Estero Americano Bridge Replacement Project

MARIN AND SONOMA COUNTIES, CALIFORNIA
CALTRANS DISTRICT 4
STATE ROUTE 1 – MRN PM 50.1/50.5, SON PM 0.0/0.1
EA 209500; Project ID 04-1200-0116; SCH# 20114102047

Initial Study with Negative Declaration

Prepared by the
California Department of Transportation

December 2014

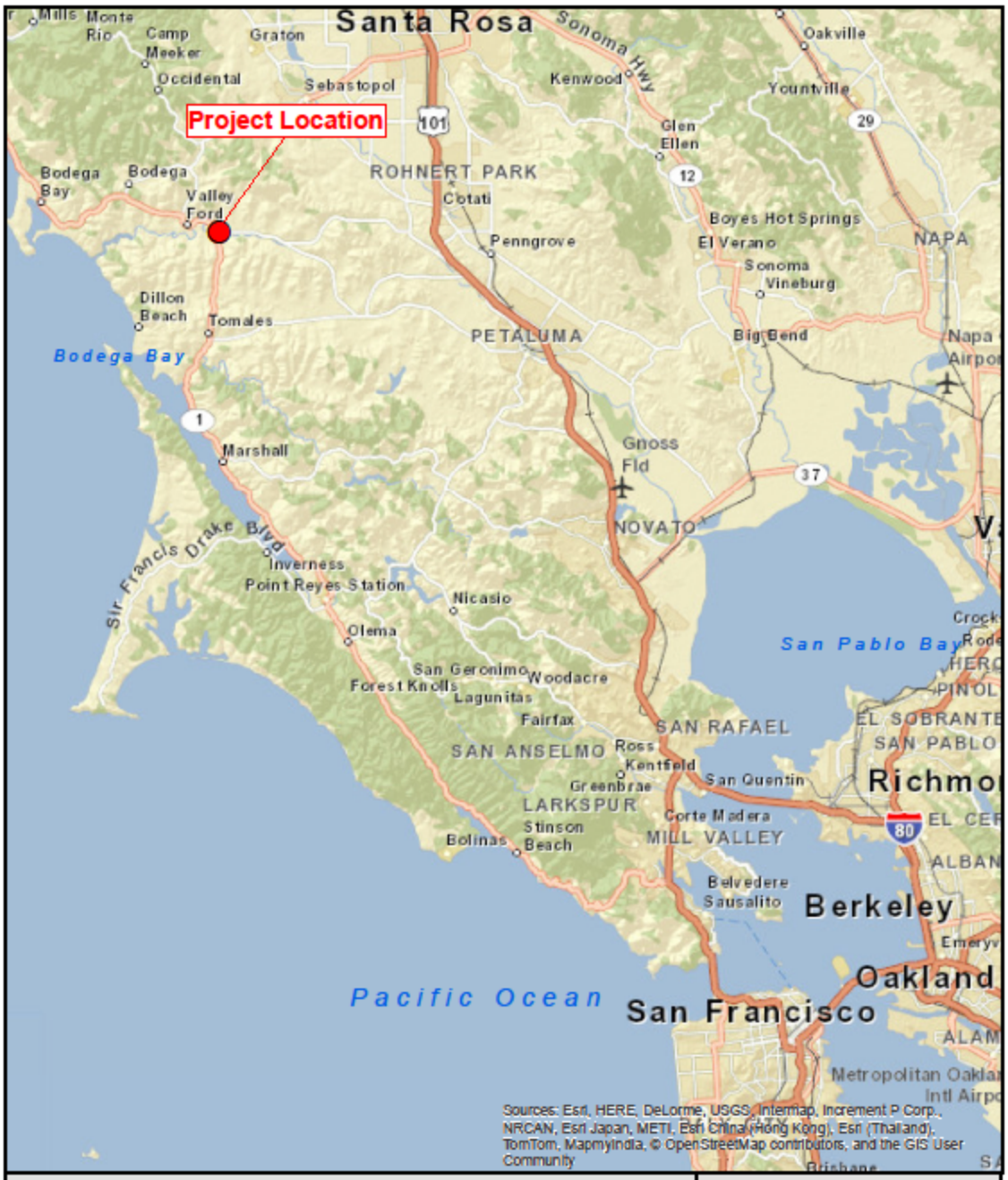


Figure 1. Project Vicinity Map

Estero Americano Bridge Replacement Project
Marin and Sonoma Counties, California
State Route 1

N

0 3 6 12 Miles

Figure 2. Existing Condition Looking Northbound Route 1

Figure 3. Comparison of Project Area Before (top) and After (below) Construction

INITIAL STUDY WITH NEGATIVE DECLARATION

04 – MRN – 1 and 04 – SON – 1	MRN 1 – 50.1/50.5 and SON 1 – 0.0/0.1	EA 209500; Project ID # 0412000116
Dist.-Co.-Rte.	P.M/P.M.	E.A.

