitats of concern that are considered sensitive occur in the project region: four plant communities (Maritime Coast Range Ponderosa Pine Forest, Northern Coastal Salt Marsh, Northern Interior Cypress Forest, and Northern Maritime Chaparral) and three stream fish communities (North Central Coast California Roach/Stickleback/Steelhead Stream, North Central Coast Drainage Sacramento Sucker/Roach River, and North Central Coast Short-Run Coho Stream). Only one of these—the North Central Coast Drainage Sacramento Sucker/Roach River habitat—overlaps the Biological Study Area (at Fall Creek).

Invasive Plants

Invasive plant species are common throughout most of the Biological Study Area, especially on disturbed sites and around residential and urban areas. Seven invasive plant species rated "High" by the California Invasive Plant Council were seen in the Biological Study Area: cheat grass, ice plant, English ivy, Cape ivy, French broom, Himalayan blackberry, and pampas grass. A full list of invasive plant species found onsite by project biologists is presented in Table 3-6 of the Natural Environment Study.

Environmental Consequences

The Biological Study Area contains several natural communities of special concern, including Sensitive Natural Communities, non-wetland waters, and riparian habitat. The Biological Study Area also contains potential habitat for various special-status plant and animal species, as well as designated critical habitat for three special-status animal species (Central California coast steelhead trout Distinct Population Segment, Central California coast coho salmon Evolutionarily Significant Unit, and marbled murrelet).

Permanent impact areas would occur mainly within ruderal/disturbed areas and within the developed roadway and would result from the installation of new curb ramps, new sidewalks, new bike lanes, and various pedestrian improvements. Off the roadway, permanent impacts would result from installation of rock slope protection and installation of recommended culvert end treatments at post miles 3.60, 4.45, 4.67, 4.73, and 5.15.

Temporary impacts would occur throughout the Biological Study Area and would result primarily from the use of construction equipment and associated worker foot traffic in the course of creating equipment access, clearing

vegetation, staging, stockpiling, and temporary dewatering/diversion. Equipment used would include trucks, bulldozers, backhoes, compactors, asphalt concrete rollers, clamshells, excavators, compressors, pavers, water trucks, sweepers, and any other equipment needed during construction.

Habitats and Natural Communities of Special Concern

The area of anticipated permanent and temporary project-related impacts to natural communities is shown in Table 2-1.

In the first column of Table 2-1, references to the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdiction, involve the following:

- The U.S. Army Corps of Engineers will determine jurisdiction status of aquatic features in the Biological Study Area. For the purposes of the Natural Environment Study for this project, it is assumed that the U.S. Army Corps of Engineers would take jurisdiction over perennial, intermittent, and ephemeral streams, and adjacent wetlands.

- Regional Water Quality Control Board and California Department of Fish and Wildlife jurisdiction extends from the channel bed to the top of banks or outer edge of the riparian canopy, whichever is greater. It includes or overlaps areas of U.S. Army Corps of Engineers jurisdictional other waters and extends above the Ordinary High Water Mark to the top of bank or outer edge of riparian vegetation, whichever is greater.

Table 2-1 Area of Estimated Permanent and Temporary Impacts to Natural Communities

Natural Community/ Feature/Habitat	Permanent Impacts Acre(s)	Permanent Impacts Square Feet	Permanent Impacts Linear Feet	Temporary Impacts Acre(s)	Temporary Impacts Square Feet	Temporary Impacts Linear Feet
Redwood forest and woodland	0.023	1,005	Not applicable	0.97	42,062	Not applicable
California bay forest and woodland	0	0	Not applicable	0	0	Not applicable
Stream (U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife jurisdiction)	0.013	589	64	0.067	2,936	289
Riparian (Regional Water Quality Control Board, California Department of Fish and Wildlife jurisdiction)	0.003	137	Not applicable	0.123	5,353	Not applicable
Developed Bank (Plastic Cover; Regional Water Quality Control Board, California Department of Fish and Wildlife jurisdiction)	0	0	Not applicable	0.003	121	Not applicable

Redwood Forest and Woodland and California Bay Forest and Woodland

Both of these Sensitive Natural Communities occur within the Biological Study Area. The project would involve a minimal amount of tree removal – four coast redwood removals at post mile 4.45 and one coast redwood removal at post mile 4.48. As project design continues to develop, additional tree removal may be identified but this would be minimized to the greatest extent feasible. All tree removal work for this project is expected to take place directly adjacent to State Route 9.

Jurisdictional Waters and Jurisdictional Areas

Six jurisdictional (aquatic) features were mapped within the Biological Study Area at post miles 3.60, 4.73, 5.15, 5.55, 5.95, and 7.0. See Table 2-2, which shows the breakdown of the following totals by jurisdiction: 0.121 acre of total U.S. Army Corps of Engineers jurisdiction; 0.49 acre of total Regional Water Quality Control Board jurisdiction; and 0.49 acre of total California Department of Fish and Wildlife jurisdiction.

Table 2-2 Jurisdictional Areas within the Biological Study Area by Authority

Agency	Jurisdictional Areas	Area (acres)
U.S. Army Corps of Engineers	Stream (Other Waters)	0.121
Regional Water Quality Control Board	Stream (Other Waters)	0.121
Regional Water Quality Control Board	Riparian	0.365
Regional Water Quality Control Board	Developed Bank (Plastic Cover)	0.004
California Department of Fish and Wildlife	Stream (Other Waters)	0.121
California Department of Fish and Wildlife	Riparian	0.365
California Department of Fish and Wildlife	Developed Bank (Plastic Cover)	0.004

Permanent impacts to jurisdictional features would occur because of culvert replacement at post miles 3.60, 4.73, and 5.15. A total of approximately 0.013 acre of U.S. Army Corps of Engineers/Regional Water Quality Control Board jurisdictional other waters of the U.S. and California Department of Fish and Wildlife streambed would be permanently impacted. A total of approximately 0.003 acre of Regional Water Quality Control Board/California Department of Fish and Wildlife jurisdictional riparian habitat would be permanently impacted.

Temporary impacts to jurisdictional features would occur due to temporary access, staging areas, and temporary stream diversion if implemented to construct the project. These activities would impact:

- Approximately 0.067 acre of U.S. Army Corps of Engineers/Regional Water Quality Control Board jurisdictional other waters of the U.S. and California Department of Fish and Wildlife streambed.

- Approximately 0.123 acre of Regional Water Quality Control Board/ California Department of Fish and Wildlife jurisdictional riparian habitat.

- Approximately 0.003 acre of Regional Water Quality Control Board/ California Department of Fish and Wildlife jurisdictional developed bank (plastic cover).

Federally Designated Critical Habitat

The Biological Study Area overlaps with federally designated critical habitat for the Central California coast steelhead trout Distinct Population Segment, the Central California coast coho salmon Evolutionarily Significant Unit, and marbled murrelet, as follows:

- Steelhead trout: At the locations proposed for culvert replacement (post miles 3.60, 4.43, 4.67, 4.73, and 5.15), the Biological Study Area does not intersect with designated critical habitat for this species. Therefore, the Federal Endangered Species Act Section 7 Effects determination is that the proposed project would have no effect on steelhead trout critical habitat.

- Coho salmon: Designated critical habitat for this species occurs within the Biological Study Area downstream of the culvert replacement location at post mile 4.73. The Federal Endangered Species Act preliminary Section 7 Effects Determination is that the proposed project may affect, and is likely to adversely affect, coho salmon critical habitat.

- Marbled murrelet: Designated critical habitat for this species (Unit CA-15) occurs within the Biological Study Area roughly between post miles 2.40 and 4.60. Within these limits, there is potential for tree removal to occur. Tree removal would be minimal and is anticipated to take place directly adjacent to the highway. The project would avoid adverse impacts to marbled murrelet critical habitat because no old-growth redwoods would be removed as a result of the project. The Federal Endangered Species Act preliminary Section 7 Effects determination is that the proposed project may affect, and is not likely to adversely affect, marbled murrelet critical habitat.

Federally Designated Essential Fish Habitat

Essential Fish Habitat occurs within the Biological Study Area at post mile 4.73, Gold Gulch Creek, Shingle Mill Creek, and Fall Creek. Impacts to Essential Fish Habitat would occur at post mile 4.73 as a result of culvert replacement, potential dewatering, and placement of rock slope protection. These activities could adversely affect coho salmon at this location if they are

present. Therefore, Section 7 Consultation with the National Marine Fisheries Service for Essential Fish Habitat would be required.

Invasive Species

The Biological Study Area contains a number of nonnative invasive plant species that are known to cause adverse ecological impacts to physical processes, plant and animal communities, and vegetation structure. Construction of the project could result in the introduction of new invasive plants and/or the spread of invasive plant species already present into communities and areas not currently dominated by them, through ground disturbance, erosion control, landscaping, or other aspects of project construction. However, the project would also create an opportunity to reduce the abundance and spread of invasive species through avoidance and minimization efforts and restoration plantings.

Wildlife Connectivity

According to the Natural Environment Study, the project would have no permanent impact on current wildlife habitat connectivity along State Route 9. The project would not substantially change habitat permeability for wildlife and is not anticipated to have permanent negative impacts to terrestrial wildlife movement. No additional barriers would be added as a result of this project.

Fish Passage

Known and potential barriers to fish passage exist at two creeks within the Biological Study Area at post miles 5.55 (Gold Gulch Creek) and 5.95 (Shingle Mill Creek). However, the culvert replacements proposed as part of the project would not impact these locations or affect fish passage in any way. There are no other locations within the Biological Study Area identified as barriers to fish. The culvert at post mile 4.73 is not a fish passage barrier because the creek is too steep upstream from the culvert to support anadromous fish (steelhead, coho salmon) even though the downstream habitat is accessible to them. For these reasons, no remediation for fish passage is required for this project.

Special-Status Plant Species

The project is not anticipated to impact any special-status plant species. Though the Biological Study Area supports suitable habitat for special-status plant species, none were seen during appropriately timed floristic surveys and none are expected to occur within the Biological Study Area. Therefore, the Federal Endangered Species Act Section 7 effects determination is that the proposed project would have no effect on federally listed plant taxa or their critical habitat.

Special-Status Animal Species

Monarch Butterfly

The monarch butterfly is proposed for listing as Threatened under the Federal Endangered Species Act and is identified by the State of California as a Species of Greatest Conservation Need.

The project would include tree removal at some locations in the Biological Study Area, including four coast redwood removals at post mile 4.45 and one coast redwood removal at post mile 4.48. As project design continues to develop, additional tree removal may be identified but would be minimized to the greatest extent feasible. Though potentially suitable roosting and foraging habitat is sparsely present throughout the Biological Study Area, the likelihood of monarch butterflies occurring is very low. The potential for impacts is anticipated to be low because no monarch butterflies were seen within the Biological Study Area during surveys.

Central California Coast Coho Salmon

The coho salmon found in the vicinity of the project are listed as Endangered under both the Federal Endangered Species Act (Central California Coast Coho Evolutionarily Significant Unit) and the California Endangered Species Act (all coho salmon).

Project impacts to the coho salmon from diversion/dewatering activities are anticipated to be the same as those discussed above for steelhead trout. The California Endangered Species Act determination is that there may be take of the Central California Coast coho salmon. Therefore, an Incidental Take Permit for coho salmon would be obtained from the California Department of Fish and Wildlife. The Federal Endangered Species Act preliminary Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, the Central California Coast coho salmon. The basis for this determination is that coho salmon presence is inferred in the Biological Study Area and there would be potential for take of the species during diversion/dewatering activities to allow for the culvert replacement. A Biological Opinion would be obtained from the National Marine Fisheries Service.

Central California Coast Steelhead Trout

The steelhead trout found in the project area belong to the Central California Coast Steelhead Trout Distinct Population Segment, as classified by the U.S. Fish and Wildlife Service. This steelhead trout population is listed as Threatened under the Federal Endangered Species Act.

The culvert replacement at post mile 4.73 would require stream diversion and dewatering, which would temporarily alter the quality of the aquatic habitat and result in a temporary loss of service for steelhead trout and other aquatic organisms. Diversion/dewatering and construction at post mile 4.73 in areas

occupied by steelhead trout could result in direct impacts to the species in the form of injury or mortality as steelhead trout are captured, handled, and relocated.

Removal of vegetation to clear space so construction equipment can gain access into the stream channel to do work could affect shading and microhabitat temperature regulation characteristics, but these effects would be temporary because removed vegetation would be replaced by in-kind replanting.

Erosion and sedimentation could also occur, which could directly or indirectly impact steelhead trout. While the placement of diversion dams and dewatering within the wetted portions of stream at post mile 4.73 would result in a temporary loss of service for steelhead trout, the extent and effect of this are estimated to be minor. The act of diversion/dewatering and its eventual dismantling and restoration of normal flows could also produce direct or indirect effects that could impact the structure of the streambed substrate or increase turbidity. These impacts would be temporary and rectified once the pre-construction stream flow conditions are restored.

The Federal Endangered Species Act preliminary Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, the Central California Coast steelhead trout. The basis for this determination is that steelhead trout presence is inferred in the Biological Study Area at post mile 4.73 downstream from the culvert, and there would be potential for take of the species during diversion/dewatering activities to allow for the culvert replacement. As a result, a Biological Opinion would be obtained from the National Marine Fisheries Service.

Santa Cruz Black Salamander

The Santa Cruz black salamander is a California Species of Special Concern.

Similar to the impacts described previously for the California red-legged frog, project construction activities could result in the injury or mortality of the Santa Cruz black salamander (if present). The potential need to capture and relocate Santa Cruz black salamanders would subject these animals to stresses that could result in adverse effects. Injury or mortality could occur via accidental crushing by worker foot-traffic or construction equipment. Erosion and sedimentation could also occur, which would directly or indirectly affect water quality. The potential for these impacts is anticipated to be low because the species was not seen within the Biological Study Area during surveys, but this could change through time.

California Giant Salamander

The California giant salamander is a California Species of Special Concern.

Project impacts described for the California giant salamander are the same as those for the Santa Cruz black salamander and California red-legged frog. Project construction activities could result in the injury or mortality of the

California giant salamander (if present). The potential need to capture and relocate California giant salamanders would subject these animals to stresses that could result in adverse effects. Injury or mortality could occur via accidental crushing by worker foot-traffic or construction equipment. Erosion and sedimentation could also occur, which would directly or indirectly affect water quality. The potential for these impacts is anticipated to be low because the species was not seen within the Biological Study Area during surveys, but this could change through time.

California Red-legged Frog

The California red-legged frog is listed as Threatened under the Federal Endangered Species Act and is a California Species of Special Concern.

Project construction could result in the injury or mortality of California red-legged frogs (if present) during diversion/dewatering and culvert replacement, specifically at post mile 4.73. 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 mortality could occur via accidental crushing by worker foot-traffic or construction equipment. Erosion and sedimentation could also occur, which would directly or indirectly affect water quality. The potential for these impacts is anticipated to be low because the species was not seen within the Biological Study Area during surveys, but this could change through time, where the species could potentially expand populations.

The Federal Endangered Species Act preliminary Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, the California red-legged frog. The basis for this determination is that the California red-legged frog has been inferred and there would be potential for take of the species during construction. Caltrans anticipates the project would qualify for Federal Endangered Species Act incidental take coverage under the Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (U.S. Fish and Wildlife Service 2011).

The nearest critical habitat unit for the California red-legged frog is about 2 miles west of the Biological Study Area. Therefore, no California red-legged frog critical habitat would be impacted by the project.

Cooper's Hawk and Other Nesting Birds

Cooper's hawk is on the State of California Watch List. Nesting birds and eggs of any species are protected under California Fish and Game Code Sections 3503 and 3503.5, as well as under the federal Migratory Bird Treaty Act. Cooper's hawk and other nesting bird species are addressed here as a group because habitat requirements, potential project-related impacts, and protection measures are similar for them.

Minimal tree removal is planned at various locations within the project limits. The removal of trees and other vegetation could directly impact active bird nests and any eggs or young residing in nests, if present. Indirect impacts could also result from noise and disturbance associated with construction, which could alter perching, foraging, and/or nesting behaviors. While temporary loss of vegetation supporting potential nesting habitat would occur, this would be mitigated by habitat restoration. The implementation of avoidance and minimization measures such as appropriate timing of vegetation removal, pre-activity surveys, and exclusion zones would reduce the potential for adverse effects to nesting bird species.

Marbled Murrelet

The marbled murrelet is listed as Threatened under the Federal Endangered Species Act and is listed as Endangered under the California Endangered Species Act.

The Federal Endangered Species Act Section 7 effects determination that was obtained by Caltrans from the U.S. Fish and Wildlife Service is that the proposed project would have no effect on the marbled murrelet and is unlikely to adversely affect designated critical habitat for this species because of the absence of suitable habitat features (old-growth coast redwoods and associated habitat attributes) in the Biological Study Area.

Pallid Bat, Townsend's Big-eared Bat, and Hoary Bat

The pallid bat and Townsend's big-eared bat are California Species of Special Concern. The hoary bat is on the California Special Animals List. These three species are addressed here as a group because habitat requirements, potential project-related impacts, and protection measures are similar for all three.

Tree removal would occur at various locations as a result of the project. Much like with bird species, the removal of trees and other vegetation could directly impact roosting bats, if present. Indirect impacts could also result from noise and disturbance associated with construction, which could alter roosting and foraging behaviors. While temporary loss of vegetation supporting potential roosting habitat would occur, this would be mitigated by habitat restoration. The implementation of the avoidance and minimization measures such as appropriate timing of vegetation removal, pre-activity surveys, and exclusion zones would reduce the potential for adverse effects to bat species.

Santa Cruz Kangaroo Rat

The Santa Cruz kangaroo rat is not listed, or a candidate for listing, under the Federal or California Endangered Species Acts but is on the California Special Animals List, meaning that this species is tracked in the California Natural Diversity Database regardless of legal or protection status.

The project has the potential to have direct or indirect impacts to the Santa Cruz kangaroo rat, specifically at culvert replacement locations off the roadway, because of vegetation removal, worker foot traffic, equipment, construction noise, and potential relocation of kangaroo rat burrows.

North American Porcupine

The North American porcupine is on the California Special Animals List.

Tree removal would occur at various locations as a result of the project. Much like with bird and bat species, the removal of trees and other vegetation could directly impact dens, if present. Indirect impacts could also result from noise and disturbance associated with construction, which could alter denning and foraging behaviors. While temporary loss of vegetation supporting potential den habitat would occur, this would be offset by habitat restoration. The implementation of measures such as appropriate timing of vegetation removal, pre-activity surveys, and exclusion zones would reduce the potential for adverse effects to the North American porcupine.

San Francisco Dusky-footed Woodrat

The San Francisco dusky-footed woodrat is on the California Special Animals List.

The project has the potential to have direct or indirect impacts to the San Francisco dusky-footed woodrat at post miles 3.60, 4.43, 4.67, 4.73, and 5.15 because of vegetation removal, worker foot traffic, equipment, construction noise, and potential relocation of woodrat nests.

Discussion of Compensatory Mitigation

Except as specified below in the Avoidance, Minimization, and/or Mitigation Measures section (measures BIO-2, BIO-11, BIO-55, and BIO-59), compensatory mitigation would not be required for project-related impacts to habitats/natural communities of special concern, special-status plant species, or special-status animal species. The following summary discussion is adapted from the project's Natural Environment Study.

Habitats and Natural Communities of Special Concern

- Federally Designated Critical Habitat: No federally designated critical habitat for the Central California Coast Steelhead Trout Distinct Population Segment exists within the Biological Study Area. While designated critical habitat for the Central California Coast Coho salmon Evolutionarily Significant Unit is present at the culvert work location at post mile 4.73, the compensatory mitigation described in measure BIO-11 for Jurisdictional Waters and Jurisdictional Areas would also mitigate for impacts to coho salmon critical habitat. In addition, the avoidance and minimization measures proposed for the steelhead trout and coho salmon (measures BIO-20 through BIO-28) would further reduce potential impacts to coho salmon critical habitat. Finally, the avoidance, minimization, and

compensatory mitigation measures listed for jurisdictional waters and for nesting bird species (BIO-3 through BIO-11, BIO-52 through BIO-55) would also minimize potential impacts to federally designated critical habitat for the marbled murrelet.

- Federally Designated Essential Fish Habitat: The compensatory mitigation proposed for jurisdictional waters (BIO-11) and the avoidance and minimization measures proposed for the steelhead trout and coho salmon (BIO-20 through BIO-28) would be sufficient to minimize potential impacts to Essential Fish Habitat.

- Fish Passage: No compensatory mitigation is required or proposed.

- Invasive Species: No compensatory mitigation is required or proposed.

- Special-Status Plant Species: Not applicable—no special-status plant species are expected to occur in the Biological Study Area.

- Special-Status Animal Species: The compensatory mitigation proposed for jurisdictional waters and jurisdictional areas (BIO-11) would reduce potential impacts to the steelhead trout, coho salmon, California red-legged frog, Santa Cruz black salamander, and California giant salamander. Also, the avoidance and minimization measures proposed for the steelhead trout (BIO-20 through BIO-27) would also reduce impacts to the coho salmon. No compensatory mitigation is required or proposed for the monarch butterfly, Santa Cruz kangaroo rat, North American porcupine, or San Francisco dusky-footed woodrat.

Avoidance, Minimization, and/or Mitigation Measures

Measures identified in this section as “Compensatory Mitigation” (BIO-2, BIO-11, BIO-55, BIO-59) are intended to reduce potentially significant, project-related environmental impacts to a less than significant level in accordance with CEQA. All other measures listed in this section are avoidance and/or minimization measures that are intended to reduce the effects of impacts that were not considered to be potentially significant under CEQA.

Habitats and Natural Communities of Special Concern

Redwood Forest and Woodland and California Bay Forest and Woodland

BIO-1. Removal of mature redwood and California bay trees would be avoided to the greatest extent feasible.

BIO-2. (Compensatory Mitigation) Trees that may be removed would be replaced at a 1-to-1 ratio for temporary impacts or 3-to-1 ratio for permanent impacts (see also Measures BIO-11, BIO-55, BIO-59). No further mitigation would be required.

