

# Highway 1 Cheney Gulch Slope Stabilization

Sonoma County, east of Bodega Bay

District 4-SON-1-(PM 7.2)

Project ID: 0400021271 (04-3G070)

## Initial Study with Proposed Negative Declaration



Prepared by the  
State of California Department of Transportation

**March 2014**



# General Information About This Document

## ***What's in this document:***

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in Sonoma County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This document describes the project, the existing environment that could be affected by the project, potential impacts from the project, and proposed avoidance, minimization, and/or mitigation measures.

## ***What you should do:***

- Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at:

**Caltrans District 4 Public Affairs**, 111 Grand Ave, Oakland, CA 94612

**Guerneville Library**, 14107 Armstrong Woods Road, Guerneville, CA 95446

**Occidental Library**, 73 Main Street, Occidental, CA 95465

For hours of operation and directions to these Sonoma county libraries, see the following website:

<http://www.sonomalibrary.org/branches/>

- The document can also be accessed electronically at the following Caltrans District 4 website: <http://www.dot.ca.gov/dist4/envdocs.htm>
- We welcome your comments. If you have any concerns about the project, please send your written comments to Caltrans by the deadline. Submit comments or a request for a public hearing via U.S. mail to Caltrans at the following address:

Michelle Ray, Senior Environmental Planner  
Sierra Pacific Environmental Analysis Branch  
California Department of Transportation  
855 M Street, Suite 200  
Fresno, CA 93721

- Submit comments via email to: [Michelle.Ray@dot.ca.gov](mailto:Michelle.Ray@dot.ca.gov)
- Submit comments by the deadline: May 4, 2014 (comment period: April 4 to May 4, 2014)

## ***What happens next:***

After comments are received from the public and reviewing agencies, Caltrans may

1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and build all or part of the project.

For individuals with sensory disabilities, this document is 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 Caltrans, Attn: Michelle Ray, Senior Environmental Planner, Caltrans, Sierra Pacific Environmental Analysis Branch, 855 M Street, Suite 200, Fresno, CA 93721, (559) 445-5286, or call the California Relay Service 1(800) 735-2929 (TTY), 1(800) 735-2929 (Voice), or 711.

**PROJECT DESCRIPTION AND BACKGROUND:**

<b>Project Title:</b>	Highway 1 Cheney Gulch Slope Stabilization (Storm Damage Repair)
<b>Lead Agency (Project Sponsor):</b>	California Department of Transportation (Caltrans) 111 Grand Avenue, Oakland, CA 94612
<b>Caltrans Contact Person and Telephone Number:</b>	Michelle Ray, Senior Environmental Planner Sierra Pacific Environmental Analysis Branch, Caltrans District 6 Office 855 M Street, Suite 200, Fresno, CA 93721 (559) 445-5286, Michelle.Ray@dot.ca.gov
<b>Project Location:</b>	Sonoma County, east of Bodega Bay, southbound side slope of Highway 1 (west of Bay Hill Road), at post mile 7.2. This location is in a valley (Cheney Gulch) between two hills. A quarry is on the northbound side of Highway 1; a creek is on the southbound side. See Figures 1 and 2, along with photographs and maps in Appendix A.
<b>General Plan Description and Land Use:</b>	Sonoma County General Plan-Land Use Element: Sonoma Coast/Gualala Basin. Land Extensive Agriculture (constituting farming in which large areas of land are used with minimum outlay and labor). Sheep, goat and cattle ranches surround the area.
<b>Project Initiated Due to:</b>	Saturated soils have eroded areas of two hillsides on the southbound highway slope, below the roadway and turnout. A culvert has also separated. Soils between the creek bed and the roadway have given way in two areas.
<b>Project Objectives:</b>	The objective of this project is to stabilize the southbound slope that supports the roadway at this location where this storm damage/ erosion was identified.
<b>Description of Project:</b>	Major elements of the project include excavating the loose material on the hillside below the highway; repairing drainage system; protecting the soil surface from erosion by placing rock slope protection fabric; installing rocks as slope protection; filling voids with soil; applying biodegradable erosion control; and reseeding to restore the original naturalized slope. The proposed project is both within and outside of the existing highway right-of-way. A temporary construction easement, and permanent easement or acquisition, would be required. The construction would take approximately 45 to 60 working days. No traffic lanes would be closed during this work. See Detailed Description in Appendix C.
<b>Surrounding Land Uses and Setting:</b>	The overall landscape surrounding this project location consists mostly of low native shrubs, hills rising up on both sides of the roadway and the adjacent gulch cutting through this hilly topography. Highway 1 is a rural two-lane conventional highway (12-foot lanes, 8-foot shoulders) with a large gravel turnout on the southbound side at this location. The existing fence along the southbound side does not follow the existing right-of-way line, but more or less follows the edge of where soils are dropping away into the creek.
<b>Agencies Whose Approval is Required:</b>	See Appendix B Permits and Approvals.

**Note:** Pursuant to: (State) Division 13, California Public Resources Code - This project documentation has been prepared in compliance with the California Environmental Quality Act (CEQA). A Categorical Exclusion is expected to be signed for National Environmental Policy Act (NEPA) compliance.

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

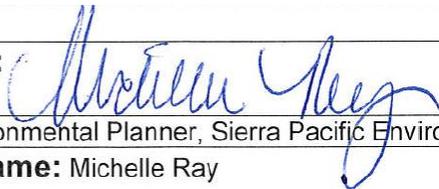
The environmental factors checked below would be potentially affected by this project. Please see the CEQA checklist for additional information. Any boxes *not* checked represent issues that were considered as part of the scoping and environmental analysis for the project, but for which no adverse impacts were identified; therefore, no further discussion of those issues is in this document.

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

**DETERMINATION:**

On the basis of this initial evaluation, check one of the boxes below:

<input checked="" type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a <b>NEGATIVE DECLARATION</b> will be prepared.
<input type="checkbox"/>	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, although a 2081 permit is required, mitigation will compensate for any impacts, therefore A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.

<b>Signature:</b> 	<b>Date:</b> 3-21-14
Senior Environmental Planner, Sierra Pacific Environmental Analysis Branch	
<b>Printed Name:</b> Michelle Ray	<b>For:</b>

## **Proposed Negative Declaration**

Pursuant to: Division 13, Public Resources Code

### ***Project Description***

The California Department of Transportation (Caltrans) proposes to repair the eroded embankment along southbound Highway 1 at post mile 7.2 within the Cheney Gulch area, 3.5 miles east of Bodega Bay, in Sonoma County.

### ***Determination***

This proposed Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Negative Declaration for this project. This does not mean that Caltrans' decision on the project is final. This Negative Declaration 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.

Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the project would not have a significant effect on the environment for the following reasons.

The proposed project would have no effect on: land use; wild and scenic rivers; parks and recreational facilities; growth; farmland/timberland; community character; housing or businesses; utilities; emergency services; transportation and traffic; pedestrian and bicycle facilities; cultural resources; hydrology; floodplain; paleontology; hazardous waste/materials; air quality; noise and vibration; wetlands; natural communities; migratory birds; or the introduction of invasive species.

In addition, the proposed project would have no significant effect on: the coastal zone it is in; visual/aesthetics; Other Waters of the U.S.; water quality and storm water runoff; climate change from construction emissions; or geology, soils, seismic and topography; plant species (yellow larkspur and showy Indian clover); threatened and endangered species (California red-legged frog and Myrtle's silverspot butterfly).

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Michelle Ray, Senior Environmental Planner  
California Department of Transportation