Project Title:	Estero Americano Bridge Replacement Project
Lead agency name and address:	California Department of Transportation 111 Grand Ave., Oakland, CA 94612
Contact person and phone number:	Wajahat Nyaz, Project Manager (510) 286-5119
Project Location:	Valley Ford, Marin and Sonoma Counties, California
General plan description:	Transportation
Zoning:	Transportation
Other public agencies whose approval is required (e.g., environmental permits); CEQA Responsible Agencies are denoted with a *:	• Biological Opinion from the U.S. Fish and Wildlife Service • Biological Opinion from the National Marine Fisheries Service • Lake and Streambed Alteration Agreement from California Department of Fish and Wildlife* • Coastal Development Permit from the California Coastal Commission* • Clean Water Act 404 Permit from the U.S. Army Corps of Engineers • Clean Water Act 401 Water Quality Certification from the North Coast Regional Water Quality Control Board* • California State Lands Commission* • California Transportation Commission* • State Historic Preservation Office*

Additional copies of this document, as well as the technical studies this document relies on, are available for review at the district office, 111 Grand Ave., Oakland, CA 94612.

Stefan Galvez-Abadia
Chief, Office of Environmental Analysis
Caltrans District 4, Oakland

12/15/14
Date

To obtain a copy in Braille, in large print, on computer disk, or on audiocassette, please contact: Caltrans, Attn: Oliver Iberien at the address above, or use the California Relay Service TTY number, 711.

Project Information

Location

The California Department of Transportation (Caltrans) proposes to replace the existing bridge over Americano Creek on State Route 1 in Marin and Sonoma Counties, California. The Estero Americano Bridge Replacement Project is located in an unincorporated area of Sonoma and Marin Counties about 1.5 miles east of Valley Ford on State Route 1. The project limits stretch between post miles (PM) 50.1 and 50.5 in Marin County and PMs 0.0 and 0.10 in Sonoma County.

Project Goal

Caltrans proposes to replace the existing bridge spanning Americano Creek, which delineates the border between Marin and Sonoma Counties on State Route 1 southeast of the town of Valley Ford, California (Figure 1). The existing bridge deck has a two-foot sag, is structurally deficient, and is subject to periodic flooding from Americano Creek due to its low elevation in the landscape. The bridge was originally built in 1925; the bridge is at the end of its service life and will be replaced with a longer, cast-in-place concrete box girder bridge. The purpose of the project is to maintain the integrity of the roadway and provide flooding relief at this location.

Project Description

Bridge Structure

The project will remove the existing 146-foot-long, 25-foot-wide bridge and replace it with a 266-foot-long, 40-foot-wide cast-in-place concrete box girder bridge. The new bridge will support a roadway consisting of a 12-foot travel way in each direction and 6-foot shoulders. The spans will be supported on either side by six piers on extensions built with 30-inch-diameter, 40-foot-long cast-in-drilled-hole (CIDH) piles. The new bridge will be about 6 feet higher than the existing bridge and was designed to accommodate the 100-year flood event. Additionally, our analysis demonstrates that the highest forecasted sea level rise (SLR) of 66 inches for the year 2100 should not impact the tailwater elevation used in the current bridge design model and can be discounted as not a significant impact to this project design. The volume of discharge by the watershed is not enough to increase the tailwater far enough upstream to the point that SLR will impact the new bridge structure and elevated roadway. Please see a discussion of SLR in the Hydrology and Water Quality section of the IS checklist. The new bridge will also provide more space for wildlife passage beneath the roadway and result in an increase in the amount of riparian habitat along Americano Creek.

Prior to constructing the bridge, the majority of riparian and roadside vegetation within Caltrans' right-of-way (ROW) through the project limits will be removed. The area will be grubbed and graded to allow for the construction of temporary access roads up to 16 feet wide for construction of the new bridge and for materials staging and storage.

The bridge will be constructed in two stages; the eventual northbound lane will be constructed first to the east of the existing bridge, to allow the existing bridge to be used for traffic with one-way traffic control during construction. Traffic will then be shifted onto the new bridge. One-way traffic control will continue on the new bridge while the old bridge is demolished and the second half of the new bridge is completed. Temporary K-rail will be placed on the edge of the new structure while the southbound side of the new bridge is constructed.

Prior to beginning bridge construction, if necessary, a cofferdam or other temporary creek diversion system will be constructed to convey any standing water away from the work area. For each rank of piles, holes 30 inches in diameter will be drilled at 8 feet on center using rig-mounted drills working either in the creek bed on mats or on one or more temporary access roads. Two-foot-wide rebar cages will be lowered into the holes and concrete will be pumped into the holes, with containment systems around the holes to contain water, drilling fluid, etc. Forms will be placed over the above-ground rebar and concrete pumped into the forms. Falsework to support the cast-in-place concrete box girder construction will then be constructed. Forms will be constructed over the falsework, structural steel will be placed in the forms, and concrete will be pumped into the forms. Barrier rail will be constructed on the edge of the slab (see below).