Jurisdictional Waters and Jurisdictional Areas

BIO-3. Prior to construction in jurisdictional areas, 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 Alternation Agreement from the California Department of Fish and Wildlife. All permit terms and conditions would be incorporated into construction plans and implemented.

BIO-4. Prior to construction, Caltrans shall prepare a Mitigation and Monitoring Plan addressing mitigation for impacts to jurisdictional areas that shall be consistent with federal and state regulatory requirements. The Mitigation and Monitoring Plan would be amended with any regulatory permit conditions, as required. Caltrans shall implement the Mitigation and Monitoring Plan as necessary during construction and immediately following project completion.

BIO-5. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed around jurisdictional waters and the dripline of trees to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas shall be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-6. Construction activities in jurisdictional waters and temporary stream diversion 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 would be made only with permission from the relevant regulatory agencies.

BIO-7. 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.

BIO-8. During construction, temporary sediment control measures shall be implemented. Temporary fiber rolls and/or temporary large sediment barrier shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, sediment control measures shall be maintained daily by the contractor throughout the construction period.

BIO-9. During construction, the staging areas shall conform to Best Management Practices applicable to attaining zero discharge of stormwater runoff. 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.

BIO-10. Prior to the removal of the diversion, stream contours shall be restored as close as possible to their original condition.

BIO-11. (Compensatory Mitigation) Restoration (re-establishment) is proposed at a 1-to-1 ratio (acreage) for temporary impacts. Compensatory mitigation is proposed at a 3-to-1 ratio (acreage) for permanent impacts to jurisdictional areas. Replacement plantings would include appropriate native tree and understory species. To ensure success, post miles 3.60, 4.73, and 5.15 would require a one-year plant establishment period. Riparian trees that are removed would be replanted at a ratio of 3 to 1.

Invasive Species

BIO-12. During construction, Caltrans would ensure that the spread or introduction of invasive exotic plant species would be avoided to the maximum extent possible.

BIO-13. If the use of imported fill material is necessary, the imported material would be obtained from a source that is known to be free of invasive plant species; or the material would consist of purchased clean material such as crushed aggregate, sorted rock, or similar.

BIO-14. Due to the high concentration of invasive species in some of the Biological Study Area locations, to prevent the spread of invasive species all vegetation removed from the construction site would be taken to a landfill, and if soil from weedy areas must be removed offsite, the top 6 inches containing the seed layer shall be disposed of at a landfill.

BIO-15. Project plans would 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.

BIO-16. Construction equipment shall be certified as “weed-free” by Caltrans before entering the construction site. If necessary, wash stations shall be established onsite for construction equipment under the guidance of Caltrans to avoid/minimize the spread of invasive plants and/or seed within the construction area.

Special-Status Plant Species

No avoidance, minimization, or mitigation measures relating to special-status plant species would be required for this project because no such species are expected to occur in the Biological Study Area.

Special-Status Animal Species

Monarch Butterfly

BIO-17. If feasible, eucalyptus tree removal or other disturbance of eucalyptus habitat would be avoided between November 1 and March 1 to avoid potential impacts to winter roosting monarch butterflies.

BIO-18. If construction activities are scheduled to impact suitable monarch butterfly overwintering habitat between November 1 and March 1, a qualified biologist shall conduct pre-construction surveys for overwintering monarch butterflies in appropriate habitat. Overwintering monarch butterfly surveys shall consist of a pre-construction survey prior to eucalyptus tree removal, with weekly surveys continuing thereafter until March 1. If no roosts are observed within the project site, then construction would be allowed to proceed.

BIO-19. If active roosts are observed, tree removal activities shall be delayed and an appropriate setback for other construction-related activities shall be maintained until monarch butterflies have migrated from the site. All tree removal shall be monitored and documented by the biological monitor(s) regardless of time of year.

Central California Coast Steelhead Trout

In addition to the measures listed above under Jurisdictional Waters and Jurisdictional Areas, the following measures would serve to further avoid or minimize impacts to steelhead trout at post mile 4.73:

BIO-20. Prior to construction, Caltrans shall acquire incidental take authorization for steelhead trout from National Marine Fisheries Service through a Federal Endangered Species Act Section 7 Biological Opinion and Incidental Take Statement.

BIO-21. Prior to initiation of stream diversion/dewatering, a qualified biologist shall conduct an informal worker environmental training program including a description of the steelhead trout, its 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 permit conditions.

BIO-22. During construction, in-stream work shall take place between June 1 and October 31 in any given year, when the surface water within drainages is likely to be dry or at seasonal minimum. Deviations from this work window would be made only with permission from Caltrans and the relevant regulatory/resource agencies.

BIO-23. During in-stream work, a Caltrans-approved biologist shall be retained with experience in steelhead trout biology and ecology, aquatic habitats, biological monitoring (including creek diversion/dewatering), and capturing, handling, and relocating fish species. During in-stream work, the biological monitor(s) shall continuously monitor placement and removal of any required stream diversions to capture stranded steelhead trout and other native fish species and relocate them to suitable habitat as appropriate. The biologist(s) shall capture steelhead trout stranded as a result of diversion/dewatering and relocate steelhead trout to suitable in-stream habitat outside of the work area, using methods approved by the appropriate

regulatory agencies, which may include providing aerated water in buckets for transport and ensuring adequate water temperatures during transport. The biologist shall note the number of steelhead trout observed in the affected area, the number of steelhead trout relocated, and the date and time of the collection and relocation.

BIO-24. During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 3/32-inch (2.38 mm) wire mesh to prevent steelhead trout and other sensitive aquatic species from entering the pump system. Pumps shall release the additional water to a settling basin or tank, 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 shall be checked daily, to ensure a dry work environment and minimize adverse effects to aquatic species and habitats.

BIO-25. The biological monitor or a designated representative shall monitor erosion and sediment controls to identify and correct any conditions that could adversely affect steelhead trout or steelhead trout habitat.

BIO-26. Caltrans shall provide National Marine Fisheries Service a written summary of work performed (including biological survey and monitoring results), Best Management Practices implemented (i.e., use of biological monitor, flagging of project areas, erosion and sedimentation controls) and supporting photographs. The documentation describing listed species surveys and relocation efforts (if appropriate) shall include name(s) of the Caltrans-approved biologist(s), location and description of area surveyed, time and date of survey, all survey methods used, a list and tally of all sensitive animal species observed during the survey, a description of the instructions/recommendations given to the applicant during the project, and a detailed discussion of capture and relocation efforts (if appropriate).

BIO-27. Dewatering shall be limited to the low-flow period between June 1 and October 31, thus avoiding adult steelhead trout spawning migration and peak smolt emigration.

Central California Coast Coho Salmon

BIO-28. The avoidance and minimization efforts listed for steelhead trout in the preceding section would also serve to avoid and minimize impacts to coho salmon at post mile 4.73. In addition, an Incidental Take Permit for coho salmon would be obtained from the California Department of Fish and Wildlife. No additional measures for coho salmon are proposed.

California Red-legged Frog

In addition to the measures listed above under “Jurisdictional Waters and Jurisdictional Areas” and “Central California Coast Steelhead Trout Distinct

Population Segment," the following measures would serve to further avoid or minimize impacts to the California red-legged frog at post mile 4.73:

BIO-29. Only U.S. Fish and Wildlife Service-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

BIO-30. Ground disturbance shall not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.

BIO-31. A U.S. Fish and Wildlife Service-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work begins. The U.S. Fish and Wildlife Service-approved biologist shall relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and would not be affected by the activities associated with the project. The relocation site shall be in the same drainage to the extent practicable. Caltrans shall coordinate with the U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.

BIO-32. Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

BIO-33. A U.S. Fish and Wildlife Service-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans shall designate a person to monitor onsite compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist shall ensure that this monitor receives the training outlined in measure BIO-32 above and in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the U.S. Fish and Wildlife Service during review of the proposed action, they shall notify the Resident Engineer immediately. The Resident Engineer shall resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, the U.S. Fish and Wildlife Service shall be notified as soon as possible.

BIO-34. During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

BIO-35. Without the express permission of the U.S. Fish and Wildlife Service, all refueling, maintenance and staging of equipment and vehicles shall occur at least 60 feet from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor 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 a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO-36. Habitat contours shall be returned to a natural configuration at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless 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.

BIO-37. The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project. Environmentally Sensitive Areas shall be established to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

BIO-38. Caltrans shall attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

BIO-39. 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 Best Management Practices are ineffective, Caltrans shall attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

BIO-40. 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.

BIO-41. 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.

BIO-42. A U.S. Fish and Wildlife Service-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs, signal and red swamp crayfish, and centrarchid fishes (sunfish) from the project area to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist shall be responsible for ensuring his or her activities comply with the California Fish and Game Code.

BIO-43. If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

BIO-44. 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 Task Force shall be followed at all times.

BIO-45. 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. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

BIO-46. Caltrans shall not use herbicides as the primary method to control invasive, exotic plants. However, if it is determined that the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, Caltrans would implement the following additional protective measures for the California red-legged frog:

A. Caltrans shall not use herbicides during the breeding season for the California red-legged frog.

B. Caltrans shall conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged frogs shall be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur.

C. Giant reed and other invasive plants shall be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®.

D. Licensed and experienced Caltrans staff or a licensed and experienced contractor shall use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site.

E. All precautions shall be taken to ensure that no herbicide is applied to native vegetation.

F. Herbicides shall not be applied on or near open water surfaces (no closer than 60 feet from open water).

G. Foliar applications of herbicide shall not occur when wind speeds are in excess of 3 miles per hour.

H. No herbicides shall be applied within 24 hours of forecasted rain.

I. Application of all herbicides shall be done by qualified Caltrans staff or contractors to ensure that overspray is minimized, that all application is made in accordance with the label recommendations, and with implementation of all required and reasonable safety measures. A safe dye shall be added to the mixture to visually denote treated sites. Application of herbicides shall be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.

J. All herbicides, fuels, lubricants, and equipment shall 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 shall ensure that a plan is in place for a prompt and effective response to accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO-47. 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. Caltrans shall include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation.

Santa Cruz Black Salamander

BIO-48. A pre-construction survey would be conducted by a Caltrans biologist 48 hours prior to the start of ground disturbance at locations with suitable Santa Cruz black salamander habitat.

BIO-49. If any individuals are found to be present, individuals would be relocated by a qualified biologist to a nearby location with suitable habitat.

California Giant Salamander

BIO-50. A pre-construction survey would be conducted by a Caltrans biologist 48 hours prior to the start of ground disturbance at locations with suitable California giant salamander habitat.

BIO-51. If any individuals are found to be present, individuals would be relocated by a qualified biologist to a nearby location with suitable habitat.

Cooper's Hawk and Other Nesting Birds

BIO-52. If feasible and regulatory approvals allow, all vegetation removal for this project would be scheduled to occur from October 1 to January 31, outside of the typical nesting bird season, to avoid potential impacts to nesting birds.

BIO-53. If vegetation removal or other construction activities are proposed to occur within 100 feet of potential nesting habitat during the nesting season (February 1 to September 30), a nesting bird survey would be conducted by a biologist determined qualified by Caltrans no more than three (3) days prior to construction. If an active nest is found, Caltrans 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 juveniles have fledged.

BIO-54. 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. Readily visible, species-specific, exclusion zones where nests must be avoided within 100 feet of disturbance shall be established by a qualified biologist using Environmentally Sensitive Area fencing. Work in exclusion zones shall be avoided until young birds have fledged (permanently left the nest) or the qualified biologist has determined that nesting activity has otherwise ceased.

BIO-55. (Compensatory Mitigation) As previously described, impacts to vegetation would be offset by replacement plantings within the project limits, which would also replace potential bird nesting habitat. An assemblage of native plant species would be replanted in coordination with Caltrans District 5 Landscape Architecture to facilitate bird nesting habitat replacement within the project limits. No additional compensatory mitigation is proposed.

Pallid Bat, Townsend's Big-eared Bat, and Hoary Bat

BIO-56. To the extent feasible, trees would be removed between October 1 and January 31 to avoid impacting bats during the critical maternity season and to ensure survival of first-year bats. Bats are not expected to be present in trees at this time because they typically use trees only in warm seasons. Trees do not typically have the thermal mass required for winter temperature mediation.

BIO-57. A qualified biologist shall conduct pre-construction surveys for bats species that could be using existing structures or trees for roosting habitat. If bats are identified as using areas within the Biological Study Area for day or night roosting, the qualified biologist shall identify the species of bat present. The biologist(s) conducting the pre-construction surveys shall also identify the nature of the bat use of the bridge (i.e., maternity roost, day roost, night roost).

BIO-58. If bat species are identified as roosting in areas that would be impacted, prior to construction, the applicant shall prepare a plan to exclude bat species from impact areas. This plan shall discuss methods of eliminating bat access to the identified roosting habitat prior to construction so that bats are not able to return to and occupy the roost. The appropriate timing for exclusion implementation shall be determined upon the species identified as occurring within the project site. Roost areas shall be surveyed by a qualified biologist prior to implementing exclusion methods to ensure that no bats are trapped within.

BIO-59. (Compensatory Mitigation) As previously described, impacts to vegetation would be offset by replacement plantings within the project limits, which would also replace in-kind bat roosting habitat. An assemblage of native plant species would be replanted in coordination with Caltrans District 5 Landscape Architecture to facilitate bat roosting habitat replacement within the project limits. If bats are found to be present during pre-construction surveys, compensatory mitigation may include the addition of bat boxes to new structures or incorporating features into structure design that would facilitate bat roosting. No additional compensatory mitigation is proposed.

Santa Cruz Kangaroo Rat

BIO-60. To avoid impacts to Santa Cruz kangaroo rats, pre-construction surveys for suitable burrows shall be conducted within and adjacent to the project area at post miles 3.60, 4.43, 4.67, 4.73, and 5.15. If active burrows are found within the project area, the biologist would flag the area to establish a 25-foot buffer around active burrows where work would not occur.

BIO-61. If burrows are present in a location that cannot be avoided by work activities, prior to starting work at this location, Caltrans biologists would deconstruct Santa Cruz kangaroo rat burrows during the nonbreeding season to minimize impacts to breeding success.

BIO-62. Observations of Santa Cruz kangaroo rats would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

North American Porcupine

BIO-63. To avoid impacts to the North American porcupine, pre-construction surveys for suitable denning habitat shall be conducted within and adjacent to the project area at post miles 3.60, 4.43, 4.67, 4.73, and 5.15. If active dens are found within the project area, the biologist would flag the area to establish a 25-foot buffer around active dens where work would not occur.

BIO-64. Observations of North American porcupine would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

San Francisco Dusky-footed Woodrat

BIO-65. To avoid impacts to the San Francisco dusky-footed woodrat, pre-construction surveys for woodrat nests shall be conducted within and adjacent to the project area at post miles 3.60, 4.43, 4.67, 4.73, and 5.15. If active nests are found within the project area, the biologist would flag the area to establish a 25-foot buffer around active nests where work would not occur.

BIO-66. If nests are present in a location that cannot be avoided by work activities, prior to starting work at this location, Caltrans biologists would deconstruct woodrat nests during the nonbreeding season to minimize impacts to breeding success.

BIO-67. Observations of the San Francisco dusky-footed woodrat would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

2.1.5 Cultural Resources

Caltrans submitted the “Historic Properties Survey Report for the Lower San Lorenzo Valley CAPM Project,” along with attachments (including an Archaeological Survey Report and an Historic Resources Evaluation Report) to the California State Office of Historic Preservation on January 25, 2024. On February 20, 2024, the State Historic Preservation Officer concurred with the determinations made by Caltrans cultural resources staff in these documents.

Considering the information in the Historic Properties Survey Report and its attachments, as well as the “Cultural Resources Memo for the South Santa Cruz Highway 9 CAPM Project” dated May 16, 2024, the following significance determinations have been made:

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

Affected Environment

A project's Area of Potential Effects is the geographic area or areas within which an undertaking may directly or indirectly alter the character or use of historic properties if any such properties exist. The project's Area of Potential Effects was defined by Caltrans cultural resources specialists in the Historic Property Survey Report for the project. An overview map of the Area of Potential Effects for the project is provided in Figure 2-1.

The entirety of the proposed project area has previously been surveyed for archaeological resources during previous Caltrans projects. For the current project, Caltrans submitted a Historic Properties Survey Report, an Archaeological Survey Report, and an Historic Resources Evaluation Report to the California State Office of Historic Preservation on January 25, 2024.

According to the Archaeological Survey Report, the project area does not overlap with any significant or eligible site boundaries, though segments of exemptible historic abandoned road exist in the project area. An archaeological survey conducted by Caltrans archaeologists on March 24, 2023 yielded no evidence of previously unidentified cultural resources, either historic or prehistoric, within the project area.

Caltrans conducted Native American consultation for the project as required under Assembly Bill 52 (Public Resources Code 21080.3.1 and 21084.3(c)) in accordance with the California Environmental Quality Act Initial Study preparation. See Section 3.1, Cultural Resources and Native American Coordination, for details about this consultation.

As noted in the Caltrans Historic Properties Survey Report, eight historic-period built environment properties in the study area were evaluated using National Register of Historic Places and California Register of Historical Resources significance and integrity criteria. The structure at 6250-6256 State Route 9 in Felton—the former Cremer Hotel—is the oldest extant commercial structure in Felton and contributed to the development of the

commercial downtown core of Felton. The Caltrans Historic Properties Survey Report determined that this property is eligible for listing in the National Register of Historic Places under Section 106 PA Stipulation VIII.C.6, and is also eligible for inclusion in the California Register of Historical Resources. The State Historic Preservation Officer concurred with this determination of eligibility on February 20, 2024.

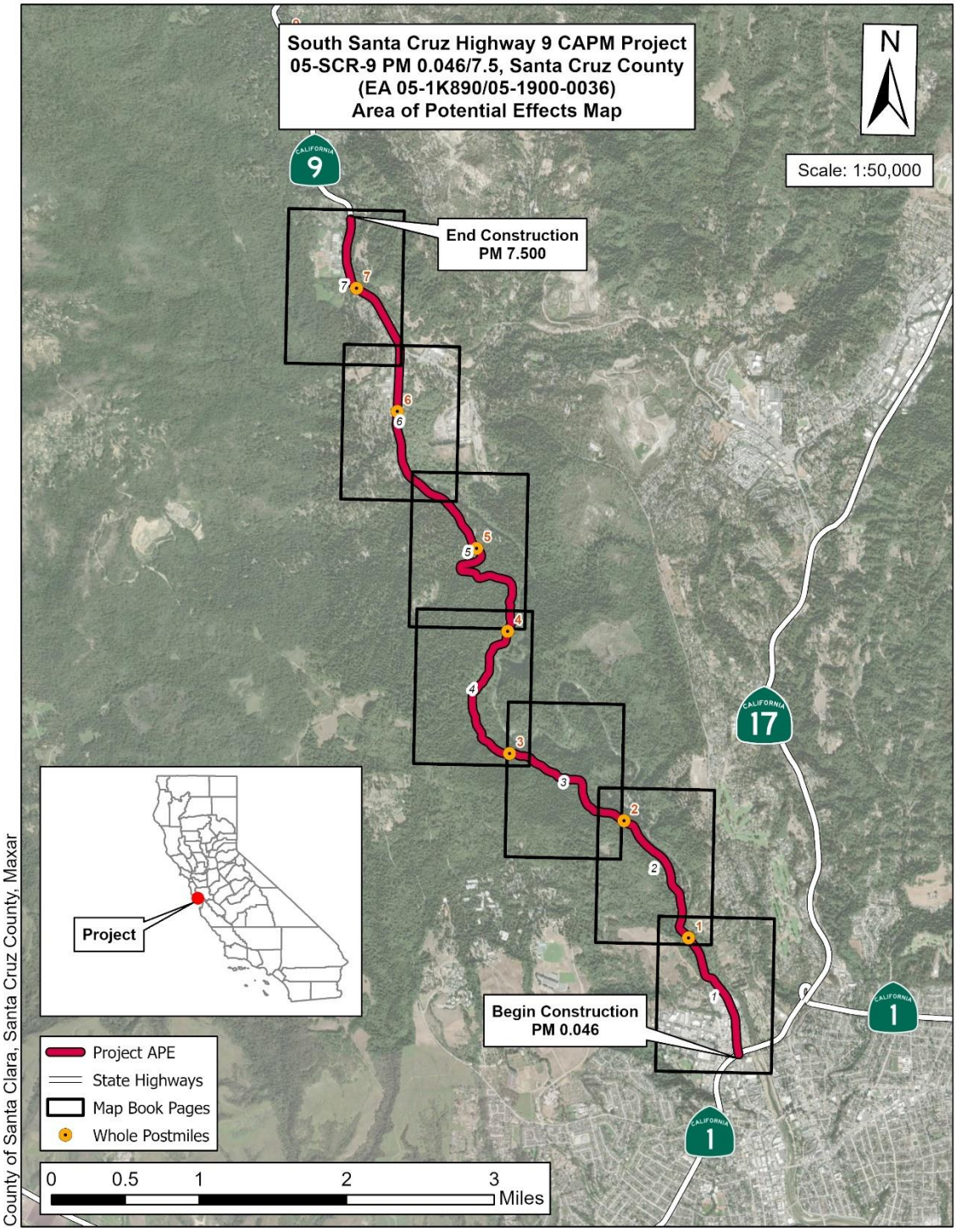
The historic Santa Cruz and Felton Railroad (originally known as the San Lorenzo Railway), which as a linear feature is present at multiple locations, is assumed eligible for inclusion in the National Register of Historic Places only because evaluation was not possible, in accordance with Section 106 PA Stipulation VIII.C.4. The State Historic Preservation Officer concurred with this determination of eligibility on February 20, 2024.

In addition to the eight properties noted above, the structure at 915 River Street in Santa Cruz—a Queen Anne-style former residence—is considered a significant resource under CEQA because it is listed on a local historic building survey (the Santa Cruz Historical Building Survey) in 1955 and is therefore potentially eligible for inclusion in the California Register of Historical Resources. However, it is ineligible for listing in the National Register of Historic Places due to an overall lack of significance and integrity. The State Historic Preservation Officer concurred with this determination of eligibility on February 20, 2024.