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Date

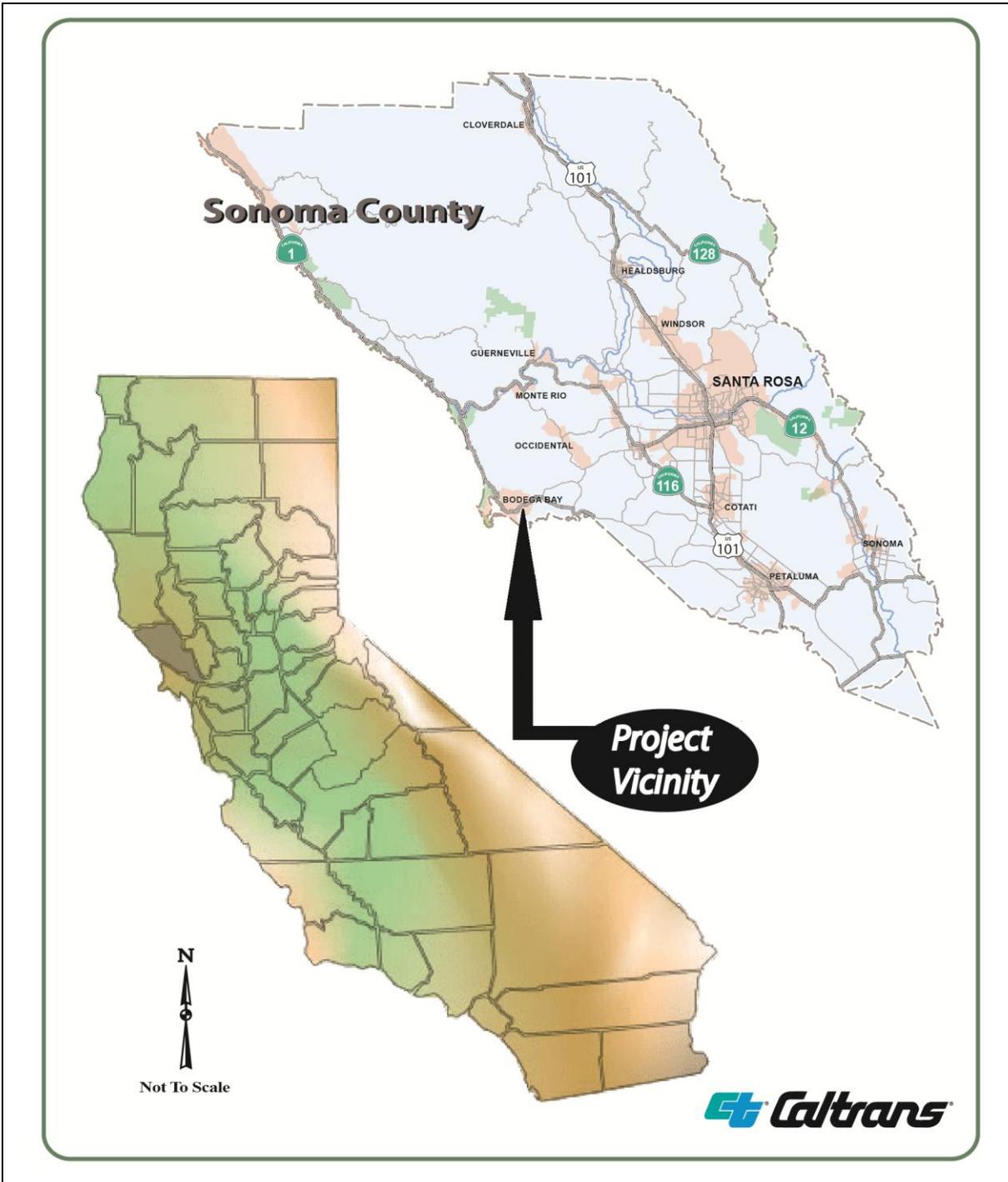


Figure 1 Project Vicinity Map



**LEGEND**

Base: USGS 7.5 Minute Topographic Map, Bodega Head Quadrangle, 1972  
 Scale: 1 inch = 2,000 feet

**Figure 2 Project Location Map**

# California Environmental Quality Act (CEQA) Environmental Checklist

04-SON-1

PM 7.2

0400021271 (04-3G070)

Dist.-Co.-Rte.

P.M/P.M.

Project ID#

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 indicated no impacts. A NO IMPACT answer in the last column reflects this determination. Where a clarifying discussion is needed, the discussion either follows the applicable section in the checklist or is placed within the body of the environmental document itself. 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.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>I. AESTHETICS:</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>See additional explanations following this checklist.</i>				
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**II. 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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project, Forest Legacy Assessment Project, and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>III. AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*The mitigation would be federal, National Environmental Policy Act (NEPA) permit compliance, and does not relate to the California Environmental Quality Act (CEQA) document level or Determination.*

*See additional explanations following this checklist.*

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*See additional explanations following this checklist.*

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**V. CULTURAL RESOURCES:** Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**VI. GEOLOGY AND SOILS:** Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**VII. GREENHOUSE GAS EMISSIONS:** Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

If applicable, an assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project.

**VIII. HAZARDS AND HAZARDOUS MATERIALS:** Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- 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?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>IX. HYDROLOGY AND WATER QUALITY:</b> Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>See additional explanations following this checklist.</i>				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**X. LAND USE AND PLANNING:** Would the project:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**XI. MINERAL RESOURCES:** Would the project:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**XII. NOISE:** Would the project result in:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ) 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?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**XIII. POPULATION AND HOUSING:** Would the project:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XIV. PUBLIC SERVICES:**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XV. RECREATION:**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

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?

**XVI. TRANSPORTATION/TRAFFIC:** Would the project:

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?

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?

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?

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>XVII. UTILITIES AND SERVICE SYSTEMS:</b> Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE</b>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## ***Additional Explanations for Questions in the Above Checklist***

### **I. Aesthetics—checklist question**

(c)- Less than significant impact

### **IV. Biological Resources—checklist questions**

(a)- Less than significant with mitigation (*federal NEPA mitigation*)

(c) -Less than significant impact

### **IX. Hydrology and Water Quality—checklist question**

(a)- Less than significant impact

The discussion below describes the existing environment that could be affected by the project (Affected Environment), the potential impacts from the project (Environmental Consequences), and the avoidance, minimization, and/or mitigation measures proposed.

### ***I. Aesthetics (checklist question c)***

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

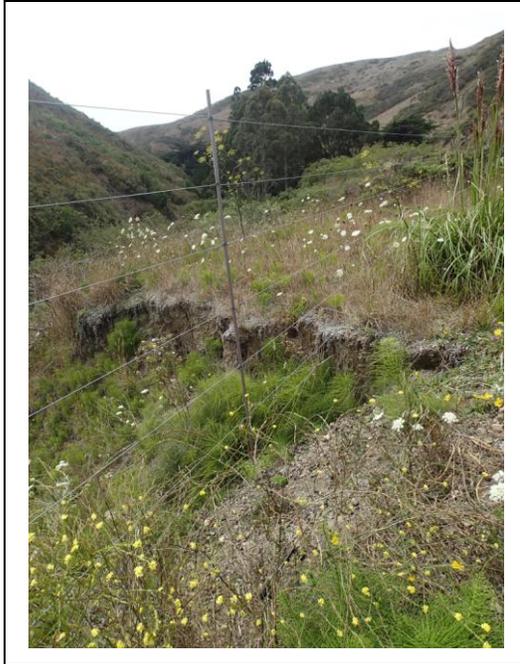
- Less than significant impact

### ***Affected Environment***

The project site is approximately 3 miles outside the town of Bodega Bay, on the southbound side of Highway 1, below the actual highway. The embankment supporting the roadway at this location slopes down into Cheney Gulch. The gulch runs parallel to Highway 1 at this location.



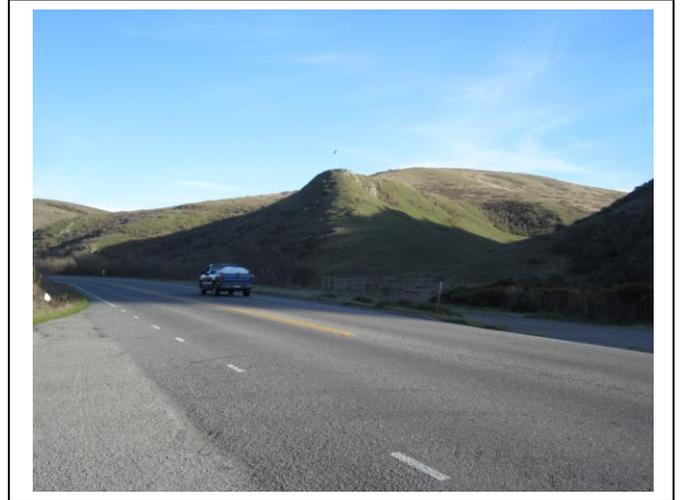
The landscape in the project area contains coastal scrub, willow riparian, disturbed grassland and roadside vegetation. Hills rise up a few hundred feet on both sides of the Highway 1 roadway; the highway and adjacent gulch cut through this hilly topography. The elevation is approximately 190 feet above sea level. There are no buildings in view from this location, but there is a quarry that has mined material from the hillside on the northbound side. A pond created by the removed soil is visible only after one looks over the edge of the driveway to that facility. There is a mostly gravel roadway turnout on the southbound side of the highway. The surrounding land is either natural or used for sheep and goat farming, cattle ranching or agriculture (using large parcels).



Highway 1 at this location is eligible for designation as a Scenic Highway and is classified as an All-American Road in the National Scenic Byway system. The project is within the Coastal Zone, and considered a sensitive corridor for visual resources. From the project site, there are scenic views in all directions. See the photographs on this page showing the view of the erosion itself (looking west); the quarry across the street (looking north); and the highway views facing east (southbound).

### ***Environmental Consequences***

This hillside faces the creek canyon and is difficult to see from the highway. The project would repair the two eroded areas by excavating loose material and replacing the material with natural-colored rocks to act as slope protection.



The area would then be covered with soils and seeded with native plant seed mix. After re-seeding, most plants are expected to re-grow. The soil will be packed into the rocks and about 2-4 inches of soil will remain above the rocks.

