

State Route-118 Slope Restoration Project

VENTURA COUNTY, CALIFORNIA
DISTRICT 7 – VEN – 118 (PM 11.97-13.40)
EA: 36970/ EFIS: 0720000023

Initial Study with Proposed Mitigated Negative Declaration



Prepared by the
State of California, Department of Transportation



Caltrans

August 2020

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State Route-118 Slope Restoration Project

**INITIAL STUDY WITH PROPOSED MITIGATED
NEGATIVE DECLARATION**

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

**THE STATE OF CALIFORNIA
Department of Transportation
CEQA Lead Agency**

**Responsible Agencies: California Transportation Commission,
California Department of Fish and Wildlife, Regional Water Quality Control
Board**

Aug 14, 2020

Date of Approval

**Deputy District Director
District 7, Division of Environmental Planning
California Department of Transportation**

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PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

This project proposes to restore damaged slopes along both directions of State Route-118 (SR-118) from Sand Canyon Road to 0.2 mile east of Balcom Canyon Road in Ventura County. The slope along the right shoulder of the eastbound (EB) direction is a cut slope leading to the Union Pacific Railroad (UPRR) tracks which run parallel and beneath the SR-118 roadway. In the westbound (WB) direction, slope is cut at the southern bank of an existing channel. The work in the EB direction includes constructing soldier pile walls and concrete barriers on moment slabs, paying dirt shoulders, spanning an existing culver crossing under SR-118 (Long Canyon Creek Bridge) to match the continuous width shoulder at the soldier pile walls, constructing Hot Mix Asphalt (HMA) dikes and upgrading the existing Metal Beam Guard Rail (MBGR) to new standard Midwest Guardrail System (MGS). All features are designed to channel the water away from the cut slope of the UPRR tracks. The work in the WB direction includes placing concreted rock slope protection to repair severe erosion along an existing drainage channel bank.

Determination

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

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

The proposed project would have no effect on Aesthetics, Air Quality, Cultural Resources, Land Use and Energy, Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreations, Tribal Cultural Resources, and Wildfire.

In addition, the proposed project would have less than significant effects to Agricultural and Forest Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Transportation, and Utilities and Service Systems.

With the following mitigation measures incorporated, the proposed project would have less than significant effects to Biological Resources:

BIO-4: If impacts to the California black walnut habitat cannot be avoided, Caltrans is proposing off-site mitigation. Due to the heavily disturbed nature of the habitat area, it will be mitigated at a 1:1 ratio or 5000 sq. ft. of California black walnut habitat with an appropriate nearby conservancy, bank or in-leu-fee (ILF).

Ronald Kosinski
Deputy District Director
District 7, Division of Environmental Planning
California Department of Transportation

Date

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Chapter 1 - Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is proposing to permanently restore and repair the damage caused by past storms along both directions of State Route 118 (SR-118) from Sand Canyon Road to 0.2 mile east of Balcom Canyon Road in Ventura County (see Figure 1). Caltrans is the lead agency under the California Environmental Quality Act (CEQA). After the public circulation period, all comments will be considered, and Caltrans will select a preferred alternative and make the final determination of the project's effect on the environment.

Existing Facilities

SR-118 is an east/west corridor that provides scenic, commuter and commercial travel through an urban and rural corridor. It has two distinguishable sections, which connect at the intersection with SR-23. The western section of SR-118 goes through the more rural areas of Ventura County with farming lands on both side of the road. SR-118 begins at an intersection with SR-126 in Ventura at Wells Road and heads southeast, crossing the Santa Clara River at Los Angeles Avenue and intersecting SR-23 to unincorporated Ventura County. The highway continues southeast before intersecting Santa Clara Avenue, where Los Angeles Avenue turns east and passes north of Camarillo. In the community of Somis, SR-118 intersects SR-34. The road continues into Moorpark, where it intersects SR-23 and runs concurrently with that road.

The project site is a two-lane State Route located between Balcom Canyon Road and Sand Canyon, in the community of Somis, in the unincorporated area of Ventura County. On both sides along the SR-118, the area is used for agricultural purposes, wholesale nursery, and botanical gardens. The slope along the right shoulder of the road is the Union Pacific Railroad (UPRR) which runs parallel on east bound SR-118. In the west bound direction, the slope is the southern bank of an existing water channel.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the proposed project is to permanently restore and repair the damaged slope caused by past storms and to protect existing slopes within the project limit from future distress.

1.2.2 Need

The need for the proposed project is based on several storms starting December 2016 that resulted in heavy runoff causing severe erosion of the slopes on both sides of SR-118. The proposed project area is prone to slope erosion and needs permanent measures that will maintain the continuity of the route.

The existing roadway conditions allow heavy runoff for water to flow onto the cut slopes, which causes major erosion and undermines the edge of the roadway. The damage has undermined the existing shoulder of the road and guardrail posts resulting in tension cracks on the cut slopes.

Since 2016, the drainage on the eastbound side of SR-118 has further deteriorated as a result of additional heavy storms that have occurred during this elapsed period.

Project Location Map

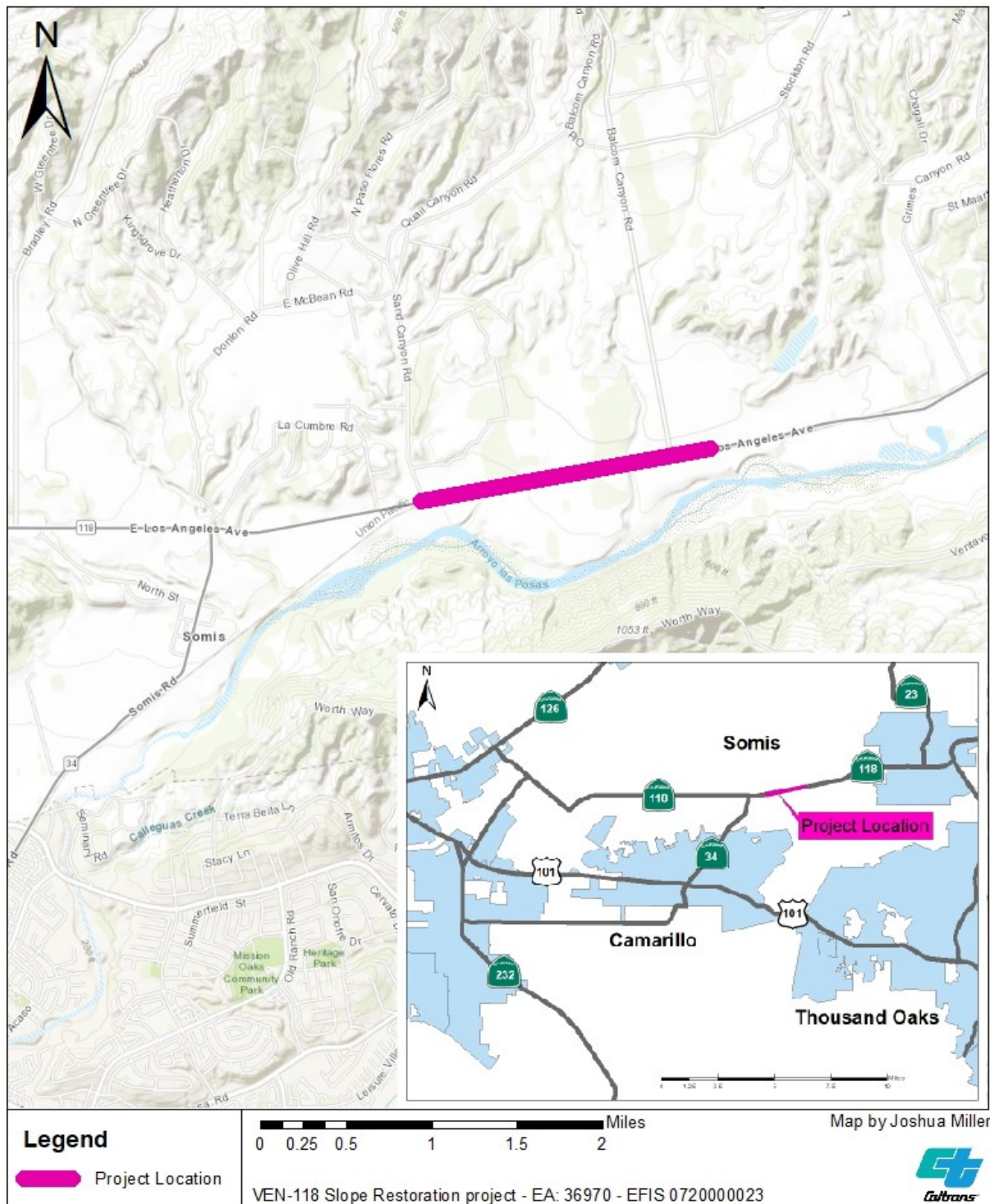


Figure 1: Project Location Map

1.3 Project Description

This section describes the proposed action developed to meet the purpose and need of the project, while avoiding or minimizing environmental impacts. There are two alternatives proposed for this project, including the Build Alternative and the No-Build Alternative.

1.3.1 Build Alternative

The Build Alternative proposes to permanently restore the slope damage along both directions of SR-118 from Sand Canyon Road to 0.2 east of Balcom Canyon Road in Ventura County (PM 11.97 to PM 13.40). The work in the eastbound direction includes constructing concrete barriers on slabs, and paving dirt shoulders; all features are to channel the water away from the slopes. The work in the westbound direction includes placing rock slopes protection along an existing drainage channel. The project will also upgrade the existing metal beam guard rail to the new Midwest Guardrail System.

The proposed improvements include the following:

- Construct several segments of soldier pile walls where necessary to retain the roadway embankment along the south State right-of-way line and prevent further erosion of the slopes on to railroad right-of-way.
- Construct new drainage systems to divert the sheet flow to new drainage inlets connected to new stormwater drainage pipes that will collect the runoff and deliver it to existing drainage channels within the project limits.
- Restore the existing eroded channel bank by constructing concreted rock slope protection (1/4-ton rock) along the north State right-of-way line.
- Construct a concrete barrier at the top of the soldier pile walls at the south right-of-way line. This specially designed barrier includes a reinforced concrete moment slab for structural stability of the barrier. The slab is designed to extend into the shoulder as part of the paved roadway.
- Construct specially designed concrete barriers on the existing grade with identical moment slabs for continuity and to fill the gaps between the proposed concrete barrier segments of the soldier pilewalls above.
- Remove the existing Metal Beam Guard Rail (MBGR) and existing Hot Mix Asphalt shoulder pavement to the edge of traveled way. New Hot Mix Asphalt (HMA) shoulder paving will be constructed in their place, thus constructing a new shoulder from the existing edge of traveled way to the new concrete barriers for a new shoulder width that will vary from 13.5 feet to 15.5 feet.

- Maintain slope consistency between 2% to 5%, per Caltrans' Highway Design Manual. The SR-118 traveled way is crowned between the eastbound and westbound lanes. The existing cross slope of the travel lanes is approximately 2% away from the crown and the existing shoulders are sloped at approximately 5% away from the lanes. At these new eastbound shoulders, the cross slope proposed is a standard 2% away from the traveled way.
- Extend the culvert to provide a continuous width eastbound shoulder at the Long Canyon Creek Bridge (Bridge No. 52-0051).
- Remove and upgrade to current standard Midwest Guardrail System (MGS) along the eastbound side of SR-118 within the project limits, and the remaining existing MBGR outside of the concrete barriers.
- Construct new HMA dike under the proposed MGS to channel the roadway sheet flow away from the embankment slopes along the eastbound side of SR-118.
- Implement soil stabilization measures such as hydroseeding where recommended by the engineer to stabilize the slopes on both directions of SR-118.



Figure 2: SR-118 Slope Erosion



Figure 3: Channel Conditions



Figure 4: Culvert



Figure 5: Shoulder Erosion



Figure 6: MBGR Damage

1.3.2 No-Build Alternative

There will be no changes made to the existing SR-118 project site under the No-Build Alternative. The No-Build Alternative will not restore the existing damage (Figure 2, 3, 5, & 6) to the eroded slopes or permanently address slope erosion. The conditions of the slopes will continue to degrade and will negatively impact the roadway conditions and public safety.

1.4 Permits and Approvals Needed

The following permits and approval will be required at all locations, except where noted.

Table 1 Permits and Approvals

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	1600 Lake or Streambed Alteration Agreement	Application for 1600 permit to occur after Final Environmental Document (FED) approval and during the design phase.
Regional Water Quality Control Board	Section 401 Water Quality Certification	Application for Section 401 permit to occur after FED approval and during the design phase.
United States Army Corps of Engineers	Nationwide Permit (NWP) under Section 404 of the Clean Water Act	Application for NWP under Section 404 to occur after FED approval and during the design phase.
Ventura County Resource Management Agency	Ministerial Tree Permit	Application for Ministerial Tree permit to occur after FED approval and during the design phase.
California Transportation Commission	CTC vote to approve funds	Following the approval of the FED, the California Transportation Commission will be required to vote to approve funding for the project.

1.5 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. A separate environmental documentation, supporting a Categorical Exclusion (CE) determination, will be prepared in accordance with the National Environmental Policy Act in tandem with the Final Environmental Document. The project qualifies for a CE under CE Assignment 23 USC 326. 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—in other words, species protected by the Federal Endangered Species Act).

