Pepper Road Regrade Slope

SONOMA COUNTY, CALIFORNIA
DISTRICT 4-SON-101 (PM 9.0/9.0)
0J100/04130000408

Initial Study with Proposed Mitigated Negative Declaration

Prepared by the
State of California, Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by California Department of Transportation pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016 and executed by Federal Highway Administration and California Department of Transportation.

Caltrans™

January 2018
General Information About This Document

What’s in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Mitigated Negative Declaration, which examines the potential environmental impacts of the proposed State Route (SR) 101 and Pepper Road Regrade Slope (the project), located in Sonoma County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This document describes why the project is being proposed, how the existing environment could be affected by the project, the potential impacts of the proposed project, and the proposed avoidance, minimization measures, and/or mitigation measures.

What you should do:

- Please read this document
- Additional copies of this document are available for review at:

California Department of Transportation, District 4
111 Grand Avenue
Oakland, CA 94612

- Send comments via email to: Arnica.MacCarthy@dot.ca.gov
- Be sure to send comments by the deadline April 25, 2018

What happens next:

Per CEQA Section 15073, Caltrans is circulating the Initial Study with Proposed Mitigated Negative Declaration for review for 30 days. During the 30-day public review period, the general public and responsible and trustee agencies can submit comments on this document to Caltrans. Caltrans will consider the comments and respond to the comments after the 30-day public review period.

After comments are received, Caltrans may: (1) give environmental approval to the proposed project, (2) conduct additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is obtained, Caltrans would design and construct all or part of the proposed project.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to California Department of Transportation, Attn: Arnica MacCarthy, Acting Branch Chief, Office of Environmental Analysis, 111 Grand Avenue, MS 8-B, Oakland, CA 94612; (510) 286-7195 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.
Project Description:

The California Department of Transportation (Caltrans) proposes to repair the storm damaged northbound embankment of State Route (SR) 101, located at post mile (PM) 9.0 in Sonoma County near the City of Petaluma, approximately 1.4 miles north of Old Redwood Highway and just north of the southbound on ramp from Pepper Road. This project will repair 3 small slides on the northbound embankment. The slides will be repaired by re-grading the existing northbound side slope to 2 to 1 or flatter, re-grading an existing top-of-bank v-ditch, and lining the v-ditch with concrete to make it a trap-gutter. In addition, an existing 12" corrugated steel pipe (CSP) downdrain will be replaced. All of the work will be within the existing Caltrans right of way (ROW).

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is Caltrans intent to adopt an 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, Agriculture and Forest Resources, Air Quality, Cultural Resources, Geology and Soils, Hazard and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, and Mandatory Findings of Significance.
In addition, the proposed project would have less than significant effects to Transportation and Traffic, Greenhouse Gas Emissions, Hydrology and Water Quality, and Utilities and Service Systems.

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

- Impacts to California tiger salamander and California tiger salamander habitat will be mitigated with the purchase of 3.64 acres of California tiger salamander credit from an approved mitigation bank.

Melanie Brent
Deputy District Director
District 4
California Department of Transportation

Date
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<td></td>
<td>3-25</td>
</tr>
</tbody>
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- Appendix B  Avoidance and Minimization Measures
Chapter 1: Project, Purpose, and Need

Purpose and Need

The purpose of this project is to repair the storm-damaged roadway embankment to its original condition.

The project is needed because the embankment is damaged and could cause material to slide onto the roadway, impeding traffic and causing a potential safety issue for motorists.

Furthermore, road crews must complete ongoing maintenance in dangerous conditions along the highway for periodic cleanup of the embankment material that has fallen onto the roadway shoulder.

Funding

This project would be funded under the 2017 State Highway Operations and Protection Program (SHOPP), under the Emergency Response Projects, Program Code 201.131. The total approximate cost of the project for support and capital, including construction, is $1,676,000 and is eligible for an approximately 88% partial federal reimbursement.


Chapter 2: Project Description

2.1 Project Location
The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA) for the Pepper Road Regrade Slope project (proposed project). The proposed project would repair three small slides on the northbound embankment of State Route (SR) 101 at Post Mile (PM) 9.0, near the City of Petaluma in Sonoma County. SR 101 in this vicinity is a six-lane freeway that passes through Sonoma County. The project is 1.4 miles north of Old Redwood Highway and just north of the southbound on-ramp from Pepper Road. The project footprint, also referred to as the project area, is the area where work or construction would take place for the proposed project, and consists of all project components (e.g., staging and traffic control) (see figure 2-1).

2.2 Proposed Project

Proposed improvements to SR 101 include excavating and regrading the northbound embankment slope, regrading the existing v-ditch and converting it to a concrete lined trapezoidal-gutter (trap-gutter) and replacing the existing 12-inch corrugated steel pipe (CSP) downdrain. There are two Alternatives: Alternative 1, which is the Build-Alternative and Alternative 2, the No-Build Alternative.

2.2.1 Alternative 1

Alternative 1 proposes to excavate and regrade the northbound (eastern side) embankment slope approximately 300 feet long longitudinally along the Caltrans right-of-way. Laterally, it would extend approximately 75 feet. Excavation would extend from the edge-of-pavement of the roadway to the existing bench at the existing v-ditch.

The existing v-ditch would then be regraded and converted to a concrete lined trap gutter and be stained a dark brown to blend into the landscape.

The concrete trap gutter would extend to an existing drainage inlet on the roadway. The existing 12-inch CSP downdrain would be replaced and appropriate erosion control measures would be installed (e.g. fiber rolls and hydroseed).

The lined trap gutter would be approximately 280 feet long and approximately 11 feet wide.

The downdrain headwall at the top-of-bank would be removed. The new downdrain would be placed within the existing drainage alignment, with a drainage inlet at the upstream (top-of-bank), and would be reconnected to the existing drainage inlet at the roadway shoulder.
2.3 Caltrans Standard Measures

The following Caltrans standard measures are included as part of the project description. Standardized measures are those measures that are generally applied to most or all Caltrans projects. These standardized or pre-existing measures allow little discretion regarding their implementation and are not specific to the circumstances of a particular project.

2.3.1 Avoidance of Entrapment

To prevent inadvertent entrapment of animals during construction, all excavated, steepwalled holes or trenches more than 1 foot deep will be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Escape ramps will be set at an angle of less than 33 degrees to ensure that wildlife can climb out. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals.

Pipes and culverts greater than 4 inches in diameter will be covered and stored to prevent wildlife from taking refuge. If covering and storage are not possible, Caltrans biologists will be consulted to develop an alternative. An inspection for wildlife will be conducted prior to moving the materials.

2.3.2 Erosion Control Matting

Plastic monofilament netting (erosion control matting) or similar material will not be used because wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds.

Any erosion control measures, such as fiber rolls and jute netting, would be hand placed where needed and hydroseeding would be performed by the customary spray method.

2.3.3 Revegetate Disturbed Areas

Caltrans will restore temporarily disturbed areas to the preconstruction function and values to the maximum extent practicable. Exposed slopes and bare ground will be reseeded with native species to stabilize and prevent erosion.

2.3.4 Reduce Spread of Invasive Species

Noxious weeds will be controlled within the project construction site in accordance with Caltrans' Highway Design Manual Topic 110.5, "Control of Noxious Weeds – Exotic and Invasive Species," and Executive Order 13112 (Invasive Species), and by methods approved by a Caltrans' landscape architect or vegetation control specialist.
2.3.5 Worker Environmental Awareness Training

Prior to ground-disturbing activities, an agency-approved biologist will conduct an education program for all construction personnel. At a minimum, the training will include a description of special-status species, migratory birds, and their habitats; how the species might be encountered within the project area; an explanation of the status of these species and protection under the federal and state laws and regulations; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and boundaries within which construction may occur. A fact sheet conveying this information will be prepared and distributed to all construction and project personnel entering the project construction site. Upon completion of the training program, personnel will sign a form stating that they attended the program and understand all the AMMs and implications of the federal and state laws and regulations.

2.3.6 Storm Drains

Any discharges of pollutants from vehicle and equipment cleaning into any storm drains or watercourses will not be allowed.

2.3.7 Sediment

Temporary fiber rolls or temporary silt fences will be installed along or at the base of slopes during construction to capture sediment.

2.3.8 Equipment Maintenance

All equipment will be maintained to prevent the leakage of vehicle fluids, such as gasoline, oils, or solvents. Sealable containers will be placed in a designated location to collect/store these fluids.

Onsite fueling and maintenance will only be performed when it is impractical to send vehicles and equipment offsite for fueling. The following practices will be followed:

a. Dedicated fueling areas will be protected from storm water run-on and runoff.
   b. Fueling will be performed at designated level-grade areas.
   c. Secondary containment or absorbent pads will be used during onsite vehicle and equipment fueling.

2.3.9 Migratory Birds

Vegetation Clearing
If vegetation clearing is required between February 1 and September 30, pre-construction nesting bird surveys will be conducted by a qualified biologist within 14 days of construction and within 72 hours of the start of construction, covering a radius of 300 feet for raptors and 100 feet for passerines. If nesting birds are found, Caltrans biologists will evaluate whether existing screening buffers (such as buildings, trees, intervening topography) are sufficient to allow work to proceed, or determine appropriate work exclusion buffers or nest monitoring that would be
required. This could result in work areas being reduced in size. If work cannot proceed without disturbing nesting birds, or if signs of disturbance are observed by the monitor, work may be halted or redirected to other areas until the nesting and fledging is complete, or until the nest has otherwise failed for reasons other than project construction.