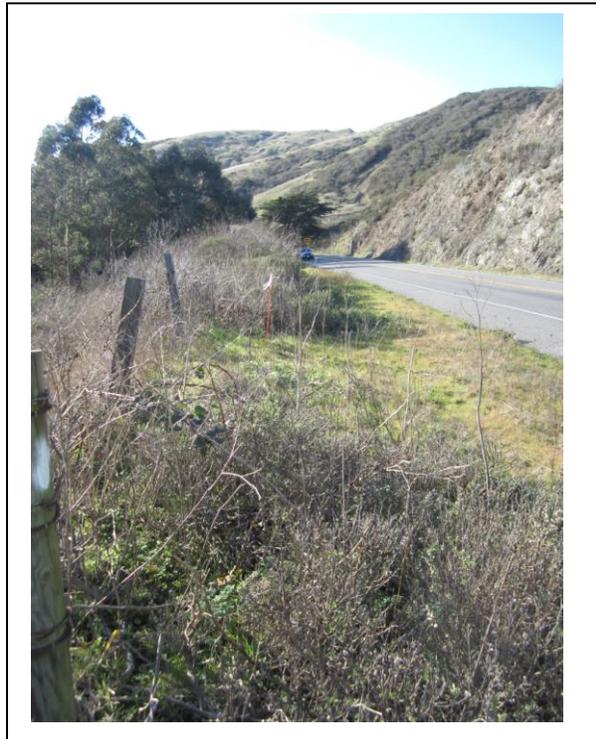
The soil cover would be used to hide the rocks, act as slope protection, and provide soils for the vegetative canopy which, once established, would help stabilize the soils from future erosion. Depending on the initial growth and amount of immediate rainfall, the rock slope protection could become exposed, poking up through the dirt cover. The use of brown rocks would ensure a natural-looking condition even if they do become exposed.

No scenic resources would be affected by the project. Temporary minor visual impacts would be seen until the newly seeded native plants are established.

The project is not expected to result in substantial adverse impacts to the visual environment. Due to the topography and abundance of surrounding vegetation, the proposed repairs would be only minimally visible to roadway users. There are no views of the site from readily accessible locations beyond the state right-of-way.

No trees would be removed by this project because only large bushes grow in the immediate impact area.

Removal of exotic plant species as part of the project work (mostly the highly invasive gorse) and restoration with a hydro-seed mix of locally native plants would help restore the site to a more natural condition, improving the visual environment of the area.



### ***Avoidance and/or Minimization Efforts***

To minimize construction impacts, the following measures would be implemented:

- Limited Vegetation Clearing: Clearing and grubbing would occur only within the excavation and embankment slope limits, so unnecessary impacts to topsoil and existing vegetation/grasses are minimized.
- Vegetation and Topsoil: To ensure that the rock slope protection aesthetically blends into the existing landscape, brown rock would be used and soil would be placed in rock voids and gaps between rocks and capped with native topsoil and covered with hydro-seed. The hydro-seed would consist of an area-appropriate mix of native plants.

#### **IV. Biological Resources (checklist question a)**

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

- Less than significant with mitigation (*federal NEPA mitigation*)

#### *Special Status/Threatened and Endangered Species/Species of Special Concern*

##### ***Affected Environment***

A Natural Environment Study was prepared in March 2014. A Biological Assessment evaluating the project's potential effects on federal species was prepared for submittal to the U.S. Fish and Wildlife Service.

The *Valley Ford* and *Bodega Head* U.S. Geological Survey (USGS) 7.5-minute quadrangles were used for all database searches to identify potential resources.

The biological study area was defined as the area to be directly affected, plus adjacent areas that may be indirectly affected by the proposed project (see the map in Appendix A). The biological study area encompasses 1.67 acres and is primarily in the existing highway right-of-way, but a small portion of the impact area extends down slope into what is currently private property.

Cheney Gulch, which runs parallel to the southbound lane of Highway 1 below the roadway, sits within the Bodega Bay watershed and is a tributary to Bodega Bay. Cheney Gulch flows into the coastal wetlands of Bodega Bay behind Doran Beach. The gulch drains a watershed of about 4.2 square miles. Elevations range from sea level at the mouth to 396 feet in the headwater areas. Mixed hardwood forests dominate the watershed. The watershed is entirely privately owned and is primarily managed for rangeland.

A willow riparian community grows vertically up the slope from Cheney Gulch on both sides of the impact area. The willow thicket consists mainly of arroyo willow.

Surveys were done to verify information identified through in-office research and determine whether further studies were needed for specific species or sensitive communities. The project site and surrounding areas are composed of coastal scrub and willow riparian communities with non-native grassland patches interspersed. The review of habitat included all plants, invertebrates, fish, amphibians, reptiles, birds and mammals.

Based on in-office research, known occurrences in the larger area, and a field review, it has been determined that the following 19 species may potentially occur in the project area:

Common Name	Status
<b>Plants:</b>	
Blasdale's bent grass	1B.2
Coastal bluff morning glory	1B.2
San Francisco spineflower	1B.2
Woolly-headed spineflower	1B.2
Franciscan thistle	1B.2
Yellow (golden) larkspur	FE,SR,1B.1 Critical Habitat
Fragrant fritillary	1B.2
Blue coast gilia	1B.2
Woolly-headed gilia	1B.1
White seaside tarplant	1B.2
Short-leaved evax	1B.2
Baker's goldfields	1B.2
Perennial goldfields	1B.2
Marsh microseris	1B.2
Oregon polmonium	2.2
Showy Indian (Rancheria) clover	FE, 1B.2
<b>Invertebrates:</b>	
Myrtle's silverspot butterfly	FE
<b>Amphibians:</b>	
California red-legged frog	FE, SSC
<b>Reptiles:</b>	
Western pond turtle	SSC

**Status Coding:**  
**California Native Plant Society, Inventory of Rare and Endangered Plants:**  
 (1B) Rare, threatened, or endangered in California and elsewhere  
 (2) Rare, threatened, or endangered in California but common elsewhere  
 .1 - Seriously endangered in California  
 .2 - Fairly endangered in California  
**U.S. Fish and Wildlife Service:**  
 (FE) Federal Endangered  
**California Department of Fish and Wildlife:**  
 (SR) State Rare  
 (SSC) California Species of Special Concern.

**Plant Species**

The 14 plants below were not observed during the 2013 spring and summer floristic surveys of the project study area, but the project site contains suitable habitat for all of these species so all populations are presumed to exist:

1. Blasedale's bent grass was not found within the study area. The closest recorded occurrence is about 3.5 miles to the west at the Bodega Bay Marine Lab near Horseshoe Cove. It was last observed in the 1990s.
2. Coastal bluff morning glory was not found. The closest recent occurrence is near Bodega Harbor about 1.75 miles west of the project location along both sides of a fire road 1 mile off of Highway 1. It was last observed in 2006.
3. San Francisco spineflower was not found. The closest occurrence is about 3 miles to the west along the Bodega Bay peninsula. This occurrence was dated 1930 from a collection.
4. Woolly-headed spineflower was not found. The closest occurrence is about 3 miles to the west near Horseshoe Cove at Bodega Head. It was last observed in August 1962.
5. Franciscan thistle was not found. The closest occurrence is about 3 miles to the west at Bodega Head. It was last observed in 1973. All occurrences in Marin County and the closest to the project location were at Dillon Beach, last observed in 1947.
6. Fragrant fritillary was not found. The closest occurrence is about 2.25 miles to the northeast in the general vicinity of the town of Bodega, observed in 1924. The most recent occurrence is 22 miles to the southeast near the Nicasio Reservoir, observed in 2011.
7. Blue-coast gilia was not found. The closest occurrence is about 3 miles to the west in the general vicinity of the town of Bodega Harbor Marsh on the west side of Bodega Harbor, observed in 1960.
8. Woolly-headed gilia was not found. The closest occurrence is within a mile of the project location to the west along the gravelly roadside bluff, observed in 1948. The most recent occurrence in Sonoma and Marin counties is dated June 1993 along the serpentine outcrops 2 miles east of Tomales, about 9 miles southeast of the project location.
9. White seaside tarplant was not found. The closest occurrence is about 2 miles northeast of the project location on private property at Rancho Bodega near the town of Bodega. The population was observed in 1994 and is presumed to exist.

10. Short-leaved evax was not found. The closest occurrence is about 6 miles south of the project location at Dillon Beach in Marin County on coastal bluffs. The population was observed in 1999.
11. Baker's goldfields were not found. The closest occurrence is about a mile southwest of the project location at Larkspur Rock to the south of Cheney Gulch on a grassy hillslope-saddle between rock buttes. The population was observed in 1950.
12. Perennial goldfields were not found. The closest occurrence is about a mile southwest of the project location at Larkspur Rock to the south of Cheney Gulch. The population was observed in 1931.
13. Marsh microseris was not found. The closest occurrence is about 6 miles south of the project location at Dillon Beach in Marin County on vacant subdivision lots. The population was observed in 1999.
14. Oregon polemonium was not found. The closest occurrence is about a mile southwest of the project location at Larkspur Rock to the south of Cheney Gulch among heavy brush along a rock ledge. The population was observed in 1935.

The 14 plants above are listed on the California Native Plant Society, Inventory of Rare and Endangered Plants, but are not federally or state listed species.

The two plants below are either federal or state listed or both.