Chapter 2 – Environmental Factors

2.1 Introduction

The environmental factors checked below would be potentially affected by this project. Please see the checklist below for additional information regarding affected factors.

Aesthetics	<input type="checkbox"/>	Greenhouse Gas Emissions	<input checked="" type="checkbox"/>	Public Services	<input type="checkbox"/>
Agricultural and Forest Resources	<input checked="" type="checkbox"/>	Hazards and Hazardous Materials	<input checked="" type="checkbox"/>	Recreation	<input type="checkbox"/>
Air Quality	<input type="checkbox"/>	Hydrology and Water Quality	<input checked="" type="checkbox"/>	Tribal Cultural Resources	<input type="checkbox"/>
Biological Resources	<input checked="" type="checkbox"/>	Land Use and Planning	<input type="checkbox"/>	Transportation	<input checked="" type="checkbox"/>
Cultural Resources	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Utilities and Service Systems	<input checked="" type="checkbox"/>
Energy	<input type="checkbox"/>	Noise	<input type="checkbox"/>	Wildfire	<input type="checkbox"/>
Geology and Soils	<input checked="" type="checkbox"/>	Population and Housing	<input type="checkbox"/>	Mandatory Findings of Significance	<input checked="" type="checkbox"/>

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the project indicate no impacts. A NO IMPACT answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

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

2.1 Aesthetics

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEOA Significance Determinations

A Visual Impact Analysis (VIA) Checklist was completed for this project on April 30, 2020. The analysis determined that the project would create no noticeable visual changes to the environment.

a) Have a substantial adverse effect on a scenic vista?

No Impact – SR-118, from SR-126 in Saticoy to the intersection with SR-23 in Moorpark, is not designated as a Scenic Highway. There are no scenic vistas within this stretch of road that would be affected by the proposed project.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact – The proposed project will involve the clearing and grubbing of minor vegetation and will require tree removal. Due to the highly disturbed habitat in the adjacent farmlands, the existing roadside trees and vegetation are commonplace along this portion of SR-118, and therefore not considered scenic resources. There are no historic buildings within the project area that could potentially be affected by this project.

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

No Impact – The proposed project features are not visually imposing, nor are they substantially different from existing conditions on SR-118. The proposed project will result in no change to the existing visual character or quality of public view of the site and its surroundings.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact - The proposed project does not include the construction of additional lighting. Should the project require night-time construction, temporary lighting will be used. This lighting will not remain post-construction and does have the potential to permanently affect nighttime views.

2.2 Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. 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.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, 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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Regulatory Setting

The California Environmental Quality Act (CEQA) requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

Impacts to timberland are analyzed as required by the California Timberland Productivity Act of 1982 (CA Government Code Sections 51100 et seq.), which was enacted to preserve forest resources. Similar to the Williamson Act, this program gives landowners tax incentives to keep their land in timber production. Contracts involving Timber Production Zones (TPZs) are on 10-year cycles. Although state highways are exempt from provisions of the Act, the California Secretary of Resources and the local governing body are notified in writing if new or additional right-of-way from a TPZ will be required for a transportation project.

CEQA Significance Determinations

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?

Less Than Significant Impact - According to the Farmland Mapping Monitoring Program of the California Resources Agency, the project area lies within a mix of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. The proposed project does not require the right-of-way acquisition of any farmland and does not threaten the conversion of any farmland to non-agricultural use. The project will require right-of-way acquisitions on parcels for temporary construction easements (TCEs) and permanent drainage easements (PDEs) in order to construct slope stabilization and drainage features. Easements can be defined as the legal right to use another's land or property for a specific limited purpose. After the completion of the Environmental Document and Project Approval and during Final Design phase, Caltrans Right-of-Way Appraisal staff will contact the grantors and determine just compensation based on the right-of-way requirements.

Temporary Construction Easements (TCEs) – TCEs allow the Grantee access to land outside of their right-of-way to do all things reasonably necessary to construct and install project features

for a time limited to construction. The proposed project will require TCEs for the purpose of maneuvering equipment and accessing drainages. Upon the completion of the project, any land used as a TCE would be returned to its original or better condition prior to the return of that land to the original owner. The project's TCEs would be located on the agricultural land surrounding either side of SR-118 in the project area and on the railroad system south of SR-118. Should UPRR agree to give Caltrans a TCE, Caltrans plans to grade the slope on the side of the railroad. And upon completion, Caltrans will return it to its original or better condition.

Permanent Drainage Easements (PDEs) – PDEs provide access to land outside of the Grantee's right-of-way for the construction and maintenance of a project feature. The proposed project requires a PDE to install Rock Slope Protection in the agricultural channel running adjacent to SR-118 within the project area. The PDE does not require the acquisition of the farmland surrounding the project area and will not change the use or function of the agricultural channel.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact – The proposed project does not include the permanent acquisition of farmland or open space and will not conflict with existing zoning for agricultural use or properties represented by the Williamson Act.

c) Conflict with existing zoning for, 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))?

d) Result in the loss of forest land or conversion of forest land to non-forest use?

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?

c), d), and e) No Impact – The purpose of the proposed project is to repair and fortify existing facilities. The project does not conflict with existing zoning for, or cause rezoning of forestland, timberland or timberland zoned Timberland Production. No forest land will be lost or converted to non-forest use. The project will not involve other changes to the existing environment that could result in conversion of farmland, to non-agricultural use or conversion of forestland to non-forest use. Therefore, there is no potential for impacts.

Avoidance, Minimization, and/or Mitigation Measures

AFR-1: Upon the completion of the project, any land used as a TCE would be returned to its original or better condition prior to the return of that land to the original owner.

2.3 Air Quality

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

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations

The following information was derived from an Air Quality Review, dated January 3, 2020, completed by Caltrans' Air Quality Branch in the Office of Environmental Engineering. The review was updated June 9, 2020.

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact - The proposed project is located in Ventura County and is within the boundary of the South Central Coast Air Basin (SCCAB) and within the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD). This project will comply with all VCAPCD policies and regulations as applicable and appropriate and will not conflict with or obstruct the implementation of its air quality plan.

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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

No Impact - The proposed project is located in Ventura County, which is in a federal attainment area for PM2.5 and PM10. The proposed project is exempt from the conformity requirements per 40 CFR 93.126 and it is a type of project that is not anticipated to involve a significant number or result in an increase in the number of diesel vehicles or increase in vehicle idling. It is expected to have a neutral influence on PM10 and PM2.5 emissions; and thus, is not anticipated to be of air quality concern for PM10 and PM2.5. It is unlikely to result in adverse impacts to ambient PM10 and PM2.5. The proposed project will not increase the capacity of the roadway and is not anticipated to result in any meaningful changes to traffic volumes, vehicle mix, location of the existing facility, or any other factors that would cause an increase in mobile source air toxic (MSAT) emissions impacts relative to the no-build alternative.

c) Expose sensitive receptors to substantial pollutant concentrations?

No Impact – Caltrans' Air Quality Branch has identified no sensitive receptors that could be impacted by the project's scope and undertaking.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No Impact - Objectionable odors would be mainly related to operation of diesel-powered equipment and off gas emissions during road-building activities, such as paving and asphaltting. VCAPCD Rule 74.2 (Architectural Coating) limits the amount of VOC emissions from paving, asphalt, concrete curing, and cement coatings operations. Construction of the proposed project shall comply with all applicable APCD Rules. While construction equipment on site may generate some objectionable odors primarily arising from diesel exhaust, these emissions would generally be limited to the project site and would be temporary in nature.

Avoidance, Minimization, and/or Mitigation Measures

AQ-1: Objectionable odors should also be minimized by conducting certain construction activities in areas at least 500 feet from the sensitive receptors as feasible.

2.4 Biological Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

The California Endangered Species Act (CESA) emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The CDFW is the agency responsible for implementing CESA. Section 2080 of the California Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both Federal Endangered Species Act (FESA) and CESA requiring a Biological Opinion under Section 7 of FESA, the CDFW may also authorize

impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs) and the CDFW. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for more details.

Environmental Setting

A Natural Environment Study (Minimal Impacts) was completed for this project on April 21, 2020. Information gathered for this study include review of the project description, the United States Geological Surveys Quad Map Layer on Google Earth (Moorpark Quad), IPAC Trust Resource Report of the Project Area, National Marine Fisheries Service Species list, and California Natural Diversity Data Base search (CNDDDB). Field surveys were conducted by Caltrans Biologists on September 19, 2019. A California Natural Diversity Database list, US Fish and Wildlife Service Species List, and NOAA Fisheries Species List were all generated for this project on April 20, 2020.

The study area is within Caltrans right-of-way. On the south side of SR-118, the project area is a heavily disturbed shoulder area between the highway and the adjacent railroad line. On the north side of the roadway, the project limits are the shoulder and an adjacent heavily disturbed agricultural channel that travels parallel to the roadway for approximately 1800 linear feet before crossing under the roadway and railroad at PM 12.00. This channel often has seasonal flow as well as incidental run off from the adjacent agriculture. The agricultural channel is considered Waters of the U.S. and is under the jurisdiction of USACE. Adjacent land use is largely agricultural and rural business/residential.

Habitat within the project footprint is primarily ruderal with a small amount of degraded mulefat riparian scrub. Some willow and black walnut trees are also present within the agricultural channel.

CEOA Significance Determinations

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 Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact – There is very little potential that the proposed project will impact habitat, 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 Game or U.S. Fish and Wildlife Service. A search of the California Natural Diversity Database (CNDDB) identified 39 candidate, sensitive, or special status animal species that could potentially occur within the study area. Habitat for 37 of the species do not occur within the project area.

Habitat for the California legless lizard and the San Bernardino ringneck snake were present in the project study area. However, both species were not observed during protocol surveys and are not expected to be present during construction. Special status plant species were also absent from the project study area and are not expected to be present due to the previously disturbed nature of the project area. Standard avoidance and minimization measures will be incorporated to reduce any potential impacts to special status species to the extent feasible.

Avoidance, Minimization and/or Mitigation Measures

BIO-1: All appropriate storm water BMPs shall be utilized to prevent construction materials from leaving the construction zone.

BIO-2: Vegetation removal should be done outside of the nesting bird season, however should vegetation removal be required between the Feb. 1st – Sept. 1st Migratory Nesting Bird Season, pre-construction surveys for active nests must be conducted prior to any vegetation removal. Should active nests be found, all work must halt within 150 feet (500' for Raptors).

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 US Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated - The California Natural Diversity Database (CNDDB) identified Southern Coast Live Oak Riparian Forest, Southern Riparian Scrub and Southern Willow as potential Habitats of Special Concern that could occur within the project area. A small stand of 4000 sq. ft. (200 ft. by 20 ft.) of mixed California black walnut (*Juglans californica*) is within the man-made agricultural channel with some additional isolated California black walnut trees spread throughout the rest of the channel that total approximately 1000 sq. ft. This is one of the primary constituent species of the CDFW Habitat of Special Concern Willow/Walnut Riparian Forest. The narrow structure of the channel between the

highway and the agricultural uses and with mulefat being the dominant species throughout much of the stand limit the potential value of the habitat.

The proposed project has the potential to trim or remove several California black walnut trees, which are part of the local riparian habitat. Approximately 5000 sq. ft. (~ 0.1 Acre) of California black walnut may be removed.

With the incorporation of the following avoidance, minimization, and mitigation measures, the level of impact would be reduced to less than significant.

Avoidance, Minimization, and/or Mitigation Measures

BIO-3: Work within the 200 linear feet of the agricultural channel with California black walnut (*Juglans californica*) present should be limited to the roadway embankment and should avoid the channel bottom or opposite bank of the channel.

BIO-4: If impacts to the California black walnut habitat cannot be avoided, Caltrans is proposing off-site mitigation. Due to the heavily disturbed nature of the habitat area, it will be mitigated at a 1:1 ratio or 5000 sq. ft. of California black walnut habitat with an appropriate nearby conservancy, bank or in-lieu-fee (ILF).

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant – The proposed project will install concreted rock slope protection on north side off SR-118 within the agricultural drainage channel along the roadway. This design feature is not expected to have a substantial impact to the drainage as it is not altering the use or function of the channel, and no hydrological interruptions are anticipated.

The agricultural drainage channel along the north side of SR-118 has been classified as Waters of the State and as Waters of the U.S due to the fact that a natural channel used to exist in the area prior to the conversion to agricultural land.

As sections of the proposed project fall within Clean Water Act (CWA) Section 404 and 401 jurisdictions, as well as California Department of Fish and Wildlife Code Section 1600 jurisdiction, further consultation will occur during the acquisition of permits from the Army Corps of Engineers, California Regional Water Quality Control Board, and California Department of Fish and Wildlife. Any avoidance, minimization, and/or mitigation measures these jurisdictional agencies propose would be included in the Environmental Commitments Record during the final design phase.

Avoidance, Minimization, and/or Mitigation Measures

BIO-5: During the design phase, permits from all jurisdictional agencies must be acquired. All measures must be explored to minimize effects on wetlands.