The project area also contains two segments of historic abandoned road (CA-SCR-334H: Highway 1, and CA-SCR-329H: Highway 9). These properties are exempt from evaluation under Section 106 Attachment 4.

No historic district boundaries were identified within the project area.

Figure 2-1 Area of Potential Effects



Source: Caltrans District 5 Geographic Information Systems, 2024.

The project would also install a pedestrian path along North Big Trees Road from State Route 9 to Bridge Number 36P-0013 over the San Lorenzo River in Henry Cowell Redwoods State Park. This bridge is listed as Category 5 in the Historic Bridge Inventory, and was previously determined ineligible for the National Register of Historic Places.

In summary, in a communication to Caltrans dated February 20, 2024, the State Historic Preservation Officer concurred that the former Cremer Hotel is eligible for listing in the National Register of Historic Places, that the Santa Cruz and Felton Railroad (originally known as the San Lorenzo Railway) is considered eligible for listing because evaluation was not possible, and that the other six properties evaluated are not eligible.

Environmental Consequences

The project is not expected to cause impacts to any known archaeological resources or disturb any known human remains, and the likelihood of discovering a buried archaeological deposit during project construction is considered low. Nonetheless, as currently proposed, the project may require a pre-construction archaeological briefing for project workers and may potentially require Native American monitoring during the construction phase of the project. Consultation with the tribe is ongoing to determine monitoring areas, if any. If previously unidentified cultural materials or human remains are unearthed during construction, work would be halted in that area until a qualified archaeologist can assess the significance of the find.

Caltrans has determined that there are historic properties within the project's Area of Potential Effects that may potentially be affected by the undertaking, including properties that are considered historical resources under CEQA.

Installation of a sidewalk is proposed along State Route 9 in front of the former Cremer Hotel. The proposed sidewalk is in an area that is currently paved and is buffered from the hotel building by multiple parking spaces. It is not anticipated that this work would have potential to adversely affect the historic property.

Near the house at 915 River Street, modification of the existing sidewalk curb ramp is proposed. This sidewalk work is not anticipated to have any potential to affect the adjacent house because the sidewalk has been previously modified and is buffered from the house by landscaping and vegetation.

The proposed pedestrian path from State Route 9 to Bridge Number 36P-0013 in Henry Cowell Redwoods State Park has been designed to avoid impacts to the existing bridge.

Also, the highway paving work at the former Santa Cruz and Felton Railroad crossing (at post mile 2.202 on State Route 9) is not anticipated to adversely affect any of the character-defining features of this assumed-eligible property.

Based on current project mapping, it is anticipated that the project can be designed in a way that avoids adverse effects to historic properties. If changes to the construction footprint occur and/or if additional work is required, further studies would be necessary.

For additional discussion of potential project-related effects on historic properties, see Appendix A, Section 4(f) De Minimis Determination(s) and Resources Evaluated Relative to the Requirements of Section 4(f): No Use.

Avoidance, Minimization, and/or Mitigation Measures

Despite Caltrans' efforts to identify cultural resources in and near the project limits, a slight possibility remains that additional, currently unrecognized resources may be encountered. The following minimization measures shall be implemented during project construction:

CR-1. If previously unidentified cultural resources, or concerns pertaining to a known cultural resource, are identified during construction, it is Caltrans policy that work be halted until a qualified archaeologist can assess the significance of the finding/concern and recommend appropriate action.

CR-2. Caltrans would require the project contractor to use standard construction traffic control measures, as outlined in the Transportation Management Plan, to allow for safe passage of motorists, bicyclists, pedestrians, and transit users to, from, and past the Cremer Hotel during the construction period.

2.1.6 Energy

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

Chapter 5, Conservation and Open Space, of the Santa Cruz County General Plan (May 24, 1994) contains nine policies and 16 programs addressing the conservation and efficient use of energy, and encouraging the development and use of locally available renewable energy resources. These policies include promotion of alternative energy sources; designing structures to maximize natural heating and cooling, including through encouragement and protection of solar access for new and existing buildings; encouraging retrofit programs for energy efficiency; and requiring efficiency and weatherization improvements in existing and new development, among others.

The City of Santa Cruz 2030 General Plan, Chapter 10: Natural Resources and Conservation, contains four policies and 20 actions that focus on reducing energy use and producing and using renewable energy, under Goal

NRC7. The policies address improvement of energy efficiency and conservation, including as part of economic development; promotion of energy-efficient local transportation; and promotion of energy efficiency in the provision and use of water. Chapter 10 of the 2030 General Plan also includes Goal NRC4, addressing reduction of greenhouse gas emissions, energy efficiency, and other energy-related actions.

Because the project is not a capacity-increasing project, its long-term operation would not increase energy usage. Energy usage would be required during construction but minimized whenever possible by recycling materials and implementing greenhouse gas reduction strategies. See Section 2.1.8, Greenhouse Gas Emissions, for more information.

Considering the information in the Caltrans "Air Quality, Greenhouse Gas, Water Quality, and Noise Technical Memo, San Lorenzo Valley Capital Preventive Maintenance (CAPM) Project" dated October 18, 2024, and the project Climate Change Technical Report dated July 2024, 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?	**Less Than Significant Impact**
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	**No Impact**

Affected Environment

The project would preserve 14.668 lane miles of existing Class 3 Flexible Pavement on State Route 9 in Santa Cruz County from the intersection with State Route 1 (Cabrillo Highway) to El Solyo Heights Drive in the community of Felton, using a Capital Preventive Maintenance program, including but not limited to dig outs, cold planing followed by placement of Hot Mix Asphalt to avoid decreasing the vertical clearance, upgrading guardrail to Manual for Assessing Safety Hardware standards, repairing or replacing five deteriorating culverts, and more. See Section 1.3, Project Description, for a full listing of project features.

Environmental Consequences

The project would not increase the highway's capacity or vehicle miles traveled, and would therefore not result in any increase in long-term, wasteful, inefficient, or unnecessary energy consumption. Nor would the project conflict

with any state or local plan, including the County and City of Santa Cruz General Plans, regarding renewable energy or energy efficiency.

A temporary increase in fuel consumption is expected during the project's construction phase. Estimated project-related fuel consumption is shown below in Table 2-3. These estimates were calculated using the Caltrans Construction Emissions Tool based on default settings for a pavement preservation project and an assumption of 197 working days for the project's construction phase. Note that these estimates are based on assumptions made during the environmental planning phase of the project and are considered "ballpark" energy usage figures.

Table 2-3 Project-Related Construction Fuel Consumption Estimates

Metric	Diesel Fuel	Gasoline Fuel
Daily Average (gallons per day)	150	48
Maximum Daily Average (gallons per day)	219	120
Annual Average (gallons per year)	29,462	9,491

Source: Caltrans Construction Emissions Tool (2021)

This temporary, construction-related increase in energy consumption would be minimized through the use of Caltrans standard construction practices and procedures (see Section 1.5).

Avoidance, Minimization, and/or Mitigation Measures

Greenhouse gas reduction measures GHG-1 and GHG-2 would also reduce project-related fuel consumption during construction. See Section 2.1.8, Greenhouse Gas Emissions, for details.

2.1.7 Geology and Soils

Considering the information in the "Paleontological Identification Report, EA 05-1K890, Highway 9/San Lorenzo Valley CAPM" dated March 13, 2024; the County of Santa Cruz Geographic Information Systems portal; the County of Santa Cruz General Plan Public Safety Element (December 6, 1994); the Santa Cruz County Local Hazard Mitigation Plan 2015-2020 (September 2015); and the City of Santa Cruz 2030 General Plan's Hazard, Safety, and Noise chapter (adopted June 2012 as amended through October 2019), the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	**No Impact**
ii) Strong seismic ground shaking?	**Less Than Significant Impact**
iii) Seismic-related ground failure, including liquefaction?	**Less Than Significant Impact**
iv) Landslides?	**Less Than Significant Impact**
b) Result in substantial soil erosion or the loss of topsoil?	**Less Than Significant Impact**
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	**Less Than Significant Impact**
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	**No Impact**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	**No Impact**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**No Impact**

Affected Environment

The project lies in the Santa Cruz Mountains along State Route 9 in the San Lorenzo River valley. This area is within the Coast Ranges Geomorphic Province of California. The Ben Lomond Fault roughly parallels State Route 9 through the project area, and the sedimentary bedrock along the highway has been deformed and folded as part of the Scotts Valley Syncline.

The California Department of Conservation and the County of Santa Cruz have not conducted any evaluation of Alquist-Priolo Earthquake Fault Zones (surface fault traces) in the vicinity of the proposed project. The City of Santa Cruz 2030 General Plan notes that the city lies within 15 miles of at least six major seismic faults and fault systems, placing it in an area of high seismic risk. In addition to the Ben Lomond Fault, nearby faults include the San Andreas, Zayante, San Gregorio, Butano, and the Monterey Bay Fault Zone.

The City General Plan further notes that Santa Cruz was heavily damaged in the 7.1 Richter Scale magnitude Loma Prieta earthquake of October 17, 1989. This earthquake's epicenter was approximately 10 miles east of the city on the San Andreas Fault. Hundreds of commercial, residential, and other /structures in Santa Cruz were damaged or destroyed. Therefore, the project area could be expected to sustain effects from ground shaking during a nearby earthquake.

According to the Santa Cruz County online Geographical Information System (GIS) database, and as shown on Figure 8 in the Santa Cruz County Local Hazard Mitigation Plan, State Route 9 within the project limits crosses areas of liquefiable soil rated as "Very High" (the southern 1.5 miles of the project corridor, including the entire portion that is within the City of Santa Cruz) and "Moderate" (the northernmost 3 miles of the project corridor, including most of the community of Felton).

In the southern portion of the project area, State Route 9 passes through two definite landslide deposits, two probable landslide deposits, and four questionable landslide deposits. Seven of these are within or adjacent to Henry Cowell Redwoods State Park, while one of the questionable landslide deposits is immediately to the south of the park. Therefore, it is likely that the potential exists for soil movement within the project limits.

The County Geographical Information System database shows that most of the project length sits on soils of hydrologic group B, Permeable. These soils have moderate infiltration rates when wetted and moderately low runoff potential. Along roughly the southern 1.5 miles of the project, largely within the City of Santa Cruz, there are pockets of hydrologic group A soils (Very Permeable) that have high infiltration rates even when thoroughly wet, resulting in a low runoff potential. These two hydrologic soil groups are not considered to have high erosion potential. The project limits do not contain any soils identified as expansive.

The project does not include any septic or other wastewater disposal components.

The Paleontological Identification Report for the project notes that the project work would take place on previously disturbed soils and artificial fill and would not disturb sediments with a high potential for containing fossils. Therefore,

the potential for discovery of paleontological resources during project work is considered low.

Environmental Consequences

Though the project area could experience strong shaking, soil liquefaction, or landslides in the event of an earthquake, the project would not add any new structural elements to the project limits of the route that might otherwise increase the potential for seismic hazards to the traveling public in the long-term use of the highway within the project limits.

Seismic design standards in the Caltrans Highway Design Manual are implemented to the extent needed for each project's specific geologic and soil setting and to address the specific elements of design. These design standards would minimize the susceptibility of the project route, travelers that use the highway, and nearby buildings and utilities to damage from earthquakes and other seismically induced hazards over the long term.

The project contractor is responsible per the requirements of the U.S. Department of Labor and the U.S. Department of Occupational Safety and Health administrations to provide employees with a workplace free from recognized hazards likely to cause death or serious physical harm, including during seismic events.

Trenches cut for the repair work would be laid back into slopes and embankments, which would be required to be shored up at 95 percent compaction to ensure there would be no roadway or embankment slope failures. In addition, Caltrans Standard Specifications and Best Management Practices would be implemented during construction at project work locations for control of erosion and sedimentation from the construction work areas (see Section 2.1.10, Hydrology and Water Quality). It is expected that construction of the project would have less than significant impacts related to soil instability and erosion.

Avoidance, Minimization, and/or Mitigation Measures

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

2.1.8 Greenhouse Gas Emissions

Considering the information in the Caltrans "Air Quality, Greenhouse Gas, Water Quality, And Noise Technical Memo, San Lorenzo Valley Capital Preventive Maintenance (CAPM) Project" dated October 18, 2024, and the project Climate Change Technical Report dated July 2024, 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

Regulatory agencies take greenhouse gas emissions inventory estimates to track the amount of greenhouse gases discharged into the atmosphere by specific sources over a period, such as a calendar year. Tracking annual greenhouse gas emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. The U.S. Environmental Protection Agency is responsible for documenting greenhouse gas emissions nationwide, and the California Air Resources Board does so for the state.

The California Air Resources Board sets regional targets for California's 18 Metropolitan Planning Organizations to use in their Regional Transportation Plan/Sustainable Communities Strategy to plan future projects that will cumulatively achieve greenhouse gas reduction goals. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels.

The project is within the jurisdiction of the Santa Cruz County Regional Transportation Commission, which is designated by the State of California as the Regional Transportation Agency for the county. The Association of Monterey Bay Area Governments is the joint power, multi-planning agency for the area, and the federal Metropolitan Planning Organization for the region. The Santa Cruz County Regional Transportation Commission updates the Regional Transportation Plan every four years in coordination with the Association of Monterey Bay Area Governments, which prepares a Metropolitan Transportation Plan/Sustainable Communities Strategy for the three counties of Monterey, San Benito, and Santa Cruz. The Regional Transportation Plan provides a basis for actions to allocate state and federal funding for transportation improvement projects.

The current 2045 Santa Cruz County Regional Transportation Plan was approved by the Regional Transportation Commission in June 2022. As noted in this plan, current California Air Resources Board targets for greenhouse gas reduction in the Monterey Bay region include a 3 percent reduction in per capita greenhouse gas emissions from passenger vehicles by 2020

(compared with 2005) and a 6 percent per capita reduction by 2035 through land use and transportation planning.

Environmental Consequences

The project is not anticipated to contribute considerable amounts of greenhouse gas emissions in the long term because it would not increase the highway's capacity or alter existing vehicle miles traveled, while it would help reduce the frequency of Caltrans maintenance visits and the associated equipment operation. Also, it is expected that the project's Complete Streets elements would encourage increased pedestrian and bicycle use, further reducing vehicular exhaust emissions. While temporary increases in greenhouse gas emissions are to be expected during the project's construction phase, project-generated greenhouse gas emissions would be minimized through standard construction emission minimization practices and procedures (see Section 1.5, Standard Measures and Best Management Practices Included in All Build Alternatives), as well as through the measures listed below under "Avoidance, Minimization, and/or Mitigation Measures."

Estimated project-related construction greenhouse gas emissions are shown in Table 2-4 for carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), and hydrofluorocarbons. These estimates were calculated using the Caltrans Construction Emissions Tool based on default settings for a pavement preservation project and an assumption of 197 working days for the project's construction phase. Note that these estimates are based on assumptions made during the environmental planning phase of the project and are considered "ballpark" energy usage figures.

Table 2-4 Project-Related Construction Greenhouse Gas Emission Estimates

Metric	Carbon Dioxide (CO2)	Methane (CH4)	Nitrous Oxide (N2O)	Hydrofluoro-carbons
Daily Average (pounds per day)	4,324	0.100	0.229	0.137
Maximum Daily Average (pounds per day)	6,181	0.156	0.426	0.304
Annual Average (tons per year)	426	0.010	0.023	0.014

Source: Caltrans Construction Emissions Tool (2021)

Avoidance, Minimization, and/or Mitigation Measures

Though the project would not result in considerable greenhouse gas emissions, implementation of minimization measures prescribed in Section 2.1.1, Aesthetics, and Section 2.1.4, Biological Resources, for tree and vegetation replanting would help to offset the project's greenhouse gas emissions.

In addition, the following greenhouse gas reduction strategies would be implemented as avoidance and minimization measures, as feasible, to further offset greenhouse gas emissions during construction:

GHG-1: The construction contractor shall reduce construction waste and maximize the use of recycled materials, including but not limited to stockpiling pavement grindings for future use, salvaging rebar from demolished concrete, and processing waste to create usable fill (that is, crushing concrete for aggregate base).

GHG-2: The construction contractor shall operate construction equipment with improved fuel efficiency by:

- Properly tuning and maintaining equipment.
- Using the right-sized equipment for the job.
- Using solar-powered equipment.
- Using Tier 4 equipment (applicable for manufacturers that create fuel-efficient engines).
- Using alternative fuels such as renewable diesel.
- Producing hot mix asphalt with warm mix technology.
- Recycling of non-hazardous waste and excess materials to reduce the need for offsite disposal.

2.1.9 Hazards and Hazardous Materials

Considering the information in the "0-Phase Initial Site Assessment, 05-1K890, Highway 9/San Lorenzo Valley CAPM" (March 8, 2024); the County of Santa Cruz General Plan Public Safety Element (December 6, 1994); the Santa Cruz County Operational Area's Draft Emergency Operations Plan (November 10, 2023); and the City of Santa Cruz 2030 General Plan's Hazard, Safety, and Noise chapter (adopted June 2012 as amended through October 2019), 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?	**Less Than Significant Impact**

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

Affected Environment

The project lies in southern Santa Cruz County along an approximately 7.5-mile segment of State Route 9 in the San Lorenzo River valley. The project limits lie mostly within the heavily forested Santa Cruz Mountains and contain, or are located near, land previously disturbed by various highway construction projects, agricultural practices, a railroad, and utility placement. Other nearby land uses include residential, commercial, and industrial areas, and public facilities. The project is directly adjacent to San Lorenzo Valley Elementary, Middle, and High Schools. State Route 9 in the project area passes through a protected natural area/public recreation area—Henry Cowell Redwoods State

Park. The project area is not part of an airport land use plan, nor is it located within 2 miles of an operational airfield.

According to the State Water Resources Control Board's GeoTracker database and the Department of Toxic Substances Control's EnviroStor database, which inventory hazardous waste sites with known contamination issues, there are numerous examples of remediated leaking underground storage tanks within 1,000 feet of the project limits. All of these former sites—mostly former oil, gasoline, or automotive-related businesses—have been cleaned up and the cases are closed. Two open contaminant cases remain near the project limits: the Salz Leathers tannery site in the City of Santa Cruz and the Valeteria Dry Cleaners site in Felton.

In addition, the project area may contain hazardous materials/waste streams that are commonly associated with roadway projects. These include soil contaminated by aerially deposited lead, yellow thermoplastic paint or traffic striping, naturally occurring asbestos, lead-containing paint, asbestos-containing materials, and treated wood waste.

State Route 9, and by association the project corridor, is mentioned in the Santa Cruz County Operational Area's Draft Emergency Operations Plan dated November 10, 2023. The plan states that "The Highway 9 corridor is highly susceptible to closure from tree falls, downed utility lines, landslides, and other debris. Closures along Highway 9 have huge impacts on access for community and first responders during and after emergencies… Many roads and access points within the county, particularly to neighborhoods and residences in the northern area of county are single or double-lane roads under varying degrees of maintenance. Many roads and driveways are long, steep, and unpaved. This marks challenges for first response times, communication, and evacuation."

The project corridor passes through CAL FIRE fire hazard severity zone designations of Moderate and High within the State Responsibility Area, as well as areas under City of Santa Cruz firefighting jurisdiction (Local Responsibility Area) that are City-designated as having "High" fire hazard. See Section 2.1.20, Wildfire, for more information.

Environmental Consequences

Historical contaminant sites, including residual underground chemical plumes, are present within and near the project limits but are not expected to be encountered during construction. They pose a low risk because they have been remediated, are outside the project work area (Area of Potential Impacts), or are greater than 10 feet below the surface, where shallow project work is unlikely to expose them.

Specifically, the Salz Leathers tannery site is considered low risk for the project because the contaminant plume is at least 250 feet away from State

Route 9 and is moving away from the highway. The Valeteria Dry Cleaners site is considered moderate risk to the project; the contaminant plume travels under State Route 9, but is thought to be too deep for project construction work to encounter it.

It is Caltrans policy to avoid acquisition of contaminated parcels whenever feasible, including short-term acquisitions such as temporary construction easements. If these types of acquisitions cannot be avoided within the project limits, the appropriate protocols for temporary acquisition of any contaminated properties would be followed.

Regarding hazardous materials that are routinely encountered during roadway construction, yellow thermoplastic traffic stripe and treated wood are likely present in the project area, while naturally occurring asbestos, lead-containing paint, and asbestos-containing materials are not expected to be encountered. The presence of soil contaminated by aerially deposited lead would be determined and addressed during the project's Plans, Specifications, and Estimates phase. If present, this material would be managed in accordance with the Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils (2016) signed by Caltrans and the California Department of Toxic Substances Control. Caltrans has developed Standard Special Provisions for the management and disposal of all routinely generated hazardous wastes, including yellow thermoplastic traffic stripe, treated wood waste, and aerially deposited lead-contaminated soils.

The project would not cause significant adverse effects to any adopted emergency response plan or emergency evacuation plan, including wildfire response/evacuation plans. Temporary traffic control is required for all Caltrans projects that involve lane closure and/or lane modification. During construction, two-way public traffic flow would be maintained on State Route 9 through the use of temporary daily reversible lane closures. Traffic control during construction would be addressed with changeable message signs and construction area signs, and a public awareness campaign would be conducted. Detour route(s) for vehicle, bicycle, and pedestrian traffic would be provided as necessary as part of Caltrans' standard traffic control and Transportation Management Plan procedures.

While the temporary lane closures would slow the normal rate of traffic flow and potentially cause minor delays in emergency vehicle access or response time, first responder access would be maintained in accordance with the project's Transportation Management Plan, and enhanced traffic law enforcement would be provided in active work zones by the California Highway Patrol to ensure emergency access and protect public and worker safety. Lane closure charts would be provided during the project's Plans, Specifications, and Estimates phase.

In summary, hazardous materials that are routinely present on roadway construction projects may be encountered during construction of the project. The implementation of Caltrans Standard Specifications and Special Provisions would ensure proper handling, treatment, and disposal of hazardous materials and wastes found during construction, as well as ensuring required emergency response and evacuation access, thus protecting human and environmental health. See Section 1.4.1, Build Alternative, Section 1.5, Standard Measures and Best Management Practices Included in All Build Alternatives, and Section 2.1.20, Wildfire, for more information.