Yellow (golden) larkspur—The project study area falls in an area designated by the U.S. Fish and Wildlife Service as critical habitat for this perennial herb native to Sonoma County. This plant occurs in rocky chaparral, coastal prairie, and coastal scrub, between 0 and 350 feet; it blooms between March and May. It is designated by the U.S. Fish and Wildlife Service as federally endangered; by the California Department of Fish and Wildlife as state rare; and by the California Native Plant Society, Inventory of Rare and Endangered Plants as rare, threatened, or endangered in California and elsewhere, and seriously endangered in California.

During the 2013 floristic survey, this plant was not observed within the biological study area, though this does not prove absence of the species. The most recent occurrence is located within a mile of the project location; it was last seen in 2000 on private property. Two additional occurrences within a mile of the project location were last seen in 1983 and 1987.

Although the project location is within critical habitat for the yellow larkspur, the project area has been disturbed by the erosion.

Showy Indian (Rancheria) clover—This clover is an annual herb that occurs in valley foothill grassland, coastal bluff scrub and sometimes on serpentine soil, in open sunny sites between 5 to 1,400 feet. It blooms between April and June. This plant is listed by the U.S. Fish and Wildlife Service as federally endangered; and the California Native Plant Society, Inventory of Rare and Endangered Plants as rare, threatened, or endangered in California and elsewhere, and fairly endangered in California.

During the surveys, this plant was not observed within the biological study area. The species was thought to be extinct, until two populations were discovered in 1993 and 1996 (about 5 miles south) in Marin County.

### *Invertebrates*

Myrtle's silverspot butterfly—Protocol-level surveys were not done, so presence has not been definitively established within the biological study area. The host plant (western dog violet) was surveyed during floristic surveys, but was not observed. The project contains suitable habitat for the federally listed Myrtle's silverspot butterfly's host larval plant but, based on the disturbed soils and lack of vernal moist soils, meadow edges and distance from the stream bank, the likelihood for the plant to occur is low.

### *Fish, Mammals and Birds*

There is suitable habitat for a variety of wildlife species, but not any special-status fish. Common species that were observed onsite include the red-tailed hawk, turkey vulture, red-winged black bird, fence lizard, and an unidentified garter snake. No special-status species habitat was present. Migratory birds could nest in the trees outside the immediate project impact area.

### *Amphibians*

California red-legged frog—Protocol-level surveys were not done, but a habitat assessment was done on April 11, 2013 with Caltrans biologists and U.S. Fish and Wildlife Service staff. Caltrans is assuming presence of the California red-legged frog based on the field review, nearby projects with California red-legged frogs, and consultation with the U.S. Fish and Wildlife Service.

The biological study area provides suitable habitat for the California red-legged frog (federally listed as threatened on May 23, 1996), named for its pink or red posterior abdomen and hind legs. Elimination or degradation of habitat through land use and

development as well as habitat invasion by non-native aquatic species is what has caused this species to be listed as threatened. The California red-legged frog typically breeds from November through March. Breeding habitat generally consists of a well-defined creek and riparian zone with permanent pools that must hold water long enough for tadpoles to complete their metamorphosis into frogs. Juveniles can be active at any time of day; adults are active at night. The frogs may disperse from breeding sites at any time of year and can travel up to 2 miles without regard for topography, vegetation type, or presence of riparian corridors. Dispersal is much more common, however, during the rainy season. During low water periods, they may use spaces under boulders or rocks and organic debris to forage and seek summer habitat.

The California Natural Diversity Database shows nine recorded occurrences of the frog within 5 miles of the project. The closest occurrence is about 2 miles southeast of the project in Annadel State Park in Ledsen Marsh. The closest critical habitat is 5 miles south of the project area.

### *Reptiles*

Western Pond Turtle—The western pond turtle is a California Species of Special Concern. The western pond turtle includes two subspecies: the northwestern pond turtle and the southwestern pond turtle. The western pond turtle occurs within suitable habitats west of the Sierra Nevada mountain range. The northwestern pond turtle typically occurs north of the San Francisco Bay Delta Estuary, and the southwestern pond turtle typically occurs south of San Francisco Bay.

The habitat for western pond turtles depends on water temperature, depth, water quality, and plant life. Western pond turtles are considered omnivorous and will forage on aquatic insects, plants, fish, frogs, and carrion. These turtles require basking sites such as partially submerged logs, rocks, and mats of floating aquatic vegetation or mud banks.

Females typically nest next to slow-moving streams and have been known to travel some distance to find a suitable nesting site, up to 1,500 feet away from a water source. Soil must be at least 4 inches deep, with high humidity for eggs to develop and hatch properly. The female will lay from 3 to 11 eggs that incubate between 73 and 80 days. Within warm climates, these species are primarily active year-round, but hibernate in cold periods elsewhere. They are mainly diurnal, reproducing from March until August and are commonly found below 4,690 feet. Western pond turtles do not reach sexual maturity until about 8 years of age.

No focus surveys were done for the western pond turtle, and no western pond turtles were observed during field surveys in 2013. But, for purposes of this project, presence is being assumed based on local occurrences and suitable aquatic habitat identified within and next to the biological study area. The closest occurrence is about 2 miles northeast of the project area along Salmon Creek near Bodega in a small adjacent farm pond. The occurrence was observed in 1996.

***Environmental Consequences***

<b><i>Plants:</i></b>	
Yellow (golden) larkspur	FE,SR,1B.1 and Critical Habitat
Showy Indian ( <i>Rancheria</i> ) clover	FE, 1B.2
<b><i>Invertebrates:</i></b>	
Myrtle’s silverspot butterfly	FE
<b><i>Amphibians:</i></b>	
California red-legged frog	FE, SSC

***Plant Species***

The project has the potential to affect the 14 plants sensitive plant species that were not observed but have the potential to occur in the project study area. The project could affect the threatened and above listed threatened or endangered species that have the potential to be within the affected environment:

Yellow (golden) larkspur—The project is within designated critical habitat. The project would result in 0.013 acre of permanent impacts and 0.060 acre of temporary impacts through disturbance to yellow larkspur critical habitat. This location has been previously disturbed by slides and erosion. With implementation of the application of soil and the use of U.S. Fish and Wildlife Service-approved native plant seed mix, this project may result in encouraging future populations of the yellow larkspur within the project impact area. The federal determination is that the project may affect, but is not likely to adversely affect, the yellow larkspur.

Showy Indian (*Rancheria*) clover—No impacts to showy Indian (*Rancheria*) clover are anticipated. The federal determination is that the project may affect, but is not likely to adversely affect, the showy Indian (*Rancheria*) clover.

***Invertebrates***

Myrtle’s silverspot butterfly—The project does contain suitable habitat for the federally listed Myrtle’s silverspot butterfly’s host larval plant, the western dog violet. Based on

the disturbed soils and lack of vernal moist soils, meadow edges and distance from the stream bank, the likelihood that the plant is present is low. Therefore, the project may affect, but is not likely to adversely affect, this butterfly.

### *Fish, Mammals and Birds*

Migratory birds, if nesting in nearby trees, could potentially be agitated by construction noise. No trees would be removed by this project.

California red-legged frog—The project area contains upland dispersal habitat suitable for the federally listed California red-legged frog. The project would result in the permanent loss of 0.013 acre and have a temporary impact of 0.060 acre of suitable California red-legged frog upland dispersal habitat. Therefore, the project may affect and is likely to adversely affect the California red-legged frog.

### *Reptiles*

Western pond turtle—The project has the potential to affect the western pond turtle. No western pond turtles were observed during the field surveys in 2013. Impacts to the western pond turtle are not anticipated with implementation of avoidance and minimization measures discussed in the section below.

## **Avoidance, Minimization, and/or Mitigation Measures**

### *Sensitive Plant Species—Avoidance and Minimization Efforts*

Blasdale's bent grass, coastal bluff morning glory, San Francisco spineflower, woolly-headed spineflower, Franciscan thistle, fragrant fritillary, blue-coast gilia, woolly-headed gilia, white seaside tarplant, short-leaved evax, Baker's goldfields, perennial goldfields, marsh microseris, Oregon polemonium—for these 14 sensitive plants, the following avoidance and minimization measures or project features are expected to prevent impacts if these plants are present:

- Preconstruction surveys would be completed during the appropriate blooming season prior to groundbreaking activities. If a special-status plant is found onsite, areas that can be avoided during construction will be designated as an environmentally sensitive area by orange mesh fencing. In areas where avoidance is not possible, the following minimization measures will be implemented to minimize impacts to this species during construction activities:
  - Topsoil would be collected and salvaged from areas where the plant is to be disturbed, under the direction of a Caltrans biologist.

- Salvaged topsoil would be stored at an appropriate site within the project area.
- Topsoil would be replaced in areas where there was temporary disturbance to the plant.

*Threatened and Endangered Plants—Avoidance and Minimization Efforts*

Yellow (golden) larkspur—The project is within designated critical habitat, but this location has been previously disturbed by slides. With implementation of minimization measures, including those listed above, combined with the application of soil on top of the rock slope protection, and the use of U.S. Fish and Wildlife-approved native plant seed mix, this may encourage future populations of the yellow larkspur within the project impact area.

Showy Indian (Rancheria) clover—No impacts to showy Indian (Rancheria) clover are anticipated, but the same measure listed for the above plant species would also be implemented for avoidance and/or minimization impacts for this plant species.