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 – The proposed project is located on a rural two-lane highway with heavy traffic patterns and a high amount of truck traffic during peak hours. A wildlife crossing ramp was recently installed in the project limits to enhance wildlife connectivity. The proposed project would not alter or obstruct this wildlife ramp. Construction of the proposed project would not increase traffic patterns or include any type of barrier structure that could impede wildlife movement and there are no wildlife nursery sites in the area that could be affected by construction activities. Therefore, the proposed project is not expected to impede wildlife connectivity or migratory fish.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant – The proposed project has the potential to trim or remove several California black walnut trees. Caltrans will comply with the Ventura County Tree Protection Ordinance in order to reduce impacts to less than significant.

Avoidance, Minimization, and/or Mitigation Measures

BIO-6: Caltrans will comply with the Ventura County Tree Protection Ordinance and permit conditions.

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 – The proposed project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

2.5 Cultural Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as “unique” archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1

(j). In 2014, Assembly Bill 52 (AB 52) added the term “tribal cultural resources” to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

Environmental Setting

The information in this section is based on an Archaeological Survey Report (ASR) prepared for this project completed in April 2020. Methods used to complete the technical studies included defining the Area of Potential Effects (APE), conducting a records search of the California

Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC), reviewing other pertinent cultural resources documentation, reviewing historical information, contacting the Native American Heritage Commission (NAHC) and consulting with interested Native Americans, conducting archaeological and built environment field surveys, and analyzing the results in the technical documentation.

The records search, background study, Native American consultation efforts, and field surveys have determined that there are no cultural resources within or adjacent to the project site. The surface of the APE has been previously disturbed by agriculture, transportation-related infrastructure, utility installation, and deposition of fill soils. In addition, Long Canyon Creek Bridge (Bridge No. 52-0051) is identified as a Category 5 bridge, meaning that it is ineligible for inclusion in the National Register of Historic Places (NRHP).

CEQA Significance Determinations

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact – The proposed project would not cause a substantial adverse change in significance of a historical resource as defined in §15064.5.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

No Impact – The proposed project would not cause a substantial adverse change in significance of an archaeological resource pursuant to §15064.5.

c) Disturb any human remains, including those interred outside of formal cemeteries?

No Impact – No human remains are known to exist within the project APE. Therefore, construction of the Build Alternative would not impact known human remains. If human remains are exposed during construction, standard measures require compliance with State Health and Safety Code Section 7050.5, which states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains and that the Ventura County Coroner shall be contacted.

Avoidance, Minimization, and/or Mitigation Measures

CUL-1: If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

- CUL-2:** If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Claudia Harbert, District Environmental Branch - Cultural Resources so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.
- CUL-3:** All Native American representatives listed on the NAHC's contact list for the project shall be notified of any unanticipated discoveries during project construction so that they may have an opportunity to consult on treatment measures.

2.6 Energy

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact – The proposed project does not negatively impact the area with an unnecessary consumption of energy resources, during project construction or operation. A further discussion of energy reduction strategies can be found in Chapter 2.8: Greenhouse Gas Emissions, and Chapter 3: Climate Change. The proposed project will not result in change to the existing traffic patterns or capacity of SR-118, and it would not impact the use of energy resources post-construction.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact – The proposed project does not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

2.7 Geology and Soils

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

This section describes geologic, soils, and seismic conditions near the project area; an analysis of potential environmental impacts of the project alternatives on these conditions and potential impacts of geotechnical conditions on the transportation facility is also included. This section assesses potential impacts from faulting, seismicity, and liquefaction to the proposed project. The geologic and geotechnical conditions and subsequent conclusions presented in this section are based on the following studies: Structure Preliminary Geotechnical Report (Caltrans, 2019), District Preliminary Geotechnical Report (Caltrans, 2019), Preliminary Foundation Report (Caltrans, 2020), and the Preliminary Geotechnical Design Report (Caltrans, 2020).

Regional Geology

The project is located in the Arroyo Las Posas lowland area, between the Oak Ridge Mountains and the Los Posas Hills, within the Transverse Ranges geomorphic province. The Transverse Ranges Province is characterized by east-west trending mountain ranges unlike most of the other mountain ranges in California, which parallel the northwest-southeast trending San Andreas Fault.

Site Geology

The material exposed at the sides of the road embankment appear to be reworked soils. This area has been mapped as Quaternary alluvium, which is composed of silt, sand, and gravel of valley and floodplain areas (Dibblee, 1992). Per the Soil Survey Map of Ventura County by the United States Department of Agriculture, Natural Resources Conservation Service (USDA, NRCS), the project site soils appear to be primarily classified as a NRCS Hydrologic Soil Group C: "Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission."

Subsurface Conditions

Based on the investigations performed in 1998 and 2019, the subsurface conditions encountered to the maximum depth of exploration (about 70 feet) along the entire project consist of

interbedded coarse and fine grained soils of varying thickness. In general, loose to medium dense silty and clayey sand interbedded with sandy silt and lean clay with sand were encountered from the roadway ground surface to a depth of about 30 feet. Below 30 feet depth, the coarse-grained material becomes medium dense to very dense with some well to poorly-graded sands and gravels encountered.

Groundwater

Groundwater was not encountered in any of the test borings drilled during the 2019 subsurface investigation for this project. The 1998 Log of Test Borings (LOTBs) indicates groundwater was not encountered at the terminal depths of the borings (approximately 70 feet). Groundwater was mapped by the California Geological Survey (CGS) and depths within the project area ranged from approximately 30 feet below the ground surface (bgs) to over 40 feet bgs (CGS, 2000).

Existing groundwater levels are not expected to be impacted by this project. Localized perched groundwater may exist within this area during a heavy rainy season; however, perched water would likely exist below the bottom of the embankment and not within the roadway embankment. The roadway asphalt acts as a cap, limiting stormwater infiltration from the top of the embankment, and most stormwater infiltration will likely occur at the base of the embankment where a farming ditch exists, where Long Canyon Creek crosses the highway, or where the railroad track exists.

CEOA Significance Determination

a) Expose people or structures to 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 – The project site is not located within an active earthquake fault zone as established by the California Geological Survey. The nearest segment of the Simi-Santa Rosa Fault Zone (Simi-Santa Rosa section) is located approximately 1.5 miles (distance to the fault rupture plane) south of the site. The potential of surface fault rupture hazard at the site is considered to be negligible.

ii) Strong seismic ground shaking?

Less Than Significant Impact – The project lies in the Southern California area which has experienced earthquakes in the past and is expected to continue to be a seismically active area. Most of the damage anticipated from earthquakes consists of the effects of strong ground motion. The project would be designed and constructed to meet current standards and therefore, potential impacts are considered to be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact – The western half of the project, PM 11.97 to approximately PM 12.78 (roughly the intersection of SR-118 and Underwood) and the area around Long Canyon Creek (PM 12.98, Bridge No. 52-0051) is located within a potential liquefaction zone as identified by the California Geological Survey (CGS 2000). The 1998 and 2019 subsurface investigations encountered loose granular and low plasticity silty soils, which are considered liquefiable when saturated and subjected to relatively large ground motions. Groundwater was not encountered in the borings during the subsurface investigations (depths ranging from 51.5 to 70 feet from the roadway ground surface). Based on historic groundwater levels and potential temporary perched groundwater during a heavy rainy season, a preliminary design groundwater level of 35 feet depth below the roadway was assumed. Under this condition, liquefaction potential at the project site exists during a design earthquake event. However, because of the thickness of the overlying soil layers, it is not anticipated that surface manifestation or ground damage will occur as a result of liquefaction. Therefore, the potential impacts are considered to be less than significant.

iv) Landslides?

No Impact – The site is not mapped within a zone that has a potential for seismically induced landslides as established by the CGS.

b) Result in substantial soil erosion or the loss of topsoil?

No Impact – The proposed project will construct slope stabilization measures such as rock slope protection and soldier pile wall to prevent continued erosion. Existing drainages will be reconstructed to current standards, and additional drainages will be included in the project scope so that the drainage system will have the sufficient capacity to channel water from major storms thereby preventing future erosion.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact – As mentioned above, the project is located within a potential liquefaction zone. The design and construction of the project will be consistent with current Caltrans design standards and seismic regulations and follow the recommendations of geotechnical reports prepared for this project.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact – Expansive soils generally include highly plastic fine-grained soils. The project site generally consists of interbedded coarse-grained and low to medium plastic fine-grained soils. Therefore, the site soils have a low expansive potential, thus, it will not create substantial risks to life or property.

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 - The proposed project does not involve the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact – The studies conducted for the proposed project have identified no unique paleontological resources or unique geologic features that could be potentially affected by the project.

Avoidance, Minimization, and/or Mitigation Measures

The proposed project would be designed and constructed to meet current standards, which would minimize any impacts related to Geology. Therefore, avoidance, minimization, and/or mitigation measures would not be needed.

2.8 Greenhouse Gas Emissions

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CEQA Significance Determination

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact – While the proposed project will result in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. With implementation of construction GHG-reduction measures, the impact would be less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact – Although the proposed project would temporarily increase GHG emissions during the construction timeframe, the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases during operation.

Avoidance, Minimization, and/or Mitigation Measures

GHG-1: Idling will be limited to 5 minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).

GHG-2: Truck trips will be scheduled outside of peak morning and evening commute hours.

GHG-3: Caltrans will reduce construction waste by re-using or recycling construction and demolition waste that meet Caltrans standards.

GHG-4: Caltrans will use recycled water for construction to reduce construction water consumption of potable water.

GHG-5: Caltrans will maintain equipment in proper working condition, use the right size equipment for the job, and use equipment with new technologies to encourage improved fuel efficiency from construction equipment.

GHG-6: Provide construction personnel with the knowledge to identify environmental issues and best practice methods to minimize impacts to the human and natural environment. Supplement existing trainings with information regarding methods to reduce GHG emissions related to construction.

GHG-7: Reduce the need for transport of earthen materials by balancing cut and fill quantities.

2.9 Hazards and Hazardous Materials

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement the Resource Conservation and Recovery Act (RCRA) in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection. Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

Environmental Setting

Information regarding hazardous wastes/hazardous materials was obtained from a Hazardous Waste Assessment (HWA) prepared in January 2020, and updated June 17, 2020. The assessment generally consists of a project evaluation, a departmental record review, regulatory agency records review, and a general field visit.

CEOA Significance Determination

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 – The Hazardous Waste Assessment has identified the potential for the presence of Aerially Deposited Lead, Farming Related Hazardous Waste, Asbestos Containing Materials, and Treated Wood Waste during construction. There is also the possibility of encountering Ground Water during excavation. All standard measures and Best Management

Practices will be followed for the removal and transport of materials to an appropriate disposal facility.

Aerially Deposited Lead (ADL) –ADL may be hazardous waste concern for the proposed work involving soil disturbance in the unpaved areas. Caltrans records show that a lead site investigation (SI) to evaluate surface and subsurface soil for concentrations of ADL was conducted for another project on Route 118, adjacent to the project limits, from PM 13.7 to PM 14.0. The report, prepared by Geocon Consultants, Inc., dated October 1997, indicates that the unpaved soil is non-hazardous material with total lead concentration ranging from below laboratory detection limit to 48 mg/kg. This is unregulated soil and is likely representative of soil with ADL within the project limits. No special management of soil is required for soil disturbance activities where no excavation occurs such as constructing HMA dike, reconstructing/regrading slope prior to placing rip-rap, backfilling erosion cavities, removing existing sand bag walls and replacing them with structural backfill, upgrading existing guard railing with vegetation control, and implementing soil stabilization measures such as hydroseeding. However, the construction of concrete barriers, soldier pile walls and shoulder pavement involve excavation of unpaved soil and will generate excess soil that cannot be used within the project limits.

Farming Related Hazardous Waste - Pesticides and metals in fertilizers from the adjacent farmland could migrate to project work sites and be a potential hazard.

Asbestos Containing Construction Material (ACCM) – ACCM may be encountered during the removal of existing metal beam guard rails. The shims between the metal railing and wood block have been found to contain asbestos, a known carcinogen.

Treated Wood Waste (TWW) – The project involves the removal of existing metal beam guard railing and wood posts. The wood used for the posts are treated with chemical preservatives, such as arsenic, chromium, copper, and pentachlorophenol. Once these wood posts are removed and become waste, they are considered TWW. TWW is a non-RCRA California hazardous waste and its' handling, storage, transportation, and disposal are subject to California hazardous waste regulations.

Ground Water – Ground water has been measured from monitoring wells less than 1 mile east of the project limit. The estimated length of the cast-in-drilled-hole piles for the project's soldier pile wall is anticipated to be 30 feet deep on average.

Avoidance and Minimization Measures

HAZ-1: The contractor shall prepare a project specific Lead Compliance Plan (LCP) to prevent and minimize worker exposure to lead.

HAZ-2: A Site Investigation (SI) will be required to determine concentrations of ADL in soil. The SI will also include soil sampling for proposed cemented rock installation on the south side of the channel. Soil will be classified for reuse and disposal options based on concentration of lead. Soil with concentration greater than 80 mg/kg and/or soluble lead greater than 5 mg/L is

hazardous must be disposed at a California permitted disposal facility. Excess soil that has concentration less than 80 mg/kg and soluble lead less than 5 mg/L can be relinquished to the Contractor or disposed at a permitted non-hazardous waste disposal facility. ADL is present in the unpaved soil, therefore health and safety precautions and dust control must be addressed in and implemented in compliance with a Lead Compliance Plan (LCP).