To the extent feasible, vegetation clearing will be conducted October 1 to January 31 to avoid impacts on most nesting birds. Preconstruction biological surveys will be conducted prior to vegetation clearing to identify birds nesting outside of the normal breeding season, such as Anna’s hummingbird (Calypte anna) nests.

2.3.10 Site Restrictions

The following site restrictions will be implemented:

- A speed limit of 15 miles per hour in the project area will be enforced.
- Certifying, to the maximum extent practicable, that borrow material is nontoxic and weed free.
- Enclosing food and food-related trash items in sealed trash containers at the end of each day, and remove them completely from the site once every 3 days.
- Pets will be prohibited within the project area during construction.
- Prohibiting firearms within the project area, except for those carried by authorized security personnel, or local, state, or federal law enforcement officials.

2.3.11 Dust Control

Water trucks and dust palliatives would be used to control dust in excavation and fill areas, and cover temporary stockpiles when weather conditions require.

2.3.12 Cultural Resources

If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archeologist can assess the significance of the find.

If Caltrans professional qualified specialist determines that cultural materials includes human remains, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. Caltrans Cultural Resources Studies Office will contact the Sonoma County Coroner. Pursuant to CA PRC Section 5097.98, if the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the Most Likely Descendent. Caltrans, District 4, Cultural Resources Studies Office will work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.
2.3.13 Water Quality

Potential unintended discharge outside the construction site is a primary concern. This primary concern would require Temporary Construction Site Best Management Practices (BMPs), such as silt fence, fiber roll, and drainage inlet protection, construction entrances, concrete washout and street sweeping, to be deployed for sediment control and material management.

2.4 Construction Methodology and Staging

The project proposes lane closures, during daytime and nighttime hours.

Excavation would be accomplished by using a loader or excavator to remove embankment soil material. Excess material would be placed into trucks and hauled offsite. Similar equipment may be used for the v-ditch regrading. While it is anticipated that most of the earthwork can be completed from the roadway, an area for construction vehicle staging to access the work sites may be required. Therefore, the project footprint includes a staging area and an access road by construction vehicles to the top-of-bank.

The concrete for lining the trap-gutter would be supplied by concrete trucks. Any concrete washout facilities used would be portable; the lane would be reopened prior to the afternoon commute each construction day.

2.4.1 Excavation

The excavation that would be taking place on the proposed project is confined to the side slope embankment along the northbound side of SR 101 at the slide location, and to the existing v-ditch at the top of the slide slope that runs from the southernmost slide, up to an existing drainage inlet.

It is estimated that 1,480 cubic yards of soil material would be excavated and removed offsite.

2.4.2 Tree Removal and Vegetation Impacts

Construction would not require tree removal. However, existing vegetation in the form of grasses and shrubs would be removed during clearing and grubbing.

2.4.3 Construction Schedule

Grading and clearing would be scheduled during the dry season between April 15 and October 15. If construction activities extend past October 15, surveys for the California tiger salamanders following rain events, would be required. Vegetation clearing would be conducted October 1 to January 31 to avoid impacts on nesting birds.

The current project schedule proposes to begin construction in fall 2019. The potential for weather-related non-working days would probably place most of the construction activity in the spring and summer of 2019. Construction is expected to last approximately 6 to 9 months.
2.4.4 Right-of-way

The proposed project is anticipated to be within the existing State right-of-way. A property acquisition is not anticipated.

2.5 Alternative 2

A No-Build Alternative is considered for this project. In the No-Build Alternative there would be no additional new construction provided at this location, and the current level of maintenance activity would continue along this segment of SR 101. This proposal is viable, as it does not require specific action, however, it is not recommended, since it does not address maintenance or safety concerns.

2.6 Required Permits

Table 1 summarizes the permits required for the proposed project.

Table 2-1 Required Permits and Approvals

<table>
<thead>
<tr>
<th>Agency</th>
<th>Permit</th>
<th>Permit Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Fish and Wildlife Service</td>
<td>Section 7 Consultation of the Federal Endangered Species Act</td>
<td>The Biological Assessment was submitted to the USFWS on 02/01/2018</td>
</tr>
<tr>
<td>California Department of Fish and Wildlife</td>
<td>Incidental Take Permit</td>
<td>The ITP will be submitted after project approval.</td>
</tr>
</tbody>
</table>
Figure 2-1
Regional Vicinity
Sonoma 101 North of Pepper Road-Regrade Slope
EA 04-0J100, SON-101 Post Mile 9.0
Sonoma County, California
Chapter 3: California Environmental Act (CEQA) Evaluation

CEQA Environmental Checklist

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 projects will indicate that there are no impacts to a particular resource. 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, not NEPA, impacts. 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; see Chapters 1 and 2 for a detailed discussion of these features.
<table>
<thead>
<tr>
<th>Project Title:</th>
<th>Pepper Road Regrade Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead agency name and address:</td>
<td>California Department of Transportation 111 Grand Avenue, Oakland, CA 94612</td>
</tr>
<tr>
<td>Contact person and phone number:</td>
<td>Arnica MacCarthy, Acting Environmental Branch Chief (510) 286-7195</td>
</tr>
<tr>
<td>Project Location:</td>
<td>On State Route 101, 1.4 miles north of Old Redwood Highway, in Sonoma County</td>
</tr>
<tr>
<td>Project sponsor’s name and address:</td>
<td>See Lead Agency</td>
</tr>
<tr>
<td>General plan description:</td>
<td>Highway</td>
</tr>
<tr>
<td>Zoning:</td>
<td>Transportation</td>
</tr>
<tr>
<td>Description of project:</td>
<td>This project will repair 3 small landslides on the northbound embankment. The slides will be repaired by re-grading the existing northbound side slope to 2 to 1 or flatter, re-grading an existing top-of-bank v-ditch, and lining the v-ditch with concrete to make it a trap-gutter. In addition, an existing 12” corrugated steel pipe (CSP) downdrain will be replaced. All of the work will be within the existing Caltrans right of way (ROW).</td>
</tr>
<tr>
<td>Surrounding land uses and setting; briefly describe the project’s surroundings:</td>
<td>The project is in an area designated as Unincorporated and as Grazing Land.</td>
</tr>
<tr>
<td>Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):</td>
<td>Change list of agencies as applicable: Biological Opinion from the United States Fish and Wildlife Service Incidental Take Permit from the California Department of Fish and Wildlife California Transportation Commission</td>
</tr>
<tr>
<td>Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?</td>
<td>California Native American tribes traditionally and culturally affiliated with the project area were contacted by Caltrans PQS pursuant to Public Resources Code section 21080.3.1. None of those tribes requested consultation.</td>
</tr>
</tbody>
</table>

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission’s Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.
ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 3 for additional information.

| ☐ | Aesthetics | ☐ | Agriculture and Forestry | ☐ | Air Quality |
| ☑ | Biological Resources | ☐ | Cultural Resources | ☐ | Geology/Soils |
| ☑ | Greenhouse Gas Emissions | ☐ | Hazards and Hazardous Materials | ☑ | Hydrology/Water Quality |
| ☑ | Land Use/Planning | ☐ | Mineral Resources | ☑ | Noise |
| ☐ | Population/Housing | ☐ | Public Services | ☐ | Recreation |
| ☑ | Transportation/Traffic | ☐ | Tribal Cultural Resources | ☐ | Utilities/Service Systems |
| ☑ | Mandatory Findings of Significance |

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: [Signature]

Printed Name: [Signature]

Date: 11/11/2018

For:
**AESTHETICS**

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Have a substantial adverse effect on a scenic vista?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Substantially degrade the existing visual character or quality of the site and its surroundings?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

**CEQA Significance Determinations for Aesthetics**

Caltrans prepared a Visual Impact Analysis for the proposed project. The findings of this analysis are presented herein.

a-d) **No Impact**

The proposed project would not have a substantial adverse impact on a scenic vista because the project area does not include any scenic vistas nor is it eligible to be designated as a scenic highway. It would not substantially damage scenic resources. The intent is to repair the damaged embankment to prevent further land sliding that may impede traffic. This location would be excavated, re-graded, shored and repaired; the site would be regraded to match the existing gradient of the surrounding landscape. A v-ditch would be installed at the top of slope and will be stained a dark brown to blend into the landscape. The proposed project would not degrade the existing visual character or quality of the site or its surroundings and would not include new lighting elements in an area in which there is currently no lighting.
### AGRICULTURE AND FOREST 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.

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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 4528), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>d) Result in the loss of forest land or conversion of forest land to non-forest use?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

### CEQA Significance Determinations for Agriculture and Forest Resources

The project is in an area designated as Unincorporated and as Grazing Land by the California Department of Conservation, Division of Land Resources Protection-Farmland Mapping and Monitoring Program (California Department of Conversation 2017).

a-e) No Impact

The project would stay within Caltrans right-of-way (ROW), not convert farmland or forest to non-agricultural uses, or be in conflict with existing timberland zoning.

Pepper Road Regrade Slope  
Proposed Mitigated Negative Declaration  
3-5
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.