*Birds—Avoidance and Minimization Efforts*

The Migratory Bird Treaty Act (16 U.S. Code 703-711) makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law also applies to the removal of nests occupied by migratory birds during the breeding season.

Inside the nesting season, any noise or vibration can affect the behavior and success of nesting birds. Trees ideal for nesting are not within the project impact area. Prior to initial ground disturbance, an approved biologist would conduct an education program for all construction personnel. Training would include a description of the migratory birds and their habitats; the occurrence of these species within the project area; an explanation of the status of these species and protection under the Migratory Bird Treaty Act; and boundaries within which construction may occur if the birds are nesting. A fact sheet conveying this information would be prepared and distributed to all construction and project personnel. Upon completion of the training program, personnel would sign a form stating that they attended the program and understand all the avoidance and minimization measures and implications.

*Threatened and Endangered Invertebrates, Amphibians, Mammals—Avoidance, Minimization and/or (Biological Opinion) Anticipated Permit Requirements*

Myrtle's silverspot butterfly—The project does contain suitable habitat for the federally listed Myrtle's silverspot butterfly's host larval plant, the western dog violet. Based on the disturbed soils and lack of vernal moist soils, meadow edges and distance from the stream bank, the likelihood of the plant (supporting the butterfly) being present is low. This species would also benefit from the preconstruction surveys and salvaging of topsoil.

- Preconstruction focused plant surveys will be conducted in the biological study area during the peak blooming period for the host larval plant of the Myrtle's silverspot butterfly, the western dog violet, April through August, by a qualified botanist. If the western dog violet is detected during focused preconstruction surveys, avoidance and minimization methods will be determined in coordination with U.S. Fish and Wildlife Service. An example of an avoidance and minimization measure would be the use of Environmentally Sensitive Area fencing around plant populations during construction. If the western dog violet is found in areas where it cannot be avoided, appropriate mitigation measures will be considered in consultation with U.S. Fish and Wildlife Service.

California red-legged frog—Avoidance measures would be implemented during construction to avoid and/or minimize the potential for impacts to the California red-legged frog. The Biological Opinion issued by U.S. Fish and Wildlife Service will define these measures and may include:

1. Qualification requirements: U.S. Fish and Wildlife Service approval of the credentials of biologist(s) that would be monitoring construction activities (education, training on species identification, survey techniques, handling knowledge, field experience, etc.). No project construction will begin until Caltrans has received written approval for biologists to conduct specified activities.
2. Educational training: Prior to initial ground disturbance, a U.S. Fish and Wildlife Service-approved biologist will conduct an education program for all construction personnel (description of the California red-legged frog, migratory birds, and their habitats; the occurrence of these species within the project footprint and action area; an explanation of the status of these species; the measures to be implemented, etc.).

3. **Monitoring:** A U.S. Fish and Wildlife Service-approved biologist(s) will be onsite during all activities that may result in the take of the California red-legged frog. Safety permitting, the monitor will also investigate areas of disturbed soil for signs of California red-legged frogs within 30 minutes following the initial disturbance of that given area.
4. **Preconstruction survey:** California red-legged frog surveys will be conducted by an approved biologist prior to construction. This includes full investigation of mammal burrows within the construction footprint. The entrances of burrows will be collapsed following investigation in areas that will be subject to ground disturbance.
5. **Exotic wildlife removal:** The biologist(s) will permanently remove from the project site any exotic wildlife species, such as bullfrogs and crayfish, to the extent possible.
6. **Copy of Biological Opinion on construction site:** Prior to groundbreaking, the Resident Engineer (responsible for all construction activity) will submit a letter to the U.S. Fish and Wildlife Service verifying that he or she possesses a copy of the Biological Opinion and understands the Terms and Conditions. The permit must remain onsite at all times.
7. **Stopping work:** Construction work will stop at the request of the biologist(s) if activities are identified that may result in the take (killing) of a California red-legged frog. Should the biologist(s) or the Resident Engineer exercise this authority, he or she will notify the Coast-Bay/Forest Foothills Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600.
8. **Radius around animal:** If a California red-legged frog is discovered during any activities, all work will halt within 50 feet of the animal and the Service will be contacted to determine how to proceed.
9. **Relocating:** If, at any time, a California red-legged frog is discovered, the biological monitor will be informed immediately and will determine if relocating the animal is necessary.
10. **Limiting work area:** Construction access, staging, storage, and parking areas will be located within the described project footprint outside of identified sensitive habitat areas or outside of the right-of-way in areas environmentally cleared and permitted. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed project. Routes

and boundaries of roadwork will be clearly marked prior to initiating construction or grading.

11. Clearing vegetation: Vegetation that is within the cut-and-fill line or is growing in locations where permanent features will be placed will be cleared. In areas that will be subject to revegetation, plants will be cleared only where necessary and will be cut above soil level. This will increase the potential of those plants to re-sprout after construction. All clearing and grubbing of woody vegetation will occur by hand or by using construction equipment such as backhoes and excavators, with the exception of trees (must one be removed). All cleared vegetation will be removed from the project footprint to prevent attracting animals to the project site. The biologist will be present during all vegetation clearing and grubbing activities. Plastic mono-filament netting (erosion control matting) or similar material will not be used at the project site because the California red-legged frog may become entangled or trapped in it. Acceptable substitutes include coconut coir matting and tackified hydroseeding compounds.
12. Seasonal restrictions: Except for limited vegetation clearing, work within California red-legged frog habitat will be restricted to between June 1 and October 15. If work must extend beyond October 15, then U.S. Fish and Wildlife Service approval will be obtained.
13. Restoration: Temporarily disturbed areas will be restored to the preconstruction function and values to the maximum extent practicable. Exposed ground will be reseeded with native grasses and shrubs to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species will be replanted based on local species composition. Any revegetation plans will be reviewed and approved by the U.S. Fish and Wildlife Service.
14. Agency access: Caltrans will allow access by the U.S. Fish and Wildlife Service or other regulatory agency personnel to the action area to inspect project effects. Caltrans requests that all agency representatives contact the Resident Engineer prior to accessing the work site and review and sign the Safe Work Code of Practices prior to accessing.
15. Trash, firearms, pets: Firearms will be prohibited at the project site, except for those carried by authorized security personnel, or local, state or federal law enforcement officials. All food and food-related trash items will be enclosed in sealed trash containers and removed from the site at the end of each day. Pets will be prohibited from the action area.

16. Invasive species: Presidential Executive Order 13112 will be followed to reduce the spread of invasive, non-native plant species and minimize the potential decrease of palatable vegetation for wildlife. If borrow material were required, it would be certified to be nontoxic and weed free.
17. Protection of watercourses: Watercourses would be protected by forbidding any discharge of pollutants from vehicle and equipment cleaning into any storm drains or watercourses; keeping vehicle and equipment fueling and maintenance operations at least 50 feet away from watercourses, except at established commercial gas stations or established vehicle maintenance facilities; collecting and disposing of concrete wastes in washouts and water from curing operations; maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment; using water trucks and dust palliatives to control dust in excavation and fill areas, covering temporary access road entrances and exits with rock (rocking), and covering of temporary stockpiles when weather conditions require; installing rolls or straw wattles along or at the base of slopes during construction to capture sediment; 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 netting (such as jute or coir) as appropriate on sloped areas and establishing permanent erosion control measures, such as biofiltration strips and swales, to receive stormwater discharges from the highway or other impervious surfaces.

*Project Features Intended to Avoid and Minimize Harm*

- Exclusionary fencing: California red-legged frog exclusionary fencing will be placed at the edge of active construction areas to restrict frog access into the work area. The fencing will consist of taut silt fabric, 24 inches in height, stacked at 10-foot intervals, with the bottom buried 6 inches below grade. Exclusion fencing will be inspected and maintained on a daily basis. Prior to the start of construction, areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed will be clearly delineated using high-visibility orange fencing. The fencing will remain in place throughout the duration of the project and will prevent construction equipment or personnel from entering sensitive habitat areas. The final project plans will depict all locations where fencing will be installed and how it will be installed. The special provisions in the bid solicitation package will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage.

- Frog ramps: To prevent inadvertent entrapment of the California red-legged frog during construction, any 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 will be constructed with one or more escape ramps composed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. All replacement pipes, culverts, or similar structures stored in the project footprint overnight will be inspected before they are subsequently moved, capped, and/or buried.

### *Compensatory Mitigation*

Offsite: The Biological Opinion may also require habitat compensation at an offsite location to make up for the removal of this potential habitat. A 3:1 ratio for permanent impacts and a 1.1:1 ratio for temporary impacts may be required (this will be agreed upon when the Biological Opinion is signed). To satisfy this potential mitigation requirement, purchasing conservation credits at a U.S. Fish and Wildlife Service-approved California red-legged frog conservation bank may be required, such as the Mountain House Conservation Bank.