Retaining walls

The roadway will be raised to meet the abutments of the new bridge. Retaining walls will be constructed along the roadway alignment, with imported and reclaimed fill material used behind the walls, to support a roadway consisting of a 12-foot lane in each direction and 6-foot shoulders, conforming at its termini to the existing roadway. Approximate wall dimensions are as follows:

Wall location	Wall length (feet)	Extent of footing width beyond face of wall (feet)	Max. height (feet)	Min. height (feet)
NE corner of bridge	130	2.2-3.0	8.0	2.0
NW corner of bridge	100	2.2-3.0	8.0	2.0
SE corner of bridge	425	2.2-3.0	9.0	2.0
SW corner of bridge	575	2.2-3.0	9.0	2.0

To construct the retaining walls, the area for the footing will be excavated to a maximum depth of 3 feet. Forms will be constructed, structural steel placed in the forms, and the forms will be filled with concrete. Aesthetic treatment will then be applied to the wall. The area between the walls will be filled with imported engineered fill to the height necessary to raise the pavement to the appropriate elevation.

Embankment

The project will construct new embankment, where retaining walls are not used, to conform the existing roadway to the end of the new retaining walls. Embankment would be created by using imported fill and excavated material from the discarded embankment and that can be reused; this material will be compacted along the roadway edge. Approximate embankment dimensions are as follows:

Embankment location	Embankment length (feet)	Embankment width (feet)	Embankment depth (feet)
NE	600	0-25	0-8
NW	630	0-25	0-8
SE	870	0-30	0-9
SW	720	0-30	0-9

Existing embankment not needed for new roadway construction will be removed and regraded to conform to the original grade. Excavated material not reused on location will become property of the contractor and will be disposed of according to Caltrans specifications.

Pavement Section

The project will construct two 12-foot travel lanes, one in each direction, with 6-foot shoulders. Where the project constructs new roadway between the bridge abutments and the existing roadway at the termini of the project, new AC pavement will be poured. The pavement section will consist of a layer of aggregate subbase under a layer of aggregate base, over which AC is applied. The aggregate will be mechanically compacted, after which AC will be applied and finished using truck-mounted pavers.

Barrier Rail

Barrier rail (Type ST-20S) will be constructed along the edge of shoulder over the bridge and atop the retaining walls. The Type ST-20S rail is a steel rail mounted on a concrete curb that allows for more visual transparency than a solid concrete barrier.

Utilities Relocation

Verifications of utilities were obtained, and it was determined that up to six utility poles will need to be relocated. No additional right-of-way is required for the relocation of utilities.

Restoration

All disturbed areas will be restored by a combination of compost application, revegetation with native plants, and hydroseeding with an appropriate native seed mix. Abandoned areas of roadway will, after the removal of old pavement and regrading to conform to the surrounding landscape, receive the same treatment. All invasive, non-native plants, duff, and excavated material containing invasive plant material will be cleared from the project footprint. The wetland ditches that line the roadway will be reconstructed on site, and all riparian vegetation along Americano Creek removed for the project will be replanted at a 1:1 ratio.

Staging

The majority of Caltrans' ROW around the entire project area will be required for construction access and materials staging. Work will occur over three seasons. The majority of vegetation within the ROW will be removed down to the stumps between September 1 and October 15 the autumn ahead of the first bridge construction season. No grubbing will occur during this time period. Construction activities at the project site outside the creek will occur between April 15 and November 1; work within the creek

will be limited to occur between June 1 and November 1. These windows are designed to avoid the time of year when protected wildlife is most active and the wet season when construction activities in the creek would have a higher likelihood of impacting areas downstream. The project will require 200 working days. One-way traffic control will be required; occasional full closures and detours may be required. Some night work may be required. No additional right-of-way is required to construct the project.

Environmental Setting

The Estero Americano project site crosses Americano Creek about two miles upstream of where the creek transitions into the Estero Americano near Valley Ford. The Estero Americano watershed covers 49 square miles and provides habitat for numerous fish and wildlife species. The Estero Americano has been categorized as a Critical Coastal Area by the State of California. Estero Americano ultimately flows towards Bodega Bay and the Gulf of the Farallones National Marine Sanctuary.

The Estero Watershed has changed from its historic condition because of agricultural land use, instances of unmanaged livestock grazing, and historic potato farming, which was common in the area between 1850 and 1953. These practices have resulted in excessive sediment deposition to the watershed, which has contributed to stream channel aggradation, which in turn exacerbates local flooding problems. The supply of fine sediment to Americano Creek significantly exceeds the carrying capacity of the stream. The northwestern and southwestern areas of the project area have been seeded with crops for forage. The northeastern parcel is actively disked and tilled. The southeastern portion area adjacent to the project limits is primarily grazed by sheep and is not tilled. There are also relict furrows within the southeastern parcel that run perpendicular to the roadway and that are likely there from when the field was plowed decades ago. The vegetation within Caltrans' ROW consists of wetland species in the ditches and non-native, annual grasses elsewhere. Willows and blackberries are abundant along Americano Creek and are present in the roadside ditches nearest the creek. Elevations within the project area range from approximately 24 to 34 feet above sea level.