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Conflict with or obstruct implementation of the applicable air quality plan?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>c) 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)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>d) Expose sensitive receptors to substantial pollutant concentrations?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>e) Create objectionable odors affecting a substantial number of people?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>

CEQA Significance Determinations for Air Quality

a-e) **No Impact**
The project is considered a safety improvement and is exempt from air quality conformity determination under 40 Code of Federal Regulations (CFR) 93.126. An air quality study is not required. The project would be required to comply with Caltrans Standard Specification 14-9, Air Quality, which requires compliance with air-pollution control rules, regulations, ordinances, and statues that apply in the project area. Other construction air pollutants are expected to be minimal to negligible.
### BIOLOGICAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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 Game or US Fish and Wildlife Service?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

Pepper Road Regrade Slope  
*Proposed Mitigated Negative Declaration*  
3-7
CEQA Significance Determinations for Biological Resources

The 20.53-acre encompasses the entire project footprint and a 300-foot buffer. The BSA consists of undeveloped grasslands used for cattle grazing and light rural development. The BSA is in the Coastal Hills - Santa Rosa Plain subsection of the Northern California Coast Section (Conservation Biology Institute 2017). This subsection consists of a broad northwest-southeast-aligned valley in which the Santa Rosa Plain is located, and includes the rolling hills between the Pacific Ocean and the Santa Rosa Plain.

a,b) **Less than significant with Mitigation Incorporated**

**Resource Impact**

The proposed project is located within the Santa Rosa Plan Unit, critical habitat for Sonoma County distinct population segment (DPS) California tiger salamander. The project footprint is within the Santa Rosa Plain Conservation Strategy Study Area (SRPCS); however, it does not fall within a parcel mapped with a SRPCS strategy designation. The area adjacent to the project footprint is 1.3 miles away of a known breeding site (Figure 3-2).

The California Natural Diversity Database (CNDDB) shows an occurrence for the California tiger salamander within 1.3 miles of the project. The CNDDB notes that breeding habitat occurs in the vicinity of this occurrence and is located southwest of the Petaluma River. A concrete median barrier on the highway presents a significant dispersal barrier between breeding pools south of US 101 and the project footprint. While some California tiger salamanders may be able to cross at various culverts located along US 101, the potential for occurrence is greatly reduced.

The closest potential breeding habitat is a pool located 0.27 mile southeast of the project and mapped as a freshwater pond in the National Wetlands Inventory (Figure 3-1). The only CNDDB occurrence in this area is a historical record from 1856 (Occurrence 1135). While there are dispersal barriers between the CNDDB occurrences on the northbound side of US 101, including distance (over 1.3 miles) and development, dispersal from these sources cannot be completely discounted. Similarly, while US 101 presents a significant dispersal barrier, there is a possibility of safe highway crossing at a culvert from breeding habitat on the southbound side of US 101. And while there are no CNDDB occurrences near the aquatic features within 1.3 miles of the project, lack of records in the database does not prove absence. Therefore, Caltrans has inferred the presence of California tiger salamander within the project footprint. No protocol-level surveys were conducted for California tiger salamander within the BSA. Implementation of the proposed project would result in the following impacts to habitat:

- 0.07 acre upland habitat permanently converted to hardscape
- 1.75 acre upland habitat temporarily disturbed
Caltrans determined that the proposed project implementation may affect, and is likely to adversely affect the California tiger salamander. However, it would not adversely modify the Santa Rosa Plain Unit of Sonoma County California tiger salamander DPS critical habitat.

**Project Impacts**
The proposed project will potentially result in direct and indirect effects on California tiger salamander. These effects will be avoided, minimized, and mitigated to the extent feasible.

**Regulatory Setting**
Due to the potential for California tiger salamander within the construction site, construction of the proposed project would require regulatory approval from federal and state agencies. Caltrans would obtain permits from the U.S Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW).

**Federal and State Regulatory Requirements Applicable to Project**
Caltrans will obtain the following permits to complete the construction of this project:

- Biological Opinion from USFWS (Section 7 Consultation of the Federal Endangered Species Act)
- Incidental Take Permit from CDFW (Section 2081(b) of the CFGC)

**Potential Direct Effects**
Construction activities, including vegetation clearing and excavation, could result in injury or death of individual California tiger salamanders. Ground disturbance could result in crushing, entombing, or otherwise injuring the individuals. Individuals could also be inadvertently trapped within the work area. Construction activities and exclusion fencing will temporarily preclude the use of the project footprint by California tiger salamanders for dispersal and cover. The project is expected to re-establish baseline upland habitat values for the California tiger salamanders within 1 year of project completion for all of the 1.82-acre of habitat in the project footprint, with the exception of the 0.07-acre ditch, which will be lined with concrete. Table 3-1 summarizes the amount of habitat that will be affected.

<table>
<thead>
<tr>
<th>Table 3-1</th>
<th>California Tiger Salamander Project Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitat Type</td>
<td>Permanent Direct Impact (acre)</td>
</tr>
<tr>
<td>Upland</td>
<td>0.07</td>
</tr>
</tbody>
</table>

**Potential Indirect Effects**
Roads are known to be sources of mortality to migrating California tiger salamanders (USFWS 2004). The project does not propose to widen US 101 nor facilitate an increase in traffic; therefore, mortality is not expected to increase due to this project.
The project footprint does not have a direct hydrological connection to California tiger salamander aquatic habitat. Therefore, indirect effects to the water quality of breeding and aquatic dispersal habitats are not expected.

**Critical Habitat**
The project would result in 1.75 acres of temporary direct impacts and 0.07 acres of permanent impacts on habitat within the Santa Rosa Plain Unit of Sonoma County, DPS California tiger salamander critical habitat; however, most of the disturbed area would be restored to pre-project functions and values upon completion of construction. Therefore, implementation of the proposed project would not adversely modify the critical habitat.

**Avoidance and Minimization Measures**
General and species-specific avoidance and minimization measures will be implemented to reduce potential effects on environmental resources. These measures will include minimizing the area of impact.

**AMM BIO-1 Mitigation Bank Credits**
Caltrans proposes to mitigate impacts to California tiger salamander per the Santa Rosa Plain Conservation Strategy mitigation ratio. The 1.82-acre of disturbance would be mitigated with purchase of 3.64 acres of California tiger salamander credit from an approved mitigation bank.

**AMM BIO-2 Compensatory Mitigation**
Because the project footprint is within the designation of “within 1.3 miles of breeding site,” and the construction activities are likely to affect California tiger salamanders, a ratio of 2 acres of mitigation to every 1 acre of impact (2:1) will be applied (USFWS 2005). The SRPCS mitigation ratio does not differentiate between temporary and permanent impacts. Therefore, the 1.82-acre of disturbance would be mitigated with purchase of 3.64 acres of California tiger salamander credit from an approved mitigation bank.

**AMM BIO-3 Seasonal Avoidance**
To the maximum extent feasible, grading and clearing will be scheduled during the dry season between April 15 and October 15. Note that vegetation clearing during part of the wet season, February 1-August 31 in order to limit nesting habitat, may occur to minimize effects on nesting birds and will follow specific AMMs. If construction activities extend past October 15, then surveys for California tiger salamanders following rain events, will be required.

**AMM BIO-4 Preconstruction Surveys**
Preconstruction clearance surveys will be conducted by an agency-approved biological monitor for California tiger salamander immediately prior to initial vegetation removal and excavation, and before the start of work each morning of any other ground disturbance activity. The biological monitor will check for animals under equipment, such as vehicles and stored pipes. The biological monitor will check excavated steep-walled holes or trenches greater than 1 foot deep for any California tiger salamander. If an individual is found, it will be relocated to a safe place outside the work area. Safety permitting, the biological monitor will investigate areas of
disturbed soil for signs of California tiger salamander within 30 minutes following initial
disturbance of the given area.

**AMM BIO-5 Wildlife Exclusion Fencing**
Prior to construction and following clearance surveys, fencing will be installed to exclude
California tiger salamander from entering the project construction site.

**AMM BIO-6 Biological Monitor**
A CDFW and USFWS approved biological monitor will be onsite during work that could
reasonably result in take of special-status wildlife. Biological monitors will have the authority to
stop work that may result in the unauthorized take of special-status species through
communication with the Resident Engineer. The biological monitors will keep a copy of the
environmental permits in their possession when onsite.

**Caltrans Standard Measures**

**Avoidance of Entrapment**
To prevent inadvertent entrapment of animals during construction, all excavated, steepwalled
holes or trenches more than 1 foot deep will be covered at the close of each working day by
plywood or similar materials, or provided with one or more escape ramps constructed of earth fill
or wooden planks. Escape ramps will be set at an angle less than 33 degrees to ensure that
wildlife can climb out. Before such holes or trenches are filled, they must be thoroughly
inspected for trapped animals.

Pipes and culverts greater than 4 inches in diameter will be covered and stored to prevent
wildlife from taking refuge. If covering and storage are not possible, the Caltrans biologist will be
consulted to develop an alternative. An inspection for wildlife will be conducted prior to moving
the materials.

**Erosion Control Matting**
Plastic monofilament netting (erosion control matting) or similar material will not be used
because wildlife may become entangled or trapped in it. Acceptable substitutes include coconut
coir matting or tackifier hydroseeding compounds.

**Revegetate Disturbed Areas**
Caltrans will restore temporarily disturbed areas to the preconstruction function and values to
the maximum extent practicable. Exposed slopes and bare ground will be reseeded with native
species to stabilize and prevent erosion.

**Reduce Spread of Invasive Species**
Noxious weeds will be controlled within the project construction site in accordance with Caltrans’
Species,” and Executive Order 13112 (Invasive Species), and by methods approved by a
Caltrans’ landscape architect or vegetation control specialist.
Surveys

Special-Status Plant Species
The Natural Resources Conservation Services (NRCS) database review identified 69 special-status plants in the regional vicinity of the project, 13 of which were considered to have a potential to occur within the BSA, based on the presence of suitable or marginally suitable habitat and that the BSA is within the historic range of the species. Three of these species, Vine Hill clarkia (Clarkia imbricata), Contra Costa goldfields (Lasthenia conjugens), and two-fork clover/showy Indian clover (Trifolium amoenum), are federally listed as endangered. Vine Hill clarkia is also state-listed as endangered. The other 10 species are not federally or state listed.