### *Western Pond Turtle—Avoidance and Minimization Efforts*

- Preconstruction surveys for the western pond turtle would be conducted within the species' active period the season before construction.
- A worker educational training would be conducted and would include a brief presentation by a biologist knowledgeable about western pond turtle biology.
- If a western pond turtle nest were found within the project impact area, the California Department of Fish and Wildlife would be contacted. A biologist would be available should a western pond turtle need relocation from the project site during construction activities. If relocation is necessary, the animal will be relocated into an aquatic environment not more than 500 feet from the project location.
- If a nest were found that could not be avoided, the California Department of Fish and Wildlife would be contacted. If a western pond turtle nest were found that could be feasibly avoided, an Environmentally Sensitive Area with a buffer zone would be established with guidance by the California Department of Fish and Wildlife.

#### ***IV. Biological Resources (checklist questions c)***

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

-Less than significant impact

#### ***Affected Environment***

##### *Wetlands and Other Waters of the U.S.*

To classify an area as a wetland (for purposes of the Clean Water Act), three parameters are used: presence of hydrophytic (water loving) vegetation, presence of wetland hydrology, and presence of hydric soils (soils formed during saturation/inundation). All three must be present, under normal circumstances, for an area to be a jurisdictional wetland. The term “jurisdictional wetlands” refers to areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Jurisdictional wetlands generally include swamps, marshes, bogs, natural drainage channels, and seasonal wetlands.

Jurisdictional waters of the United States are defined as those waters that are currently used or were used in the past or may be susceptible to use in the interstate commerce, including all waters subject to the ebb and flow of the tide and all interstate waters including interstate wetlands. This definition also includes interstate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds where the use degradation or destruction of which could affect interstate or foreign commerce.

A preliminary jurisdictional delineation will be completed and submitted to the U.S. Army Corps of Engineers for verification.

#### ***Environmental Consequences***

No work is proposed in Cheney Gulch below the ordinary high water mark. Associated riparian vegetation would not be removed or disturbed. No wetlands or other waters of the U.S. would be affected by the proposed project based on what is known at this time.

A ditch formed by the existing culvert blowing out may be jurisdictional to the U.S. Army Corps of Engineers. This would be determined by the Corps’ review, and if so, may require a Clean Water Act (CWA) 404 permit and a Regional Water Quality

Control Board 401 Water Discharge Certification. Also, the proposed project may require a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife.

Coordination with these agencies would determine what would be required for construction of the proposed project.

***Avoidance, Minimization and/or Mitigation***

Permit conditions would be followed. A Clean Water Act (CWA) 404 permit and a Regional Water Quality Control Board 401 Water Discharge Certification may be required in addition to a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife.

***IX. Hydrology, Water Quality and Storm Water Runoff***  
***- checklist question a***

a) Violate any water quality standards or waste discharge requirements?

- Less than significant impact

***Affected Environment***

The project is located within the jurisdiction of the North Coast Regional Water Quality Control Board (Region 1), which is responsible for implementation and enforcement of state and federal laws and regulations concerning water quality.

The project site is within Hydrologic Sub-Area (HSA) 115.21, specifically within the Bodega Harbor–Frontal Pacific Ocean sub-watershed. Runoff from this location discharges directly to Cheney Gulch, which generally parallels Highway 1 until flow continues westward through Doran Regional Park and discharges into Bodega Harbor, about 11,850 feet downstream. From there, the flow may continue for another 9,850 feet until it discharges to Bodega Bay. This results in a total flow-path of approximately 21,700 feet, from the project location to Bodega Bay.

The Bodega Harbor is identified as being Federal Clean Water Act (CWA) Section 303(d) listed for having water quality limited segments. This listing, however, encompasses the entire watershed. The project location is not within the Sonoma County Municipal Separate Storm Sewer System (MS4).

The project is located in a Mediterranean climate region characterized by warm summers and mild wet winters, with the rainy season between October 15 and April 15.

### ***Environmental Consequences***

Potential temporary impacts to existing water quality would result from staging and active construction areas, which could result in the release of fluids, concrete material, sediment, and litter, beyond the perimeter of the site and/or into Cheney Gulch. These results may include a change in pH and turbidity of the gulch.

Potential long-term impacts to existing water quality are the same for the existing facility, the deposition and transport of sediment, and vehicular-related pollutants.

The disturbed soil area is expected to be less than 1 acre.

### ***Avoidance, Minimization and/or Mitigation***

The Clean Water Act Section 401 requires a water quality certification from either the State Water Resources Control Board or Regional Water Quality Control Board when a project would require a federal license or permit, resulting from a discharge to water(s) of the U.S. Whereas construction operations may occur within, or along, the bed and/or bank of Cheney Gulch, and/or that material/debris may be discharged to the gulch, a Clean Water Act Section 404 permit, issued by the U.S. Army Corps of Engineers is anticipated. As such, a tandem 401 certification, issued by Region 1, would be required.

Clean Water Act Section 402 established the National Pollutant Discharge Elimination System (NPDES) permit system, which directs that stormwater discharges are point-source discharges and established a framework for regulating municipal and industrial stormwater discharges. To ensure compliance, the State Water Resources Control Board issued Caltrans a Statewide National Pollutant Discharge Elimination System Stormwater Permit to regulate stormwater discharges from Caltrans' facilities (Order No. 2012-0011-DWQ), which became effective July 1, 2013 and applied to projects within the Project Initiation Document (PID) phase on that date. Because this project was in the Project Approval/Environmental Document (PA/ED) phase by July 1, 2013, it is exempt from compliance with the new National Pollutant Discharge Elimination System permit and therefore will follow the previous permit (Order No. 99-06-DWQ).

The State Water Resources Control Board issued a statewide Construction General Permit for construction activities (2009-0009-DWQ, CAS000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ) that applies to all stormwater discharges from land where clearing, grading, and excavation result in a disturbed soil area of 1 acre or greater. At this phase, the disturbed soil area for this project is anticipated to be less than

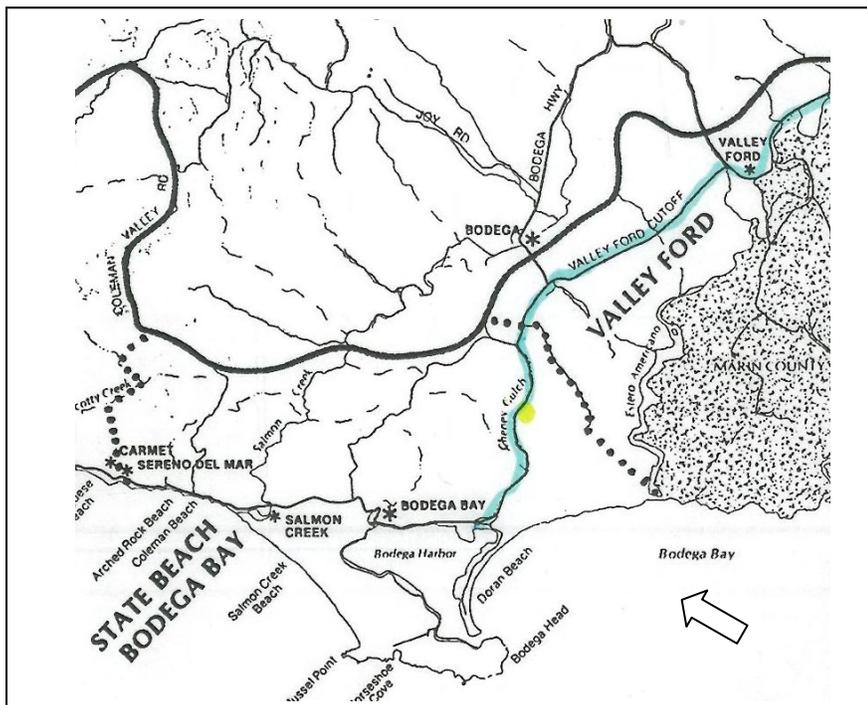
1 acre. Projects not subject to the Construction General Permit (due to disturbing less than 1 acre of soils) require implementation of a Water Pollution Control Program.

Prior to starting construction activities, a Water Pollution Control Program must be prepared by the contractor and approved. The plan addresses potential temporary impacts via implementation of appropriate best management practices to the maximum extent practicable. Of the potential temporary impacts, the main concern is unintended discharge to Cheney Gulch. Where sediment and materials from active construction have the potential of being deposited to Cheney Gulch, either a temporary barrier or stream diversion must be incorporated. The solution depends on the time of year of construction. If flow is present, then a stream diversion and/or installation of an impermeable barrier (sheet piles) may be necessary. Otherwise, fiber roll and silt fence may be sufficient. Regardless of the choice, temporary construction site best management practices would be used for general sediment control and material management; these include, but are not limited to fiber roll, silt fence, construction entrance/exit, street sweeping, and hydraulic mulch (bonded fiber matrix).

## Coastal Zone Permit/Consistency/Coordination

### ***Affected Environment***

The project sits in a coastal zone as shown in the map below, taken from the 2001 Local Coastal Plan.



In the map above, the thick black line is the coastal zone boundary. Highway 1 is highlighted in blue. The general location of the project is highlighted in yellow.

The Coastal Zone Management Act of 1972 is the main federal law enacted to preserve and protect coastal resources. California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the Coastal Zone Management Act: they include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards.