HAZ-3: A standard special provision (SSP) for the use of non-commercial or out-of-state sources of imported borrow used for backfilling, managing earth material containing lead, handling TWW, and painted traffic stripe removal must be included in the PS&E package.

HAZ-4: Potential health hazards caused by pesticides and heavy metals that may be present in excavated soil must be addressed in a project specific HSP.

HAZ-5: A non-standard special provision (NSSP) must be included in the PS&E package to direct the Contractor to perform the asbestos survey to identify ACCM as a first order of work.

HAZ-6: All water displaced during pile construction must be collected and containerized to determine disposal options.

HAZ-7: SIs must be conducted during the project's design phase to determine the quality and impacts to groundwater, the presence of pesticides and other heavy metals in the soil, and to determine the concentrations of ADL in the soil.

HAZ-8: Fill materials used for backfilling need to be free of contaminants. Imported borrow from non-commercial or out-of-state sources will require testing of soil prior to acceptance and placement at detection limits that are below concentrations that have adverse impacts.

HAZ-9: A SI will be required to determine the presence of pesticides and other heavy metals in the soil and its findings will be available for use in developing a project specific Health and Safety Plan (HSP) and training program for the field staffs and management and disposal options for waste soil.

HAZ-10: An asbestos SI will be required prior to construction to determine the presence of asbestos in the shims and direct the Contractor in the handling and disposal of ACCM.

HAZ-11: The Wet Method for Pile Construction will be implemented during the casing/concrete pouring around the beams, and ground water dewatering will not be required.

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 – Based on the project description, scope of work, and existing conditions in the project area, the likelihood of the project posing a significant hazard to the public due to accident conditions is low and a less than significant impact. All hazardous

materials on site will be properly handled, stored, and transported in accordance with the project's Health and Safety Plan and Caltrans Best Management Practices.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact – There are no existing or proposed schools within one-quarter mile of the proposed project.

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

No Impact – A search of the California Environmental Protection Agency's "Cortese List" data resources determined that there are no hazardous materials sites within the project area.

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 for people residing or working in the project area?

e) No Impact – The proposed project is not located within 2 miles of any public airport or public use airport.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact – The proposed project is not anticipated to result in road closures and will not otherwise interfere with emergency response or evacuation plans.

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact – The land use in the project area consists of agricultural, residential, and open space. The proposed project will not alter the landscape in such way that would exacerbate wildfires in the area. For a further discussion on wildfires, please see [Chapter 2.20 Wildfire](#).

2.10 Hydrology and Water Quality

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

The State Water Resource Control Board and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act and for regulating discharges to ensure compliance with the water quality standards. These guidelines are set forth in California's Porter-Cologne Act, enacted in 1969, that provides the legal basis for water quality regulation within California.

Section 303(d) of the Clean Water Act identifies waters that fail to meet standards for specific pollutants. If a State determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (i.e., NPDES permits or Waste Discharge Requirements), the CWA requires the establishment of TMDLs. TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

Caltrans has also established a program to inspect roadside slopes for erosion on a five-year cycle. Road segments identified as prone to erosion and sediment discharge are prioritized for stabilization. For road segments that are located in sensitive watersheds, or where there is an existing or potential threat to water quality, slope stabilization activities will be prioritized for implementing appropriate controls to the maximum extent practicable based on available resources. Based on the review of the slopes, remedial measures are developed and can include minor grading, seeding, and installation of major slope stabilization systems.

Environmental Setting

The information in this section is based from a Caltrans Floodplain Evaluation Report with Technical Information for a Location Hydraulic Study, which was completed for this project in March 2020. A Stormwater Data Report was also completed for this project in October 2019.

The project area is within the Arroyo Las Posas Sub-Watershed, a tributary of the 341 square-mile Calleguas Creek Watershed entirely within Ventura County. All streamflows within the Calleguas Creek Watershed eventually lead to Mugu Lagoon before entering into the Pacific Ocean. The Mahan Barranca and Long Canyon Creek are two small creeks that both cross the highway within the project area and are both marked by the Federal Emergency Management Act (FEMA) as Zone A, which means there is a 1% chance of annual flooding.

CEQA Significance Determination

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant- The State Water Resources Control Board (SWRCB) administers water rights, sets water pollution control policy, and issues orders on matters of statewide application and oversees water quality functions throughout the state by approving basin plans, total maximum daily loads (TMDLs) and National Pollutant Discharge Elimination System (NPDES) permits. Regional Water Control Boards (RWQCBs) are responsible for protecting beneficial

uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility. The SWRCB has identified Caltrans as an owner/operator of a Municipal Separate Storm Sewer System (MS4) under federal regulations. Caltrans' MS4 permit covers all Caltrans ROW, properties, facilities, and activities in the state. The permit has three basic requirements: Caltrans must comply with the requirements of the Construction General Permit (CGP); Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) BMPs, to the maximum extent practicable, and other measures as the SWRCB determines necessary to meet water quality standards. To comply with the MS4 permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California, and describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff. Adherence to the applicable permits as well as the inclusion of project features and standard BMPs would ensure that impacts related to the violation of water quality standards, waste discharge requirements, and surface or groundwater quality would be less than significant.

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

No Impact – The proposed project would not deplete any groundwater supplies, nor would it interfere with groundwater recharge or any recharge facility.

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 on- or off-site;

No Impact – The purpose of the proposed project is to permanently restore and repair the damaged slope caused by past storms and to protect existing slopes within the project limit from future distress. Therefore, the proposed action would not result in substantial erosion or siltation.

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

Less than Significant Impact – An increase in impervious surface (~2.41 acres) would result from the installation of concreted rock slope protection and shoulder paving. However, this action is not expected to substantially increase the rate or amount of surface runoff in a manner

that would result in flooding. Caltrans would also implement a Storm Water Pollution Prevention Plan (SWPPP), since the total disturbed soil area created by the proposed project is more than one acre. The SWPPP would include the information needed to demonstrate compliance with all the requirements of the CGP, therefore, impacts would be less than significant.

(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

Less than Significant – As mentioned previously, a net increase of approximately 2.41 acres of new impervious surface would be added following construction. With the implementation of a SWPPP, the proposed project is not expected to exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

(iv) impede or redirect flood flows?

No Impact – The proposed project design would not impede or redirect flood flows.

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

No Impact – The proposed project is located in Flood Zone A, but would not risk the release of any stored pollutants due to project inundation. Any generated waste as a result of construction would be contained and managed. Furthermore, it is not in a tsunami or seiche zone.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact – Compliance with the Clean Water Act (CWA) and pertinent Total Maximum Daily Loads (TMDL) standards, implementation of treatment controls, and consultation with the Caltrans National Pollutant Discharge Elimination System Storm Water Coordinator will bring the proposed project in compliance and eliminate any potential scenarios that would otherwise substantially degrade water quality. Therefore, no impacts are anticipated. The proposed project will require a Section 401 water quality certification from the State Water Board.

Avoidance and Minimization Measures

WQ-1: A Stormwater Prevention Pollution Program (SWPPP) must be implemented during construction.

2.11 Land Use and Planning

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEOA Significance Determinations

a) Physically divide an established community?

No Impact – The scope of work in the proposed project involves preventative maintenance work on an existing highway. The project is not installing additional facilities and does not have the potential to physically divide established communities.

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 – The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.

2.12 Mineral Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEOA Significance Determinations

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 – The California Division of Mines and Geology, in accordance with the Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code 2710-2796), established Mineral Resource Zone (MRZ) categories to determine the significance of mineral deposits in Ventura County¹. The proposed project lies within two MRZ classifications, MRZ-1 and MRZ-4:

MRZ-1 - Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. This zone shall be applied where well-developed lines of reasoning, based upon economic-geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is nil or slight.

MRZ-4 - Areas where available information is inadequate for assignment to any other MRZ zone.

Under these classifications, no known mineral resources that would be of value to the region will be lost as a result of the proposed project.

¹ California Division of Mines and Geology, *Mineral Land Classification of Ventura County*, (Sacramento, 1981) 4-9.

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 – The proposed project area lies northeast of the Camarillo Area Plan and West of the Moorpark Area plan in unincorporated Ventura County. The Ventura County General Plan delineates the land uses within the project area as agricultural, open space, rural, and existing community. There are no mineral resource recovery sites within the project area.

2.13 Noise

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

No Impact – Project construction would not create a permanent increase in noise levels, and it will adhere to policies set forth in the Ventura County General Plan and the Ventura County Construction Noise Threshold Criteria and Control Plan dated November 2005, amended July 2010. The proposed project is surrounded primarily by agricultural land and low-density residential land; as defined by these plans and ordinances, no noise-sensitive receptors have been identified within the project area. Post-construction noise levels would likely remain consistent with pre-construction noise levels. The project would have no impact on standards in the local general plan or noise ordinance, or applicable standards of agencies.

The proposed project does not contain construction activities that could substantially increase ambient noise levels in the project vicinity, such as pile-driving or hydraulic hammering. While ambient noise levels may temporarily or periodically increase in the vicinity during construction,

these levels would not be substantial and would likely be similar to levels created by the agricultural machinery in the farms surrounding the project area.

b) Generation of excessive groundborne vibration or groundborne noise levels?

No Impact – The proposed project does not include construction activities that would typically cause excessive groundbourne vibrations or groundbourne noise levels, such as pile-driving or hydraulic hammering. No sensitive human noise receptors have been identified within the project vicinity.

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 – The proposed project is six (6) miles away from Camarillo Airport, seven (7) miles from Santa Paula Airport, and fourteen (14) miles from Oxnard Airport. There are no public or public use airports within two miles of the project.

2.14 Population and Housing

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEOA Significance Determinations

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 – The proposed project involves the preventative maintenance of an existing highway and does not contain features that have the potential to increase capacity or alter access to the area. The project will no impact on population growth, directly or indirectly.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact – The proposed project will have no impact on the amount of residential properties in the area. No existing housing or people will be displaced as a result of this project.

2.15 Public Services

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations

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: a.i) Fire protection?, a.ii) Police protection?, a.iii) Schools?, a.iv) Parks?, a.v) Other public facilities?

No Impact – The proposed project does not have the potential to directly or indirectly increase population density in the vicinity. The response times, service ratios, and other performance objectives of public services would remain the same as pre-construction conditions. As such, the project would not result in the provision of new or physically altered governmental facilities.

2.16 Recreation

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations

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 – There are no neighborhood or regional parks within 0.5 miles of the project area. The proposed project would not induce population growth, alter access or increase the use of any neighborhood or regional parks.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact – The proposed project does not include the alteration of recreational facilities.

2.17 Transportation

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CEQA Significance Determinations

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact – The proposed project would not change access, capacity, or function of SR-118 and would not conflict with any applicable program, plan, ordinance or policy addressing the circulation system.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

No Impact – The proposed project would not conflict with or impact vehicle miles traveled, as the proposed improvements would not increase capacity of the roadway.

c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact – The proposed project will improve safety by strengthening the slope adjacent to the roadway to prevent erosion. The proposed project will not introduce new geometric design features along the roadway. All design features of the Build Alternative would be maintained following construction; therefore, no new hazards would be introduced. Additionally, metal beam guardrails will be updated to current design standards.

d) Result in inadequate emergency access?

Less than Significant Impact – The proposed project may result in short-term effects on emergency response and evacuation along and in the vicinity of the project sites. Therefore, a Traffic Management Plan (TMP) will be prepared to direct traffic operations during construction. The TMP will address roadway shifting and seek to inform the public and motorists regarding the construction schedule and anticipated traffic delays during construction.

During construction, traffic will be shifted slightly into the shoulders of the roadway in order to give access to construction equipment in the work zone. Lane closures are not expected, as both eastbound and westbound lanes will be open. However, construction zone speed limits would be enforced.

Outside of the construction area, traffic will continue to utilize the original highway configuration. As required by Caltrans standards, emergency access would be maintained or provided as part of the final project design, and as with any freeway or highway construction project, coordination with local emergency services would be conducted during the construction phase. Collectively, these project features would specifically address requirements for coordination with emergency service providers and accommodation of emergency travel routes and access through active construction areas. The proposed project would not impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan. With implementation of the identified project features, potential impacts related to emergency response times and plans would be less than significant.

Avoidance and Minimization Measures

TRAF-1: A Traffic Management Plan (TMP) shall be developed to implement practical measures to minimize any traffic delays that may result from lane restrictions or closures in the construction work zone. The TMP shall plan and design strategies to improve mobility, as well as increase safety for the traveling public and highway workers. These strategies include, but are not limited to, dissemination of information to motorists and the greater public, construction incident management strategies, deployment of flaggers, and alternate route planning/detouring.

2.18 Tribal Cultural Resources

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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project area does not include any historical resources either listed or eligible for listing in the California Register of Historical Resources. No Tribal Cultural Resources will be impacted as none have been identified within the project area.

CEOA Significance Determinations

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:

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)?

No Impact – A records search at the South Central Coastal Information Center, background research, Native American consultation, and field surveys did not identify any historical resources either listed or eligible for listing in the California Register of Historical Resources within the project area.