Survey Results
Of the 13 species with potential to occur, 10 have blooming periods that correspond with the June 2017 floristic survey that was conducted, but were not observed. These species include Franciscan onion (Allium peninsulare var. franciscanum), bent-flowered fiddleneck (Amsinckia lunaris), alkali milk-vetch (Astragalus tener var. tener), pappose tarplant (Centromadia parryi ssp. parryi), Vine Hill clarkia, congested-headed hayfield tarplant (Hemizonia congesta ssp. congesta), thin-lobed horkelia (Horkelia tenuiloba), Contra Costa goldfields, marsh microseris (Microseris paludosa), and two-fork clover/showy Indian clover.

Another special-status plant survey in March or April will be conducted for the project footprint for earlier blooming species such as round-leaved filaree, fragrant fritillary, and Mt. Diablo cottonweed. These three species are not federally or state listed. Once spring surveys are complete in accordance with standard protocols for surveying special-status plants (CDFW 2009; USFWS 1996), then the botanical protocol-level surveys will be considered complete for the project footprint.

Santa Rosa Plain Federally Listed Plant Species
The federally listed plant species occurring on the Santa Rosa Plain are Sonoma sunshine (Biennosperma bakeri), Burke's goldfields (Lasthenia burkei), Sebastopol meadowfoam (Limnanthes vinculans), and many-flowered navarretia (Navarretia leucocephala ssp. pleantha) (USFWS 2005). These species occur in vernal pool habitats. The BSA does not contain any wetland habitat, so there is no suitable habitat for these species in the BSA.

Special-status Plants
Preconstruction special-status plant surveys will be conducted during the blooming period for round-leaved filaree (California macrophylla), fragrant fritillary (Fritillaria liliacea), and Mt. Diablo cottonweed (Micopus amphibolus): March or April.
FIGURE 3-2
Santa Rosa Plain Conservation Strategy Designations of the BSA
Sonoma 101 North of Pepper Road – Regrade Slope
EA 04-04/05, SDN-101 Post Mile 9.0
Sonoma County, California
c, d, e, f) **No Impact**
The proposed project footprint does not contain any wetlands or other waters; permits in compliance with the Federal Clean Water Act Sections 401 and 404, Porter-Cologne Water Quality Control Act and CFGC Section 1600 are not required.

**Migratory Birds**
The proposed project will require removal of vegetation that may be used as nest sites by species protected by the Migratory Bird Treaty Act and under the California Fish and Game Code (CFGC). However, implementation of project features including seasonal avoidance, preconstruction surveys, and construction/nest buffers, will avoid direct impacts on nesting migratory birds or raptors.

**Preconstruction Survey**
A preconstruction bird nesting survey will be conducted to identify active migratory bird nests in potentially affected vegetation prior to beginning construction during the nesting season of February 1 to September 30. If nesting birds are located, an appropriate disturbance-free buffer will be maintained until nesting is complete.

**Vegetation Removal**
To the extent feasible, vegetation clearing will be conducted October 1 to January 31 to avoid impacts on most nesting birds. Preconstruction biological surveys will be conducted prior to vegetation clearing to identify birds nesting outside of the normal breeding season, such as Anna’s hummingbird (Calypte anna) nests. If vegetation clearing is required between February 1 and September 30, pre-construction nesting bird surveys will be conducted by a qualified biologist within 14 days of construction and within 72 hours of the start of construction, covering a radius of 300 feet for raptors and 100 feet for passerines. If nesting birds are found, the Caltrans biologist will evaluate whether existing screening buffers (such as buildings, trees, intervening topography) are sufficient to allow work to proceed, or determine what level of work exclusion buffers or nest monitoring is needed. This could result in work areas being reduced in size. If work cannot proceed without disturbing nesting birds, or if signs of disturbance are observed by the monitor, work may be halted or redirected to other areas until the nesting and fledging is complete, or until the nest has otherwise failed for reasons other than project construction.

**Invasive Species**
Noxious weeds will be controlled within the project construction site in accordance with Caltrans’ Highway Design Manual Topic 110.5, “Control of Noxious Weeds – Exotic and Invasive Species,” and Executive Order 13112 (Invasive Species), and by methods approved by a Caltrans’ landscape architect or vegetation control specialist.

Caltrans has conducted a botanical survey of the BSA and will continue to consult with CDFW during project planning to comply with the provisions of this act; however, no effects on endangered or rare native plants are expected.
The proposed project would not have conflict with any local policies or ordinances protecting biological resource nor conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approval local, regional, or state habitat conservation plan.
CULTURAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>d) Disturb any human remains, including those interred outside of dedicated cemeteries?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>

CEQA Significance Determinations for Cultural Resources

a-e) No Impact

This project is in compliance with the January 2014 First Amended Programmatic Agreement Among the Federal Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (hereafter, the PA).

Due to the nature of the undertaking, it was determined that the project has no potential to affect cultural resources and is exempt from further review pursuant to the PA, Stipulation VII, a Screened Undertaking. The undertaking has been screened and determined to be exempt under Class 9 (storm damage repair) of Attachment 2, "Screened Undertakings" in the PA.

Caltrans Project Measures

If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archeologist can assess the significance of the find.

If Caltrans professional qualified specialist determines that cultural materials includes human remains, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. Caltrans Cultural Resources Studies Office will contact the Sonoma County Coroner. Pursuant to CA PRC Section 5097.98, if the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the Most Likely Descendent. Caltrans, District 4, Cultural Resources Studies Office will work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Pepper Road Re grade Slope
Proposed Mitigated Negative Declaration

3-15
GEOLOGY AND SOILS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>ii) Strong seismic ground shaking?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>iii) Seismic-related ground failure, including liquefaction?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>iv) Landslides?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Result in substantial soil erosion or the loss of topsoil?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>
CEQA Significance Determinations for Geology and Soils

a-e) **No Impact**
The majority of the proposed project is underlain by soil classified as Sebastopol sandy loam. Since this project proposes to reduce the cut slope, the top soil will be removed; therefore, the soil properties would not come into consideration. There are three faults near the project, according to the Alquist-Priolo Earthquake Fault Zone Maps, there are no faults within the limits of the project site; surface rapture would not be an issue. Liquefaction would not be an issue in the project area. Reducing the slope angle would decrease the possibility of a seismically induced landslide. However, a geotechnical investigation may be performed to determine the rippability\(^1\) and stability of the subsurface. The excavation proposed for the project would not pose a stability problem for the use of septic tanks or alternative waste water disposal systems.

**AMM PALEO-1: Paleontological Evaluation Report (PER)**
An evaluation of paleontological sensitivities and depths of anticipated ground-disturbing construction activities suggests that the project will only encounter the Wilson Grove Formation. Since fossils have been found in this area in this formation a PER should be prepared.

\(^1\) Rippability: is the ease with which soil or rock can be mechanically excavated.

*Pepper Road Regrade Slope*
*Proposed Mitigated Negative Declaration*
GREENHOUSE GAS EMISSIONS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</td>
<td>Caltrans has used the best available information based to the extent possible on scientific and factual information, to describe, calculate, or estimate the amount of greenhouse gas emissions that may occur related to this project. The analysis included in the climate change section of this document provides the public and decision-makers as much information about the project as possible. It is Caltrans’ determination that in the absence of statewide-adopted thresholds or GHG emissions limits, it is too speculative to make a significance determination regarding an individual project’s direct and indirect impacts with respect to global climate change. Caltrans remains committed to implementing measures to reduce the potential effects of the project. These measures are outlined in the climate change section that follows the CEQA checklist and related discussions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 has 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), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).
In the U.S., the main source of GHG emissions is electricity generation, followed by transportation.\(^2\) In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) are the largest contributors of GHG emissions.\(^3\) The dominant GHG emitted is CO\(_2\), mostly from fossil fuel combustion.

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." "Greenhouse gas mitigation" is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to 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).

**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.\(^4\) This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—"the triple bottom line of sustainability."\(^5\) 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. Addressing these factors up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making.

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\(^3\) [https://www.arb.ca.gov/cc/inventory/data/data.htm](https://www.arb.ca.gov/cc/inventory/data/data.htm)

\(^4\) [https://www.fhwa.dot.gov/environment/sustainability/resilience/](https://www.fhwa.dot.gov/environment/sustainability/resilience/)

\(^5\) [https://www.sustainablehighways.dot.gov/overview.aspx](https://www.sustainablehighways.dot.gov/overview.aspx)
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 Energy Policy Act of 1992 (EPACT92, 102nd Congress H.R.776.ENR): With this act, Congress set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. EPACT92 consists of 27 titles detailing various measures designed to lessen the nation’s dependence on imported energy, provide incentives for clean and renewable energy, and promote energy conservation in buildings. Title III of EPACT92 addresses alternative fuels. It gave the U.S. Department of Energy administrative power to regulate the minimum number of light-duty alternative fuel vehicles required in certain federal fleets beginning in fiscal year 1993. The primary goal of the Program is to cut petroleum use in the United States by 2.5 billion gallons per year by 2020.

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) Indian 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.

Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel 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 Corporate Average Fuel Economy (CAFE) program on the basis of each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the United States.

Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, 74 Federal Register 52117 (October 8, 2009): This federal EO set sustainability goals for federal agencies and focuses on making improvements in their environmental, energy, and economic performance. It instituted as policy of the United States that federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities.