The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act. The California Coastal Act delegates power to local governments to enact their own local coastal plans (LCPs). These plans determine the short- and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals.

The Coastal Commission approved the Sonoma County Local Coastal Plan in 1980 and the updates in 1982 and 2001. The Sonoma County General Plan was updated in 2008, so the local coastal plan will be updated for consistency with the General Plan.

Coastal Act policies encourage the protection of, and continued biological productivity of, marine resources and environmentally sensitive habitat. Site and design guidelines are suggested to protect coastal views and to minimize other visual impacts. Protection is given to areas and species of special biological significance. Uses of the marine environment will be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

The biological productivity and quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health will be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entertainment, controlling runoff, preventing depletion of groundwater supplies and encouraging wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

### ***Environmental Consequences***

As described in the visual/aesthetics section, no scenic resources would be affected by the project. The natural-colored rocks placed as slope protection would be covered with soils and seeded with native plant seed mix. Depending on the initial growth and rainfall, the rock slope protection could become exposed, poking up through the dirt cover. The use of brown rocks would ensure a natural-looking condition even if they do become exposed. No trees would be removed by the project. Temporary minor visual impacts would be seen until the newly seeded native plants are established.

The project would not result in adverse impacts to biological resources, environmentally sensitive habitat, biological productivity or the quality of coastal waters, streams, wetlands, or estuaries. The project would address controlling runoff and would minimize alteration of the natural environment.

### ***Avoidance, Minimization and/or Mitigation***

A Coastal Development Permit would be obtained from Sonoma County Local Coastal Plan representatives prior to construction.

### **Construction**

Construction is expected to take approximately 45 to 60 working days. Construction would be restricted to between June 1 and October 15 (a 4.5-month period) because of the California red-legged frog habitat. No traffic lanes would be closed during this work. Utilities would not be affected or require relocation. The roadway turnout would be used for equipment staging.

## Appendix A Photos and Mapping



Looking northbound on Highway 1 (west), Cheney Gulch on left



Looking southbound (east), Turnout visible, Cheney Gulch on right



Looking towards gulch, slope erosion in foreground



Separated culvert



Hole created by separated culvert



Slope dropping away near separated culvert



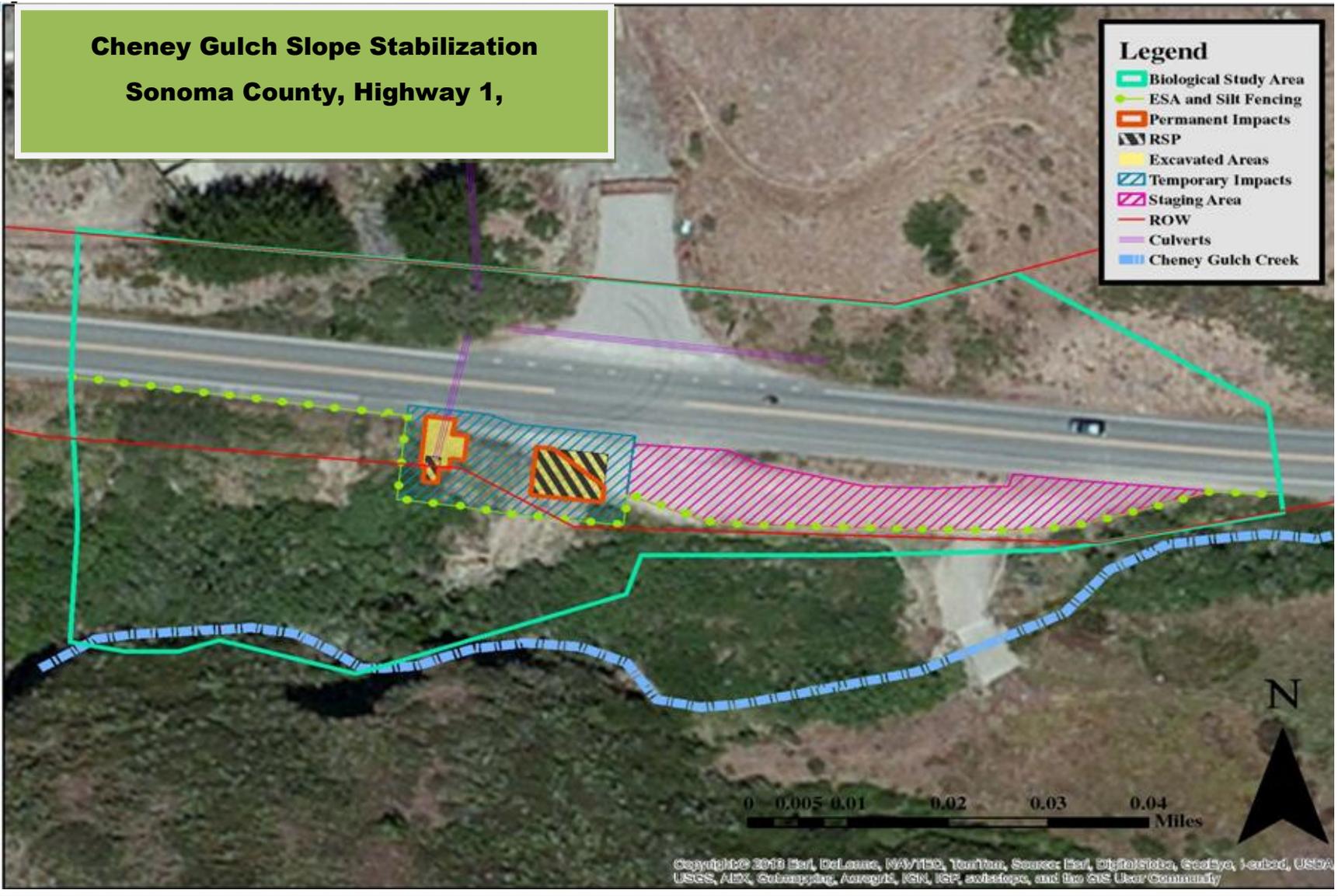
Northbound side of highway, looking across Highway 1

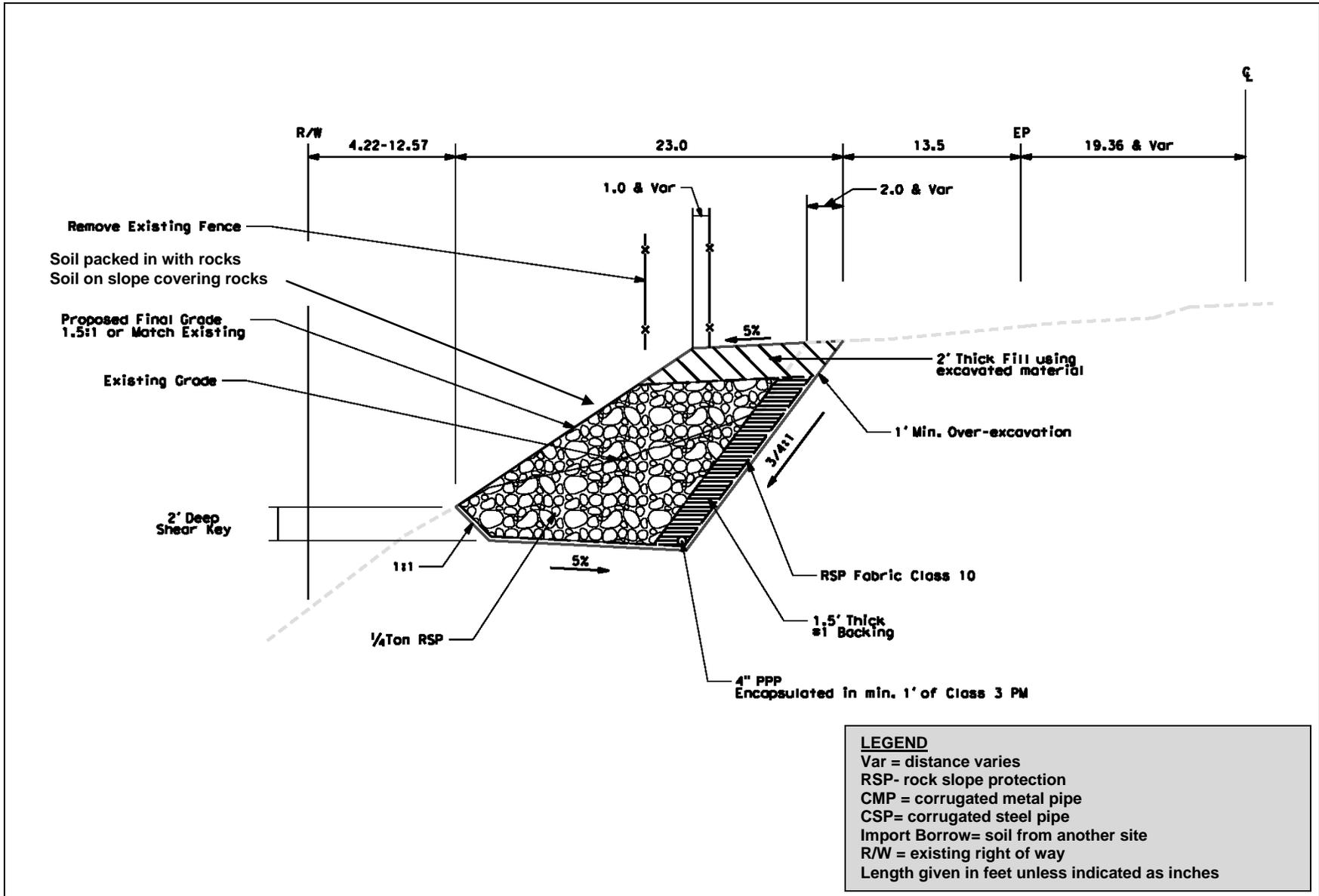


Gulch vegetation, looking downstream (west)