Avoidance, Minimization, and/or Mitigation Measures

The following minimization measure shall be implemented during project construction:

HAZ-1. Caltrans would require the project contractor to use standard construction traffic control measures, as outlined in the Transportation Management Plan, to minimize disruption to emergency services access during the construction period.

2.1.10 Hydrology and Water Quality

Considering the information in the project's "Air Quality, Greenhouse Gas, Water Quality, and Noise Technical Memo, San Lorenzo Valley Capital Preventive Maintenance (CAPM) Project" dated October 18, 2024, 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?	**Less Than Significant Impact**
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	**No Impact**

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

Affected Environment

Flooding

State Route 9 (River Street) follows the San Lorenzo River north from the City of Santa Cruz into the Santa Cruz Mountains. According to Federal Emergency Management Agency mapping, the roughly 8-mile stretch of the San Lorenzo River adjacent to or near the project limits contains Special Flood Hazard Areas (flood zones) AE and A. Flood Zone AE is the base floodplain, where there is a 1 percent annual chance of flooding (100-year flood) and base flood elevations are provided. Flood Zone A also has a 1 percent annual chance of flooding, but no depths or base flood elevations are available because detailed mapping has not been conducted.

Broadly speaking, the AE zones lie along the more urbanized portions of the project area, while the A zones are concentrated in Henry Cowell Redwoods

State Park, where there is a lower chance of flood damage to structures or other infrastructure.

The zone AE segments in the project area contain regulatory floodway, none of which overlaps the project limits. A roughly 1,000-foot portion of State Route 9 inside the project limits within the city of Santa Cruz (around post mile 0.85) is shown on Federal Emergency Management Agency maps as overlapping with 1 percent Annual Chance and 0.2 percent Annual Chance Flood Hazard zones.

Groundwater

The project is within the Santa Cruz Hydrologic Area (sub-area 304.12), Big Basin Unit, San Lorenzo Hydrologic Sub-Area. There are no groundwater units within the project vicinity.

Water Quality

The receiving water bodies in the vicinity of the project limits are the San Lorenzo River, Shingle Mill Creek, and Fall Creek. The project is within the Santa Cruz Hydrologic Area (sub-area 304.12), Big Basin Unit, San Lorenzo Hydrologic Sub-Area.

The San Lorenzo River is 2014/2016 303(d) listed as impaired by the following pollutants: Chlordane, Chloride, Chlorpyrifos, Enterococcus, Escherichia coli (*E. coli*), Fecal Coliform, Nitrate, Polychlorinated biphenyls, Sedimentation/Siltation, Sodium, and Temperature (water).

Human-caused land cover changes in the San Lorenzo River watershed have accelerated rates of erosion and sedimentation by two to four times above natural rates. In 2003 the Central Coast Regional Water Quality Control Board set a Total Maximum Daily Load for sediment/siltation in this watershed (San Lorenzo River, Carbonera Creek, Lompico Creek, and Shingle Mill Creek).

According to the 2019 Water Quality Control Plan for the Central Coast Basin (Regional Water Quality Control Board, Central Coast Region), beneficial uses of these receiving waters are as follows:

San Lorenzo River:

- Agricultural Supply
- Biological Habitats of Special Significance
- Cold Fresh Water Habitat
- Commercial and Sport Fishing
- Fresh Water Replenishment

- Groundwater Recharge
- Industrial Service Supply
- Migration of Aquatic Organisms
- Municipal and Domestic Supply
- Rare, Threatened, or Endangered Species
- Water Contact Recreation
- Non-Contact Water Recreation
- Spawning, Reproduction, and/or Early Development
- Wildlife Habitat

Shingle Mill Creek:

- Cold Fresh Water Habitat
- Commercial and Sport Fishing
- Groundwater Recharge
- Migration of Aquatic Organisms
- Municipal and Domestic Supply
- Water Contact Recreation
- Non-Contact Water Recreation
- Spawning, Reproduction, and/or Early Development
- Wildlife Habitat

Fall Creek:

- Agricultural Supply
- Biological Habitats of Special Significance
- Cold Fresh Water Habitat
- Commercial and Sport Fishing
- Groundwater Recharge

- Industrial Service Supply
- Migration of Aquatic Organisms
- Water Contact Recreation
- Non-Contact Water Recreation
- Spawning, Reproduction, and/or Early Development
- Wildlife Habitat

There are no Drinking Water Reservoirs and/or Recharge Facilities within the project limits. There are no existing Treatment Best Management Practices within the project limits. There are no groundwater units within the project vicinity.

Environmental Consequences

The project would not result in any significant long-term impacts to water quality. As noted in the project's water quality technical memorandum, the project does not have the potential to directly discharge storm water within the project limits into the previously identified receiving water bodies because the project does not involve substantial excavation or earthwork activities that could impact these water bodies. Also, by replacing five deteriorating culverts, the project would reduce sediment loading to the San Lorenzo River watershed and therefore contribute to improved water quality.

The project would not change the amount of existing impervious surface (27.24 acres) within the project limits. However, because the project would temporarily create 2.64 acres of disturbed soil area, the construction contractor would be required to prepare a Water Pollution Control Program, including a Storm Water Pollution Prevention Plan, for the project. The contractor would be responsible for adherence to the specifications and measures in the program, as well as compliance with the Construction General Permit. All work locations would be fully rehabilitated prior to project completion.

Short-term construction impacts on water quality would also be minimized through the standard measures listed in Section 1.5 and the Best Management Practices described herein. These include, but are not limited to:

Temporary Soil Stabilization

- Minimize active disturbed soil areas during the rainy season using scheduling techniques.
- Preserve existing vegetation to the maximum extent feasible.
- Implement temporary protective cover/erosion control on all non-active disturbed soil areas and soil stockpiles.

- Control erosive forces of storm water runoff with effective storm flow management such as temporary concentrated flow conveyance devices, earthen dikes, drainage swales, lined ditches, outlet protection/velocity dissipation devices, and slope drains, as determined feasible.

Temporary Sediment Controls

- Implement linear sediment controls such as fiber rolls, check dams, or gravel bag berms on all active and non-active disturbed soil areas during the rainy season.

- To further help prevent sediment discharge, stabilized construction site entrances, temporary drainage inlet protection, and street sweeping and vacuuming would be necessary.

- Implement appropriate wind erosion controls year-round.

Non-Storm Water Management

The appropriate non-storm water Best Management Practices would be implemented year-round as follows:

- Water conservation practices are implemented on all construction sites and wherever water is used.

- Paving and grinding procedures are implemented where paving, surfacing, resurfacing, grinding, or saw cutting may pollute storm water runoff or discharge to the storm drain system or watercourses.

- Procedures and practices are designed for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents to the Resident Engineer.

- The following activities must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and inlets if within the floodplain and at least 50 feet if outside of the floodplain: stockpiling materials, storing equipment and liquid waste containers, washing vehicles or equipment, fueling and maintaining vehicles and equipment.

- Concrete curing will be used in the construction of structures such as Americans with Disabilities Act-compliant curb ramps and culverts. Concrete curing includes the use of both chemical and water methods. Proper procedures will minimize pollution of runoff during concrete curing.

The following construction site Best Management Practices are anticipated to be included in this project:

- Job Site Management

- Prepare Stormwater Pollution Prevention Program

- Storm Water Sampling and Analysis Day
- Stormwater Annual Report
- Move In/Move Out (Temporary Erosion Control)
- Temporary Hydraulic Mulch (Bonded Fiber Matrix)
- Temporary Check Dam
- Temporary Drainage Inlet Protection
- Temporary Fiber Roll
- Temporary Gravel Bag Berm
- Temporary Large Sediment Barrier
- Temporary Construction Entrance
- Street Sweeping
- Temporary Concrete Washout
- Temporary Fence (type ESA)
- Drainage Inlet Marker

Because there are no groundwater units within the project vicinity, the project would not adversely affect groundwater. Therefore, the project would not have the potential to significantly violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface water or groundwater quality.

Project activities would not alter existing drainage patterns or the course of any stream or river. Nor would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The geometric features of State Route 9 (horizontal alignment, vertical profile, superelevation, sight distance, and cross slope) are anticipated to remain unchanged by the project.

Flood control would not be affected by project demolition or construction. The new drainage culverts installed during the project would be slightly larger than the existing culverts and would therefore be adequately sized to continue accommodating runoff from areas upslope of State Route 9, even in the face of predicted climate change-induced increases in precipitation during 100-year storm events (see the project's Climate Change Technical Report dated July 2024). Therefore, though a small portion of State Route 9 passes

through approximately 0.2 mile of designated Federal Emergency Management Agency flood zone areas in Santa Cruz, the project is not expected to exacerbate any existing or future flood risk that would expose people or structures to hazardous conditions.

Avoidance, Minimization, and/or Mitigation Measures

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

2.1.11 Land Use and Planning

The project corridor passes through or near the following County of Santa Cruz General Plan land use designations: Agriculture, Residential-Urban Low Density, Residential-Suburban, Residential-Mountain, Parks and Recreation, Commercial-Neighborhood, Commercial-Visitor Accommodations, Public Facilities, Commercial-Service, and Commercial-Community (sources: County of Santa Cruz General Plan and Geographic Information Services).

The project area also passes through or near these City of Santa Cruz 2030 General Plan land use designations: Community Facilities, Community Commercial, Industrial, Natural Areas, Low Medium Density Residential, and Very Low Density Residential (source: City of Santa Cruz General Plan Land Use Map).

The project would not change the location, function, or capacity of State Route 9 between Santa Cruz and Felton, and it would not physically divide an established community. Project avoidance and mitigation measures would be consistent with local land use plans and policies.

Considering the information obtained from the sources noted above, the following significance determinations have been made:

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

2.1.12 Mineral Resources

The County of Santa Cruz General Plan's Conservation and Open Space Element, the County of Santa Cruz Geographic Information Services website, and the City of Santa Cruz 2030 General Plan's Natural Resources and

Conservation Element were consulted regarding mineral resources in the project area. These sources do not identify any valuable, locally important mineral resources within or adjacent to the project limits. Considering this information, 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, Water Quality, And Noise Technical Memo, San Lorenzo Valley Capital Preventive Maintenance (CAPM) Project" (October 18, 2024), the County of Santa Cruz General Plan Noise Element (February 18, 2020), and the City of Santa Cruz 2030 General Plan's "Hazard, Safety, and Noise" chapter (adopted June 2012 as amended through October 2019), 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?	**Less Than Significant Impact With Mitigation Incorporated**
b) Generation of excessive groundborne vibration or groundborne noise levels?	**Less Than Significant Impact**
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	**No Impact**

Affected Environment

The project spans a length of approximately 7.5 miles, passing through the northern limits of the City of Santa Cruz and the community of Felton. The project limits lie mostly within the heavily forested Santa Cruz Mountains. Homes and commercial buildings are found within the southern and northern portions of the project limits, in the City of Santa Cruz and around the Felton area, respectively. The middle portion of the project corridor passes through Henry Cowell Redwoods State Park.

The project corridor is near or adjacent to many residential sensitive receptors with property lines adjacent to the state right-of-way and within line of sight of State Route 9. The San Lorenzo Valley Unified School District complex sits along State Route 9 in Felton, with classrooms about 95 feet from the state right of way. The project area of potential effects also includes two historic buildings and one historic linear feature, a railroad line. No hospitals, convalescent homes, or other facilities that house sensitive receptors overnight were noted near the project limits during the review for this project. Nor were any operational airfields noted within 2 miles of the project vicinity.

Caltrans Standard Specifications, Section 14-8.02, requires contractors to control and monitor noise resulting from work activities and to avoid exceeding 86 decibels (maximum sound level) at 50 feet from the job site between 9:00 p.m. and 6:00 a.m. Also, Section 216 of the California Streets and Highways Code states that noise levels produced by construction shall not exceed 52 decibels (equivalent sound level) within classrooms, libraries, or multipurpose rooms during school hours.

Santa Cruz County General Plan Noise Policy 9.2.6 requires mitigation and/or best management practices to reduce construction noise, especially noise exceeding 75 decibels at neighboring sensitive land uses or if construction would occur for more than 7 days. Also, City of Santa Cruz 2030 General Plan Policy HZ3.1, “Maintain or reduce existing noise levels and control excessive noise,” contains various noise minimization policies that would apply to traffic/road construction projects. Though Caltrans is not required to adhere to local jurisdiction land use policies, Caltrans endeavors to be consistent with local laws and ordinances to the extent possible in its project activities.

Environmental Consequences

Over the long term, the project would not alter the capacity or alignment of State Route 9, and it is anticipated that upon project completion local noise and vibration levels would be similar to existing conditions. Therefore, no long-term noise or vibration abatement measures would be required for the project.

In the short term, project construction activities would result in a temporary and intermittent increase in noise and vibration levels within the project vicinity. The amount of construction noise and vibration would vary with the activities occurring and the types of equipment used. Construction equipment

that may be used for this project and the associated noise levels at 50 feet away are listed in Table 2-5.

Table 2-5 Construction Equipment Noise Levels

Equipment	Noise Level (decibels) at 50 Feet
Backhoe	78
Bar Bender	Not applicable
Chain Saw	84
Clam Shovel	87
Compactor (ground)	83
Compressor (air)	78
Concrete Mixer Truck	79
Concrete Pump Truck	81
Concrete Saw	90
Cold Planer	90
Dump Truck	76
Excavator	81
Flat Bed Truck	74
Front End Loader	79
Generator (less than or equal to 25 kVA)	73
Generator (greater than or equal to 25 kVA)	81
Gradall	83
Grader	Not applicable
Jackhammer	89
Mounted Impact Hammer (Hoe Ram)	90
Paver	77
Pickup Truck	75
Pneumatic Tools	85
Pumps	81
Roller Compactor (Asphalt)	80
Vacuum Street Sweeper	82
Vibratory Concrete Mixer	80
Welder/Torch	74

Source: Federal Transit Administration, 2006.

It is expected that the project would include the use of much of the construction equipment shown in Table 2-5. Also, nighttime construction work would be required to minimize construction-related exacerbation of existing daytime traffic congestion in the project area. Therefore, it is expected that the construction noise generated by the project would intermittently exceed the 86-decibel nighttime standard and have the potential to adversely affect local residents' normal sleep routines.

In addition, cold planing near the San Lorenzo Valley Unified School District schools complex would take place as little as 95 feet from the nearest classroom, producing exterior noise levels of approximately 84 decibels. Assuming a 25-decibel reduction from exterior to interior spaces, the 59 decibels within the classroom would exceed the applicable requirement during school hours.

Vibration is produced by many types of commonly used construction equipment and may, in some cases, damage buildings. The project's area of potential effects contains two historic buildings—at 6250-6256 State Route 9 in Felton (the former Cremer Hotel) and at 915 River Street in Santa Cruz (see Section 2.1.5, Cultural Resources). The area of potential effects also includes portions of an historic linear feature—the Santa Cruz and Felton Railroad (originally known as the San Lorenzo Railway). The project's "Air Quality, Greenhouse Gas, Water Quality, and Noise Technical Memo, San Lorenzo Valley Capital Preventive Maintenance (CAPM) Project" dated October 18, 2024 notes that, although sidewalk installation or modification is expected near each of the two historic buildings, vibration produced by the proposed construction activities is not anticipated to adversely affect any of the referenced historic properties.

Though the potential impacts at any given sensitive receptor location are anticipated to be short term in duration, project-related construction noise and vibration, particularly at night, could be expected to adversely affect local residents' normal daily routines.

As described below under "Avoidance, Minimization, and/or Noise Abatement Measures," Caltrans would require the construction contractor to develop a project-specific Noise Control Plan and submit it to District 5 noise staff for review. This plan would include requirements that construction noise be quantified, that sound control measures be implemented as needed to maintain noise levels below the 86-decibel threshold, and that the contractor conduct construction noise monitoring to ensure adherence to the Caltrans Standard Specifications.

Avoidance, Minimization, and/or Noise Abatement Measures

The measure identified in this section as "Compensatory Mitigation" (NOI-4) is intended to reduce potentially significant project-related environmental impacts to a less than significant level in accordance with CEQA. Also, the avoidance

and minimization measures listed below (NOI-1, NOI-2, NOI-3, and NOI-5) shall be implemented to minimize disturbance from construction activities:

NOI-1. The District 5 Public Information Office shall publish notice of the proposed dates and duration of proposed construction activities and potential community impacts in local news media after receiving notice from the Resident Engineer.

NOI-2. The construction contractor shall notify affected sensitive receptors (residents and building managers within 500 feet of the proposed construction activities) at least two weeks in advance when construction noise and the upcoming activities are likely to produce an adverse noise environment. This notification shall be provided in written format and shall include contact information where affected persons can register noise complaints.

NOI-3. Prior to the onset of construction, the construction contractor shall develop a Noise Control Plan and submit it to Caltrans District 5 noise staff for review. This plan is to include, at a minimum, the following points:

- Whenever possible, construction work shall be done during the day.
- When nighttime construction is necessary, the construction activities that generate the greatest amount of noise shall be done as early in the evening as possible.
- The construction contractor shall shield loud pieces of stationary construction equipment with sound barriers if complaints are received from the public.
- The construction contractor shall locate portable generators, air compressors, etc., away from sensitive noise receptors as feasible.
- The construction contractor shall limit grouping major pieces of equipment operating in one area to the greatest extent feasible.
- The construction contractor shall use newer equipment that is quieter and ensure that all equipment items have the manufacturers' recommended noise abatement features such as mufflers, engine covers, and engine vibration isolators intact and operational. Internal combustion engines used for any purpose on or related to the job shall be equipped with a muffler or baffle of a type recommended by the manufacturer.
- The construction contractor shall provide Caltrans with a list of affected sensitive receptors (see NOI-2).
- If noise complaints are received from the public during the construction process, the construction contractor shall notify the Resident Engineer, who will consult with the Environmental Construction Liaison and District 5

noise staff to determine appropriate steps to alleviate noise-related concerns. See also measure NOI-4.

NOI-4. (Compensatory Mitigation) Residents affected by anticipated nighttime cold planing shall be offered noise canceling headphones or hotel vouchers if requested. The construction contractor shall purchase noise canceling headphones prior to onset of construction and these should be provided as the first line of noise reduction measures for affected residents. For temporary accommodation, the State will need to approve the number of nights and verify that the resident is on the list of affected sensitive receptors in the Noise Control Plan. Affected residents will be reimbursed at the State rate.

NOI-5. Cold planing within 215 feet of San Lorenzo Valley Unified School District buildings at 7105 State Route 9 in Felton shall be prohibited while school is in session.

2.1.14 Population and Housing

The project consists of improvements to existing pavement, drainage, and other roadway infrastructure, as well as installation of Complete Streets elements to improve access for pedestrians, bicyclists, transit users, and motorists. These improvements and elements are not capacity-increasing and would not induce or facilitate growth the project vicinity, either directly or indirectly, because they would not provide new routes or route alignments that would otherwise facilitate additional development. Nor do these improvements and elements have the potential to displace any existing people or housing from the project area. Considering this information, the following significance determinations have been made:

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

2.1.15 Public Services

The project consists of improvements to existing pavement, drainage, and other roadway infrastructure, as well as installation of Complete Streets elements to improve access for pedestrians, bicyclists, transit users, and motorists. The project would not directly or indirectly induce or facilitate growth in the project vicinity; nor would it increase demand for public services including fire and police services, parks, or schools. Although project construction would result in a temporary increase in traffic congestion, this effect would be minimized to the extent feasible through the use of Caltrans standard specifications and measures, thus preventing significant environmental impacts from occurring. Considering this information, the following significance determinations have been made:

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

Affected Environment

Public service providers in the area of the project include the City of Santa Cruz, the County of Santa Cruz, the California Highway Patrol.

The northern approximately 1.0 mile of the project corridor, on State Route 9 between El Solyo Heights Drive and Graham Hill Road, passes by the San Lorenzo Valley Unified School District facilities at 7105 Highway 9 in Felton (San Lorenzo Valley elementary school, middle school, and high school).

This segment of State Route 9 is mostly a two-lane paved highway with one travel lane in each direction (one northbound and one southbound). According to Caltrans District 5 Traffic Operations staff, this segment of State Route 9 regularly experiences heavy traffic congestion during weekday morning and afternoon peak hours. The congestion is associated with both regional commuter traffic from residents who live north of the project area (using State Route 9, Graham Hill Road, and Mt. Hermon Road to access State Route 17) and San Lorenzo Valley school-related traffic.

Environmental Consequences

Fire and Police Protection

While temporary lane closures would slow the normal rate of traffic flow and potentially cause minor delays in emergency vehicle access or response time, evacuation and first responder access would be maintained. Caltrans standard traffic control procedures and the project's Transportation Management Plan would allow for continued emergency services access and specify detour routes for vehicle, bicycle, and pedestrian traffic.

Schools

As noted above, project construction would require temporary lane closures in the vicinity of the schools complex, temporarily increasing traffic congestion in the area. However, construction would be timed to take place between June and August when school is out for summer break, reducing the scale of this impact compared to if the work were done during the school year.

The project includes planned improvements that, upon completion of construction, should reduce traffic congestion on State Route 9 in the vicinity of the schools complex. For motorists, these features include traffic signal modification and extension of turn lane pockets. For pedestrians, bicyclists, and transit users, these include high-visibility crosswalk striping, reconstruction of transit stops, construction of a new school bus-only driveway, pedestrian island improvements, and addition of bikeable shoulders on State Route 9.

Parks

Project construction would temporarily impede public access to Henry Cowell Redwoods State Park at the State Route 9/Redwood Drive intersection and on North Big Trees Road. Installation of the proposed pedestrian improvements at this location is estimated as taking approximately three days, while the project road repair/repaving activities would create an additional period of temporarily impeded access. However, access is not expected to be completely blocked as detour routes would be provided.