Consistency with Existing Zoning Plans and other Applicable Land Use Controls

The project is located on State Route 1 in both Marin and Sonoma Counties, and thus within the area covered by the Sonoma County General Plan**,** Sonoma County Local Coastal Plan, Marin Countywide Plan, and the Marin County Local Coastal Program Land Use Plan. This project complies with the stated goals, guidelines, and recommendations of each county's plans, including recommendations for view preservation, the minimization of visual degradation of natural landforms, and the construction of roadways to minimize the impacts of roads on wetlands, streams, and the scenic resources of the Coastal Zone.

The project was reviewed for consistency with the California Coastal Act policies; this analysis can be found in Appendix E.

A. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 11 for additional information.

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

B. DETERMINATION

On the basis of this initial evaluation:

☒	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☐	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required

Signature: Stefan Galvez-A	Date: 12/15/14
Printed Name: Stefan Galvez-Abadia	For:

Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes a project to replace a bridge on State Route 1 over the Marin and Sonoma county line southeast of Valley Ford, California with a new 266-foot-long cast-in-place concrete box girder bridge. The existing bridge has a two-foot sag, is structurally deficient, and is subject to periodic flooding due to its low elevation in the landscape. Built in 1925, the bridge is at the end of its service life. The purpose of the project is to maintain the integrity of the roadway and provide flooding relief at this location. Because of the higher elevation of the replacement bridge, the project will require new roadway approaches. This project will construct new retaining walls on both sides of the roadway approaches ranging from 100 to 575 feet in length and from 2 to 9 feet in height to conform to the existing roadway. The roadway will also be widened to accommodate a 12-foot travel lane in each direction with 6-foot shoulders throughout the project limits. Caltrans' entire right-of-way within the project limits will be used for construction (e.g., vehicle access, construction equipment staging).

Determination

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

All impacts to natural resources are considered minimal, because all disturbed areas onsite will be restored using an appropriate mix of native plants. All impacted wetlands will be recreated on site at a 1:1 ratio. All riparian trees will be replanted within the Americano Creek corridor. Caltrans has determined that this project will not result in cumulative impacts to the environment. This project is anticipated to result in an overall improvement of local environmental conditions, because the new bridge will be longer and better span the Americano Creek floodplain compared to the existing bridge.

The proposed project would have no long term effect on recreation, public services, growth, agriculture, air quality, cultural resources, geology, hazardous waste, land use, mineral resources, or noise.

In addition, the proposed project would have no significant impact on traffic/transportation, utilities, or on visual, biological, aquatic, or hydrologic resources.

Melanie Brent 12/15/14

Melanie Brent Date
Deputy District Director, Environmental Planning and Engineering
District 4
California Department of Transportation

CEQA Environmental Checklist

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is 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. Please note that content-based changes to the text from the draft environmental document to this final environmental document will be noted with a line in the right hand margin.

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

The design will be consistent with the visual quality of the highway corridor, and no scenic resources will be adversely affected by the proposed project. Pertinent elements of the Sonoma County Local Coastal Plan are reflected in the project's design. This project improves the safety of the motoring public without visually degrading the Highway 1 corridor.

Avoidance or minimization measures have been identified and can lessen visual impacts of the project. The inclusion of aesthetic features in a project design can help generate public acceptance. This section describes additional avoidance and/or minimization measures to address specific visual impacts. These will be designed and implemented with concurrence of the District Landscape Architect.

The primary means of minimizing potential project impacts to visual resources involves replanting the State right-of-way within the project limits. All disturbed areas will be revegetated following construction. Areas near the creek will be planted with native willows and potentially other native plants as recommended by the project biologist. This planting, naturally irrigated by the creek and adjoining ditches will screen the new structure from the view of all but those using the roadway. Beyond the ditches, all other disturbed areas will be hydroseeded with a blend of locally native plants as recommended by the project biologist.

Concrete surfaces will receive texture to reduce glare. Without such modifications, concrete structures can appear as new and visually stark components within a highway corridor. Architectural treatment, such as roughing the texture of new elements, will help blend the additions into the landscape, minimizing the perceived change.

Type ST-20S bridge railing, a steel rail mounted on a concrete curb that allows for more visual transparency than a solid concrete barrier, will be used to preserve views through and beyond the barrier. The Type ST-20S railing will continue to allow motorists to see beyond the bridge.

The use of retaining walls will allow for limited embankment construction, minimizing the project's footprint and impact to wetlands, and allowing additional room for on-site planting of natural plant communities.

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

No agricultural lands will be directly affected by the project.

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

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒

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)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

The project will not increase capacity and so will not affect air quality.

IV. BIOLOGICAL RESOURCES: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

The Estero Americano project site crosses Americano Creek upstream of where the creek transitions into the Estero Americano near Valley Ford. The Estero Americano watershed covers 49 square miles and provides habitat for numerous fish and wildlife species, including species of special concern. The Estero Americano has been categorized as a Critical Coastal Area by the State of California.