Executive Order 13693, Planning for Federal Sustainability in the Next Decade, 80 Federal Register 15869 (March 2015): This EO reaffirms the policy of the United States that federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities. It sets sustainability goals for all agencies to promote energy conservation, efficiency, and management by reducing energy consumption and GHG emissions. It builds on the adaptation and resiliency goals in previous executive orders to ensure agency operations and facilities prepare for impacts of climate change. This order revokes Executive Order 13514.

U.S. EPA’s authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. EPA (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court’s ruling, U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme
Court’s interpretation of the existing Act and EPA’s assessment of the scientific evidence that form the basis for EPA’s regulatory actions.

U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010\(^6\) and significantly increased the fuel economy of all new passenger cars and light trucks sold in the United States. The standards required these vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. In August 2012, the federal government adopted the second rule that increases fuel economy for the fleet of passenger cars, light-duty trucks, and medium-duty passenger vehicles for model years 2017 and beyond to average fuel economy of 54.5 miles per gallon by 2025. Because NHTSA cannot set standards beyond model year 2021 due to statutory obligations and the rules’ long timeframe, a mid-term evaluation is included in the rule. The Mid-Term Evaluation is the overarching process by which NHTSA, EPA, and ARB will decide on CAFE and GHG emissions standard stringency for model years 2022–2025. NHTSA has not formally adopted standards for model years 2022 through 2025. However, the EPA finalized its mid-term review in January 2017, affirming that the target fleet average of at least 54.5 miles per gallon by 2025 was appropriate. In March 2017, President Trump ordered EPA to reopen the review and reconsider the mileage target.\(^7\)

NHTSA and EPA issued a Final Rule for “Phase 2” for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO\(_2\) emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

Presidential Executive Order 13783, Promoting Energy Independence and Economic Growth, of March 28, 2017, orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, nitrous oxide, and methane.

**State**

With the passage of legislation including State Senate and Assembly bills and executive orders, California has been innovative and proactive in addressing GHG emissions and climate change.

Assembly Bill 1493, Pavley Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

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Executive Order S-3-05 (June 1, 2005): The goal of this executive order (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 32 in 2006 and SB 32 in 2016.

Assembly Bill 32 (AB 32), Chapter 488, 2006: Núñez and Pavley, The Global Warming Solutions Act of 2006. AB 32 codified the 2020 GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that 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 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.

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order 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 97 (SB 97), Chapter 185, 2007, Greenhouse Gas Emissions: This bill requires the Governor’s Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (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.

Senate Bill 391 (SB 391), Chapter 585, 2009, California Transportation Plan: This bill requires the State’s long-range transportation plan to meet California’s climate change goals under AB 32.

Executive Order 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.
Executive Order B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 in order 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). 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.

Senate Bill 32, (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.

Environmental Setting

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multi-year program to reduce GHG emissions in California. 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. The Scoping Plan was first approved by ARB in 2008 and must be updated every 5 years. ARB approved the *First Update to the Climate Change Scoping Plan* on May 22, 2014. ARB is moving forward with a discussion draft of an updated Scoping Plan that will reflect 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. As part of its supporting documentation for the Draft Scoping Plan, ARB released the GHG inventory for California.⁹ ARB is responsible for maintaining and updating California’s GHG Inventory per H&SC Section 39607.4. The associated forecast/projection is an estimate of the emissions anticipated to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented.

An emissions projection estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. The projected 2020 emissions provided in Figure ## represent a business-as-usual (BAU) scenario assuming none of the Scoping Plan measures are implemented. The 2020 BAU emissions estimate assists ARB in demonstrating progress toward meeting the 2020 goal of 431 MMTCO₂e⁹. The 2017 edition of the GHG emissions inventory (released June 2017) found total California emissions of 440.4 MMTCO₂e, showing progress toward meeting the AB 32 goals.

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⁹ 2016 Edition of the GHG Emission Inventory Released (June 2016): https://www.arb.ca.gov/cc/inventory/data/data.htm
⁹ The revised target using Global Warming Potentials (GWP) from the IPCC Fourth Assessment Report (AR4)

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The 2020 BAU emissions projection was revisited in support of the First Update to the Scoping Plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand as well as other factors. It also accounts for the effects of the 2008 economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario include reductions anticipated from Pavley I and the Renewable Electricity Standard (30 MMTCO$_2$e total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 MMTCO$_2$e.

**FIGURE 3-3  2020 Business as Usual (BAU) Emissions Projection 2014 Edition**

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### Project Analysis

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG. 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

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10 This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: *The CEQA Guide, April 2011*) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

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probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

GHG emissions for transportation projects can be divided into those produced during operations and those produced during construction. The following represents a best faith effort to describe the potential GHG emissions related to the proposed project.

**Non Capacity-Increasing Project**

The proposed improvements for this project is classified as a non-capacity-increasing project where the operation of the project will have low-to no-potential for an increase in operational GHG emissions from the repair of the small landslides. The proposed improvements include excavating and regrading the northbound embankment slope, regrading the existing v-ditch, replacement of existing corrugated steel pipe downdrain.

However, even though the construction emissions will be unavoidable, there will likely be long term GHG benefits by improved operation from the project improvements.

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

In addition, with innovations such as longer pavement lives, improvement 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.

**CEQA Conclusion**

**Greenhouse Gas Reduction Strategies**

**Statewide Efforts**

In an effort to further the vision of California's GHG reduction targets outlined an AB 32 and SB 32, Governor Brown identified key climate change strategy pillars (concepts). These pillars highlight the idea that several major areas of the California economy will need to reduce emissions to meet the 2030 GHG emissions target. These pillars are (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 farm and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California.*
The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that we build on our past successes in reducing criteria and toxic air pollutants from transportation and goods movement activities. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled. One of Governor Brown’s key pillars sets the ambitious goal of reducing today’s petroleum use in cars and trucks by up to 50 percent by 2030.

Governor Brown called for support to manage natural and working lands, including forests, rangelands, farms, wetlands, and soils, so they can store carbon. These lands have the ability to remove carbon dioxide from the atmosphere through biological processes, and to then sequester 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 a new 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. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California’s future statewide,
integrated, multimodal transportation system. It serves as an umbrella document for all of the other statewide transportation planning documents.

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 per capita
- 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 funding and technical assistance programs that have GHG reduction benefits. These include the Bicycle Transportation Program, Safe Routes to School, Transportation Enhancement Funds, and Transit Planning Grants. A more extensive description of these programs can be found in *Caltrans Activities to Address Climate Change* (2013).

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 activities undertaken by Caltrans statewide 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.

**AMM CLIMATE CHANGE-1:** According to Caltrans’ Standard Specifications, the contractor must comply with all of the Bay Area Air Management District rules, ordinances, and regulations regarding air quality restrictions.
AMM CLIMATE CHANGE-2: Compliance with Title 13, California Code of Regulations

Adopted by the Air Resources Board on June 15, 2008, this regulation would restrict idling of construction vehicles to no longer than 5 consecutive minutes. The contractor must comply with this regulation in order to reduce harmful emissions from diesel-powered construction vehicles.

AMM-CLIMATE CHANGE-3: To the extent that it is feasible for the project, reclaimed water may be used to reduce GHG emissions produced during construction. Currently, 30 percent of the electricity used in California is used for the treatment and delivery of water. Use of reclaimed water helps conserve this energy, which reduces greenhouse gas emissions from electricity production.

Adaptation Strategies

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage—or, put another way, planning and design for resilience. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. These types of impacts to the transportation infrastructure may also have economic and strategic ramifications.

Federal Efforts

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the CEQ, the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011 \(^1\), outlining the federal government’s progress in expanding and strengthening the nation’s capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provided an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as fresh water, and providing accessible climate information and tools to help decision-makers manage climate risks.

The federal Department of Transportation issued U.S. DOT Policy Statement on Climate Adaptation in June 2011, committing 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.”\(^2\)

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\(^{1}\) https://obamawhitehouse.archives.gov/administration/app/ceq/initiatives/resilience


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To further the DOT Policy Statement, in December 15, 2014, FHWA issued order 5520 (Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events). This directive established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. The FHWA will work to integrate consideration of these risks into its planning, operations, policies, and programs in order to promote preparedness and resilience; safeguard federal investments; and ensure the safety, reliability, and sustainability of the nation’s transportation systems.

FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels.

State Efforts

On November 14, 2008, then-Governor Arnold Schwarzenegger signed EO S-13-08, which directed a number of state agencies to address California’s vulnerability to sea-level rise caused by climate change. This EO set in motion several agencies and actions to address the concern of sea-level rise and directed all state agencies planning to construct projects in areas vulnerable to future sea-level rise to consider a range of sea-level rise scenarios for the years 2050 and 2100, assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea-level rise. Sea-level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, and storm surge and storm wave data.

Governor Schwarzenegger also requested the National Academy of Sciences to prepare an assessment report to recommend how California should plan for future sea-level rise. The final report, Sea-Level Rise for the Coasts of California, Oregon, and Washington (Sea-Level Rise Assessment Report) was released in June 2012 and included relative sea-level rise projections for the three states, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates; and the range of uncertainty in selected sea-level rise projections. It provided a synthesis of existing information on projected sea-level rise impacts to state infrastructure (such as roads, public facilities, and beaches), natural areas, and coastal and marine ecosystems; and a discussion of future research needs regarding sea-level rise.

In response to EO S-13-08, the California Natural Resources Agency (Resources Agency), in coordination with local, regional, state, federal, and public and private entities, developed The California Climate Adaptation Strategy (Dec 2009), which summarized the best available science on climate change impacts to California, assessed California’s vulnerability to the identified impacts, and outlined solutions that can be implemented within and across state agencies to promote resiliency. The adaptation strategy was updated and rebranded in 2014 as Safeguarding California: Reducing Climate Risk (Safeguarding California Plan).