Avoidance, Minimization, and/or Noise Abatement Measures

The following minimization measures shall be implemented during project construction:

PS-1. Caltrans would require the project contractor to use standard construction traffic control measures, as outlined in the Transportation Management Plan, to minimize disruption to emergency services access and to allow for safe passage of motorists, bicyclists, pedestrians, and transit users to, from, and past public facilities, including the San Lorenzo Valley schools complex, Henry Cowell Redwoods State Park, and other public facilities during the construction period.

PS-2. Caltrans would continue to coordinate with local officials throughout the project development phases to minimize disruption of public services and maintain access to public facilities such as the San Lorenzo Valley schools complex, Henry Cowell Redwoods State Park, and other local parks and recreational areas.

PS-3. To avoid disruption of public access to the San Lorenzo Valley schools complex during the instructional year, Caltrans would require that the project contractor complete construction work between Graham Hill Road and El Solyo Heights Drive during the period when school is out for summer break (approximately early June to early August).

2.1.16 Recreation

Considering information provided in the Parks, Recreation, and Public Facilities Element (Chapter 7) of the County of Santa Cruz General Plan (updated February 2020) and the Parks, Recreation, and Open Space chapter (Chapter 9) in the City of Santa Cruz 2030 General Plan (adopted June 2012 as amended through October 2019), 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?	**Less Than Significant Impact**

Affected Environment

The project consists of improvements to existing pavement, drainage, and other roadway infrastructure, as well as installation of Complete Streets features, on State Route 9 between Santa Cruz and Felton.

As noted in the City of Santa Cruz General Plan's Parks, Recreation, and Open Space Chapter, "Santa Cruz offers its residents and visitors a wide range of public and private recreational opportunities," and the same can be stated for the project area in general. The mild climate, natural beauty of forested mountains and rolling grasslands, and abundance of recreational opportunities in the project area encourage participation in healthy physical activity.

Nine publicly accessible parks or other recreational facilities were identified in the project vicinity:

- The Cottage Community School (Playground) (County of Santa Cruz)
- Felton Covered Bridge County Park (County of Santa Cruz)
- Felton Discovery County Park (County of Santa Cruz)
- Harvey West Park (City of Santa Cruz)
- Henry Cowell Redwoods State Park (State of California)
- Pogonip Open Space (City of Santa Cruz)
- San Lorenzo Valley Elementary, Middle, and High Schools (Playground/Sports Fields) (San Lorenzo Valley Unified School District)
- Santa Cruz Riverwalk (City of Santa Cruz)
- University of California, Santa Cruz Campus Natural Reserve trails (State of California)

Environmental Consequences

The project would not include new construction of, or expansion of, any recreational facilities; nor would it increase the use of any such facilities to an extent that would cause or accelerate their physical deterioration.

Two of the facilities listed above were identified as being potentially impacted by the project construction activities: Henry Cowell Redwoods State Park and playgrounds and sports fields at the San Lorenzo Valley schools complex.

Henry Cowell Redwoods State Park

Henry Cowell Redwoods State Park is a 4,650-acre public park just south of Felton that is known for its natural beauty, high-quality wildlife habitat, and

ample public recreation opportunities, including over 20 miles of hiking and equestrian trails, camping, picnicking, swimming, and fishing.

The project would include the installation of a new, 5-foot-wide pedestrian path adjacent to Henry Cowell Redwoods State Park. The pedestrian path would begin at the Redwood Drive crosswalk near the intersection of State Route 9 and North Big Trees Road and extend east along the north side of North Big Trees Road before connecting with the San Lorenzo River bridge and an existing crosswalk, which leads to the south side of the road and an existing trail. Pavement striping and pedestrian channelization devices would keep pedestrians and motorists on North Big Trees Road separated.

Construction of the pedestrian path and other improvements at this location is expected to take roughly three days, with road repair activities taking another few days. During this period, public access to and from the park along North Big Trees Road would temporarily be impeded, though access is not expected to be completely blocked because detour routes would be provided.

San Lorenzo Valley Schools Complex

The San Lorenzo Valley Unified School District complex at 7105 Highway 9, Felton, contains San Lorenzo Valley Elementary, Middle, and High Schools. The sports fields and other recreational facilities on the school district grounds are open to public use outside of instruction hours and during summer break.

During construction, public access to and from the schools complex would temporarily be impeded, but is not expected to be completely blocked.

For additional discussion of potential project-related effects on use of public recreational facilities, see Appendix A, Section 4(f) De Minimis Determination(s) and Resources Evaluated Relative to the Requirements of Section 4(f): No Use.

Avoidance, Minimization, and/or Mitigation Measures

During construction, traffic control and other measures would be implemented to ensure continued, safe access to these recreational facilities for pedestrians, bicyclists, transit users, and motorists. See minimization measures PS-1 and PS-2 in Section 2.1.15.

2.1.17 Transportation

Considering the information provided in Section 1.3, Project Description, and Section 1.4.1, Build Alternative, as well as information in CEQA Guidelines Section 15064.3; the 2045 Regional Transportation Plan for Santa Cruz County (Santa Cruz County Regional Transportation Commission, June 2022); the County of Santa Cruz General Plan Circulation Element (updated February 2020); the Santa Cruz County Operational Area's Draft Emergency Operations Plan (November 10, 2023); and Chapter 5, Mobility, in the City of

Santa Cruz 2030 General Plan (adopted June 2012 as amended through October 2019), 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?	**Less Than Significant Impact**

Affected Environment

State Route 9 is a rural two-lane highway that crosses the Santa Cruz Mountains, connecting the city of Santa Cruz and communities in the San Lorenzo Valley to Saratoga and Los Gatos in Santa Clara County. The limits of the project extend approximately 7.5 miles from the State Route 1/State Route 9 intersection in Santa Cruz north to the unincorporated community of Felton. The project area roughly follows the course of the San Lorenzo River and is mostly in a heavily forested setting with rural residential, commercial, industrial, public facilities, and open space/recreational land uses.

According to the 2045 Regional Transportation Plan for Santa Cruz County, in 2020 daily traffic volume on the busiest sections of State Route 9 averaged 25,500 vehicles, of which approximately 7 percent (1,785 vehicles) were large (freight) trucks (Santa Cruz County Regional Transportation Commission, June 2022). The rate of vehicle collisions on the segment of State Route 9 in the project area does not differ significantly from the statewide average (1.73 collisions per million miles driven on State Route 9 versus 1.71 collisions per million miles driven statewide).

The project is within the jurisdiction of the Santa Cruz County Regional Transportation Commission, which is designated by the State of California as the Regional Transportation Agency for the county. The Association of Monterey Bay Area Governments is the joint-power multi-planning agency for the area, and the federal Metropolitan Planning Organization for the region. The Santa Cruz County Regional Transportation Commission updates the Regional Transportation Plan every four years in coordination with the

Association of Monterey Bay Area Governments, which prepares a Metropolitan Transportation Plan/Sustainable Communities Strategy for the three counties of Monterey, San Benito, and Santa Cruz. The Regional Transportation Plan provides a basis for actions to allocate state and federal funding for transportation improvement projects.

The County of Santa Cruz General Plan Circulation Element (updated February 2020) and the City of Santa Cruz 2030 General Plan, Chapter 5 – Mobility provide local guidance regarding goals, policies, and strategies for maintaining and improving the transportation system in the project area. These documents are intended to facilitate improved transportation efficiency, accessibility and safety, as well as the development of alternative transportation modes, to accommodate expected, ongoing increases in regional travel demand.

The project would make improvements to existing pavement, drainage, and other roadway infrastructure. The project also includes Complete Streets elements as outlined in the Highway 9/San Lorenzo Valley Complete Streets Corridor Plan and the San Lorenzo Valley Schools Access Study. These features include improvements to access and efficiency for pedestrians, bicyclists, transit users, and motorists and were included in the project via coordination with the Santa Cruz County Regional Transportation Commission and the County of Santa Cruz. See Section 1.4.1, Build Alternative, for detailed information on these project elements.

State Route 9, and by association the project corridor, is mentioned in the Santa Cruz County Operational Area's Draft Emergency Operations Plan dated November 10, 2023. This plan notes that "The Highway 9 corridor is highly susceptible to closure from tree falls, downed utility lines, landslides, and other debris. Closures along Highway 9 have huge impacts on access for community and first responders during and after emergencies… Many roads and access points within the county, particularly to neighborhoods and residences in the northern area of county are single or double-lane roads under varying degrees of maintenance. Many roads and driveways are long, steep, and unpaved. This marks challenges for first response times, communication, and evacuation."

Environmental Consequences

The project work would consist of highway repaving, culvert rehabilitation and replacement, other transportation infrastructure improvements, and the construction of various Complete Streets features to improve pedestrian, bicyclist, transit, and motorist access. The project is needed because Caltrans has determined that the segment of State Route 9 in the project area contains deteriorating pavement and drainage features (culverts) that are in need of repair or replacement, without which they may begin to fail. In addition, public outreach conducted in the area has shown that local residents are highly in favor

of the types of pedestrian and bicycle (Complete Streets) improvements that are included as features of this project (see Section 3.3, Community Coordination).

The project would not conflict with any existing or planned transportation-related plans, programs, or facilities in the region. State Route 9 would remain accessible to vehicle and bicycle traffic during construction. The public would be notified of planned construction traffic management strategies through various methods, including a public awareness campaign and motorist information posted on signage along the project route.

The project would not alter the existing capacity of State Route 9 or increase vehicle miles traveled, and therefore would not conflict with CEQA Guidelines Section 15064.3(b). Nor would the project substantially increase hazards due to novel geometric design features or incompatible uses since none are proposed.

Temporary traffic control is required for all Caltrans projects that involve lane closure and/or lane modification. While project-related temporary lane closures would slow the normal rate of traffic flow during construction, potentially including that of emergency vehicles, the project would not result in inadequate emergency response access because the contractor would ensure the maintenance of orderly, efficient, two-way traffic flow during construction. This would be accomplished through the implementation of Caltrans Standard Specifications 12-1, 12-3, and 12-4 (see Section 1.5, Standard Measures and Best Management Practices Included in All Build Alternatives), through the use of Standard Special Provisions as needed, and through the project's Transportation Management Plan.

Traffic control during construction would be addressed with changeable message signs and construction area signs; also, a public awareness campaign would be conducted. Detour route(s) for vehicle, bicycle, and pedestrian traffic would be provided as necessary as part of Caltrans' standard traffic control and Transportation Management Plan procedures. Enhanced traffic law enforcement would be provided in active work zones by the California Highway Patrol to ensure emergency access and protect public and worker safety. Lane closure charts would be provided during the project's Plans, Specifications, and Estimates phase.

Avoidance, Minimization, and/or Mitigation Measures

Please refer to minimization measure HAZ-1 in Section 2.1.9 regarding emergency services access.

2.1.18 Tribal Cultural Resources

Caltrans submitted the "Historic Properties Survey Report for the Lower San Lorenzo Valley CAPM Project," along with attachments (including an Archaeological Survey Report and an Historic Resources Evaluation Report)

to the California State Office of Historic Preservation on January 25, 2024. On February 20, 2024, the State Historic Preservation Officer concurred with the determinations made by Caltrans cultural resources staff in these documents (see Section 2.1.5).

Considering the information in the Historic Properties Survey Report and its attachments, 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.	**Less Than Significant Impact**

Affected Environment

An archaeological survey for the project conducted by Caltrans archaeologists on March 24, 2023 yielded no evidence of previously unidentified cultural resources, either historic or prehistoric, within the project area.

As noted previously in Section 2.1.5, Caltrans conducted Native American consultation for the project as required under Assembly Bill 52 (Public Resources Codes 21080.3.1 and 21084.3(c)). See Section 3.1, Cultural Resources and Native American Coordination, for details.

Environmental Consequences

The project is not expected to have any significant effects on tribal cultural resources because project activities would be limited to areas that have been previously disturbed and have been well documented by past site

investigations. Therefore, the project is not expected to cause impacts to any known archaeological resources or disturb any known human remains, and the likelihood of discovering a buried archaeological deposit during project construction is considered low. If previously unidentified cultural materials or human remains are unearthed during construction, work would be halted in that area until a qualified archaeologist can assess the significance of the find.

Avoidance, Minimization, and/or Mitigation Measures

Minimization measure CR-1 in Section 2.1.5, Cultural Resources, would reduce any potential project-related impacts to tribal cultural resources.

2.1.19 Utilities and Service Systems

Considering information obtained from the County of Santa Cruz General Plan, Chapter 7: Parks, Recreation, and Public Facilities; the City of Santa Cruz 2030 General Plan, Chapter 7, Civic and Community Facilities; and information provided to Caltrans by utility providers in the project area, the following significance determinations regarding utilities and service systems have been made:

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

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**No Impact**

Affected Environment

Information on utilities and service systems in the project area is provided in the County and City of Santa Cruz General Plans. In general, these documents discuss the provision, nature, and timing of community facilities and services to support existing and future populations, including fire and police services, water supply, wastewater treatment, drainage and flood control, solid waste management, and energy facilities, among others.

Various utilities and service systems are present in the project limits within and adjacent to the state right-of-way, in both developed and mostly undeveloped portions of State Route 9. Potentially affected utilities include electrical lines (overhead and underground), telecommunication lines (overhead and underground), natural gas lines, water lines, sewer lines, and stormwater drainage features. These features belong to entities including American Telephone and Telegraph (AT&T), the City of Santa Cruz (Water and Public Works Departments), Comcast, Pacific Gas and Electric (PG&E – both electric and gas), and the State of California (Caltrans).

In addition, there is a private railroad crossing within the project limits at post mile 2.202. At this location, the Santa Cruz Big Trees and Pacific Railway crosses State Route 9 at a 30-degree angle with the highway center line.

The project's planned work sites consist of roadway and highway elements and facilities that typically do not require natural gas, wastewater treatment, or solid waste removal during regular operations. Use of electricity and domestic water supply within the project limits is relatively minimal in the more rural parts or the project area, while the northern (Felton) and southern (Santa Cruz) portions of the project limits are more urbanized and contain or are adjacent to more uses (for example, residential, commercial, and public facilities) that require utilities service.

Environmental Consequences

The project would not change the existing functions of electrical, natural gas, or telecommunications facilities in the region. Nor would the project change existing water supplies, wastewater treatment, or drainage patterns in the region, or generate excessive solid waste that would overwhelm capacities of existing waste management facilities.

The project would avoid disturbance of existing utility lines and facilities to the extent feasible; however, the need to relocate certain utility lines and/or facilities is anticipated. Further investigation would be conducted during the project's Plans, Specifications, and Estimates phase. Caltrans would coordinate with each affected utility owner to ensure any potential conflicts between the utilities and proposed project improvements are resolved with the minimum impact to utility customers. This includes coordination with the Santa Cruz Big Trees and Pacific Railway, which uses the at-grade railroad crossing on State Route 9 at post mile 2.202.

During and after construction, water would be needed for various onsite activities and for the establishment and periodic irrigation of native, ecologically appropriate vegetation that would be planted as part of the project's minimization measures (see measure VIS-2 in Section 2.1.1, Aesthetics). The water for these uses would be provided by one or more commercially available sources that cater to construction work and have capacity to serve the project. Caltrans implements water conservation elements as part of its standard procedures for landscape planting and irrigation design processes, including use of recycled, non-potable water where available, drip irrigation, and low-water-use plant species that are suitable for the microclimates in project landscaped areas.

No wastewater treatment facilities or services would be affected by or needed for the project construction activities or for long-term maintenance of the project's drainage and other infrastructural improvements. Sewage services for workers during construction would be temporary and managed through portable toilets that would be periodically drained by pump trunks. Sewage would be transported to an offsite location that is permitted for sewage disposal and subsequent processing. Therefore, the project would not substantially affect wastewater treatment in the local project area and the region because construction activities would be minor and short term.

Solid waste generated during project construction would be collected and disposed of properly in compliance with state and federal requirements. Any solid waste generated would be minimized through the reduction, reuse, and recycling of project materials to the extent feasible. After its completion, the project would not generate solid waste or require waste haul-off.

As part of the project, five deteriorated storm water drainage features would be rehabilitated or replaced. Storm water drainage (including flooding, groundwater, and water quality) is discussed in Section 2.1.10, Hydrology and Water Quality. In addition, potential impacts to biological resources associated with the proposed drainage work are discussed in Section 2.1.4.

Avoidance, Minimization, and/or Mitigation Measures

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

2.1.20 Wildfire

Considering the information in the County of Santa Cruz General Plan Public Safety Element (December 6, 1994); the Santa Cruz County Local Hazard Mitigation Plan 2015-2020 (September 2015); the Santa Cruz County Operational Area's Draft Emergency Operations Plan (November 10, 2023); the City of Santa Cruz 2030 General Plan's Hazard, Safety, and Noise chapter (adopted June 2012 as amended through October 2019); and the project's Climate Change Technical Report dated July 2024, the following significance determinations have been made:

If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones:

Question—Would the project:	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?	**No Impact**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	**No Impact**

Affected Environment

The project lies in southern Santa Cruz County along an approximately 7.5-mile segment of State Route 9 in the San Lorenzo River valley. The project limits lie mostly within the heavily forested Santa Cruz Mountains. Assets at risk of damage or destruction from wildfire in or near the project limits include residences, schools, commercial buildings, public facilities and utilities, and natural communities/habitat areas.

Recent decades have seen increased wildfire activity and intensity in the Santa Cruz Mountains, notably including the 7,783-acre Lockheed Fire in 2009 and the 86,553-acre CZU Lightning Complex in 2020, both of which burned to the west of the project area (CAL FIRE, 2024 – California Fire Perimeters Map Viewer). The CZU Lightning Complex fire approached within roughly 1 mile of Felton.

The northern approximately 80 percent of the project corridor passes through the CAL FIRE fire hazard severity zone designations of Moderate and High within the State Responsibility Area (refer to Figure 2-2). Most wildland fires occur in the State Responsibility Area but, depending on the location of a fire, there is a potential for many different agencies (not only state agencies) to respond. In some locations, autonomous fire protection districts provide fire protection within the State Responsibility Area, for instance, in the case of this project, the Felton Fire Protection District.

According to Figure 16 in the Santa Cruz County Local Hazard Mitigation Plan (September 2015), the largest “generalized critical wildfire hazard area” near the project area is east of State Route 9 in Henry Cowell Redwoods State Park. The nearest recent wildfire to the project limits, as mapped by CAL FIRE, is the 15.6-acre Rincon Fire, which occurred between State Route 9 and the San Lorenzo River in the Paradise Park area in 2018 (CAL FIRE, 2024 – California Fire Perimeters Map Viewer).

The southern end of the project contains approximately 1.25 miles along State Route 9 that is outside the State Responsibility Area and under City of Santa Cruz jurisdiction (Local Responsibility Area). According to the City of Santa Cruz 2030 General Plan, fire hazard within this zone is designated as High.

Environmental Consequences

The project is not expected to result in any significant impacts involving wildland fires. The project would extend the life of the highway infrastructure, but would not change existing land uses or generate new development so that new populations and structures would be brought into wildland fire zones and potentially exposed to the effects of wildfire and/or wildfire smoke.

The project would not substantially impair any adopted emergency response plan or emergency evacuation plan because Caltrans standard traffic control procedures and the project’s Transportation Management Plan would allow for adequate emergency access during construction. While temporary lane closures would slow the normal rate of traffic flow and potentially cause minor delays in emergency vehicle access or response time, evacuation and first responder access would be maintained, including specification of detour routes for vehicle, bicycle, and pedestrian traffic. Enhanced traffic law enforcement would also be provided in active work zones by the California Highway Patrol to ensure emergency access and protect public and worker safety.

Nor would the project exacerbate wildfire risk due to geophysical factors or equipment installation or maintenance because the project would not require new infrastructure that could increase fire risk or cause significant fire-related environmental impacts. As noted in Section 1.5, the project would implement Standard Special Provision 7-1.02M(2), which would require the contractor to develop and implement a fire prevention plan to minimize the risk of starting a wildfire during construction. The project would also reduce the risk of infrastructure damage from wildfire by incorporating fire-resilient features such as steel guardrail posts instead of wooden posts, as well as use of corrugated steel pipe and reinforced concrete pipe in culvert replacement.