Americano Creek traverses from east to west below the existing concrete bridge structure on State Route 1 and flows towards Bodega Bay and the Gulf of the Farallones National Marine Sanctuary. Dense riparian habitat is present along Americano Creek west of State Route 1 and lies adjacent to upland and mesic grassland communities. The creek immediately upstream of the bridge (east side of State Route 1) supports a small patch of riparian habitat and a riparian wetland. Four excavated wetland drainages parallel State Route 1. These drainages are located north and south of the bridge site and flow towards Americano Creek. The creek is heavily filled with sediment below the existing bridge. Americano Creek is presently not known to support fish resources above tidewater, which ends near the town of Valley Ford.

The vegetation within Caltrans' right-of-way (ROW) consists of wetland species in the ditches and annual grasses elsewhere. Willows (*Salix* spp.), blackberries (*Rubus* spp.), teasel (*Dipsacus* sp.), and poison hemlock (*Conium maculatum*) are abundant along Americano Creek and are present in the roadside ditches nearest the creek. The upland areas abutting the wetlands largely support non-native, annual grasses. Outside Caltrans' ROW, the northwestern and southwestern areas of the project area have been seeded with crops for forage. The northeastern parcel is actively disked and tilled. The southeastern parcel adjacent to the project limits is primarily grazed by sheep and is not tilled.

Rare plants have been observed within the project area but outside the project footprint. The project footprint includes all areas within Caltrans' ROW that will be utilized for construction staging and access and directly impacted by construction activities. For this project, rare plants include those that are included in CNPS' Inventory of Rare and Endangered Plants and/or are federally listed. Rare plants observed in the project area include the purple-stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*) and Johnny nip (*Castilleja ambigua* ssp. *ambigua*), which are included on CNPS' inventory and the Contra Costa goldfields (*Lasthenia conjugens*, (CCG), which is federally endangered and on CNPS' inventory.

The project area is also known to support protected wildlife, including federally listed species, migratory birds, and state species of special concern. Federally listed animal species that will or have the potential to be impacted by the project include the California red-legged frog (*Rana draytonii*, CRLF and also a state species of special concern), the Myrtle's silverspot butterfly (*Speyeria zerene myrtleae*, MSB), and Central California Coast steelhead (*Oncorhynchus mykiss*). The tricolored blackbird (*Agelaius tricolor*), a state species of special concern, is also known to occur in the project area.

Americano Creek is considered federally designated critical habitat for steelhead and coho salmon (*Oncorhynchus kisutch*). However, coho and steelhead are presently not considered to be present in Americano Creek. Steelhead are present in the lower reaches of Estero Americano and Ebabias Creek, which is a perennial stream that drains into the Estero about two miles upstream of the Pacific Ocean. Although not present in Americano Creek, there is a low probability that juvenile steelhead could be present in and near the project site if there is high water when this project goes to construction. Comprehensive surveys in 1988 and 1989 found only one adult steelhead in Estero Americano about two miles west of the project site. Two other steelhead or resident rainbow trout (also *O. mykiss* but not federally protected) were observed upstream of the project site around the same time period. Given the history of sedimentation in Americano Creek and poor water quality known to occur in the creek, such as high ammonia concentrations and high salinity, the chance of finding a steelhead at the project site is low.

Impacts to Biological Resources

Impacts to biological resources associated with this project include: riparian and wetland vegetation removal, removal and grading of the existing wetland ditches, grubbing of the project site, placement and use of access roads, embankment, and retaining walls, in-creek work, construction staging activities, construction-related noise, compaction, and potential

sedimentation downstream. Caltrans does not anticipate this project will negatively affect areas outside the project footprint. The discussion below highlights the impacts to special-status plants, animals, and wetlands and waters within the project area. It also highlights the avoidance and minimization measures (AMMs) that will be implemented to minimize impacts to special-status species and to protect the surrounding environment from project-related impacts. Additionally, the complete list of proposed AMMs can be found in Appendix G.

Special-status Plants within the Project Area

Special-status plant species were observed in the project area but are unlikely to be affected by project activities. Rare plants observed in the project area include the purple-stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*) and Johnny nip (*Castilleja ambigua* ssp. *ambigua*), which are on CNPS' Inventory of Rare and Endangered Plants but are not state or federally listed, and the Contra Costa goldfields which is federally endangered and on CNPS' rare plant inventory. No special-status plants were observed within the area where construction activities will occur (i.e., the project footprint).

Purple-stemmed checkerbloom was observed within Caltrans' ROW but just north of the northern most project limits. Johnny nip was observed within a field abutting the project footprint. Construction impacts to these species are unlikely to occur, because these plants were not observed within the project footprint. Environmentally sensitive area (ESA) fencing will be erected around the checkerbloom population to prevent the inadvertent encroachment of construction vehicles into the area where the checkerbloom was observed and the subsequent crushing of individual plants. Project work will not occur outside Caltrans' ROW. Water quality BMPs will prevent dust and sediment from washing into or entering the field where Johnny nip was observed and affecting individual plants.

The extent of Contra Costa goldfields (CCG) in the project vicinity abuts, but does not overlap, the project footprint (a fence separates the goldfields from the ROW where direct impacts will occur). Individual plants could be affected by the generation of dust or sediment deposition into the field where the goldfields occur as a result of construction activities within the project footprint.