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14 https://www.fhwa.dot.gov/environment/sustainability/resilience/
16 http://www.climatechange.ca.gov/adaptation/strategy/index.html

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3-28
Governor Jerry Brown enhanced the overall adaptation planning effort by signing EO B-30-15 in April 2015, requiring state agencies to factor climate change into all planning and investment decisions. In March 2016, sector-specific Implementation Action Plans that demonstrate how state agencies are implementing EO B-30-15 were added to the Safeguarding California Plan. This effort represents a multi-agency, cross-sector approach to addressing adaptation to climate change-related events statewide.

EO S-13-08 also gave rise to the *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance), produced by the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT), of which Caltrans is a member. First published in 2010, the document provided “guidance for incorporating sea-level rise (SLR) projections into planning and decision making for projects in California,” specifically, “information and recommendations to enhance consistency across agencies in their development of approaches to SLR.” The *March 2013 update* finalizes the SLR Guidance by incorporating findings of the National Academy’s 2012 final Sea-Level Rise Assessment Report; the policy recommendations remain the same as those in the 2010 interim SLR Guidance. The guidance will be updated as necessary in the future to reflect the latest scientific understanding of how the climate is changing and how this change may affect the rates of SLR.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation, and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is actively engaged in working towards identifying these risks throughout the state and will work to incorporate this information into all planning and investment decisions as directed in EO B-30-15.

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.

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## HAZARDS AND HAZARDOUS MATERIALS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>h) 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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>
CEQA Significance Determinations for Hazards and Hazardous Materials

a-e) **No Impact**

The cross-section of the proposed project shows that excavation in the side slope would be at least five feet higher than the existing traveled way. It is unlikely that soil excavated at this distance from the roadway (laterally and vertically) would be contaminated by fuel exhaust from past leaded gas emissions. Any elevated lead contamination in the shallow soils closer to the edge of pavement, if excavated, would be significantly diluted by the soils excavated from greater depths, and in greater volume, in the side slope. The Caltrans Hazardous Waste Branch determined that no site investigation study would be needed. During the project development process the Hazardous Waste Branch would draft aerially deposited lead-related special provisions to address the anticipated low lead levels in the surplus excavated soils.
## HYDROLOGY AND WATER QUALITY

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Violate any water quality standards or waste discharge requirements?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>e) 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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>f) Otherwise substantially degrade water quality?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>j) Inundation by seiche, tsunami, or mudflow</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>
CEQA Significance Determinations for Hydrology and Water Quality

Caltrans prepared a Location Hydraulic Study and Water Quality Study for the project. A summary of the findings of this analysis are presented.

a, b, c, e) **No Impact**
Due to the proposed trap-gutter, the proposed project scope would include new pollutant-generating impervious surface; this quantity would be approximately 0.07 acres. The proposed project would also result in an anticipated total disturbed soil area (DSA) of approximately 2.49 acres, which includes 0.46 acres regraded area (proposed work area), 1.86 acres of the proposed project would provide construction road access around the work area, and 0.17 acres of staging area. However, the proposed project would not violate any water quality standards or waste discharge requirements, it would not deplete groundwater supplies or interfere substantially with groundwater recharge. It would not create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff nor would it substantially degrade the water quality.

d,f) **Less Than Significant Impact**
The proposed project would alter the existing drainage pattern of the site from staging and from regrading the existing v-ditch and converting it from soil to a concrete lined trap-gutter which can extend to an existing drainage inlet, and replacing the existing 12-inch CSP downdrain. There will also be minimal substantial degradation in water quality and potential temporary impacts; therefore, making the impacts less than significant.

**Caltrans Standard Measures**
The potential temporary impacts shall be addressed by the Temporary Construction BMPs, such as silt fence, fiber roll, and drainage inlet protection

f-g) **No Impact**
The proposed project would not result in any impacts to the 1% annual chance (100 year) flood plain, it would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam Inundation by seiche, tsunami, or mudflow. The project would not be within the 100-year flood hazard areas as mapped on the FEMA.
LAND USE AND PLANNING

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Physically divide an established community?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Conflict with any applicable habitat conservation plan or natural community conservation plan?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

CEQA Significance Determinations for Land Use and Planning

a-b) **No Impact**
The proposed project complies with the stated goals of the Sonoma County General Plan (Sonoma County 2008), including goals for transportation safety. The proposed project supports the following goal by providing safe access to motorized vehicles on SR 101 shoulder. Therefore, there would be no impacts.

c) **Less Than Significant Impact**
There is one conservation plan in effect in the area which is the USFWS Santa Rosa Plain Conservation Plan.

The Santa Rosa Plain includes the rolling hills between the Pacific Ocean and Santa Rosa. This area contains species that are federally protected under the FESA. Landowners are assisted by the USFWS to comply with FESA requirements by implementing conservation banks and using programmatic biological opinion to simplify the process of consulting with USFWS (USFWS 2016b); the following mitigation measures for impacts to CTS, will further reduce the less-than-significant impact.

**AMM LAND-1**
A USFWS approved biological monitor will be present during site preparation activities prior to the start of construction, including vegetation removal, installation of environmentally sensitive area fencing, and wildlife exclusion fencing.
MINERAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>☑</td>
</tr>
<tr>
<td>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?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>☑</td>
</tr>
</tbody>
</table>

CEQA Significance Determinations for Mineral Resources

a-b) No Impact

There are no documented mineral resources within the proposed project limits. No impacts on mineral resources would result from the proposed project (California Department of Conservation 2017).
## NOISE

<table>
<thead>
<tr>
<th>Would the project result in:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>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 expose people residing or working in the project area to excessive noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

a,b,c,e,f) **No Impact**

The noise level would not change from existing levels. However, increases in noise levels from construction would be temporary. There would be no adverse or significant noise impacts from construction. The surrounding land use is restricted to agriculture, there would be fewer receptors. The proposed project is not within the vicinity of a private airstrip or within 2 miles of a public airport. The proposed project would not expose people to excessive noise levels from public or private airport.

c) **Less Than Significant Impact**

There would be a minimal increase in ambient noise levels in the project vicinity during construction hours making the impact less than significant.
# POPULATION AND HOUSING

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Induce substantial 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)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>

# CEQA Significance Determinations for Population and Housing

a-c) **No Impact**

The proposed project would not induce population growth directly or indirectly, displace existing housing, or displace people necessitating the construction of replacement housing elsewhere.
PUBLIC SERVICES

<table>
<thead>
<tr>
<th></th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire protection?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Police protection?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Schools?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Parks?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Other public facilities?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

CEQA Significance Determinations for Public Services

a) **No Impact**

The propose project would not result in substantial adverse physical impacts associated with the provision of new or physically governmental facilities, need for new or physically altered governmental facilities, or the construction 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. Therefore, there would be no impact.
RECREATION

<table>
<thead>
<tr>
<th></th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

CEQA Significance Determinations for Recreation

a-b) **No Impact**

There are no recreational facilities in the project area, therefore there will be no impacts.
## TRANSPORTATION/TRAFFIC

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>e) Result in inadequate emergency access?</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
</tbody>
</table>
CEQA Significance Determinations for Transportation/Traffic

a, b, c, d, f) **No Impact**
The proposed project would improve existing facilities. The project does not interfere with city or county plans, air traffic and would not impede emergency access. Therefore, there is no impact.

e) **Less Than Significant Impact**
The proposed project would have the potential to temporarily interfere or reduce emergency response times during lane closure hours due to night work and lane closure. A Traffic Management Plan would be developed and implemented and would address these potential impacts to circulation Therefore, the impact would be less than significant.

**Caltrans Standard Measure**
Enforcing a speed limit of 15 miles per hour in the project area.
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:

<table>
<thead>
<tr>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

CEQA Significance Determinations for Tribal Cultural Resources

a-b) **No Impact**

The proposed project would not 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.

An action plan would be included in the Environmental Commitment Record in the event of discovering a cultural resource.
### UTILITIES AND SERVICE SYSTEMS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>e) 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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>g) Comply with federal, state, and local statutes and regulations related to solid waste?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

**CEQA Significance Determinations for Utilities and Service Systems**

a, b, d, e, f, g) **No Impact**

The proposed project would not generate a demand for portable water; nor would it trigger the need for services of waste water treatment facility. Therefore, the project would not contribute to exceed of treatment requirements or require construction of new water or waste water facilities.

c) **Less Than Significant Impact**

At the top of the embankment there is a bench with an unlined v-ditch. The v-ditch drains to an existing drainage inlet feeding an existing cross culvert that drains to the west of the freeway. An existing drainage facility will be replaced resulting in reductions of storm damage in the project area; therefore impacts are less than significant.
<table>
<thead>
<tr>
<th>Question</th>
<th>Significant and Unavoidable Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Does the project have impacts that are individually limited, but cumulatively considerable? (&quot;Cumulatively considerable&quot; 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)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>
CEQA Significance Determinations for Mandatory Findings of Significance

a) Less Than Significant with Mitigation Incorporated
The proposed project would result in less than significant impacts when mitigation is incorporated due to construction activities, including vegetation clearing and excavation. The clearing and excavation could result in injury or death of individual California tiger salamanders. Ground disturbance could result in crushing, entombing, or otherwise injuring the individuals. Individuals could also be inadvertently trapped within the work area. Construction activities and exclusion fencing will temporarily preclude the use of the project footprint by California tiger salamanders for dispersal and cover. The project is expected to re-establish baseline upland habitat values for the California tiger salamanders within 1 year of project completion for all of the 1.82-acre of habitat in the project footprint, with the exception of the 0.07-acre ditch, which will be lined with concrete.