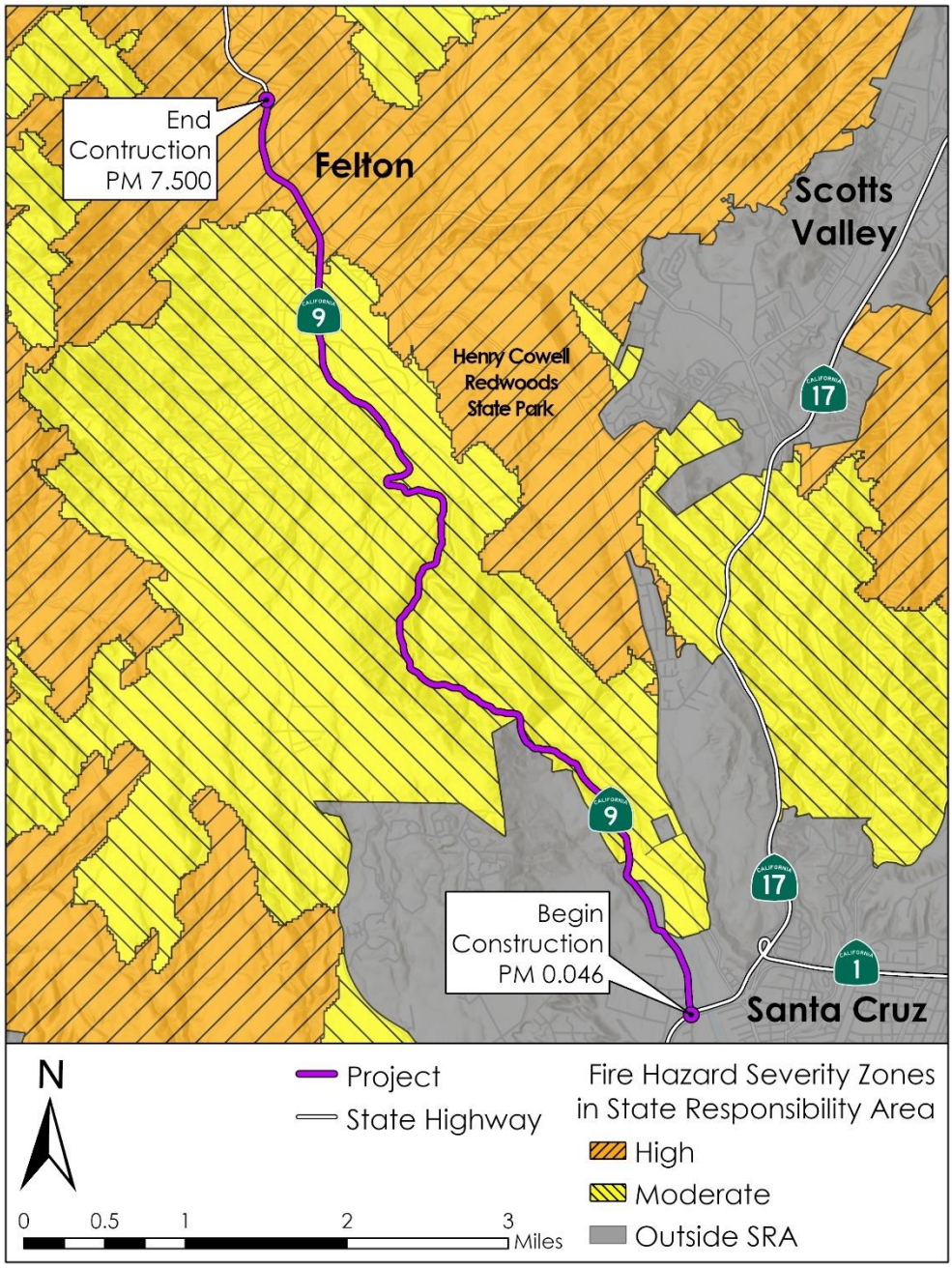
Finally, the project would not increase the risk of fire-related earth movement or flooding because the project would not create any new impervious surface, would not change drainage locations or runoff amounts, would improve drainage capacity at the five culverts proposed for replacement, and would fully restore all disturbed soil areas (2.64 acres total) through post-construction grading, replanting, and installation of erosion control measures.

For these reasons, the project would not expose residents or businesses to a significantly increased risk of loss, injury, or death from wildland fires or associated hazards.

Avoidance, Minimization, and/or Mitigation Measures

See minimization measure HAZ-1 in Section 2.1.9 for information on emergency services access.

Figure 2-2 Fire Hazard Severity Zones in State Responsibility Area



Source: CAL FIRE Map Viewer - Fire Hazard Severity Zones in State Responsibility Area, 2024.

2.1.21 Mandatory Findings of Significance

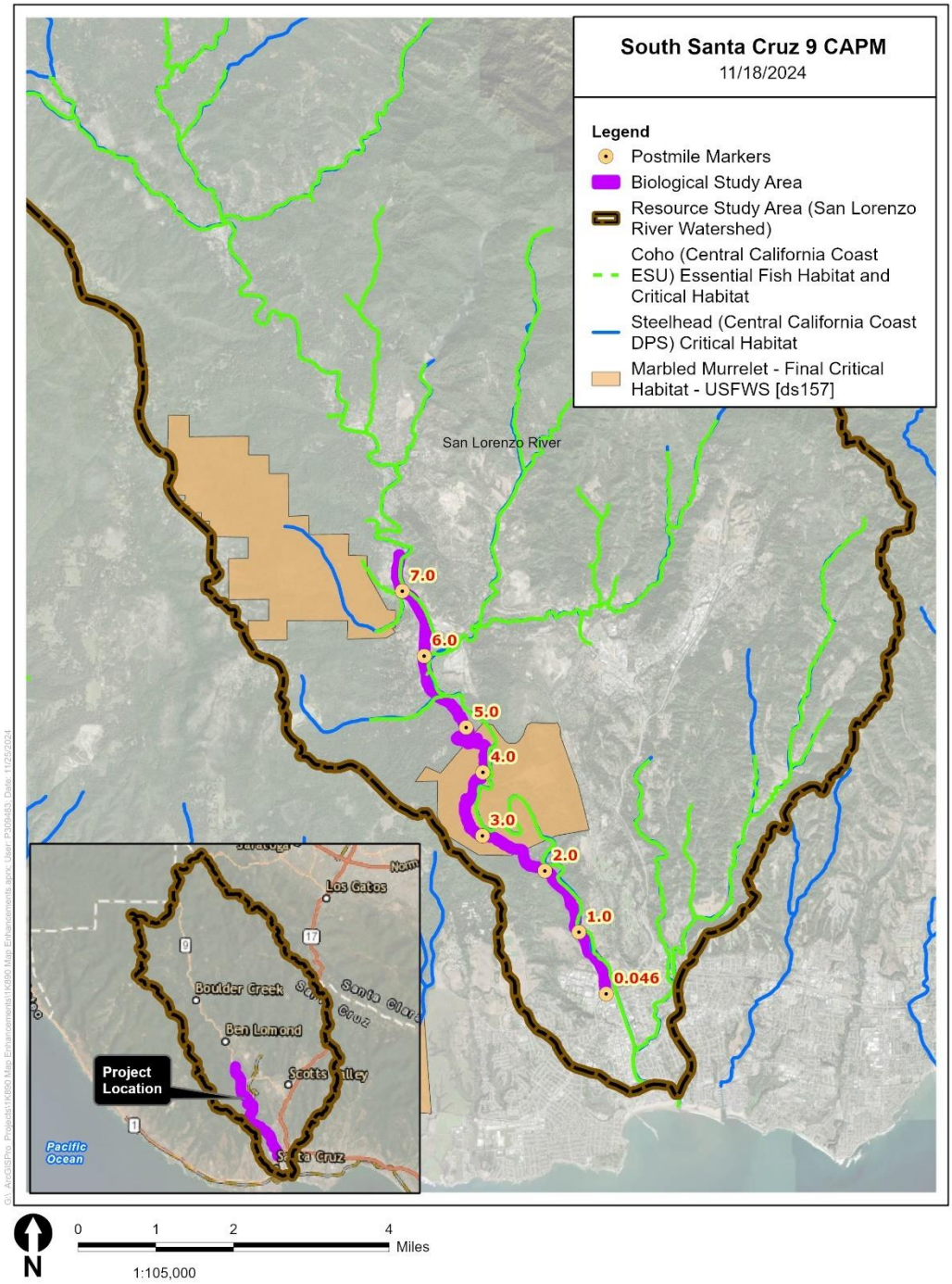
Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining 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 With Mitigation Incorporated**
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	**Less Than Significant Impact**
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**Less Than Significant Impact With Mitigation Incorporated**

Affected Environment

The affected environment for the project is the State Route 9 corridor in the lower San Lorenzo River valley in Santa Cruz County between post miles 0.046 and 7.500. Most of the project area is rural, passing through coast redwood forest in the Santa Cruz Mountains. Land uses in the project area include commercial, residential, industrial, public facilities, and open space/recreational areas.

The project limits contain natural communities and jurisdictional waters that support a variety of animal and plant species, including special-status native species as well as federally designated Critical Habitat and Essential Fish Habitat. Figure 2-3 shows the project's Biological Study Area, Resource Study Area (the San Lorenzo River watershed), and protected habitat.

Figure 2-3 Resource Study Area



Source: Caltrans District 5 Geographic Information Systems, September 5, 2023.

The project limits are unlikely to contain archaeological or paleontological resources, but several historic buildings and other resources exist within or near the project limits.

Environmental Consequences

Natural and Historical Resources

Biological Resources

The project has the potential to cause significant impacts to sensitive biological resources, including natural habitats, jurisdictional waters, stream and riparian features, special-status animal species, and designated Critical Habitat and Essential Fish Habitat, though these impacts would be limited in duration and scope.

The project's Biological Study Area covers roughly 73.5 acres and consists of all areas that would be directly affected by permanent and temporary construction impacts, as well as adjacent areas that could potentially be indirectly affected by project activities. Permanent impact areas would affect approximately 0.023 acre of redwood forest and 0.016 acre of riparian and stream habitat. Temporary impacts would affect roughly 0.97 acre of redwood forest and 0.19 acre of riparian and stream habitat.

Primary concerns regarding project impacts on biological resources include the potential effects of temporary stream diversion to allow for culvert replacement on Central California coast steelhead trout; Central California coast coho salmon and its designated Critical Habitat as well as Essential Fish Habitat for this species; and impacts to coast redwood forest and woodland due to the removal of several trees and some understory vegetation to allow for various construction activities.

However, the project design would incorporate Caltrans standard measures and Best Management Practices that would reduce the potential for environmentally damaging conditions or practices to occur (see Section 1.5). Also, implementation of the avoidance, minimization, and mitigation (Compensatory Mitigation under CEQA) measures listed in this document would reduce potentially significant environmental impacts on biological resources to a less than significant level. See Section 2.1.4, Biological Resources, and Appendix C, Avoidance, Minimization and/or Mitigation Summary, for details.

Cultural Resources

The project is not expected to result in significant impacts relating to prehistoric, historic, or tribal cultural resources. The project limits have previously been surveyed for prehistoric resources for other Caltrans projects and do not contain any known archaeological resources or human remains. The likelihood of discovering a buried archaeological deposit during project construction is considered low.

Caltrans has determined that there are historic properties within the project's Area of Potential Effects that may potentially be affected by the undertaking. These include one building considered eligible for listing in the National Register of Historic Places (the former Cremer Hotel, 6250-6256 State Route 9 in Felton) and one building considered a significant resource under CEQA because it is potentially eligible for inclusion in the California Register of Historical Resources (915 River Street in Santa Cruz). Specifically, the project includes sidewalk installation at 6250-6256 State Route 9 and modification of an existing sidewalk curb ramp at 915 River Street.

Based on current project mapping, Caltrans cultural resource specialists anticipate that the project can be designed in a way that avoids adverse effects to historic properties. A Finding of Effect document would be completed for the project prior to the release of the final environmental document. The anticipated finding is a Finding of No Adverse Effect.

Also, the project design would incorporate Caltrans standard measures (see Section 1.5) and minimization measures that would reduce the potential for environmentally damaging conditions or practices to a less than significant level. See Section 2.1.5, Cultural Resources, Section 2.1.18, Tribal Cultural Resources, and Appendix C, Avoidance, Minimization and/or Mitigation Summary, for details.

Hydrology and Water Quality

The receiving water bodies in the vicinity of the project limits are the San Lorenzo River, Shingle Mill Creek, and Fall Creek. The San Lorenzo River is listed as impaired by the following pollutants under Section 303(d) of the federal Clean Water Act: Chlordane, Chloride, Chlorpyrifos, Enterococcus, Escherichia coli (*E. coli*), Fecal Coliform, Nitrate, Polychlorinated biphenyls, Sedimentation/Siltation, Sodium, and Temperature (water) (see Section 2.1.10, Hydrology and Water Quality). The San Lorenzo River watershed experiences accelerated rates of erosion and sedimentation two to four times above natural rates. Therefore, the Central Coast Regional Water Quality Control Board has set a Total Maximum Daily Load for sediment/siltation in this watershed.

However, the project would not result in any significant long-term impacts to water quality. The project does not have the potential to directly discharge storm water within the project limits into the receiving water bodies and, by replacing five deteriorating culverts, the project would reduce sediment loading to the San Lorenzo River watershed and therefore contribute to improved water quality. Nor would the project change the amount of existing impervious surface (27.24 acres) within the project limits.

Because the project would temporarily create 2.64 acres of disturbed soil area, there is the potential for short-term water quality impacts that would be considered less than significant. The construction contractor would be

required to prepare a Water Pollution Control Program, including a Storm Water Pollution Prevention Plan, for the project and would be responsible for adherence to all program specifications and measures, as well as compliance with the Construction General Permit. All work locations would be fully rehabilitated prior to project completion.

Short-term construction impacts on water quality would also be minimized through the standard measures listed in Section 1.5 and the Best Management Practices described in Section 2.1.10, including temporary soil stabilization, temporary sediment controls, and non-storm water management procedures.

Noise

The project has the potential to cause temporary, intermittent, significant impacts to nearby sensitive noise receptors, including residences and businesses concentrated at the southern and northern ends of the project limits (in the City of Santa Cruz and the community of Felton, respectively), as well as at the San Lorenzo Valley schools complex at 7105 State Route 9 in Felton. These impacts would result from project construction activities and would vary based on the specific activities and types of equipment involved.

Caltrans policy states that normal construction equipment should not emit noise levels greater than 86 decibels at 50 feet from the source. Also, Caltrans Standard Specifications Section 14-8.02 requires contractors to control and monitor noise resulting from work activities and not to exceed the 86-decibel level at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. The loudest piece of equipment expected to be used on this project, a cold planer, produces a noise level of approximately 90 decibels at 50 feet, exceeding the 86-decibel standard.

As described in Section 2.1.13 of this document, the project contractor would be required to submit a Noise Control Plan to Caltrans. This plan would outline how construction noise would be kept below the 86-decibel threshold to the extent feasible. In combination with the other avoidance, minimization, and mitigation measures listed in Section 2.1.13, the Noise Control Plan would reduce potentially significant noise impacts to a less than significant level.

Cumulative Impacts

As defined by the Governor's Office of Planning and Research, "cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact analysis should focus on resources significantly impacted by the project, or on resources in poor or declining health or at risk even if project impacts are less than significant.

The assessment of cumulative impacts also includes defining a Resource Study Area, a geographic area within which impacts on a resource are analyzed and which is often broader than the boundaries used for project-

specific analyses. This project's Resource Study Area is the San Lorenzo River watershed (see Figure 2-3).

The project would have individually limited impacts on environmental resources as discussed in Sections 2.1.1 through 2.1.20 of this document. Impacts to the affected resources would be managed through implementation of the project-specific measures listed for each resource area (see Appendix C). Most of these impacts would be temporary in nature, as would the impacts of similar projects in the area that would affect the same resources.

The project would not realign or expand the existing state highway system in the project area, is not anticipated to alter or influence growth or development patterns in the region, and does not have environmental effects that would be expected to cause long-term, substantial adverse effects on human beings or cultural resources, either directly or indirectly.

Based on the findings of this Initial Study with Proposed Mitigated Negative Declaration and Section 4(f) Evaluation, this cumulative impacts discussion focuses on effects relating to two resource areas—Biological Resources and Noise—for which potentially significant impacts were determined. Also discussed is one resource area—Hydrology and Water Quality—that is in poor health but for which significant project-related impacts are not anticipated.

Biological Resources

According to the Caltrans Natural Environment Study dated December 2024, the project is not expected to contribute to adverse cumulative impacts to the following biological resources that are or may be present in the Biological Study Area:

- Coast redwood forest and woodland
- California bay forest and woodland
- Jurisdictional waters or riparian habitat
- Federally designated Critical Habitat for the steelhead trout, coho salmon, or marbled murrelet
- Essential Fish Habitat
- Invasive species
- Special-status plant species
- Western monarch butterfly
- Central California coast steelhead trout Distinct Population Segment

- Central California coast coho salmon Evolutionarily Significant Unit
- California red-legged frog
- Santa Cruz black salamander
- California giant salamander
- Cooper's hawk or other nesting birds
- Pallid bat, Townsend's big-eared bat, or hoary bat
- Santa Cruz kangaroo rat
- North American porcupine
- San Francisco dusky-footed woodrat

Several other projects, including Caltrans projects, in this Resource Study Area may incur temporary and permanent impacts to biological resources, including jurisdictional features, special-status species, and any associated federally designated critical habitat. However, when considered in a cumulative effects context, the proposed project is not anticipated to substantially contribute to adverse cumulative impacts to biological resources because most of the project's impacts on these resources would be temporary and the proposed avoidance, minimization, and mitigation measures would adequately address both temporary and permanent impacts.

Hydrology and Water Quality

As noted above, the San Lorenzo River watershed is designated as impaired for 11 pollutants under Section 303(d) of the Clean Water Act. However, when assessed in combination with other projects in the Resource Study Area, the proposed project does not have the potential to cause significant long-term impacts to water quality because it would not involve substantial excavation or earthwork and it would not directly discharge stormwater into the receiving water bodies. Although some minimal short-term water quality impacts could result from the project, the incorporation of appropriate engineering design and robust stormwater Best Management Practices during construction, as described in the project's required Stormwater Pollution Prevention Plan, would reduce the impacts to a level of less than significant. Therefore, the project would not be expected to contribute to adverse cumulative impacts to water quality.

Noise

According to the "Air Quality, Greenhouse Gas, Water Quality, and Noise Technical Memo, San Lorenzo Valley Capital Preventive Maintenance (CAPM) Project" dated October 18, 2024, some of the project's construction

activities would result in a temporary and intermittent increase in noise levels that would constitute a potentially significant noise impact to nearby sensitive receptors. However, the proposed project is not anticipated to substantially contribute to adverse cumulative impacts relating to noise because these impacts would be short term and the proposed avoidance, minimization, and mitigation measures would adequately address the impacts.

Summary of Cumulative Impacts

In summary, the project would not result in cumulatively considerable effects on environmental resources within the project study area and vicinity in consideration of past, current, and reasonably foreseeable future projects due to the implementation of standard specifications, special standard provisions, Best Management Practices, and mitigation measures as noted in this document.

Effects on Human Beings

The project consists of needed repairs and upgrades to transportation systems that support the daily routines of human beings who live, work, and visit in the project area. The project has the potential to result in temporary substantial, adverse, direct and/or indirect effects on human beings because of the proximity of construction noise to residences and businesses along State Route 9 in Santa Cruz and Felton. These short-term impacts would temporarily affect the activities of residents, businesses, and visitors to the project area. These effects would be minimized through the use of Caltrans standard specifications and the avoidance, minimization, and mitigation measures included in this document. Upon completion of the project, normalcy would return for people in the project area and access for motorists, pedestrians, bicyclists, and transit users would be improved in comparison with current conditions.

Avoidance, Minimization, and/or Mitigation Measures

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

Chapter 3 Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements.

Agency and tribal consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings, public meetings, public notices, and Project Development Team meetings.

This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

3.1 Cultural Resources and Native American Coordination

Interested Native American representatives include individuals and groups identified by the Native American Heritage Commission list as well as individuals who have past involvement in archaeological studies within the immediate vicinity of the project.

3.1.1 State Government

January 25, 2024: Caltrans submitted the "Historic Properties Survey Report for the Lower San Lorenzo Valley CAPM Project," along with attachments (including an Archaeological Survey Report and an Historic Resources Evaluation Report) to the California State Office of Historic Preservation.

February 20, 2024: The State Historic Preservation Officer concurred with the determinations made by Caltrans cultural resources staff in these documents.

November 21, 2024: A Finding of Effect document was completed for the project by Caltrans District 5 cultural resources staff to determine whether the project has the potential to adversely affect historic properties. The conclusion reached by District 5 cultural resources staff was a Finding of No Adverse Effect. The Finding of Effect document was sent to the Caltrans Headquarters Cultural Studies Office and the California State Historic Preservation Officer for review, with a response (concurrence letter) expected in early 2025.

3.1.2 Local Government

March 1, 2023: Santa Cruz County Historic Resource Commission contacted via email; responded on March 24, 2023, indicating one historic property (the Cremer Hotel) was in the project vicinity and recommended potential impacts from construction be evaluated for the property.

March 22, 2023: City of Santa Cruz Historic Preservation Commission contacted; responded on March 30, 2023—No concerns.

March 30, 2023: California State Parks-Santa Cruz District Cultural Resources Staff contacted; replied same day—No concerns.

3.1.3 Native American Heritage Commission

March 20, 2023: Request sent to the Native American Heritage Commission for a Tribal Contact List and a Sacred Lands File Search.

April 4, 2023: Response received from the Native American Heritage Commission with a contact list and positive search findings.

3.1.4 Native American Tribes, Groups, and Individuals

April 5, 2023: Section 106/Assembly Bill 52 consultation letters sent to the following:

Valentin Lopez (Amah Mutsun Tribal Band)

Irene Zwierlein (Amah Mutsun Tribal Band of Mission San Juan Bautista)

Patrick Orozco (Costanoan Ohlone Rumsen-Mutsen Tribe)

Kanyon Sayers-Roods (Indian Canyon Mutsun Band of Costanoan)

Ann Marie Sayers (Indian Canyon Mutsun Band of Costanoan)

Charlene Nijmeh (Muwekma Ohlone Indian Tribe of the San Francisco Bay Area)

Monica Arellano (Muwekma Ohlone Indian Tribe of the San Francisco Bay Area)

Kenneth Woodrow (Wuksache Indian Tribe/Eshom Valley Band)

April 10, 2023: Kanyon Sayers-Roods (Indian Canyon Mutsun Band of Costanoan) requested project consultation via email and recommended a pre-construction briefing for project workers, and Native American and archaeological monitoring of ground disturbance.

April 17, 2023: Ms. Uva responded to Kanyon Sayers-Roods via email with detailed project mapping of the various project components; also provided information of the cultural survey and Caltrans Cultural Resources Database record search.

3.1.5 Local Historical Society/Historic Preservation Groups

March 1, 2023: The San Lorenzo Valley Museum contacted on March 1, 2023; called March 2, 2023; and courtesy reminders sent March 24, 2023 and April 13, 2023—No response.

March 1, 2023: The Santa Cruz Museum of Art and History contacted; called March 2, 2023; and courtesy reminders sent March 24, 2023 and April 13, 2023—No response.

March 9, 2023: Roaring Camp Railroad contacted via internal mailing system—No response.

March 24, 2023: The Ancient and Honorable Order of E Clampus Vitus Chapter #1797 contacted; reminder sent April 13, 2023—No response.

March 24, 2023: Santa Cruz Trains contacted; responded March 25, 2023 with additional information that was incorporated into the historic context section of the Historic Resources Evaluation Report.

3.2 Biological Resources Coordination

3.2.1 U.S. Fish and Wildlife Service

April 3, 2023: An unofficial U.S. Fish and Wildlife Service species list was queried for the project.

August 23, 2023: An official U.S. Fish and Wildlife Service list was obtained for the project.