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

No Impact – A request for a search of the Sacred Lands File of the Native American Heritage Commission (NAHC) was conducted on November 25, 2019. The results were negative for the presence of Native American cultural sites within or in the vicinity of the project area. Consultation with Native American representatives also did not identify any Tribal Cultural Resources within the project limits. Therefore, the proposed project will not impact any resource considered significant to a California Native American Tribe.

2.19 Utilities and Services

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEOA Significance Determinations

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact – The proposed project does not require or result in the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities.

The proposed project increases the Net New Impervious (NNI) area by 19% of the Total Post Project Impervious Area (TPPIA) and is therefore below the 50% threshold which would have required the construction of new storm water drainage facilities or the expansion of existing facilities. The proposed project will fortify existing drainages with rock slope protection, however, this activity would not result in the expansion of existing facilities.

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

No Impact – The proposed project does not require available water supplies for construction or continued use.

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 – The proposed project will not impact wastewater treatment or its providers.

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 – The excavation of soil and removal of existing facilities associated with the proposed project will generate minimal solid waste and will not 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. Caltrans is committed to preserving and enhancing California's resources and assets by minimizing the environmental impacts of our highway construction and maintenance projects. Caltrans can achieve this goal by building and maintaining a sustainable highway system.

e) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact – The proposed project will comply with all federal, state, and local statutes and regulations related to solid wastes. No longer-term generation, or disposal of, solid waste would occur from the project implementation. Disposal of waste during construction would be temporary in nature and be conducted in a manner that is compliant with all applicable statutes and regulations.

2.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEOA Significance Determinations

The proposed project lies in an area mapped by CalFire as Moderate Fire Hazard Safety Zone and Local Responsibility Area.² Caltrans District 7 has mapped this portion of SR-118 as an Exposed Roadway and a medium level of concern in its models of future impacts of wildfire on state infrastructure.³ The purpose of the proposed project is to repair an existing facility, and will not create new facilities within areas susceptible to wildfire hazards.

² <https://egis.fire.ca.gov/FHSZ/>

³ <https://dot.ca.gov/programs/public-affairs/2019-climate-change-vulnerability-assessments>

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

No Impact – The proposed project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. It will not impair on an adopted emergency response plan or emergency evacuation plan for high fire hazard severity zones. Two through-traffic lanes will be provided during construction work hours. As required by the respective standards of Caltrans and any affected jurisdictions, emergency access would be maintained or provided as part of the final project design.

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 – The project will have no impact upon slope, prevailing winds, and other factors, exacerbate wildfire risks, nor will it expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

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

No Impact – The project will not 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?

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 – The project will not 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.

2.21 Mandatory Findings of Significance

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated – As discussed in the Biological Resources portion of this document, the proposed project will have a less than significant impact on fish and wildlife populations with the implementation of the appropriate avoidance and minimization measures. If impacts to plant communities, particularly California black walnut, cannot be avoided, the project will include compensatory mitigation measures to mitigate any impacts to less than significant.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

No Impact – The proposed project is a permanent restoration project. It is not anticipated to have impacts that are individually limited, but cumulatively considerable.

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

No Impact – This study has identified no environmental effects that could cause direct or indirect substantial adverse impacts on human beings.

Chapter 3 – Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), and various hydrofluorocarbons (HFCs). CO₂ is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO₂.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or “mitigate” the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

REGULATORY SETTING

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

Federal

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices

(FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability” (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program based on each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence GHG emissions.

State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California’s GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

Assembly Bill (AB) 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the governor's 2030 and 2050 GHG reduction goals.

Senate Bill (SB) 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO₂e).⁴ Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands ... is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

⁴ GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP). CO₂ is the most important GHG, so amounts of other gases are expressed relative to CO₂, using a metric called "carbon dioxide equivalent" (CO₂e). The global warming potential of CO₂ is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO₂.

AB 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

SB 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles travelled, to promote the state's goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

EO B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019) advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

ENVIRONMENTAL SETTING

The proposed project is situated between Sand Canyon Road and 0.2 mile east of Balcom Canyon Road in the Town/City of Somis in Ventura County. The project improvements are proposed along SR-118 from PM 11.97 to 13.40. The vicinity is characterized by rural lands of agricultural properties the City of Moorpark. SR-118 is a state highway that runs west to east from SR-126 in Saticoy, in Ventura County, to Interstate 210, near Lake View Terrace in Los Angeles County. West of the City of Moorpark, SR-118 is a two-lane conventional highway accommodating east-west traffic. On April 4, 2012, the Regional Council of the Southern California Association of Governments (SCAG) adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)⁵, which guides transportation development in the project area. The Ventura County General Plan Sustainability element addresses GHGs in the project area.

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for

⁵ <http://rtpscs.scag.ca.gov/Pages/2012-2035-RTP-SCS.aspx>

documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4.

National GHG Inventory

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO₂, CH₄, N₂O, HFCs, perfluorocarbons, SF₆, and nitrogen trifluoride. It also accounts for emissions of CO₂ that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store CO₂ (carbon sequestration). The 1990–2016 inventory found that of 6,511 MMTCO₂e GHG emissions in 2016, 81% consist of CO₂, 10% are CH₄, and 6% are N₂O; the balance consists of fluorinated gases (EPA 2018a). In 2016, GHG emissions from the transportation sector accounted for nearly 28.5% of U.S. GHG emissions.

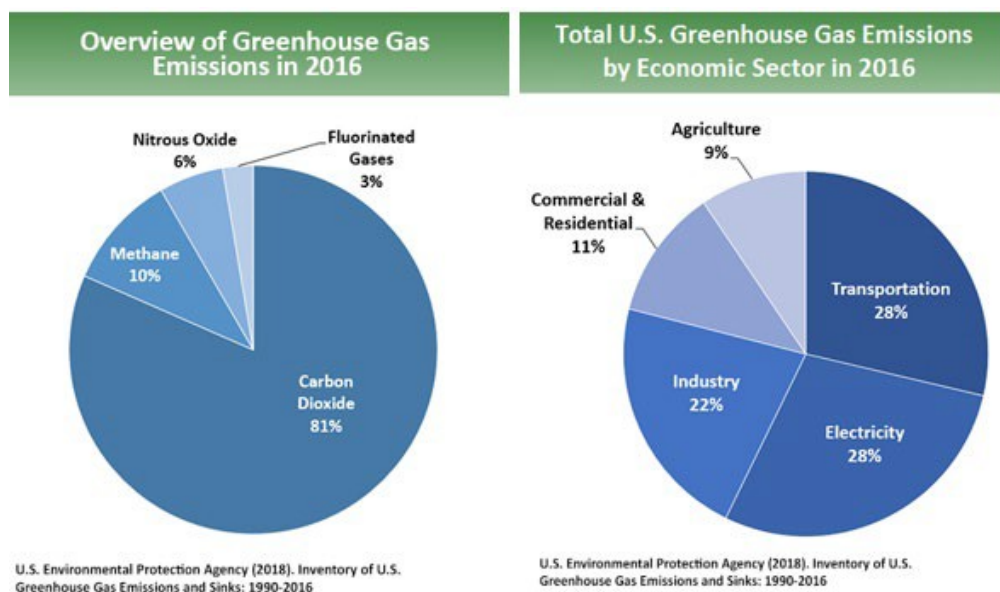


Figure 7: U.S. 2016 Greenhouse Gas Emissions

State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state’s progress in meeting its GHG reduction goals. The 2019 edition of the GHG emissions inventory found total California emissions of 424.1 MMTCO₂e for 2017, with the transportation sector responsible for 41% of total GHGs. It also found that overall statewide GHG emissions declined from 2000 to 2017 despite growth in population and state economic output (ARB 2019a).

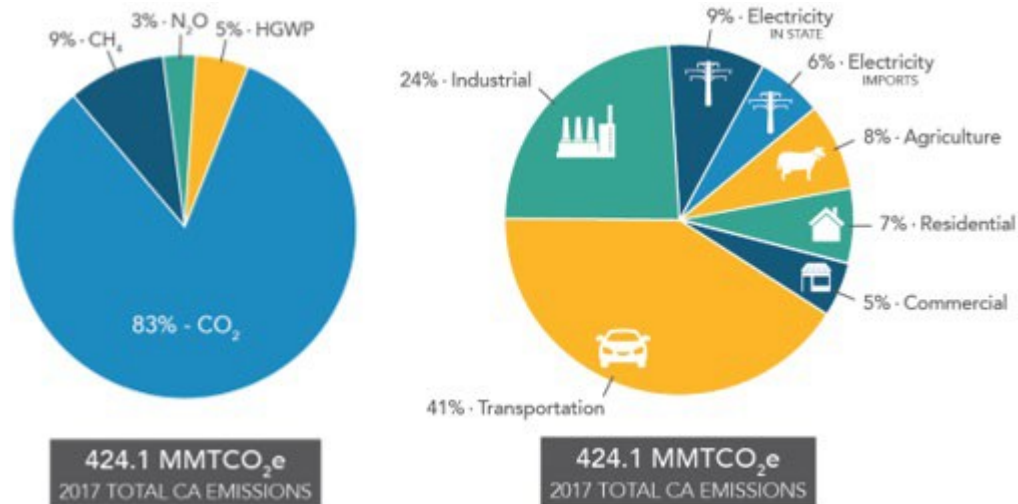


Figure 8: California 2017 Greenhouse Gas Emissions

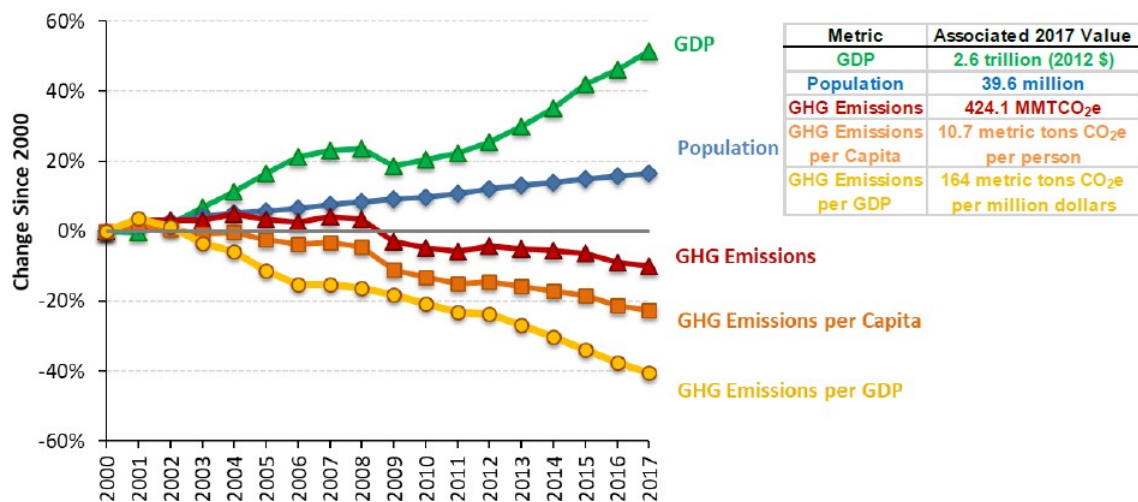


Figure 9: Change in California GDP, Population, and GHG Emissions since 2000

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, *California's 2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

Regional Plans

ARB sets regional targets for California's 18 MPOs to use in their Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to plan future projects that will cumulatively

achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for Southern California Association of Governments (SCAG). The regional reduction target for SCAG is -8% percent for target year 2020 and -19% for year 2035⁶.

PROJECT ANALYSIS

GHG emissions from transportation projects can be divided into those produced during operation of the SHS and those produced during construction. The primary GHGs produced by the transportation sector are CO₂, CH₄, N₂O, and HFCs. CO₂ emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH₄ and N₂O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, “because of the global scale of climate change, any one project’s contribution is unlikely to be significant by itself.” (*Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable” (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

The proposed project will permanently restore damaged slopes along both directions of State Route-118 from Sand Canyon Road to 0.2 mile east of Balcom Canyon Road in Ventura County. The work includes constructing soldier pile walls, concrete barriers on moment slabs, paving dirt shoulders, extending an existing culvert, constructing Hot Mix Asphalt dikes, and placing concreted rock slope protection. Because additional lanes are not proposed, no roadway capacity would be added and the amount of traffic that travels over these bridges would not be increased by the project. Construction GHG emissions are unavoidable, but the proposed project would not increase or change long-term traffic volumes. Therefore, the project is not expected to cause an overall increase in operational GHG emissions if it is built, compared to if the project is not constructed.

Construction Emissions

Construction GHG emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through

⁶ <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>.

innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities. Construction emissions have been estimated using Caltrans' Construction Emissions Tool 2018 (CAL-CET) version 1.2. For the duration of project construction, approximately 840 tons of CO₂ would be generated for all construction activities.

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions. In addition, a traffic management plan will be implemented during construction to maintain travel in both directions and minimize traffic delays and idling that can produce GHGs.

CEQA Conclusion

While the proposed project will result in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction GHG-reduction measures, the impact would be less than significant.