AMM BIO-1 Mitigation Bank Credits
Caltrans proposes to mitigate impacts to California tiger salamander per the Santa Rosa Plain Conservation Strategy (SRPCS) mitigation ratio. The 1.82-acre of disturbance would be mitigated with purchase of 3.64 acres of California tiger salamander credit from an approved mitigation bank.

AMM BIO-2 Compensatory Mitigation
Because the project footprint is within the designation of “within 1.3 miles of breeding site,” and the construction activities are likely to affect California tiger salamanders, a ratio of 2 acres of mitigation to every 1 acre of impact (2:1) will be applied (USFWS 2005). The SRPCS mitigation ratio does not differentiate between temporary and permanent impacts. Therefore, the 1.82-acre of disturbance would be mitigated with purchase of 3.64 acres of California tiger salamander credit from an approved mitigation bank.

AMM BIO-3 Seasonal Avoidance
To the maximum extent feasible, grading and clearing will be scheduled during the dry season between April 15 and October 15. Note that vegetation clearing during the wet season, in order to limit nesting habitat, may occur to minimize effects on nesting birds and will follow specific AMMs, if construction activities extend past October 15, then surveys for California tiger salamanders will be required following rain events.

AMM BIO-4 Preconstruction Surveys
Preconstruction clearance surveys will be conducted by an agency-approved biological monitor for California tiger salamander immediately prior to initial vegetation removal and excavation, and before the start of work each morning of any other ground disturbance activity. The biological monitor will check for animals under equipment, such as vehicles and stored pipes. The biological monitor will check excavated steep-walled holes or trenches greater than 1 foot deep for any California tiger salamander. If an individual is found, it will be relocated to a safe place outside the work area. Safety permitting, the biological monitor will investigate areas of
disturbed soil for signs of California tiger salamander within 30 minutes following initial disturbance of the given area.

**AMM BIO-5 Wildlife Exclusion Fencing**
Prior to construction and following clearance surveys, fencing will be installed to exclude California tiger salamander from entering the project construction site.

**AMM BIO-6 Biological Monitor**
A CDFW and USFWS approved biological monitor will be onsite during work that could reasonably result in take of special-status wildlife. Biological monitors will have the authority to stop work that may result in the unauthorized take of special-status species through communication with the Resident Engineer. The biological monitors will keep a copy of the environmental permits in their possession when onsite.

**c,d) No Impact**
The re-grading of the slope would restrict the range of an endangered species. Further, the incorporation of Environmental Commitment Record (listed in Appendix B) into the project would result in no residual impacts from the proposed project that can contribute to cumulative impacts. Therefore, the project would not contribute to cumulative impacts.
PRELIMINARY PLAN
SUBJECT TO REVISION

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
Appendix B  Environmental Commitment Record

Avoidance and Minimization Measures
General and species-specific avoidance and minimization measures will be implemented to reduce potential effects on environmental resources. These measures will include minimizing the area of impact.

AMM BIO-1 Mitigation Bank Credits
Caltrans proposes to mitigate impacts to California tiger salamander per the Santa Rosa Plain Conservation Strategy mitigation ratio. The 1.82-acre of disturbance would be mitigated with purchase of 3.64 acres of California tiger salamander credit from an approved mitigation bank.

AMM BIO-2 Compensatory Mitigation
Because the project footprint is within the designation of "within 1.3 miles of breeding site," and the construction activities are likely to affect California tiger salamanders, a ratio of 2 acres of mitigation to every 1 acre of impact (2:1) will be applied (USFWS 2005). The SRPCS mitigation ratio does not differentiate between temporary and permanent impacts. Therefore, the 1.82-acre of disturbance would be mitigated with purchase of 3.64 acres of California tiger salamander credit from an approved mitigation bank.

AMM BIO-3 Seasonal Avoidance
To the maximum extent feasible, grading and clearing will be scheduled during the dry season between April 15 and October 15. Note that vegetation clearing during the wet season, in order to limit nesting habitat, may occur to minimize effects on nesting birds and will follow specific AMMs. If construction activities extend past October 15, then surveys for California tiger salamanders following rain events, will be required.

AMM BIO-4 Preconstruction Surveys
Preconstruction clearance surveys will be conducted by an agency-approved biological monitor for California tiger salamander immediately prior to initial vegetation removal and excavation, and before the start of work each morning of any other ground disturbance activity. The biological monitor will check for animals under equipment, such as vehicles and stored pipes. The biological monitor will check excavated steep-walled holes or trenches greater than 1 foot deep for any California tiger salamander. If an individual is found, it will be relocated to a safe place outside the work area. Safety permitting, the biological monitor will investigate areas of disturbed soil for signs of California tiger salamander within 30 minutes following initial disturbance of the given area.

AMM BIO-5 Wildlife Exclusion Fencing
Prior to construction and following clearance surveys, fencing will be installed to exclude California tiger salamander from entering the project construction site.
AMM BIO-6 Biological Monitor
A CDFW and USFWS approved biological monitor will be onsite during work that could reasonably result in take of special-status wildlife. Biological monitors will have the authority to stop work that may result in the unauthorized take of special-status species through communication with the Resident Engineer. The biological monitors will keep a copy of the environmental permits in their possession when onsite.

AMM PALEO-1: Paleontological Evaluation Report (PER)
An evaluation of paleontological sensitivities and depths of anticipated ground-disturbing construction activities suggests that the project will only encounter the Wilson Grove Formation. Since fossils have been found in this area in this formation a Paleontological Evaluation Report (PER) should be prepared.

AMM CLIMATE CHANGE-1: According to Caltrans' Standard Specifications, the contractor must comply with all of the Bay Area Air Management District rules, ordinances, and regulations regarding air quality restrictions.

AMM CLIMATE CHANGE-2: Compliance with Title 13, California Code of Regulations
Adopted by the Air Resources Board on June 15, 2008, this regulation would restrict idling of construction vehicles to no longer than 5 consecutive minutes. The contractor must comply with this regulation in order to reduce harmful emissions from diesel-powered construction vehicles.

AMM-CLIMATE CHANGE-3: To the extent that it is feasible for the project, reclaimed water may be used to reduce GHG emissions produced during construction. Currently, 30 percent of the electricity used in California is used for the treatment and delivery of water. Use of reclaimed water helps conserve this energy, which reduces greenhouse gas emissions from electricity production.

AMM LAND-1
A USFWS approved biological monitor will be present during site preparation activities prior to the start of construction, including vegetation removal, installation of environmentally sensitive area fencing, and wildlife exclusion fencing.
Environmental Commitments Record for EA 04-0J100_ / ID 0413000408

SON-101 N OF PEPPER RD - REGRADE SLOPE
SON-101-9/9
Current Project Phase: 0.2

EP: Alejandra Sanchez
CL: Rebecca Carson
RE:
510-296-5624

Permits

<table>
<thead>
<tr>
<th>Permit</th>
<th>Agency</th>
<th>Date Submitted</th>
<th>Date Received</th>
<th>Expiration</th>
<th>Requirements</th>
<th>Name</th>
<th>Completed Date</th>
<th>Comments</th>
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<tbody>
<tr>
<td>2081 - Incidental Take Permit</td>
<td>California Department of Fish &amp; Wildlife</td>
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<td>BO (FWS)</td>
<td>US Fish and Wildlife</td>
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Commitments

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<thead>
<tr>
<th>Task and Brief Description</th>
<th>Source</th>
<th>SSP/NSSP</th>
<th>Responsible Staff</th>
<th>Action to Comply</th>
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<th>Remarks/Due Date</th>
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<td>PS&amp;E/Before RTL</td>
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<tr>
<td>Hazardous Waste</td>
<td>SSP</td>
<td>Hazardous Waste</td>
<td>Signature</td>
<td>Date</td>
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<tr>
<td>During the project development process hazardous waste branch will draft a policy to add special provisions to address the anticipated low lead levels in the surplus excavated soils.</td>
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<tr>
<td>Water Quality</td>
<td>SSP</td>
<td>Water Quality</td>
<td>Project Feature</td>
<td>Signature</td>
<td>Date</td>
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</tr>
<tr>
<td>Potential primary concern is unintended discharge outside the construction site that will require temporary construction site Best Management Practices (BMPs), such as silt fence, fiber roll, drainage inlet protection, construction entrances, concrete washout, and street sweeping, will be deployed for sediment control and material management.</td>
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</table>

Pre-Construction

Page 1
**Environmental Commitments Record for EA 04-0J100_ / ID 0413000408**  
_Last updated 12/7/2017_