Indirect effects to the CCG within the project study area could also result from the construction of a longer bridge through changes in hydrology. A longer bridge over Americano Creek could potentially speed up the flow of water through the project area, thereby hastening the drying of the wetland swales that support the CCG and subsequently making them unsuitable for the species through shorter inundation periods. The opposite condition could also result. Caltrans' Department of Hydraulics has produced a hydrologic model forecasting the anticipated condition of the project area post-construction. The project includes constructing a longer bridge and raising the roadway to meet the new bridge; with a taller roadway the two-year flood is anticipated to result in about a 0.7-foot increase in ponding in the field supporting the CCG over the current condition.

Although this increase in inundation could affect the CCG population, the resulting effects on the population are unlikely to adversely affect the population. Because the CCG has a higher affinity for deeper, wetter pools than drier swales and soils, a slight increase in inundation during regular flooding events is unlikely to result in a decrease in population size. Increased ponding may have a beneficial impact on the population.

Silt and ESA fencing will be erected along the fence line adjacent to the field where the CCG was observed. This will prevent the inadvertent encroachment into CCG habitat by construction vehicles. Water quality BMPs will prevent dust and sediment from washing into or entering CCG habitat and subsequently affecting individual plants. Please see the complete list of proposed AMMs for the CCG in Appendix F.

Because of the proximity of the project to CCG habitat, Caltrans entered into formal consultation with the USFWS pursuant to section 7 of the Endangered Species Act. Caltrans and the USFWS have agreed, through consultation, that project this may affect, is likely to adversely affect, the CCG. Caltrans' AMMs will reduce the likelihood that individual CCG will be affected by the proposed project.

Special-status Plants within the Project Area

Special-status plant species were observed in the project area but are unlikely to be affected by project activities. Rare plants observed in the project area include the purple-stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*) and Johnny nip (*Castilleja ambigua* ssp. *ambigua*), which are on CNPS' Inventory of Rare and Endangered Plants but are not state or federally listed, and the Contra Costa goldfields which is federally endangered and on CNPS' rare plant inventory. No special-status plants were observed within the area where construction activities will occur (i.e., the project footprint).

Purple-stemmed checkerbloom was observed within Caltrans' ROW but just north of the northern most project limits. Johnny nip was observed within a field abutting the project footprint. Construction impacts to these species are unlikely to occur, because these plants were not observed within the project footprint. Environmentally sensitive area fencing will be erected around the checkerbloom population to prevent the inadvertent encroachment of construction vehicles into the area where the checkerbloom was observed and the subsequent crushing of individual plants. Project work will not occur outside Caltrans' ROW. Water quality BMPs will prevent dust and sediment from washing into or entering the field where Johnny nip was observed and affecting individual plants.

The extent of Contra Costa goldfields (CCG) in the project vicinity abuts, but does not overlap, the project footprint (a fence separates the goldfields from the ROW where direct impacts will occur). Individual plants could be affected by the generation of dust or sediment deposition into the field where the goldfields occur as a result of construction activities within the project footprint.

Indirect effects to the CCG within the project study area could also result from the construction of a longer bridge through changes in hydrology. A longer bridge over Americano Creek could potentially speed up the flow of water through the project area, thereby hastening the drying of the wetland swales that support the CCG and subsequently making them unsuitable for the species through shorter inundation periods. The opposite condition could also result. Caltrans' Department of Hydraulics has produced a hydrologic model forecasting the anticipated condition of the project area post-construction. The project includes constructing a longer bridge and raising the roadway to meet the new bridge; with a taller roadway the two-year flood is anticipated to result in about a 0.7-foot increase in ponding in the field supporting the CCG over the current condition.

Although this increase in inundation could affect the CCG population, the resulting effects on the population are unlikely to adversely affect the population. Because the CCG has a higher affinity for deeper, wetter pools than drier swales and soils, a slight increase in inundation during regular flooding events is unlikely to result in a decrease in population size. Increased ponding may have a beneficial impact on the population.

Silt and ESA fencing will be erected along the fence line adjacent to the field where the CCG was observed. This will prevent the inadvertent encroachment into CCG habitat by construction vehicles. Water quality BMPs will prevent dust and sediment from washing into or entering CCG habitat and subsequently affecting individual plants. Please see the complete list of proposed AMMs for the CCG in Appendix F.

Because of the proximity of the project to CCG habitat, Caltrans entered into formal consultation

with the USFWS pursuant to section 7 of the Endangered Species Act. Caltrans and the USFWS have agreed, through consultation, that this project may affect, is likely to adversely affect, the CCG. Caltrans' AMMs will reduce the likelihood that individual CCG will be affected by the proposed project.

Special-status Animals within the Project Area

Special-status animal species given further consideration with this project include the California red-legged frog (CRLF), Myrtle's silverspot butterfly (MSB), tricolored blackbird, bats, and migratory birds. Other species that occur within five miles of the project area, including steelhead (*Onchorynchus mykiss*), tidewater goby (*Eucyclogobius newberryi*), and California freshwater shrimp (*Syncaris pacifica*) occur in the watershed but are unlikely to occur at the project site because of a lack of habitat in the project area. This project site also falls within critical habitat for both steelhead and coho salmon.