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

GREENHOUSE GAS REDUCTION STRATEGIES

Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals that involved (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

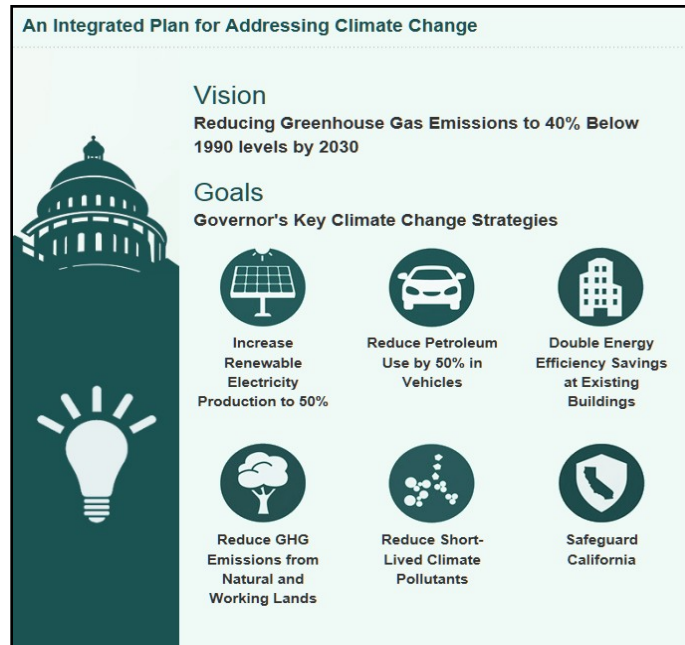


Figure 10: California Climate Strategy

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). A key state goal for reducing GHG emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (State of California 2019).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

CALIFORNIA TRANSPORTATION PLAN (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground

transportation systems, consistent with CO₂ reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

CALTRANS STRATEGIC MANAGEMENT PLAN

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:

- Increasing percentage of non-auto mode share
- Reducing VMT
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions

FUNDING AND TECHNICAL ASSISTANCE PROGRAMS

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., *Safeguarding California*).

CALTRANS POLICY DIRECTIVES AND OTHER INITIATIVES

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. *Caltrans Activities to Address Climate Change* (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

Project-Level GHG Reduction Strategies

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

Construction of the proposed project shall comply with all applicable Air Pollution Control District rules and guidelines.

TRAF-1: A traffic management plan will be implemented during construction to maintain travel in both directions and minimize traffic delays and idling that can produce GHGs.

GHG-1: Idling will be limited to 5 minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).

GHG-2: Truck trips will be scheduled outside of peak morning and evening commute hours.

GHG-3: Caltrans will reduce construction waste by re-using or recycling construction and demolition waste that meet Caltrans standards.

GHG-4: Caltrans will use recycled water for construction to reduce construction water consumption of potable water.

GHG-5: Caltrans will maintain equipment in proper working condition, use the right size equipment for the job, and use equipment with new technologies to encourage improved fuel efficiency from construction equipment.

GHG-6: Provide construction personnel with the knowledge to identify environmental issues and best practice methods to minimize impacts to the human and natural environment. Supplement existing trainings with information regarding methods to reduce GHG emissions related to construction.

GHG-7: Reduce the need for transport of earthen materials by balancing cut and fill quantities.

ADAPTATION

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

Federal Efforts

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

The U.S. Global Change Research Program (USGCRP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S.C. ch. 56A § 2921 et seq). The *Fourth National Climate Assessment*, published in 2018, presents the foundational science and the “human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways.” Chapter 12, “Transportation,” presents a key discussion of vulnerability assessments. It notes that “asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime” (USGCRP 2018).

The U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions” (U.S. DOT 2011).

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*, December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. *California’s Fourth Climate Change Assessment* (2018) is the state’s effort to “translate the state of climate science into useful information for action” in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- *Adaptive capacity* is the “combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.”
- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- *Resilience* is the “capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience”. Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.

- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.
- *Vulnerability* is the “susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt.” Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate “sea-level rise (SLR) projections into planning and decision making for projects in California” in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California’s infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

Caltrans Adaptation Efforts

CALTRANS VULNERABILITY ASSESSMENTS

Caltrans is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.
- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

Project Adaptation Analysis

It is possible that the proposed project will be subject to climate change effects. The proposed project is not located near the seacoast or within a regulatory floodway; however, it may be susceptible to wildfire. Recognizing these concerns, it is important to determine whether the project will exacerbate the effects of climate change relating to these topics, which are elaborated upon in the following sections: Floodplains and Wildfire.

Caltrans District 7 completed a climate change vulnerability assessment in September 2019 for Los Angeles and Ventura Counties. It provides a high-level review of potential climate impacts to the State Highway System in District 7 based on a database containing climate stressor geospatial data that was developed as part of the study.

Climate change risk analysis involves uncertainties as to the timing and intensity of potential risks, but some general climate trends are expected in California and the western U.S. More severe droughts, less snowpack, and changes in water availability are anticipated, and rising sea levels, more severe storm impacts, and coastal erosion can be expected. Increased temperatures and more frequent, longer heat waves, as well as longer and more severe wildfire seasons are predicted.

The Governor's Office of Planning and Research prepared *Planning and Investing for a Resilient California*, a guidebook for state agencies performing climate risk analyses to determine how to integrate climate considerations into planning or investment decisions. The first step is to

identify how climate change could affect a project or plan by identifying impacts of concern and assessing the scale, scope, and context of climate disruption. Next, a climate risk analysis can be conducted by selecting climate change scenarios for analysis and selecting an analytical approach. Following that, a climate-informed decision can be made by evaluating the alternatives and design and applying resilient decision principles. Finally, the agency can track and monitor progress by evaluating determined metrics, adjusting as needed. This study will go through the first two steps to inform a decision for the proposed project.

Assessing the scale, scope, and context of climate disruption for this project means considering the timeframe/lifetime, adaptive capacity, and risk tolerance of the project areas. The guidebook states, “If the expected lifetime of a project is less than five years, it may not be necessary to integrate longer-term climate change into the design and analysis.” The completed project is expected to last far longer than five years, so the impacts of extreme events should be considered to ensure that planning and investment decisions reflect the current climate conditions. In the following sections, extreme impacts of climate change-based sea-level rise, flooding, and wildfire will be considered. Other extreme weather impacts, such as drought and extreme heat, are also anticipated as changing climate conditions, but this study will focus on conditions that could potentially affect the project and its proposed structures.

Climate risk is characterized by asking a few key questions, focusing on the scale and scope of the risk, vulnerability and adaptive capacity of the affected area, the nature of the risk, and the economic impacts.

Question 1: How severe are the consequences if your project or plan is disrupted by an extreme event or by changes in average conditions?

If construction of the project is disrupted by an extreme event, schedule delays and increased costs are expected. Economic implications will be addressed in Question 4, and based on the severity, this would be a moderate impact. It is not unacceptable and is not likely to ultimately affect the completion of the project, but it would be an inconvenience and require additional planning and coordination, along with extra work to repair damage done by an extreme condition. In fact, should an extreme event occur in the future, the completion of the project may help to mitigate these effects. Preserving and improving structural integrity will help to increase resilience of the highway to climate change.

The impact of average conditions disrupting the project or plan depends on the severity of these changes. Assuming the average changes are small or even negligible during the timeframe of project construction and completion by 2024, there would be low or no impact for design, planning, and construction.

Question 2: Who or what will be affected by disruption of the project or plan?

Disruption of the project will affect state highway users in the long term by delaying construction, but not the immediate short term. If disruption occurs during construction, construction workers would also be affected. With communication and the emergency planning in place, the impact would be low to moderate; communities, systems, and infrastructure should

be readily able to adapt or respond to any changes. Detours or other transportation methods could be arranged.

Question 3: What is the nature of this disruption?

Schedule delay would be the primary concern if the project is disrupted; however, it is expected that any disruption by climate change effects would not be permanent. Use of the highway or construction of the project would be able to continue; therefore, the nature of this disruption is temporary. Future flexibility would be maintained, and Caltrans and drivers would be readily able to respond or adapt.

Question 4: What are the economic implications of climate disruption?

As stated in the response to Question 1, schedule delays and increased costs would be expected as a result of climate disruption. Both could potentially be large, depending on the extent and type of disruption. It is unlikely that the costs of disruption or response to the disruption would be unacceptably high. It is likely that such costs would be between a low to medium cost.

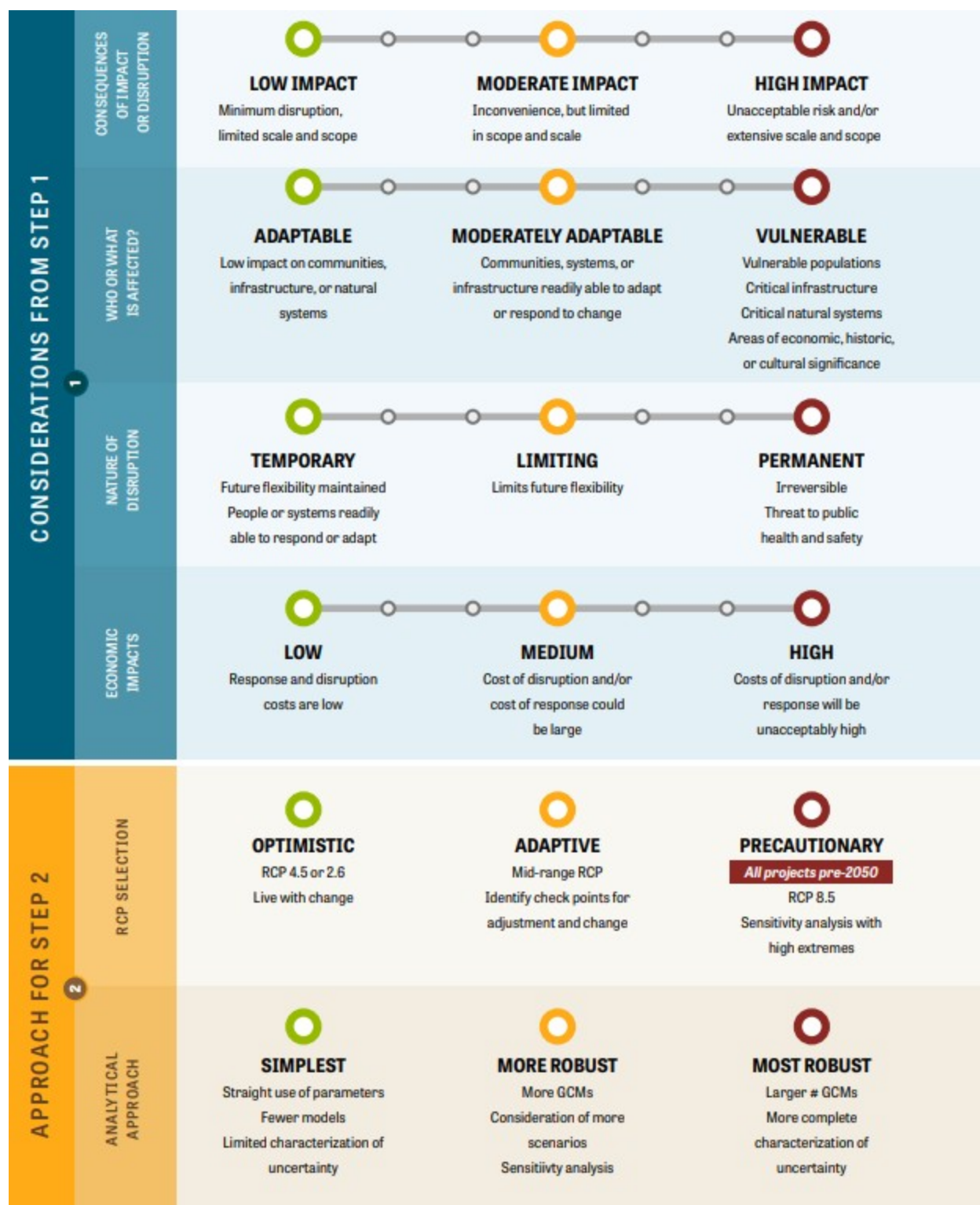


Figure 11: Mapping Risk Characteristics to Analytical Approaches

Figure 5 above (from Figure 2 in *Planning and Investing for a Resilient California*) matches the answers from the four questions with characteristics of analytical approaches and climate scenarios. For this analysis, because most answers were low or low-moderate, an optimistic RCP is selected, and a simple approach is used.

The Caltrans District 7 Climate Change Vulnerability Assessment Map provides assessments for both RCP 4.5 and 8.5. Please refer to the following sections for the Climate Change Vulnerability Assessment Maps and further discussion. This is consistent with the conclusion that the proposed project has a low likelihood to be vulnerable to climate change conditions, and it may speak to the fact that the resilience to any disruption would be high for the project and surrounding area.

The proposed project is not expected to exacerbate any of the risks discussed above. Though the risks inherent to climate change already in progress are considered, the project would not contribute to acceleration or increase of any such dangers in any significant way. It would not alter the highway's relation to the surrounding environment significantly, and it would not cause any significant change to the environment that would allow for increased or greater danger in the future.

SEA-LEVEL RISE

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

FLOODPLAINS

The project location is within Arroyo Las Posas Sub-Watershed, a tributary of the 341 square-mile Calleguas Creek Watershed. Two creeks cross SR-118 within the project area, Mahan Barranca and Long Canyon Creek. The creeks are not mapped as Regulatory Floodways by FEMA⁷. The adjacent areas of the creeks and highway are marked as Areas of Minimal Flood Hazard. The proposed project does not involve the encroachment of floodplains. As such, direct impacts to transportation facilities due to changes in precipitation scenarios under future climate conditions are not expected.