**SON-101 N OF PEPPER RD - REGRADE SLOPE**  
SON-101-9/9  
_Current Project Phase: 0.2_

<table>
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<th>Task Completed</th>
<th>Remarks/Due Date</th>
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<tbody>
<tr>
<td><strong>Biology</strong></td>
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<tr>
<td>Preconstruction clearance surveys will be conducted by an agency-approved biological monitor for California tiger salamander immediately prior to initial vegetation removal and excavation, and before the start of work each morning of any other ground disturbance activity. The biological monitor will check for animals under equipment, such as vehicles and stored pipes. The biological monitor will check excavated steepwalled holes or trenches greater than 1 foot deep for any California tiger salamander. If an individual is found, it will be relocated to a safe place outside the work area. Safety permitting, the biological monitor will investigate areas of disturbed soil for signs of California tiger salamander within 30 minutes following initial disturbance of the given area.</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
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<td>Signature Date</td>
</tr>
<tr>
<td>Preconstruction special-status plant surveys will be conducted during the blooming period for round-leaved filaree (California macrophylla), fragrant trillily (Fritillaria liliacea), and Mt. Diablo cottonweed (Micropus amphibolus): March or April.</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td></td>
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<td>Signature Date</td>
</tr>
<tr>
<td>WILDLIFE EXCLUSION FENCING</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td></td>
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<td>Signature Date</td>
</tr>
<tr>
<td>Prior to construction and following clearance surveys, fencing will be installed to exclude California tiger salamander from entering the project construction site.</td>
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<tr>
<td>WORKER ENVIRONMENTAL AWARENESS TRAINING</td>
<td>NES</td>
<td>Std. Spec</td>
<td>Biology; RE; Contractor</td>
<td>Project Feature</td>
<td></td>
<td>Signature Date</td>
</tr>
<tr>
<td>Prior to ground-disturbing activities, an agency-approved biologist will conduct an education program for all construction personnel. At a minimum, the training will include a description of special-status species, migratory birds, and their habitats; how the species might be encountered within the project area; an explanation of the status of these species and protection under the federal and state laws and regulations; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and boundaries within which construction may occur. A fact sheet conveying this information will be prepared and distributed to all construction and project personnel entering the project construction site. Upon completion of the training program, personnel will sign a form.</td>
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</tbody>
</table>
Environmental Commitments Record for EA 04-0J100 / ID 0413000408

SON-101 N OF PEPPER RD - REGRADE SLOPE
SON-101-9/9
Current Project Phase: 0.2

<table>
<thead>
<tr>
<th>Task and Brief Description</th>
<th>Source</th>
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<th>Action to Comply</th>
<th>Task Completed</th>
<th>Remarks/Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>stating that they attended the program and understand all the AMMs and implications of the federal and state laws and regulations.</td>
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<td><strong>Construction</strong></td>
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<tr>
<td><strong>Biology</strong></td>
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</tr>
<tr>
<td>A CDFW and USFWS approved biological monitor will be onsite during work that could reasonably result in take of special-status wildlife. Biological monitors will have the authority to stop work that may result in the unauthorized take of special-status species through communication with the Resident Engineer. The biological monitors will keep a copy of the environmental permits in their possession when onsite.</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Signature</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>California Tiger Salamander SEASONAL AVOIDANCE</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Signature</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>To the maximum extent feasible, grading and clearing will be scheduled during the dry season between April 15 and October 15. Note that vegetation clearing during the wet season, in order to limit nesting habitat, may occur to minimize effects on nesting birds and will follow specific AMMs. If construction activities extend past October 15, then surveys for California tiger salamanders following rain events, will be required.</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Signature</td>
<td>Date</td>
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</tr>
<tr>
<td>Caltrans will restore temporarily disturbed areas to the preconstruction function and values to the maximum extent practicable. Exposed slopes and bare ground will be reseeded with native species to stabilize and prevent erosion.</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Signature</td>
<td>Date</td>
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<tr>
<td>Collecting and disposing of concrete wastes in washouts and NES water from curing operations. Neither will be allowed into watercourses.</td>
<td>SSP</td>
<td></td>
<td>Biology; RE; Contractor</td>
<td>Signature</td>
<td>Date</td>
<td></td>
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<tr>
<td>Disallowing any discharging of pollutants from vehicle and equipment cleaning into any storm drains or watercourses.</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Signature</td>
<td>Date</td>
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<tr>
<td>Task and Brief Description</td>
<td>Source</td>
<td>SSP/NSSP</td>
<td>Responsible Staff</td>
<td>Action to Comply</td>
<td>Task Completed</td>
<td>Remarks/Due Date</td>
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<tr>
<td><strong>EROSION CONTROL MATTING</strong></td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Project Feature</td>
<td>Signature</td>
<td>Date</td>
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<tr>
<td>Plastic monofilament netting (erosion control matting) or similar material will not be used</td>
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<td>because wildlife may become entangled or trapped in it. Acceptable substitutes include</td>
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<td>coconut coir matting or tackifier hydrosedding compounds.</td>
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<td>Installing temporary fiber rolls or temporary silt fences along or at the base of slopes</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Project Feature</td>
<td>Signature</td>
<td>Date</td>
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<td>or at the base of slopes during construction to capture sediment.</td>
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<td>Maintaining all equipment to prevent the leakage of vehicle fluids, such as gasoline,</td>
<td>NES</td>
<td>Biology;</td>
<td>RE; Contractor</td>
<td>Project Feature</td>
<td>Signature</td>
<td>Date</td>
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<td>oils, or solvents and storing hazardous materials, such as fuels, oils, solvents, in</td>
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<td>sealable containers in a designated location.</td>
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<tr>
<td><strong>Migratory Birds</strong></td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Project Feature</td>
<td>Signature</td>
<td>Date</td>
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<tr>
<td>If vegetation clearing is required between February 1 and September 30, pre-construction</td>
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<td>nesting bird surveys will be conducted by a qualified biologist within 14 days of</td>
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<td>construction and within 72 hours of the start of construction, covering a radius of</td>
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<td>300 feet for raptors and 100 feet for passerines. If nesting birds are found, the</td>
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<td>Caltrans biologist will evaluate whether existing screening buffers (such as buildings,</td>
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<td>trees, intervening topography) are sufficient to allow work to proceed, or determine</td>
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<td>what level of work exclusion buffers or nest monitoring is needed. This could result in</td>
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<td>work areas being reduced in size. If work cannot proceed without disturbing nesting</td>
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<td>birds, or if signs of disturbance are observed by the monitor, work may be halted or</td>
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<td>redirected to other areas until the nesting and fledging is complete, or until the nest</td>
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<td>has otherwise failed for reasons other than project construction.</td>
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<tr>
<td><strong>Migratory Birds - VEGETATION REMOVAL</strong></td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Project Feature</td>
<td>Signature</td>
<td>Date</td>
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<tr>
<td>To the extent feasible, vegetation clearing will be conducted.</td>
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<td>before April 1 to January 31 to avoid impacts on migrating birds. Preconstruction</td>
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<td>biological surveys will be conducted prior to vegetation clearing to identify birds</td>
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<td>nesting outside of the normal breeding season, such as Anna's hummingbird (Calypte</td>
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<td>anna) nests.</td>
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### Environmental Commitments Record for EA 04-0J100 / ID 0413000408

**SON-101 N OF PEPPER RD - REGRADE SLOPE**  
SON-101-9/9  
Current Project Phase: 0.2

<table>
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</thead>
<tbody>
<tr>
<td>Noxious weeds will be controlled within the project construction site in accordance with Caltrans' Highway Design Manual Topic 110.5, &quot;Control of Noxious Weeds - Exotic and Invasive Species,&quot; and Executive Order 13112 (Invasive Species), and by methods approved by a Caltrans' landscape architect or vegetation control specialist.</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Project Feature</td>
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</tbody>
</table>
| Performing onsite fueling and maintenance only when it is impractical to send vehicles and equipment offshore for fueling. The following practices will be followed:  
  a. Dedicated fueling areas will be protected from storm water run-on and runoff.  
  b. Fueling will be performed at designated level-grade areas.  
  c. Secondary containment or absorbent pads will be used during onsite vehicle and equipment fueling. | NES    | SSP      | Biology; RE; Contractor            | Project Feature  |                |                  |
| Protecting graded areas from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control measures (such as temporary cover) as appropriate on sloped areas. | NES    | SSP      | Biology; RE; Contractor            | Project Feature  |                |                  |
| The following site restrictions will be implemented:  
  Enforcing a speed limit of 15 miles per hour in the project area.  
  Certifying, to the maximum extent practicable, that borrow material is nontoxic and weed-free.  
  Enclosing food and food-related trash items in sealed trash containers at the end of each day, and remove them completely from the site once every 3 days.  
  Prohibiting pets within the project area during construction, and Prohibiting firearms within the project area, except for those carried by authorized security personnel, or local, state, or federal law enforcement officials. | NES    | SSP      | Biology; RE; Contractor            | Project Feature  |                |                  |
| To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Escape ramps will be set at an angle less than 33 degrees to ensure that | NES    | SSP      | Biology; RE; Contractor            | Project Feature  |                |                  |

**EP:** Alejandra Sanchez  
**CL:** Rebecca Carson  
**RE:**  
**Last updated:** 12/7/2017
Environmental Commitments Record for EA 04-0J100_ / ID 0413000408

SON-101 N OF PEPPER RD - REGRADE SLOPE
SON-101-9/9
Current Project Phase: 0.2

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<th>Remarks/Due Date</th>
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</thead>
<tbody>
<tr>
<td>Using water trucks and dust palliatives to control dust in excavation and fill areas, and covering temporary stockpiles when weather conditions require.</td>
<td>NES</td>
<td>SSP</td>
<td>Biology; RE; Contractor</td>
<td>Project Feature</td>
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</table>

**Cultural Resources**

If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archeologist can assess the significance of the find.

<table>
<thead>
<tr>
<th></th>
<th>Section 106</th>
<th>n/a</th>
<th>Cultural; RE; Contractor</th>
<th>Project Feature</th>
<th>Signature</th>
<th>Date</th>
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</thead>
</table>

**Paleontology**

An evaluation of paleontological sensitivities and depths of anticipated ground-disturbing construction activities suggests that the project will only encounter the Wilson Grove Formation. Since fossils have been found in this area in this formation a Paleontological Evaluation Report (PER) should be prepared.

| | SSP | SSP | Paleontology; RE; Contractor | | Signature | Date |
|----------------------------|----------|--------------------------|-----------------|----------|------|