Steelhead have not been documented as occurring within the project area recently, but the species does occur downstream near the mouth of the Estero Americano and in Ebabias Creek, which empties into the Estero about two miles east of the Pacific Ocean. Steelhead are unlikely to occur in the project area during construction, but there is a low probability juveniles could be present during a high water year. Salmonids (and other aquatic species) are likely to be absent from the surrounding project area at the time of construction, because the creek typically dries in summer. If there is a need for dewatering when this project goes to construction, Caltrans will implement a fish relocation plan that will need to be approved by the National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife. Individual steelhead may need to be handled to relocate fish out of harm's way away from the project site. Coho are presently not known to occur in the Estero Americano Watershed.

Pursuant to section 7 of the Endangered Species Act, Caltrans will be covered under an existing programmatic biological opinion from NMFS for the take of steelhead and temporary adverse effects to coho critical habitat as part of this project.

The tidewater goby occurs less than 1.5 miles from the project area. However, Americano Creek is too intermittent to support tidewater goby within the project area. The substrate at the project site is composed of fine silts, which is not suitable for the goby. The project site is also too intermittent to support the California freshwater shrimp and does not provide habitat features, such as undercut banks or shallow pools that are suitable for the shrimp.

The CRLF is known to occur along Americano Creek within the project footprint and general project area. The most recent documented observation in the project area is from surveys conducted in 2004. The historical range of the CRLF extended coastally from the vicinity of Elk Creek in Mendocino County, California, and inland from the vicinity of Redding, Shasta County, California, southward to northwestern Baja California. The CRLF was historically documented in 46 counties, but the species is now extant in 238 drainages within 23 counties, representing a loss of 70 percent of its former range. The CRLF is still locally abundant within portions of the San Francisco Bay Area and the Central Coast.

Pursuant to section 7 of FESA, Caltrans concluded that this project may affect, is likely to adversely affect, the CRLF. The proposed project will likely result in direct and indirect impacts on the CRLF and its habitat within the project footprint and may result in the harm and harassment of individuals during construction activities through handling efforts and displacement from construction-related disturbance. Construction activities will be conducted outside the breeding season of the California red-legged frog so its mating calls will not be disrupted as a result of the project. Habitat impacts will occur with the placement of fill material to construct the roadway, bridge bents, and retaining walls. Although this project will permanently impact suitable breeding, dispersal, and upland habitat, this project is ultimately likely to improve the environmental baseline for the frog within the project footprint and BSA, because the frog will have a wider

movement corridor (121 feet wider) along the creek than what is currently present. As a result of constructing a longer bridge, more riparian habitat and aquatic breeding and dispersal habitat will become established following project completion (0.095 acre). Reduced frog roadway mortality is also anticipated with the construction of retaining walls near the creek, because the retaining walls will be elevated above ground level and will prevent frogs from accessing the paved roadway. Additionally, the existing roadway will be removed and regraded where it does not overlap with the new roadway, and the old bridge will be demolished. These activities will result in the restoration of reclaimed habitat, including upland and aquatic habitat.

The MSB is a member of the brush-foots family (Nymphalidae). This subspecies is a medium-sized butterfly with a wingspan of approximately 2.17 inches. The upper surfaces of the wings are golden brown with numerous black spots and lines. The undersides are brown, orange-brown, and tan with black lines and distinctive silver and black spots. Typical habitats supporting the MSB and its host plant are coastal dunes, coastal scrub, or coastal prairie at elevations ranging from sea level to 1,000 feet and as far as three miles inland. There is a minimal likelihood that the MSB would be encountered at the project site. The site is not suitable for breeding, because the project area does not support the larval host plant, western dog violet (*Viola adunca*), and the butterfly generally seeks out areas that are protected from the wind and hillside topographic features not present in the project area. The nearest known MSB population occurs in uncultivated coastal grassland habitat that is more scrublike than what is found in the project area and supports outcrops and hilltop features suitable for the species. The project footprint and project area supports suitable nectar plants for the MSB. However, these are present in low abundance, and the species is generally dependent upon the presence of both suitable nectar plants and the larval host plant. Take of the MSB will be avoided through the implementation of the AMMs in listed Appendix G. Proposed AMMs include conducting vegetation removal outside the adult flight period for this species.

While the proposed project is likely to adversely affect the CRLF and could potentially affect the MSB and CCG, planned AMMs will minimize these potential adverse effects and a full list can be found in Appendix G. Through consultation with the USFWS, Caltrans did not propose any compensatory mitigation for federally listed species, because this project is anticipated to improve the environmental baseline in the project area.