January 8, 2024: An updated official U.S. Fish and Wildlife Service list was obtained for the project.

May 2, 2024: Caltrans requested consultation with the U.S. Fish and Wildlife Service on use of the Programmatic Biological Opinion for the California red-legged frog and informal consultation for impacts to marbled murrelet critical habitat.

June 27, 2024: A Letter of Concurrence for Caltrans to use the Programmatic Biological Opinion for the project for the California red-legged frog, as well as addressing impacts to marbled murrelet critical habitat, was received from the U.S. Fish and Wildlife Service.

December 12, 2024: An updated official U.S. Fish and Wildlife Service list was obtained for the project.

3.2.2 National Marine Fisheries Service/National Oceanic and Atmospheric Administration

April 6, 2023: An unofficial National Marine Fisheries Service/National Oceanographic and Atmospheric Administration species list was queried for the Felton and Santa Cruz U.S. Geological Survey 7.5-minute quadrangles.

July 7, 2023: An official National Marine Fisheries Service species list for the Felton and Santa Cruz U.S. Geological Survey 7.5-minute quadrangles was obtained.

January 8, 2024: An updated official National Marine Fisheries Service list was obtained.

September 10, 2024: Caltrans initiated technical assistance with the National Marine Fisheries Service regarding project details, Section 7 determinations, and additional items and questions that may occur during Section 7 technical assistance with the National Marine Fisheries Service. During conversations, the National Marine Fisheries Service representative cautioned that the project may not be able to use rubberized hot mix asphalt in the project area because of the effects of the tire chemical 6PPD-quinone on salmonid fish.

December 12, 2024: An updated official National Marine Fisheries Service list was obtained for the project.

3.2.3 California Department of Fish and Wildlife

April 3, 2023: A California Natural Diversity Database list was queried for the Big Basin, Castle Rock Ridge, Los Gatos, Davenport, Felton, Laurel, Santa Cruz and Soquel U.S. Geological Survey 7.5-minute quadrangles.

September 5, 2023: An updated California Natural Diversity Database list was queried for the same U.S. Geological Survey 7.5-minute quadrangles.

January 8, 2024: An updated California Natural Diversity Database list was obtained.

December 12, 2024: A final updated official California Natural Diversity Database list was obtained for the project.

3.2.4 California Native Plant Society

April to August 2023: The California Native Plant Society inventory was queried for the project.

January 9, 2024: An updated California Native Plant Society list was obtained.

3.3 Community Coordination

The Caltrans public outreach process for the project is intended to facilitate engagement with partner and resource agencies, other stakeholder groups, and the general public regarding potential issues, concerns, and opportunities that may affect a given project. Outreach efforts should also help ensure that Caltrans supports equity by connecting with, and seeking input from, underrepresented/traditionally marginalized communities.

The engagement process for the project is also intended to ensure that the project is consistent with existing local planning efforts such as the Santa Cruz County Regional Transportation Commission's Highway 9/San Lorenzo Valley Complete Streets Corridor Plan and the San Lorenzo Valley Schools Access Study. Caltrans has worked extensively with the Santa Cruz County Regional Transportation Commission on the project and has incorporated results from public outreach that was conducted for the aforementioned plans. Caltrans has also incorporated the results of public outreach from another proposed Caltrans project (EA 05-1M550) that was largely folded into the present project.

During the public meetings for these efforts, stakeholders expressed a strong desire for using as many features as possible that would enhance access for bicyclists and pedestrians. The feedback received helped the Design staff with additional modifications that complemented the existing scope of work.

To further facilitate and optimize community engagement for the project, Caltrans created the "SR 9 South San Lorenzo Valley - Felton CAPM Community Engagement Plan" (draft plan dated October 2022). The plan discussed benefits and potential opportunities arising from early and effective stakeholder engagement, potential outreach methods, suggested messaging content, and timing of and responsibility for the various activities proposed.

Caltrans District 5 Design staff, including the project engineer, met with California Department of Parks and Recreation ("State Parks") Santa Cruz District planning staff via teleconference on May 16, 2024. The discussion focused on the proposed pedestrian path that would connect the existing State

Route 9 crosswalk at Redwood Drive to the San Lorenzo River bridge on North Big Trees Road inside Henry Cowell Redwoods State Park. The proposed pedestrian path would require Caltrans to obtain temporary construction easements inside State Parks' right-of-way. State Parks staff expressed support for the proposed pedestrian path as described by Caltrans staff.

Chapter 4 Distribution List

The draft environmental document and related material, as well as any other requested material, were distributed to the following:

United States Fish and Wildlife Service—Ventura Office
2493 Portola Road, Suite B
Ventura, CA 93003

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service—West Coast Region
501 West Ocean Boulevard, Suite 4200
Long Beach, CA 90802-4250

Department of the Army
San Francisco District, Corps of Engineers
Regulatory Division
450 Golden Gate Avenue, 4th Floor
San Francisco, CA 94102-3404

Indian Canyon Mutsun Band of Costanoan
Kanyon Sayers-Roods, MLD
1615 Pearson Court
San Jose, CA 95122

California Department of Fish and Wildlife
Bay Delta Region 3
2825 Cordelia Road, Suite 100
Fairfield, CA 94534

California Department of Forestry and Fire Protection
Santa Cruz County Fire
6059 Highway 9
Felton, CA 95018

California Department of Parks and Recreation
Santa Cruz District
303 Big Trees Park Road
Felton, CA 95018-9660

California Highway Patrol
10395 Soquel Drive
Aptos, CA 95003

Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Association of Monterey Bay Area Governments
24580 Silver Cloud Court
Monterey, CA 93940

Santa Cruz County Regional Transportation Commission
1101 Pacific Avenue, Suite 250
Santa Cruz, CA 95060

County of Santa Cruz - County Clerk Department
701 Ocean Street, Room 310
Santa Cruz, CA 95060

County of Santa Cruz Planning Department
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060

County of Santa Cruz Public Works Department
701 Ocean Street, Room 410
Santa Cruz, CA 95060

Santa Cruz County Sheriff's Office
Sheriff Headquarters
5200 Soquel Avenue
Santa Cruz, CA 95062

Felton Fire Protection District
131 Kirby Street
Felton, CA 95018

City of Santa Cruz – City Clerk
809 Center Street, Room 8
Santa Cruz, CA 95060

City of Santa Cruz Planning and Community Development Department
809 Center Street, Room 101
Santa Cruz, CA 95060

City of Santa Cruz Public Works Department
809 Center Street, Room 201
Santa Cruz, CA 95060

Santa Cruz Fire Administration
230 Walnut Avenue
Santa Cruz, CA 95060

Santa Cruz Police Department
155 Center Street
Santa Cruz, CA 95060

San Lorenzo Valley Unified School District
325 Marion Avenue
Ben Lomond, CA 95005

Santa Cruz METRO
110 Vernon Street
Santa Cruz, CA 95060

Roaring Camp Railroads
5401 Graham Hill Road
Felton, CA 95018

Santa Cruz County Chamber of Commerce
7960 Soquel Drive, Suite B112
Aptos, CA 95003

Paradise Park Masonic Club
211 Paradise Park
Santa Cruz, CA 95060

Bike Santa Cruz County
P.O. Box 5485
Santa Cruz, CA 95063

Campaign for Sustainable Transportation
P.O. Box 7927
Santa Cruz, CA 95061

Santa Cruz Trains
Via email only
author@santacruztrains.com

Appendix A Section 4(f) *De Minimis* Determination(s) and Resources Evaluated Relative to the Requirements of Section 4(f): No Use

Section 4(f) De Minimis Determination(s)

This section of the document discusses de minimis impact determinations under Section 4(f). Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users amended Section 4(f) legislation at 23 U.S. Code 138 and 49 U.S. Code 303 to simplify the processing and approval of projects that have only de minimis impacts on lands protected by Section 4(f). This amendment provides that once the U.S. Department of Transportation determines that a transportation use of Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a de minimis impact on that property, an analysis of avoidance alternatives is not required, and the Section 4(f) evaluation process is complete. The Federal Highway Administration's final rule on Section 4(f) de minimis findings is codified in 23 Code of Federal Regulations 774.3 and 774.17.

Responsibility for compliance with Section 4(f) has been assigned to Caltrans pursuant to 23 U.S. Code 326 and 327, including de minimis impact determinations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

Identification of Section 4(f) Properties

Section 4(f) applies to "… publicly owned land of a public park, recreation areas or wildlife and waterfowl refuge, or land of a historic site of national, state, or local significance." Publicly owned land is considered to be a park, recreation area, or wildlife and waterfowl refuge when the land has been officially designated as such or when federal, state, or local officials having jurisdiction over the land determine that one of its major purposes or functions is for park, recreation, or refuge purposes (Federal Highway Administration Section 4(f) Policy Paper, July 2012). Any part of a publicly owned park, recreation area, refuge, or historic site is presumed to be significant unless there is a statement of insignificance relative to the whole park by the federal, state, or local official having jurisdiction of that property.

With respect to historic properties, for purposes of Section 4(f), a historic site is significant only if it is in or eligible for listing in the National Register of Historic Places, unless the Federal Highway Administration determines that

the application of Section 4(f) is otherwise appropriate (Federal Highway Administration Section 4(f) Policy Paper).

Section 4(f) Study Area

The area within a half mile of the project's identified Area of Potential Impacts was used to define the study area for existing publicly owned recreation and park properties, including local, regional, state, and federal properties; existing play and sports fields of public schools with public access, publicly owned wildlife and waterfowl refuges and conservation areas; and existing off-street public bicycle, pedestrian, and equestrian trails. The study area was defined to identify an area large enough to assess the potential for the Build Alternative to result in direct and indirect impacts on Section 4(f) properties.

The Historic Property Survey Report (January 2024) for the project identified properties listed, eligible for listing, or determined eligible for listing in the National Register of Historic Places within the Area of Potential Effects. The Area of Potential Effects was developed as part of the Historic Property Survey Report and was used as the study area for the Section 4(f) analyses for historic properties. Additional discussion regarding the development of the Area of Potential Effects is provided in the Historic Property Survey Report for the project.

Description of Public and Private Parks, Recreational Facilities, and Wildlife Refuges

Nine potential Section 4(f) park and recreational facilities were identified within the Section 4(f) study area. Two of these facilities are discussed below under "Resources Subject to the Provisions of Section 4(f)—De Minimis Determination:" Henry Cowell Redwoods State Park and the San Lorenzo Valley Unified School District complex at 7105 Highway 9 in Felton. The remaining seven identified public parks and recreational facilities, though Section 4(f) properties, would not be subject to project-related "use" under Section 4(f). These are discussed below under "Resources Subject to the Provisions of Section 4(f)—No Use Determination."

There are no publicly owned wildlife and waterfowl refuges within 0.5 mile of the project site.

Description of National Register of Historic Places Listed and Eligible Properties

Because this project is a federal undertaking, it must also comply with the National Historic Preservation Act. The National Historic Preservation Act implementing regulations at Code of Federal Register Title 36 Part 800.4(a)(1) require the establishment of an Area of Potential Effects. The Area of Potential Effects is the geographic area or areas within which an undertaking may directly or indirectly alter the character or use of historic properties if any such properties exist. As noted earlier, the Area of Potential

Effects serves as the study area for Section 4(f) historic properties that are listed, eligible for listing, or assumed eligible for listing in the National Register of Historic Places for this undertaking. The Area of Potential Effects for the project is shown in the project's Historic Property Survey Report.

Two potential Section 4(f) historic properties were identified within the study area: the Cremer Hotel at 6250-6256 Highway 9, Felton, and the historic Santa Cruz and Felton Railroad (originally known as the San Lorenzo Railway). The former is an historic building eligible for the National Register of Historic Places. The latter is considered eligible for inclusion in the National Register of Historic Places for the purposes of this project only because evaluation was not possible.

According to the project's Archaeological Survey Report, the Area of Potential Effects does not overlap with any known significant or eligible archaeological site boundaries.

Resources Subject to the Provisions of Section 4(f)—De Minimis Determination

A de minimis impact involves using Section 4(f) property that is generally minor in nature. The temporary use of the Section 4(f) resource, together with any impact avoidance, minimization, and enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).

Cremer Hotel, 6250-6256 Highway 9, Felton

The former Cremer Hotel at 6250-56 State Route 9 in Felton is a mixed-use residential and commercial building with a 2,000-square-foot rectangular building footprint and a long rear ell (wing of the building perpendicular to the rest). Built in 1873, it is the oldest extant commercial structure in Felton and one of the oldest in the San Lorenzo Valley overall. It has been determined eligible for the National Register of Historic Places.

The structure was constructed in 1876, one year after the narrow-gauge San Lorenzo Railway arrived in the area, and two years before Felton was briefly incorporated as a town, between 1878 and 1917. Early Felton prospered as an important transportation hub for the valley's industrial timber and limestone mining economy and served as the main shipping point for the surrounding area's lumber mills, especially between 1875 and 1883. The Cremer Hotel was initially constructed primarily to cater to local loggers, railroad employees, and quarrymen working in the area.

The proposed project includes various Complete Streets (enhanced pedestrian, bicyclist, and transit access) features that were informed by planning undertaken by the Santa Cruz County Regional Transportation Committee. The planning process included substantial public outreach, which

revealed that local residents are very much in favor of improved pedestrian and bicyclist access in the Felton area. The resulting plans from these efforts included the Highway 9/San Lorenzo Valley Complete Streets Corridor Plan (2019) and the San Lorenzo Valley Schools Access Study (July 2023). As proposed, the project would address these findings by including pedestrian improvements—specifically, installation of a sidewalk—along State Route 9 in front of the Cremer Hotel. The proposed sidewalk is in an area that is currently paved and is buffered from the hotel building by multiple parking spaces.

Caltrans District 5 cultural resources specialists do not anticipate that the proposed work would have the potential to adversely affect this historic building. A Finding of Effect document containing a Finding of No Adverse Effect was sent to the Caltrans Headquarters Cultural Studies Office and the California State Historic Preservation Officer for review in November 2024. A response (concurrence letter) is expected in early 2025.

Public access to the Cremer Hotel would be briefly impeded during sidewalk construction. However, with implementation of a minimization measure (see Avoidance, Minimization, and Mitigation Measures below), the project's effects on the Cremer Hotel satisfy the criteria for a de minimis finding under Section 4(f).

Avoidance, Minimization, and Mitigation Measures

Caltrans would implement the following minimization measure:

- Caltrans would require the project contractor to use standard construction traffic control measures, as outlined in the Transportation Management Plan, to allow for safe passage of motorists, bicyclists, pedestrians, and transit users to, from, and past the Cremer Hotel during the construction period.

Santa Cruz and Felton Railroad

As previously noted, the historic Santa Cruz and Felton Railroad (originally known as the San Lorenzo Railway) was not able to be evaluated for this project by Caltrans District 5 cultural resources specialists because of its large extent and presence at multiple locations. The railroad is therefore assumed to be eligible for inclusion in the National Register of Historic Places for the purposes of this project only. However, Caltrans cultural resources specialists do not anticipate that the proposed highway paving work near the railroad would adversely affect any of the character-defining features of this assumed-eligible property.

Because the proposed project would have limited potential to adversely impact the Santa Cruz and Felton Railroad, the project's effects on this resource satisfy the criteria for a de minimis finding under Section 4(f).

Avoidance, Minimization, and Mitigation Measures

None required.

Henry Cowell Redwoods State Park

Henry Cowell Redwoods State Park is a 4,650-acre public park established in 1954 in the Santa Cruz Mountains just south of Felton. The park is known for its natural beauty and high-quality wildlife habitat, including mixed evergreen and coast redwood forest, riparian areas, and sandhills. The park contains ample public recreational opportunities, including more than 20 miles of hiking and equestrian trails, camping, picnicking, swimming, and fishing, as well as a nature center.

As part of the proposed project's Complete Streets features, Caltrans would install a 5-foot-wide pedestrian path along North Big Trees Road, between the State Route 9/Redwood Drive intersection and Bridge Number 36P-0013 over the San Lorenzo River inside the park. The pedestrian path has been designed to avoid impacts to this bridge, which is listed as Category 5 in the Historic Bridge Inventory and was previously determined ineligible for the National Register of Historic Places.

The pedestrian path would begin as a raised concrete sidewalk with curb and gutter within the Caltrans right-of-way along State Route 9 and then, heading east, enter State Parks' right-of-way and transition via a curb ramp down onto the existing pavement. From the ramp to the bridge, the feature would be a walkway marked by striping on the pavement and pedestrian channelization devices to keep pedestrians and motorists separated.

Total length of the feature would be approximately 250 feet. Caltrans District 5 design staff have estimated that a total of 527 square feet of temporary construction easements would be required. Construction is estimated to take three days. During the construction period, public access to and from the park along North Big Trees Road would be temporarily impeded but would not be completely blocked. Refer below to Avoidance, Minimization, and Mitigation Measures.

Based on this information, the project's effects on public use of Henry Cowell Redwoods State Park satisfy the criteria for a de minimis finding under Section 4(f).

Avoidance, Minimization, and Mitigation Measures

Caltrans would implement the following minimization measures:

- Caltrans would require the project contractor to use standard construction traffic control measures, as outlined in the Transportation Management Plan, to minimize disruption to emergency services access and to allow for safe passage of motorists, bicyclists, pedestrians, and transit users to, from, and past public facilities, including the San Lorenzo Valley schools

complex, Henry Cowell Redwoods State Park, and other public facilities during the construction period.

- Caltrans would continue to coordinate with local officials throughout the project development phases to minimize disruption of public services and maintain access to public facilities such as the San Lorenzo Valley schools complex, Henry Cowell Redwoods State Park, and other local parks and recreational areas.

San Lorenzo Valley Unified School District Complex, 7105 Highway 9, Felton

The San Lorenzo Valley Unified School District complex at 7105 Highway 9, Felton, contains San Lorenzo Valley Elementary, Middle, and High Schools. The sports fields and other recreational facilities on the school district grounds are open to public use outside of instruction hours and during summer break.

As noted previously, planning efforts by the Santa Cruz County Regional Transportation Committee resulted in the Highway 9/San Lorenzo Valley Complete Streets Corridor Plan and the San Lorenzo Valley Schools Access Study. The latter studied improving the efficiency and safety of public access to the schools complex, which is a major center of activity in the largely rural Felton area. Based on the results of public outreach for the plan, the pedestrian, bicyclist, and transit improvements (shoulder/sidewalk improvements, bike lanes, new/improved transit stops and school driveway access) that were described in the plan and largely incorporated into the proposed project have strong support from the local community.

During construction, public access to and from the schools complex would temporarily be impeded but would not be completely blocked. Refer below to Avoidance, Minimization, and Mitigation Measures. Based on this information, the project's effects on public use of the San Lorenzo Valley Unified School District complex at 7105 Highway 9 in Felton satisfy the criteria for a de minimis finding under Section 4(f).

Avoidance, Minimization, and Mitigation Measures

Caltrans would implement the following minimization measures:

- Caltrans would require the project contractor to use standard construction traffic control measures, as outlined in the Transportation Management Plan, to minimize disruption to emergency services access and to allow for safe passage of motorists, bicyclists, pedestrians, and transit users to, from, and past public facilities, including the San Lorenzo Valley schools complex, Henry Cowell Redwoods State Park, and other public facilities during the construction period.

- Caltrans would continue to coordinate with local officials throughout the project development phases to minimize disruption of public services and maintain access to public facilities such as the San Lorenzo Valley

schools complex, Henry Cowell Redwoods State Park, and other local parks and recreational areas.

- To avoid disruption of public access to and use of the San Lorenzo Valley schools complex during the instructional year, Caltrans would require that cold planing within 215 feet of school buildings be prohibited while school is in session.

Resources Subject to the Provisions of Section 4(f)—No Use Determination

This section of the document lists parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties or, 4) the project does not permanently use the property and does not hinder the preservation of the property.

Based on criterion 4 above, the following public recreation resources, though located within the Section 4(f) study area, qualify for a determination of no use under Section 4(f):

- County of Santa Cruz—Felton Covered Bridge County Park
- County of Santa Cruz—Felton Discovery County Park
- County of Santa Cruz—The Cottage Community School (Playground)
- City of Santa Cruz—Pogonip Open Space
- City of Santa Cruz—Harvey West Park
- City of Santa Cruz—Santa Cruz Riverwalk
- University of California, Santa Cruz—Campus Natural Reserve trails

Appendix B Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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September 2023

NON-DISCRIMINATION POLICY STATEMENT

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

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To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
Director

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

Appendix C Avoidance, Minimization and/or Mitigation Summary

To be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated in the proposed Environmental Commitments Record which follows) would be implemented. During project design, avoidance, minimization, and/or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this Environmental Commitments Record are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following Environmental Commitments Record is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented.

Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this Environmental Commitments Record.

2.1.1 Aesthetics

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

VIS-2. Replant removed vegetation to the maximum extent feasible. Replacement planting would include aesthetic considerations as well as the inherent biological goals. Revegetation would include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architecture.

VIS-3. If vehicle pullouts are included in the project, they would not be paved.

VIS-4. All metal roadside elements including but not limited to guardrail, transitions, end treatments, and cable safety railing should be stained or darkened to be visually compatible with the setting. The color would be determined and approved by District 5 Landscape Architecture.

VIS-5. Railing and barriers would be open style to preserve views and reduce urban appearance.

VIS-6. Retaining walls, if needed and visible from the roadway, would be aesthetically treated to reduce the urbanizing effect and minimize potential

graffiti. The aesthetic treatment would be determined and approved by District 5 Landscape Architecture.

VIS-7. Pedestrian and vehicular infrastructure, such as pedestrian channeling devices, should be chosen to be visually compatible with a rural setting, for instance by using low-profile “armadillos” instead of tall, plastic bollards. Devices should be approved by Caltrans District 5 Landscape Architecture.

VIS-8. Drainage features such as headwalls, rock slope protection and down drains that are visible to the public should be stained or color-treated as directed by District 5 Landscape Architecture.

VIS-9. Community involvement is anticipated in the development of the aesthetic treatments. Colors and textures for pedestrian facilities, curb extensions or sidewalk paving, bus stop facilities, and railing types would be approved by District 5 Landscape Architecture in conjunction with Design.