WILDFIRE

As an effect of climate change, it is expected that longer and more severe wildfire seasons will occur across California. The proposed project lies in an area mapped by CalFire as Moderate Fire Hazard Safety Zone and Local Responsibility Area.⁸ Caltrans District 7 has mapped this portion of SR-118 as an Exposed Roadway and a medium level of concern in its models of future impacts of wildfire on state infrastructure.⁹ The purpose of the proposed project is to repair an existing facility, and will not create new facilities within areas susceptible to wildfire hazards

⁷ <https://msc.fema.gov/portal/home>

⁸ <https://egis.fire.ca.gov/FHSZ/>

⁹ <https://dot.ca.gov/programs/public-affairs/2019-climate-change-vulnerability-assessments>

Chapter 4 – Comments and Coordination

Early and continuing coordination with the general public agencies, and tribal groups 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 have been accomplished through a variety of formal and informal methods, including interagency coordination and public notices. This chapter summarizes the result of Caltrans efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

- On December 20, 2019, a Notice of Initiation of Studies was sent to relevant public agencies, organizations, elected officials, native tribal contacts, and other interested individuals as a part of the early coordination process. The notices were sent to 8 elected officials, 36 public agencies and organizations and 171 residents. The public had until January 30, 2020, to provide comments. The comment period was later extended to February 21, 2020 (See Appendix B for a record of the Notice of Initiation of Studies).
- On January 14, 2020, Vanise Terry, Office of Supervisor Linda Parks, District 2, emailed Ron Kosinski, asking questions on behalf of the Somis Municipal Advisory Council (MAC), requesting an extension of the comment period, and inviting Ron to attend their next meeting on March 11, 2020 (See Appendix B for a record of communication from Vanise Terry, Office of Supervisor Linda Parks, District 2).
- On March 11, 2020, Ron Kosinski, Deputy District Director of the Division of Environmental Planning, attended Somis Municipal Advisory Council (MAC) at Somis Elementary School and presented the project (See Appendix B for a record of the fliers that Ron prepared for the MAC meeting).
- On December 31, 2019, Alexandra McCleary, Tribal Archaeologist of the San Manuel Band of Mission Indians (SMBMI) emailed, Susan Tse Koo, Senior Environmental Planner, informing Caltrans that the proposed project is located outside of Serrano ancestral territory and, as such, SMBMI will not be requesting consulting party status with the lead agency or requesting to participate in the scoping, development, and/ or review of the documents created pursuant to legal and regulatory mandates.
- On March 13, 2020, Susan Arakawa, responded on behalf of the Santa Ynez Band of Chumash Indians stating that the Elders Council requests no further consultation at this time. (See Appendix B for letter from Susan Arakawa).

- In 2017, Caltrans conducted initial agency coordination with Theresa Stevens, US Army Corps of Engineers (USACE) to determine if the agricultural channel along the north side of SR-118 was considered a Waters of the U.S. Based on the coordination, it was determined that the agricultural channel was considered a Waters of the US.

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Occupant
6477 PEPPERTREE LN
SOMIS, CA 93066-9758

Occupant
6487 PALOMINO CIR

Occupant
6120 E LOS ANGELES AVE
SOMIS, CA 93066

Occupant
6288 LA CUMBRE RD
SOMIS, CA 93066-9602

Occupant
6385 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6412 PALOMINO CIR
SOMIS, CA 93066-9740

Occupant
6438 PALOMINO CIR
SOMIS, CA 93066-9740

Occupant
6445 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6450 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6455 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6461 PALOMINO CIR
SOMIS, CA 93066-9786

Occupant
6465 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6481 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6490 LA CUMBRE RD

Occupant
6155 E LOS ANGELES AVE
SOMIS, CA 93066-9648

Occupant
6318 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6404 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6426 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6439 PALOMINO CIR
SOMIS, CA 93066-9786

Occupant
6447 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6451 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6460 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6328 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6470 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6486 PALOMINO CIR
SOMIS, CA 93066-9740

Occupant
6497 LA CUMBRE RD

SOMIS, CA 93066-9786
Occupant
6516 PALOMINO CIR
SOMIS, CA 93066-9785

Occupant
6540 LA CUMBRE RD
SOMIS, CA 93066-9721
Occupant
6552 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6580 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6648 E LOS ANGELES AVE
SOMIS, CA 93066-9624

Occupant
6651 CHARI LN
SOMIS, CA 93066-9745

Occupant
6759 E LOS ANGELES AVE
SOMIS, CA 93066-9613

Occupant
7451 WORTH WAY
CAMARILLO, CA 93012

Occupant
7777 WORTH WAY
CAMARILLO, CA 93012

Occupant
7805 E LOS ANGELES AVE
SOMIS, CA 93066-9754

Occupant
8101 WORTH WAY
CAMARILLO, CA 93012

Occupant
8955 W LOS ANGELES AVE
MOORPARK, CA 93021

SOMIS, CA 93066-9721
Occupant
6517 PALOMINO CIR
SOMIS, CA 93066-9785

Occupant
6550 PALOMINO CIR
SOMIS, CA 93066-9785
Occupant
6564 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6630 CHARI LN
SOMIS, CA 93066-9745

Occupant
6648 E LOS ANGELES AVE
SOMIS, CA 93066-9624

Occupant
6667 E LOS ANGELES AVE
SOMIS, CA 93066

Occupant
6833 WORTH WAY
CAMARILLO, CA 93012

Occupant
7455 E LOS ANGELES AVE
SOMIS, CA 93066

Occupant
7802 LOS ANGELES AVE
CAMARILLO, CA 93012

Occupant
7969 WORTH WAY
CAMARILLO, CA 93012

Occupant
8602 W LOS ANGELES AVE
MOORPARK, CA 93021

Occupant
9011 W LOS ANGELES AVE
MOORPARK, CA 93021

SOMIS, CA 93066
Occupant
6522 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6551 PALOMINO CIR
SOMIS, CA 93066-9785
Occupant
6576 LA CUMBRE RD
SOMIS, CA 93066-9721

Occupant
6646 CHARI LN
SOMIS, CA 93066-9745

Occupant
6648 LOS ANGELES AVE
CAMARILLO, CA 93012

Occupant
6711 E LOS ANGELES AVE
SOMIS, CA 93066-9613

Occupant
6945 LOS ANGELES AVE
MOORPARK, CA 93021

Occupant
7777 WORTH WAY
CAMARILLO, CA 93012

Occupant
7805 E LOS ANGELES
AVE
SOMIS, CA 93066-9754

Occupant
7969 WORTH WAY
CAMARILLO, CA 93012

Occupant
8715 W LOS ANGELES AVE
MOORPARK, CA 93021

Occupant
9011 W LOS ANGELES AVE
MOORPARK, CA 93021

Occupant
9122 WORTH WAY
CAMARILLO, CA 93012

Occupant
9301 W LOS ANGELES AVE
MOORPARK, CA 93021

Occupant
4087 SAND CANYON RD
SOMIS, CA 93066-9751

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Appendix A. Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION

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



*Making Conservation
a California Way of Life.*

April 2018

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."*

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

For information or guidance on how to file a complaint, please visit the following web page:
http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

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 Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone (916) 324-8379, TTY 711, email Title.VI@dot.ca.gov, or visit the website www.dot.ca.gov.

A handwritten signature in blue ink, appearing to read "Laurie Berman".

LAURIE BERMAN
Director

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

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Appendix B. Comments and Responses Received During the Notice of Initiation of Studies

Notice of Initiation of Studies

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION

DISTRICT 7
100 S. MAIN STREET, SUITE 100
LOS ANGELES, CA 90012
PHONE (213) 897-0362
FAX (213) 897-0360
TTY 711
www.dot.ca.gov



Making Conservation
a California Way of Life.

December 17, 2019

Agencies, Individuals, and Organizations
Interested in the SR-118 Permanent Damage Restoration Project

Notice of Initiation of Studies for SR-118 Permanent Damage Restoration Project

This notice is to inform you that the California Department of Transportation (Caltrans) is formally initiating studies for a project that will permanently restore and repair to existing slopes and roadway on SR-118 from Post Miles (PM) 11.97 to PM 13.28.

This proposed project permanently restore the slope damage along both directions of State Route (SR-118) from Sand Canyon Road to 0.1 mile east of Balcom Canyon Road in Ventura County. The work in the eastbound direction includes constructing a soldier pile wall, installing concrete barriers, and paving dirt shoulders to channel the water away from the slopes. The work in the westbound direction includes placing rock slope protection along an existing drainage channel. The proposed project will also upgrade the existing metal beam guardrail to a Midwest Guardrail System.

Based on the current scope, it is anticipated that an Initial Study leading to a Mitigated Negative Declaration (MND) and Categorical Exclusion will be prepared to evaluate the anticipated environmental effects pursuant to California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

During the study, Caltrans will work closely with the public and local agencies to ensure that all pertinent factors and viable alternatives are considered. We welcome any comments or suggestions you may have concerning possible alternatives or potential social, economic, and environmental impacts resulting from the proposed project.

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Please send your written comments by January 30, 2020 to:

Susan Tse Koo, Senior Environmental Planner
Division of Environmental Planning

Caltrans, District 7
100 South Main Street, MS16A
Los Angeles, CA 90012

All comments received will become part of the project record and will provide valuable guidance to our environmental and design team. If you would like to request further information, contact Susan Tse Koo at (213) 897-1821, or via email at Susan.Tse@dot.ca.gov. Thank you for your interest in this important transportation study.

Sincerely,



RONALD KOSINSKI

Deputy Director, Division of Environmental Planning
California Department of Transportation District 7



"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Communication with Vanise Terry, Office of Supervisor Linda Parks, District 2

From: Kosinski, Ron J@DOT <ron.kosinski@dot.ca.gov>
Sent: Tuesday, January 14, 2020 3:17 PM
To: Terry, Vanise <Vanise.Terry@ventura.org>
Cc: Tse, Susan@DOT <susan.tse@dot.ca.gov>
Subject: RE: Somis MAC/118 Damage Restoration Project

Hello back Vanise

Sounds like you had an active group interaction. Yes, we can extend the comment period...how about February 21st . Will check with engineering to see if we can provide accurate answers to these questions....some may not have responses available at this time > > BUT we can add them to the issues that will be addressed in the Draft ED we plan to circulate to the public in August. Yes, someone from Caltrans will attend the March 11th meeting...maybe me plus someone who can answer the more detailed questions anticipated.

Ron

From: Terry, Vanise <Vanise.Terry@ventura.org>
Sent: Tuesday, January 14, 2020 12:26 PM
To: Kosinski, Ron J@DOT <ron.kosinski@dot.ca.gov>
Cc: Tse, Susan@DOT <susan.tse@dot.ca.gov>
Subject: Somis MAC/118 Damage Restoration Project

Hi Ron,

I wanted to give you an update on the Somis MAC meeting last week. The MAC asked for more clarification on what is being proposed in this project and whether the comment period can be extended beyond January 30th until they receive this additional information. The questions asked are as follows:

1. Will runoff be recharged?
2. Will the culverts be replaced?
3. Will Caltrans trench across the roadway?
4. Will the guard rails be kept?
5. How will Caltrans handle traffic during construction? Will it affect peak hour traffic, or happen late in the evening?
6. Will the project include widening shoulders, additional pavement (if so, how much?), and gaining rights-of way along the 118?

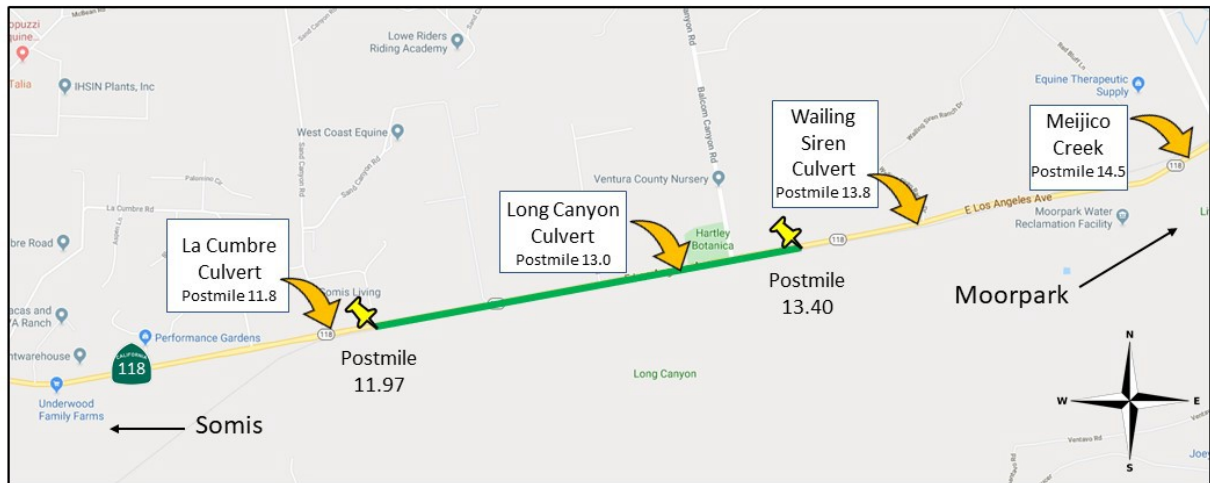
The next MAC meeting is scheduled on **Wednesday, March 11th** at 6:30pm at Somis Elementary School. It would be helpful if a Caltrans representative were able to attend this meeting to discuss the upcoming project. Thank you for all your assistance!