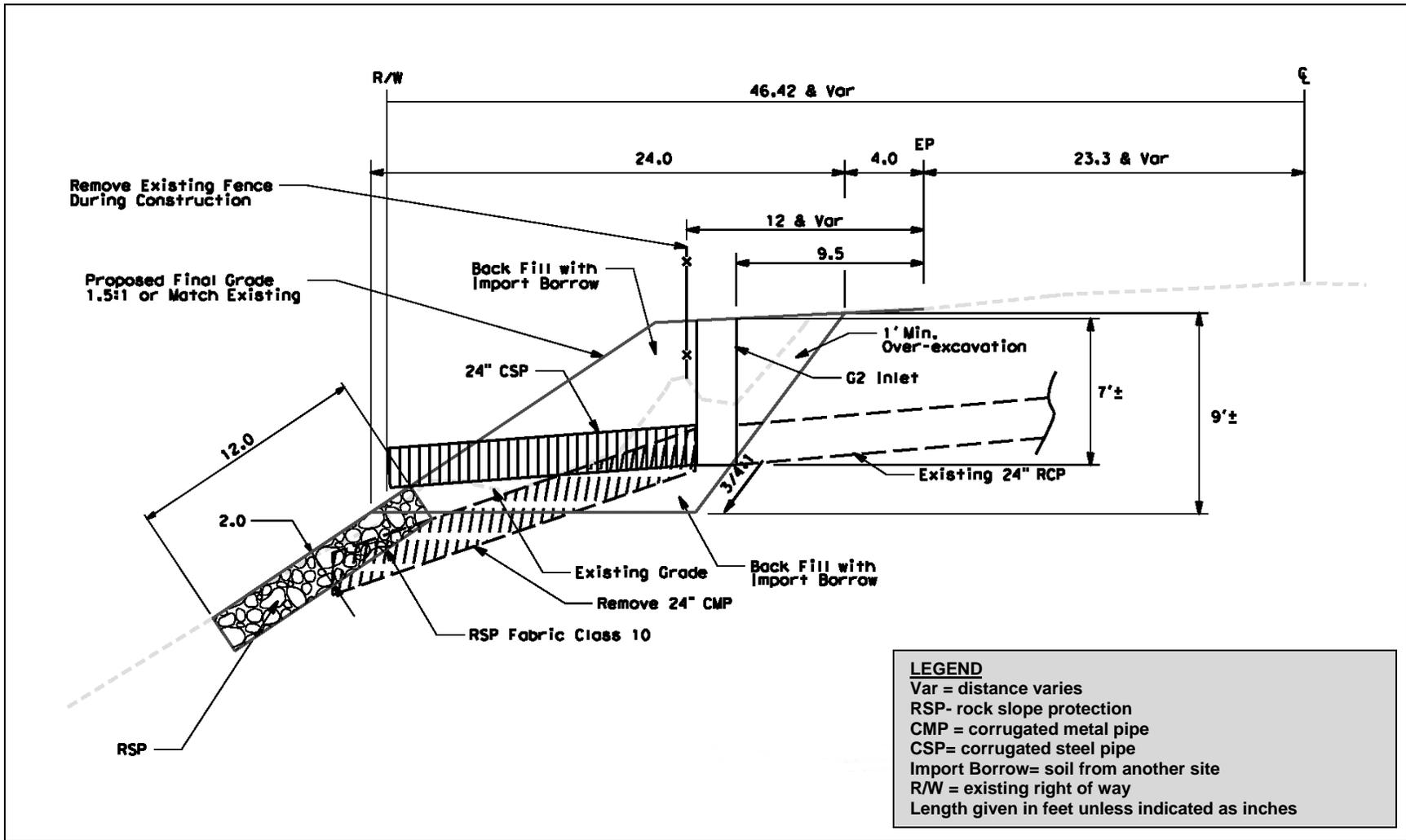
**Cheney Gulch Slope Stabilization  
Sonoma County, Highway 1,**

- Legend**
- Biological Study Area
  - ESA and Silt Fencing
  - Permanent Impacts
  - RSP
  - Excavated Areas
  - Temporary Impacts
  - Staging Area
  - ROW
  - Culverts
  - Cheney Gulch Creek





**Slope Stabilization (Cross Section)**



Drainage System Repairs (Cross Section)

## Appendix B Permits and Approvals

Agency	Permit/Approval (federal, state and local)	Status
U.S. Fish and Wildlife Service (Sacramento Office)	Endangered Species Act Section 7 Consultation for federally listed threatened and endangered species –Biological Opinion from U.S. Fish and Wildlife Service	A Biological Assessment evaluating the project’s potential effects to the California red-legged frog has been submitted (2/25/14) to the U.S. Fish and Wildlife Service, and a Biological Opinion is expected before the final environmental document is signed.
California Department of Fish and Wildlife (Bay–Delta Region 3 Office)	Fish and Game Code Section 1602 Streambed Alteration Agreement	Temporary impacts to drainage features may require a 1602 Streambed Alteration Agreement. The application will be submitted during final design, and the permit obtained prior to the project going out for bid on the construction contract.
U.S. Army Corps of Engineers (San Francisco Office)	Clean Water Act Section 404 Nationwide Permit for filling or dredging waters of the U.S.	Temporary impacts to drainage features may require a Nationwide 404 permit. The application will be submitted during final design, and the permit obtained prior to the project going out for bid on the construction contract.
California Coastal Commission and Sonoma County	A Coastal Development Permit for work/development in the Coastal Zone	After approval of the final environmental document, a Coastal Development Permit will be requested from Sonoma County Local Coastal Plan representatives.
Regional Water Quality Control Board (Region 1)	Clean Water Act Section 402— National Pollutant Discharge Elimination System: Waste Discharge Permit  A Storm Water Pollution Prevention Plan and/or Water Pollution Control Plan will be required by Caltrans, will be prepared and is expected to provide all the necessary temporary pollution and erosion control measures required during construction	Compliance with (1) the Statewide National Pollutant Discharge Elimination System Permit (Order No. 99-06-DWQ NPDES No. CAS000003) and (2) the General Permit, Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activity (Order No. 99-08-DWQ, NPDES No. CAS000002).
	Clean Water Act Section 401 Water Quality Certification	Temporary impacts to drainage features may require a 401 permit. The application will be submitted during final design, and the permit obtained prior to the project going out for bid on the construction contract.

## **Appendix C Detailed Description**

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There are two areas (slides/slip-outs) where soil has eroded and fallen away towards the gulch, on the southbound side of Highway 1. The larger of the two adjacent slides appears to have been caused by over saturation of the slope, and the smaller slide is due to the separation of an existing culvert. The work proposed to stabilize the slope and repair to the drainage system includes the following.

The larger slide would be repaired by:

- excavating the loose material within the limits of the slide to create a shelf;
- lining the shelf with a backing material and lining the back of the shelf with a fabric;
- adding a drainage pipe along the base of the shelf to drain this area in a fashion that will not cause further erosion;
- backfilling the area with ¼ ton of brown-colored rocks that will act as slope protection;
- covering the 1.5:1 slope with soils and packing the soils into the voids between the rocks, and leaving soil on the surface;
- seeding the new slope surface.

The smaller slip-out would be repaired by:

- excavating the loose material within the limits of this slide;
- removing and replacing the existing 24-inch broken corrugated pipe that drains the water from the culvert under the highway to the gulch below;
- installing an inlet with a down drain to collect water from the top of the slope and connect it with the new corrugated steel pipe that would connect to the existing culvert under the roadway and outfall creek side;
- adding soils to the top and reshaping the slope;
- adding rocks and a pad around the culvert outfall to filter and slow the water;
- seeding the new slope surface.

## **Appendix D** List of Technical Studies/Materials Available Separately

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Air and Noise Memorandum (November 2012)

Water Quality and Stormwater Runoff Study (January 2014)

Hazardous Waste Review (November 2013)

Scenic Resource Evaluation and Visual Impact Assessment (February 2014)

Paleontological Scoping Report (February 2013)

Natural Environment Study (March 2014)

The following technical study has been removed due to confidentiality:

Cultural Resource Review (August 13, 2013)

The legal authority to restrict cultural resource information can be found in California Government Code Sections 6254.10 and 6254(r); California Code of Regulations Section 15120(d); and Section 304 of the National Historic Preservation Act of 1966.