VIS-10. Limit staging and storage areas to existing paved locations to the maximum extent feasible. Impacts within the dripline of redwood trees are not permissible.

VIS-11. Following construction, re-grade and re-contour all new construction staging areas, access roads and other uses to match the surrounding pre-project topography.

2.1.4 Biological Resources

BIO-1. Removal of mature redwood and California bay trees would be avoided to the greatest extent feasible.

BIO-2. (Compensatory Mitigation) Trees that may be removed would be replaced at a 1-to-1 ratio for temporary impacts or 3-to-1 ratio for permanent impacts (see also Measures BIO-11, BIO-55, BIO-59). No further mitigation would be required.

Jurisdictional Waters and Jurisdictional Areas

BIO-3. Prior to construction in jurisdictional areas, 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 Alternation Agreement from the California Department of Fish and Wildlife. All permit terms and conditions would be incorporated into construction plans and implemented.

BIO-4. Prior to construction, Caltrans shall prepare a Mitigation and Monitoring Plan addressing mitigation for impacts to jurisdictional areas that shall be consistent with federal and state regulatory requirements. The Mitigation and Monitoring Plan would be amended with any regulatory permit conditions, as required. Caltrans shall implement the Mitigation and

Monitoring Plan as necessary during construction and immediately following project completion.

BIO-5. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed around jurisdictional waters and the dripline of trees to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas shall be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-6. Construction activities in jurisdictional waters and temporary stream diversion 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 would be made only with permission from the relevant regulatory agencies.

BIO-7. 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.

BIO-8. During construction, temporary sediment control measures shall be implemented. Temporary fiber rolls and/or temporary large sediment barrier shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, sediment control measures shall be maintained daily by the contractor throughout the construction period.

BIO-9. During construction, the staging areas shall conform to Best Management Practices applicable to attaining zero discharge of stormwater runoff. 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.

BIO-10. Prior to the removal of the diversion, stream contours shall be restored as close as possible to their original condition.

BIO-11. (Compensatory Mitigation) Restoration (re-establishment) is proposed at a 1-to-1 ratio (acreage) for temporary impacts. Compensatory mitigation is proposed at a 3-to-1 ratio (acreage) for permanent impacts to jurisdictional areas. Replacement plantings would include appropriate native tree and understory species. To ensure success, post miles 3.60, 4.73, and 5.15 would require a one-year plant establishment period. Riparian trees that are removed would be replanted at a ratio of 3 to 1.

Invasive Species

BIO-12. During construction, Caltrans would ensure that the spread or introduction of invasive exotic plant species would be avoided to the maximum extent possible.

BIO-13. If the use of imported fill material is necessary, the imported material would be obtained from a source that is known to be free of invasive plant species; or the material would consist of purchased clean material such as crushed aggregate, sorted rock, or similar.

BIO-14. Due to the high concentration of invasive species in some of the Biological Study Area locations, to prevent the spread of invasive species, all vegetation removed from the construction site would be taken to a landfill, and if soil from weedy areas must be removed offsite, the top 6 inches containing the seed layer shall be disposed of at a landfill.

BIO-15. Project plans would 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.

BIO-16. Construction equipment shall be certified as "weed-free" by Caltrans before entering the construction site. If necessary, wash stations shall be established onsite for construction equipment under the guidance of Caltrans to avoid/minimize the spread of invasive plants and/or seed within the construction area.

Special-Status Plant Species

No avoidance, minimization, or mitigation measures relating to special-status plant species would be required for this project because no such species are expected to occur in the Biological Study Area.

Special-Status Animal Species

Monarch Butterfly

BIO-17. If feasible, eucalyptus tree removal or other disturbance of eucalyptus habitat would be avoided between November 1 and March 1 to avoid potential impacts to winter roosting monarch butterflies.

BIO-18. If construction activities are scheduled to impact suitable monarch butterfly overwintering habitat between November 1 and March 1, a qualified biologist shall conduct pre-construction surveys for overwintering monarch butterflies in appropriate habitat. Overwintering monarch butterfly surveys shall consist of a pre-construction survey prior to eucalyptus tree removal, with weekly surveys continuing thereafter until March 1. If no roosts are observed within the project site, then construction would be allowed to proceed.

BIO-19. If active roosts are observed, tree removal activities shall be delayed and an appropriate setback for other construction-related activities shall be maintained until monarch butterflies have migrated from the site. All tree removal shall be monitored and documented by the biological monitor(s) regardless of time of year.

Central California Coast Steelhead Trout

In addition to the measures listed above under "Jurisdictional Waters and Jurisdictional Areas," the following measures would serve to further avoid or minimize impacts to steelhead trout at post mile 4.73:

BIO-20. Prior to construction, Caltrans shall acquire incidental take authorization for steelhead trout from National Marine Fisheries Service through a Federal Endangered Species Act Section 7 Biological Opinion and Incidental Take Statement.

BIO-21. Prior to initiation of stream diversion/dewatering, a qualified biologist shall conduct an informal worker environmental training program including a description of steelhead trout, its 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 permit conditions.

BIO-22. During construction, in-stream work shall take place between June 1 and October 31 in any given year, when the surface water within drainages is likely to be dry or at seasonal minimum. Deviations from this work window would be made only with permission from Caltrans and the relevant regulatory/resource agencies.

BIO-23. During in-stream work, a Caltrans-approved biologist shall be retained with experience in steelhead trout biology and ecology, aquatic habitats, biological monitoring (including creek diversion/dewatering), and capturing, handling, and relocating fish species. During in-stream work, the biological monitor(s) shall continuously monitor placement and removal of any required stream diversions to capture stranded steelhead trout and other native fish species and relocate them to suitable habitat as appropriate. The biologist(s) shall capture steelhead trout stranded as a result of diversion/dewatering and relocate steelhead trout to suitable in-stream habitat outside of the work area, using methods approved by the appropriate regulatory agencies, which may include providing aerated water in buckets for transport and ensuring adequate water temperatures during transport. The biologist shall note the number of steelhead trout observed in the affected area, the number of steelhead trout relocated, and the date and time of the collection and relocation.

BIO-24. During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 3/32-inch (2.38 mm) wire mesh to prevent steelhead trout and other sensitive aquatic species from entering the pump system. Pumps shall release the additional water to a settling basin or tank, 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 shall be checked daily, to ensure a dry work environment and minimize adverse effects to aquatic species and habitats.

BIO-25. The biological monitor or a designated representative shall monitor erosion and sediment controls to identify and correct any conditions that could adversely affect steelhead trout or steelhead trout habitat.

BIO-26. Caltrans shall provide National Marine Fisheries Service a written summary of work performed (including biological survey and monitoring results), Best Management Practices implemented (i.e., use of biological monitor, flagging of project areas, erosion and sedimentation controls) and supporting photographs. The documentation describing listed species surveys and relocation efforts (if appropriate) shall include name(s) of the Caltrans-approved biologist(s), location and description of area surveyed, time and date of survey, all survey methods used, a list and tally of all sensitive animal species observed during the survey, a description of the instructions/recommendations given to the applicant during the project, and a detailed discussion of capture and relocation efforts (if appropriate).

BIO-27. Dewatering shall be limited to the low-flow period between June 1 and October 31, thus avoiding adult steelhead trout spawning migration and peak smolt emigration.

Central California Coast Coho Salmon

BIO-28. The avoidance and minimization efforts listed for steelhead trout in the preceding section would also serve to avoid and minimize impacts to coho salmon at post mile 4.73. In addition, an Incidental Take Permit for coho salmon would be obtained from the California Department of Fish and Wildlife. No additional measures for coho salmon are proposed.

California Red-legged Frog

In addition to the measures listed above under “Jurisdictional Waters and Jurisdictional Areas” and “Central California Coast Steelhead Trout Distinct Population Segment,” the following measures would serve to further avoid or minimize impacts to the California red-legged frog at post mile 4.73:

BIO-29. Only U.S. Fish and Wildlife Service-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

BIO-30. Ground disturbance shall not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.

BIO-31. A U.S. Fish and Wildlife Service-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are

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

BIO-32. Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

BIO-33. A U.S. Fish and Wildlife Service-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans shall designate a person to monitor onsite compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist shall ensure that this monitor receives the training outlined in measure BIO-32 above and in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the U.S. Fish and Wildlife Service during review of the proposed action, they shall notify the Resident Engineer immediately. The Resident Engineer shall resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, the U.S. Fish and Wildlife Service shall be notified as soon as possible.

BIO-34. During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

BIO-35. Without the express permission of the U.S. Fish and Wildlife Service, all refueling, maintenance and staging of equipment and vehicles shall occur at least 60 feet from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor 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.

BIO-36. Habitat contours shall be returned to a natural configuration at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless 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.

BIO-37. The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project. Environmentally Sensitive Areas shall be established to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

BIO-38. Caltrans shall attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

BIO-39. 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 Best Management Practices are ineffective, Caltrans shall attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

BIO-40. 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.

BIO-41. 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.

BIO-42. A U.S. Fish and Wildlife Service-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs, signal and red swamp crayfish, and centrarchid fishes (sunfish) from the project area to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist shall be responsible for ensuring his or her activities comply with the California Fish and Game Code.

BIO-43. If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

BIO-44. 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 Task Force shall be followed at all times.

BIO-45. 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. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

BIO-46. Caltrans shall not use herbicides as the primary method to control invasive, exotic plants. However, if it is determined that the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, Caltrans would implement the following additional protective measures for the California red-legged frog:

A. Caltrans shall not use herbicides during the breeding season for the California red-legged frog.

B. Caltrans shall conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged frogs shall be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur.

C. Giant reed and other invasive plants shall be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®.

D. Licensed and experienced Caltrans staff or a licensed and experienced contractor shall use a hand-held sprayer for foliar

application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site.

E. All precautions shall be taken to ensure that no herbicide is applied to native vegetation.

F. Herbicides shall not be applied on or near open water surfaces (no closer than 60 feet from open water).

G. Foliar applications of herbicide shall not occur when wind speeds are in excess of 3 miles per hour.

H. No herbicides shall be applied within 24 hours of forecasted rain.

I. Application of all herbicides shall be done by qualified Caltrans staff or contractors to ensure that overspray is minimized, that all application is made in accordance with the label recommendations, and with implementation of all required and reasonable safety measures. A safe dye shall be added to the mixture to visually denote treated sites. Application of herbicides shall be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.

J. All herbicides, fuels, lubricants, and equipment shall 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 shall ensure that a plan is in place for a prompt and effective response to accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO-47. 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. Caltrans shall include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation.

Santa Cruz Black Salamander

BIO-48. A pre-construction survey would be conducted by a Caltrans biologist 48 hours prior to the start of ground disturbance at locations with suitable Santa Cruz black salamander habitat.

BIO-49. If any individuals are found to be present, individuals would be relocated by a qualified biologist to a nearby location with suitable habitat.

California Giant Salamander

BIO-50. A pre-construction survey would be conducted by a Caltrans biologist 48 hours prior to the start of ground disturbance at locations with suitable California giant salamander habitat.

BIO-51. If any individuals are found to be present, individuals would be relocated by a qualified biologist to a nearby location with suitable habitat.

Cooper's Hawk and Other Nesting Birds

BIO-52. If feasible and regulatory approvals allow, all vegetation removal for this project would be scheduled to occur from October 1 to January 31, outside of the typical nesting bird season, to avoid potential impacts to nesting birds.

BIO-53. If vegetation removal or other construction activities are proposed to occur within 100 feet of potential nesting habitat during the nesting season (February 1 to September 30), a nesting bird survey would be conducted by a biologist determined qualified by Caltrans no more than three (3) days prior to construction. If an active nest is found, Caltrans 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 juveniles have fledged.

BIO-54. 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. Readily visible, species-specific, exclusion zones where nests must be avoided within 100 feet of disturbance shall be established by a qualified biologist using Environmentally Sensitive Area fencing. Work in exclusion zones shall be avoided until young birds have fledged (permanently left the nest) or the qualified biologist has determined that nesting activity has otherwise ceased.

BIO-55. (Compensatory Mitigation) As previously described, impacts to vegetation would be offset by replacement plantings within the project limits, which would also replace potential bird nesting habitat. An assemblage of native plant species would be replanted in coordination with Caltrans District 5 Landscape Architecture to facilitate bird nesting habitat replacement within the project limits. No additional compensatory mitigation is proposed.

Pallid Bat, Townsend's Big-eared Bat, and Hoary Bat

BIO-56. To the extent feasible, trees would be removed between October 1 and January 31 to avoid impacting bats during the critical maternity season and to ensure survival of first-year bats. Bats are not expected to be present in trees at this time because they typically use trees only in warm seasons. Trees do not typically have the thermal mass required for winter temperature mediation.

BIO-57. A qualified biologist shall conduct pre-construction surveys for bats species that could be using existing structures or trees for roosting habitat. If bats are identified as using areas within the Biological Study Area for day or night roosting, the qualified biologist shall identify the species of bat present. The biologist(s) conducting the pre-construction surveys shall also identify the nature of the bat use of the bridge (i.e., maternity roost, day roost, night roost).

BIO-58. If bat species are identified as roosting in areas that would be impacted, prior to construction, the applicant shall prepare a plan to exclude bat species from impact areas. This plan shall discuss methods of eliminating bat access to the identified roosting habitat prior to construction so that bats are not able to return to and occupy the roost. The appropriate timing for exclusion implementation shall be determined upon the species identified as occurring within the project site. Roost areas shall be surveyed by a qualified biologist prior to implementing exclusion methods to ensure that no bats are trapped within.

BIO-59. (Compensatory Mitigation) As previously described, impacts to vegetation would be offset by replacement plantings within the project limits, which would also replace in-kind bat roosting habitat. An assemblage of native plant species would be replanted in coordination with Caltrans District 5 Landscape Architecture to facilitate bat roosting habitat replacement within the project limits. If bats are found to be present during pre-construction surveys, compensatory mitigation may include the addition of bat boxes to new structures or incorporating features into structure design that would facilitate bat roosting. No additional compensatory mitigation is proposed.

Santa Cruz Kangaroo Rat

BIO-60. To avoid impacts to Santa Cruz kangaroo rats, pre-construction surveys for suitable burrows shall be conducted within and adjacent to the project area at post miles 3.60, 4.43, 4.67, 4.73, and 5.15. If active burrows are found within the project area, the biologist would flag the area to establish a 25-foot buffer around active burrows where work would not occur.

BIO-61. If burrows are present in a location that cannot be avoided by work activities, prior to starting work at this location, Caltrans biologists would deconstruct Santa Cruz kangaroo rat burrows during the nonbreeding season to minimize impacts to breeding success.

BIO-62. Observations of Santa Cruz kangaroo rats would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

North American Porcupine

BIO-63. To avoid impacts to the North American porcupine, pre-construction surveys for suitable denning habitat shall be conducted within and adjacent to the project area at post miles 3.60, 4.43, 4.67, 4.73, and 5.15. If active dens

are found within the project area, the biologist would flag the area to establish a 25-foot buffer around active dens where work would not occur.

BIO-64. Observations of North American porcupine would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

San Francisco Dusky-footed Woodrat

BIO-65. To avoid impacts to the San Francisco dusky-footed woodrat, pre-construction surveys for woodrat nests shall be conducted within and adjacent to the project area at post miles 3.60, 4.43, 4.67, 4.73, and 5.15. If active nests are found within the project area, the biologist would flag the area to establish a 25-foot buffer around active nests where work would not occur.

BIO-66. If nests are present in a location that cannot be avoided by work activities, prior to starting work at this location, Caltrans biologists would deconstruct woodrat nests during the nonbreeding season to minimize impacts to breeding success.

BIO-67. Observations of the San Francisco dusky-footed woodrat would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

2.1.5 Cultural Resources

CR-1. If previously unidentified cultural resources, or concerns pertaining to a known cultural resource, are identified during construction, it is Caltrans policy that work be halted until a qualified archaeologist can assess the significance of the finding/concern and recommend appropriate action.

CR-2. Caltrans would require the project contractor to use standard construction traffic control measures, as outlined in the Transportation Management Plan, to allow for safe passage of motorists, bicyclists, pedestrians, and transit users to, from, and past the Cremer Hotel during the construction period.

2.1.8 Greenhouse Gas Emissions

GHG-1. The construction contractor shall reduce construction waste and maximize the use of recycled materials, including but not limited to stockpiling pavement grindings for future use, salvaging rebar from demolished concrete, and processing waste to create usable fill (that is, crushing concrete for aggregate base).

GHG-2. The construction contractor shall operate construction equipment with improved fuel efficiency by:

- Properly tuning and maintaining equipment.
- Using the right-sized equipment for the job.
- Using solar-powered equipment.
- Using Tier 4 equipment (applicable for manufacturers that create fuel-efficient engines).
- Using alternative fuels such as renewable diesel.
- Producing hot mix asphalt with warm mix technology.
- Recycling of non-hazardous waste and excess materials to reduce the need for offsite disposal.

2.1.9 Hazards and Hazardous Materials

HAZ-1. Caltrans would require the project contractor to use standard construction traffic control measures, as outlined in the Transportation Management Plan, to minimize disruption to emergency services access during the construction period.

2.1.13 Noise

NOI-1. The District 5 Public Information Office shall publish notice of the proposed dates and duration of proposed construction activities and potential community impacts in local news media after receiving notice from the Resident Engineer.

NOI-2. The construction contractor shall notify affected sensitive receptors (residents and building managers within 500 feet of the proposed construction activities) at least two weeks in advance when construction noise and the upcoming activities are likely to produce an adverse noise environment. This notification shall be provided in written format and shall include contact information where affected persons can register noise complaints.

NOI-3. Prior to the onset of construction, the construction contractor shall develop a Noise Control Plan and submit it to Caltrans District 5 noise staff for review. This plan is to include, at a minimum, the following points:

- Whenever possible, construction work shall be done during the day.
- When nighttime construction is necessary, the construction activities that generate the greatest amount of noise shall be done as early in the evening as possible.

- The construction contractor shall shield loud pieces of stationary construction equipment with sound barriers if complaints are received from the public.

- The construction contractor shall locate portable generators, air compressors, etc., away from sensitive noise receptors as feasible.

- The construction contractor shall limit grouping major pieces of equipment operating in one area to the greatest extent feasible.

- The construction contractor shall use newer equipment that is quieter and ensure that all equipment items have the manufacturers' recommended noise abatement features, such as mufflers, engine covers, and engine vibration isolators intact and operational. Internal combustion engines used for any purpose on or related to the job shall be equipped with a muffler or baffle of a type recommended by the manufacturer.

- The construction contractor shall provide Caltrans with a list of affected sensitive receptors (see NOI-2).

- If noise complaints are received from the public during the construction process, the construction contractor shall notify the Resident Engineer, who will consult with the Environmental Construction Liaison and District 5 noise staff to determine appropriate steps to alleviate noise-related concerns. See also measure NOI-4.

NOI-4. (Compensatory Mitigation) Residents affected by anticipated nighttime cold planing shall be offered noise canceling headphones or hotel vouchers if requested. The construction contractor shall purchase noise canceling headphones prior to onset of construction, and these should be provided as the first line of noise reduction measures for affected residents. For temporary accommodation, the State will need to approve the number of nights and verify that the resident is on the list of affected sensitive receptors in the Noise Control Plan. Affected residents will be reimbursed at the State rate.

NOI-5. Cold planing within 215 feet of San Lorenzo Valley Unified School District buildings at 7105 State Route 9 in Felton shall be prohibited while school is in session.

2.1.15 Public Services

PS-1. Caltrans would require the project contractor to use standard construction traffic control measures, as outlined in the Transportation Management Plan, to minimize disruption to emergency services access and to allow for safe passage of motorists, bicyclists, pedestrians, and transit users to, from, and past public facilities, including the San Lorenzo Valley schools complex, Henry Cowell Redwoods State Park, and other public facilities during the construction period.

PS-2. Caltrans would continue to coordinate with local officials throughout the project development phases to minimize disruption of public services and maintain access to public facilities such as the San Lorenzo Valley schools complex, Henry Cowell Redwoods State Park, and other local parks and recreational areas.

PS-3. To avoid disruption of public access to the San Lorenzo Valley schools complex during the instructional year, Caltrans would require that the project contractor complete construction work between Graham Hill Road and El Solyo Heights Drive during the period when school is out for summer break (approximately early June to early August).

List of Technical Studies Bound Separately (Volume 2)

The following technical studies were used in the preparation of this document:

Air Quality, Greenhouse Gas, Water Quality, and Noise Technical Memo, San Lorenzo Valley Capital Preventive Maintenance (CAPM) Project (October 18, 2024)

Climate Change Technical Report, South Santa Cruz 9 Capital Preventive Maintenance (CAPM) Project (July 2024)

0-Phase Initial Site Assessment, 05-1K890, Highway 9/San Lorenzo Valley CAPM (March 8, 2024)

Historic Properties Survey Report for the Lower San Lorenzo Valley CAPM Project, including Archaeological Survey Report (January 2024)

Cultural Resources Memo for the South Santa Cruz Highway 9 CAPM Project (May 16, 2024)

South Santa Cruz Capital Preventive Maintenance Project - Natural Environment Study (December 2024)

Paleontological Identification Report, EA 05-1K890, Highway 9/San Lorenzo Valley CAPM (March 13, 2024)

Visual Impact Assessment of the Proposed Santa Cruz Route 9 Felton CAPM (December 16, 2024)

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

Matt Fowler
Environmental Branch Chief, District 5
California Department of Transportation
50 Higuera Street, San Luis Obispo, California 93401

Or send your request via email to: SR9_SantaCruzCAPM@dot.ca.gov
Or call: 805-779-0793

Please provide the following information in your request:

Project Title: South Santa Cruz 9 Capital Preventive Maintenance (CAPM)
General location information: Roadway and drainage rehabilitation within an approximately 7.5-mile long section of State Route 9 in Santa Cruz County from Santa Cruz to Felton
District number-county code-route-post mile: 05-SCR-009-PM 0.046/7.500
Project Number: 0519000036/EA: 05-1K890