Best,
Vanise

Vanise Terry
Office of Supervisor Linda Parks
District 2
(805) 214-2510

Fliers prepared for the MAC meeting

Permanent Damage Restoration Project and Wildlife Passage Improvement Locations on SR-118



Legend

— Permanent Damage Restoration Project Scope

- Wildlife passage improvement project was completed in 2019, and wildlife monitoring at passage locations has commenced.

[illegible]

Eastbound direction eroded slope.

Letter from Susan Arakawa



Santa Ynez Band of Chumash Indians
Tribal Elders' Council

P.O. Box 365 ♦ Santa Ynez ♦ CA ♦ 93460

Phone: (805) 688-7997 ♦ Fax: (805) 688-9578 ♦ Email: elders@santaynezchumash.org

March 13, 2020

Division of Environmental Planning
Caltrans, District 7
100 South Main Street, MS16A
Los Angeles, CA 90012

Att.: Susan Tse Koo, Senior Environmental Planner

Re: Ventura – SR 118 Permanent Damage Restoration Project

Dear Ms. Tse Koo:

Thank you for contacting the Tribal Elders' Council for the Santa Ynez Band of Chumash Indians in regards to the above mentioned project. We apologize for the delay in our response.

At this time, the Elders Council requests no further consultation on this project; however, if supplementary literature reveals additional information, or if the scope of the work changes, we kindly ask to be notified.

If you decide to have the presence of a Native American monitor in place during ground disturbance to assure that any cultural items unearthed be identified as quickly as possible, please contact our office or Chumash of the project area.

Thank you for remembering that at one time our ancestors walked this sacred land.

Sincerely Yours,

Susan Arakawa
Administrative Assistant for/
The Tribal Elders' Council Governing Board
Tribal Hall
100 Via Juana Road
P.O. 517
Santa Ynez, CA 93460
(805) 688-7997 ext. 4119
sarakawa@santaynezchumash.org

Appendix C. Comments and Responses Received During the Notice of Intent to Adopt a Mitigated Negative Declaration

Appendix D. Avoidance, Minimization and Mitigation Measures Summary

Description of Commitment	Commitment Source	Timing	Responsible Staff	CEQA Mitigation
Agriculture and Forestry				
AFR-1: Upon the completion of the project, any land used as a TCE would be returned to its original or better condition prior to the return of that land to the original owner.	Initial Study, Chapter 2.2 Agriculture and Forestry	Post-Construction	Caltrans ROW	
Air Quality				
AQ-1: Objectionable odors should also be minimized by conducting certain construction activities in areas at least 500 feet from the sensitive receptors as feasible.	Initial Study, Chapter 2.3 Air Quality	Construction	RE; Contractor	
Biology – Natural Communities				
BIO-1: All appropriate storm water BMPs shall be utilized to prevent construction materials from leaving the construction zone.	Initial Study, Section 2.4, Biological Resources	Construction	RE; Contractor	
BIO-2: Vegetation removal should be done outside of the nesting bird season, however should vegetation removal be required between the Feb. 1 st – Sept. 1 st Migratory Nesting Bird Season, pre-construction surveys for active nests must be conducted prior to any vegetation removal. Should active nests be found, all work must halt within 150 feet (500' for Raptors).	Initial Study, Section 2.4, Biological Resources	Construction	RE; Caltrans Biologist	
BIO-3: Work within the 200 linear feet of the agricultural channel with California black	Initial Study, Section 2.4, Biological Resources	Construction	RE	

walnut (<i>Juglans californica</i>) present should be limited to the roadway embankment and should avoid the channel bottom or opposite bank of the channel.				
BIO-4: If impacts to the California black walnut habitat cannot be avoided, Caltrans is proposing off-site mitigation. Due to the heavily disturbed nature of the habitat area, it will be mitigated at a 1:1 ratio or 5000 sq. ft. of California black walnut habitat with an appropriate nearby conservancy, bank or ILF.	Initial Study, Section 2.4, Biological Resources	Design, Post Construction	PDT, RE, Caltrans Biologist	YES
BIO-5: During the design phase, permits from all jurisdictional agencies must be acquired. All measures must be explored to minimize effects on wetlands.	Initial Study, Section 2.4, Biological Resources	Design	PDT	
BIO-6: Caltrans will comply with the Ventura County Tree Protection Ordinance and permit conditions.	Initial Study, Section 2.4, Biological Resources	Design	RE, Caltrans Biologist	
Cultural Resources				
CUL-1: If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	Initial Study, Section 2.5, Cultural Resources	Construction	RE; Caltrans Archaeologist	
CUL-2: If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted.	Initial Study, Section 2.5, Cultural Resources	Construction	RE; Caltrans Archaeologist	

If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Claudia Harbert, District Environmental Branch - Cultural Resources so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.				
CUL-3: All Native American representatives listed on the NAHC's contact list for the project shall be notified of any unanticipated discoveries during project construction so that they may have an opportunity to consult on treatment measures.	Initial Study, Section 2.5, Cultural Resources	Construction	RE; Caltrans PQS	
Greenhouse Gas Emissions				
GHG-1: Idling will be limited to 5 minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).	Initial Study, Chapter 2.8: Green House Gas Emissions	Construction	RE, Contractor	
GHG-2: Truck trips will be scheduled outside of peak morning and evening commute hours.	Initial Study, Chapter 2.8: Green House Gas Emissions	Construction	RE, Contractor	
GHG-3: Caltrans will reduce construction waste by re-using or recycling construction and demolition waste that meet Caltrans standards.	Initial Study, Chapter 2.8: Green House Gas Emissions	Construction	RE, Contractor	

GHG-4: Caltrans will use recycled water for construction to reduce construction water consumption of potable water.	Initial Study, Chapter 2.8: Green House Gas Emissions	Construction	RE, Contractor	
GHG-5: Caltrans will maintain equipment in proper working condition, use the right size equipment for the job, and use equipment with new technologies to encourage improved fuel efficiency from construction equipment.	Initial Study, Chapter 2.8: Green House Gas Emissions	Construction	RE, Contractor	
GHG-6: Provide construction personnel with the knowledge to identify environmental issues and best practice methods to minimize impacts to the human and natural environment. Supplement existing trainings with information regarding methods to reduce GHG emissions related to construction.	Initial Study, Chapter 2.8: Green House Gas Emissions	Pre-Construction	RE, Contractor	
GHG-7: Reduce the need for transport of earthen materials by balancing cut and fill quantities.	Initial Study, Chapter 2.8: Green House Gas Emissions	Construction	RE, Contractor	
Hazardous Waste				
HAZ-1: The contractor shall prepare a project specific Lead Compliance Plan (LCP) to prevent and minimize worker exposure to lead.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Pre-Construction	PE; Caltrans Hazardous Waste Specialist	
HAZ-2: A Site Investigation (SI) will be required to determine concentrations of ADL in soil. The SI will also include soil sampling for proposed cemented rock installation on the south side of the channel. Soil will be classified for reuse and disposal options based on concentration of lead. Soil with	Initial Study, Section 2.9, Hazards and Hazardous Materials	Pre-Construction	PE; Caltrans Hazardous Waste Specialist	

concentration greater than 80 mg/kg and/or soluble lead greater than 5 mg/L is hazardous must be disposed at a California permitted disposal facility. Excess soil that has concentration less than 80 mg/kg and soluble lead less than 5 mg/L can be relinquished to the Contractor or disposed at a permitted non-hazardous waste disposal facility. ADL is present in the unpaved soil, therefore health and safety precautions and dust control must be addressed in and implemented in compliance with a Lead Compliance Plan (LCP).				
HAZ-3: A standard special provision (SSP) for the use of non-commercial or out-of-state sources of imported borrow used for backfilling, managing earth material containing lead, handling TWW, and painted traffic stripe removal must be included in the PS&E package.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Design	PE; Caltrans Hazardous Waste Specialist, ECL	
HAZ-4: Potential health hazards caused by pesticides and heavy metals that may be present in excavated soil must be addressed in a project specific HSP.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Pre-Construction	PE; Caltrans Hazardous Waste Specialist, Contractor	
HAZ-5: A non-standard special provision (NSSP) must be included in the PS&E package to direct the Contractor to perform the asbestos survey to identify ACCM as a first order of work.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Design	PE; Caltrans Hazardous Waste Specialist, ECL	
HAZ-6: All water displaced during pile construction must be collected and containerized to determine disposal options.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Construction	RE, Contractor	

HAZ-7: SIs must be conducted during the project's design phase to determine the quality and impacts to groundwater, the presence of pesticides and other heavy metals in the soil, and to determine the concentrations of ADL in the soil.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Design	PE, Hazardous Waste Specialist	
HAZ-8: Fill materials used for backfilling need to be free of contaminants. Imported borrow from non-commercial or out-of-state sources will require testing of soil prior to acceptance and placement at detection limits that are below concentrations that have adverse impacts.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Construction	RE, Contractor	
HAZ-9: A SI will be required to determine the presence of pesticides and other heavy metals in the soil and its findings will be available for use in developing a project specific Health and Safety Plan (HSP) and training program for the field staffs and management and disposal options for waste soil.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Pre-Construction	PE, RE, Hazardous Waste Specialist	
HAZ-10: An asbestos SI will be required prior to construction to determine the presence of asbestos in the shims and direct the Contractor in the handling and disposal of ACCM.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Pre-Construction	PE, Hazardous Waste Specialist	
HAZ-11: The Wet Method for Pile Construction will be implemented during the casing/concrete pouring around the beams, and ground water dewatering will not be required.	Initial Study, Section 2.9, Hazards and Hazardous Materials	Design	PE, Hazardous Waste Specialist	

Hydrology and Water Quality				
WQ-1: A Stormwater Prevention Pollution Program (SWPPP) must be implemented during construction.	Initial Study, Chapter 2.10 Hydrology and Water Quality	Design, Construction	PE; RE; Caltrans Division of Traffic Management	
Transportation/Traffic				
TRAF-1: A Traffic Management Plan (TMP) shall be developed to implement practical measures to minimize any traffic delays that may result from lane restrictions or closures in the construction work zone. The TMP shall plan and design strategies to improve mobility, as well as increase safety for the traveling public and highway workers. These strategies include, but are not limited to, dissemination of information to motorists and the greater public, construction incident management strategies, deployment of flaggers, and alternate route planning/detouring.	Initial Study, Chapter 2.17, Transportation	Design	PE; Caltrans Division of Traffic Management	

List of Studies and Technical Reports

Air Quality Review (California Department of Transportation, District 7, Division of Environmental Planning, Office of Environmental Engineering, January and June 2020)

Natural Environment Study – Minimal Impacts (California Department of Transportation, District 7, Division of Environmental Planning, Office of Environmental Planning, April 2020)

Location Hydraulic Study (California Department of Transportation, District 7, Division of Environmental Planning, Office of Environmental Engineering, March 2020)

Floodplain Evaluation Report (California Department of Transportation, District 7, Division of Environmental Planning, Office of Environmental Engineering, February 2020)

Stormwater Data Report (California Department of Transportation, District 7, Division of Environmental Planning, Office of Environmental Engineering, October 2019)

Preliminary Geotechnical Design Report (California Department of Transportation, District 7, Division of Engineering Services, Office of Geotechnical Design South, May 2020)

Preliminary Foundation Report (California Department of Transportation, District 7, Division of Engineering Services, Office of Geotechnical Design South, May 2020)

Preliminary Foundation Report – Culvert Barrier Slab Structure (California Department of Transportation, District 7, Division of Engineering Services, Office of Geotechnical Design South, May 2020)

Archeological Survey Report (California Department of Transportation, District 7, Division of Environmental Planning, Office of Environmental Planning, March 2020)

Historic Property Survey Report (California Department of Transportation, District 7, Division of Environmental Planning, Office of Environmental Planning, March 2020)

Hazardous Waste Assessment (California Department of Transportation, District 7, Division of Environmental Planning, Office of Environmental Planning, January and June 2020)

Hazardous Waste Assessment for PIR (California Department of Transportation, District 7, Division of Environmental Planning, Office of Environmental Planning, September 2019)

Visual Impact Analysis Questionnaire (California Department of Transportation, District 7, Division of Environmental Engineering Services, Office of Stormwater and Landscape Architecture, April 2020)

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- U.S. Department of Transportation (U.S. DOT). 2011. *Policy Statement on Climate Change Adaptation*. June. https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm. Accessed: August 21, 2019.
- U.S. Environmental Protection Agency (U.S. EPA). 2009. *Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act*. <https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean>. Accessed: August 21, 2019.
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- U.S. Global Change Research Program (USGCRP). 2018. *Fourth National Climate Assessment*. <https://nca2018.globalchange.gov/>. Accessed: August 21, 2019.