The willows and wetland vegetation present along the riparian area of Americano Creek and associated wetland ditches have a high potential to support nesting migratory birds. The majority of migratory birds are protected by the Migratory Bird Treaty Act (MBTA). Several common bird species have been observed within the project area. Measures have been incorporated into this project to avoid the take of migratory birds and their nests (Appendix G). The tricolored blackbird, a state species of special concern, was observed within the project area in 1977. The wetland and riparian habitat in the project area is suitable for the species. The tricolored blackbird, largely endemic to California, is experiencing a precipitous decline in abundance. The species was listed as endangered under the California Endangered Species Act (CESA) on December 3, 2014, on an emergency basis. CDFW has 180 days to determine if the endangered status will remain permanent. The most recent statewide survey did not observe the tricolored blackbird in Sonoma County. The tricolored blackbird is a colonial nester; the species generally nests in large flocks. The species has not been observed on site, but species-specific surveys will be conducted through the rest of 2014 and into 2015. If present, measures will be taken to avoid disturbing and affecting this species (Appendix G). Caltrans will restore all impacted areas present on site, and therefore, all potentially suitable tricolored blackbird habitat within the project footprint will be replaced on site at a 1:1 ratio. If present, take of this species pursuant to CESA is not anticipated as a result of this project, because Caltrans does not anticipate the need to relocate any blackbird nests or handle or injure any individuals during construction.

The MBTA prohibits the take of migratory birds and their nests. The majority of construction will occur during the typical bird nesting season, which in California, generally runs from February 1 to August 31. Caltrans will remove the majority of the vegetation in the project area outside the

nesting season to avoid potential conflicts with the migratory bird nesting season. The vegetation within Caltrans' ROW will need to be removed prior to construction to allow for sufficient space for construction vehicles and staging. Caltrans will implement pre-construction surveys to ensure that no project activities occur within 50 feet of nesting migratory birds and 300 feet of raptors. Birds in the general project area may be impacted by construction-related noise. The maximum noise level of construction equipment used on site would be 110 decibels (dB) at 50 feet from the source, although more typical maximum noise levels will be around 90 dB at 50 feet. Such equipment might include a vibratory or impact pile driver. At this time, Caltrans is not anticipating the need to do pile driving in Americano Creek to construct the bridge. Physical harm of birds can occur with single noise blasts of 140 dB at zero feet from the noise source and 72 hours of continuous exposure to levels above 110 dB. This condition is unlikely to occur with this project; therefore no injury to birds is anticipated as a result of construction-related noise. With construction noises of 90 dB and no obstructions, the noise would attenuate to ambient levels between 800 and 1600 feet away from the project site. Therefore, birds and other wildlife within 1600 feet may be subject to potential disturbance from construction-related noise from this project. However, this disturbance buffer is likely to be much less in areas surrounding the creek because of the absorption of sound from the abundant riparian vegetation present in Americano Creek. The creek is also where the majority of heavy construction will take place. Away from the highway and without attenuation, noise levels above 93 dB can cause behavioral changes and result in masked communication. However, MBTA only prohibits the take of nesting migratory birds in the form of harm, harassment, and mortality. Caltrans will implement pre-construction surveys for migratory birds, and no work will occur within 50 feet of any nesting birds and 300 feet of raptors, unless it can be demonstrated to CDFW and USFWS that the bird is showing no changes in behavior as a result of construction activities.

A bat assessment conducted within the project limits demonstrated that bats do not utilize the bridge structure itself. However, various species occur in Marin and Sonoma Counties, including some species of special concern. Special-status bat species include the western red bat (*Eumops perotus*), pallid bat (*Antrozous pallidus*), and Townsend's big-eared bat (*Corynorhinus townsendii*). The riparian area surrounding the bridge may be used for foraging, while large trees within the project area may be utilized for roosting. Demolition of the existing bridge will not impact bats. Removal of large trees within the project footprint could impact roosting bats. No large trees with cavities suitable for roosting were observed during the bat assessment. Foraging bats are generally capable of avoiding construction activities. A follow-up assessment for potential roost sites will be conducted prior to beginning construction. This project could disturb bats as a result of construction-related noise from project activities. Effects to bats as a result of this project are likely to be immeasurable and unquantifiable, because changes in bat behavior will not be readily observed during the daytime when most construction activities will take place. Proposed AMMs to avoid impacting bats are included in Appendix G.

Wetlands and Waters

This project will impact wetlands and waters under the jurisdiction of the U.S. Army Corps of Engineers (USACE), the North Coast Regional Water Quality Control Board (NCRWQCB), the California Coastal Commission (CCC), and California Department of Fish and Wildlife (CDFW). This project was designed to minimize impacts to these resources through the adoption of a longer bridge design and incorporation of retaining walls into the roadway approaches. This project will impact approximately 0.75 acre of wetlands and waters (of the U.S., State, and CCC); 0.45 acre of these wetlands will be impacted permanently and 0.30 acre will be impacted temporarily.

The wetland ditches along the roadside comprise approximately 0.45 acre of wetland waters of the U.S., State, and CCC. Impacts to the wetland ditches are considered permanent because of the two full construction seasons that will be required to complete the project. The roadside ditches will be filled to construct the new roadway, embankment, and retaining walls. These ditches will be replaced in kind within the ROW as part of the project at a 1:1 ratio. This will ultimately result in a shift of these ditches away from their current position. They will be reseeded

with an appropriate mix of native species and constructed to the appropriate elevations.

Temporary impacts to waters will result from construction of the bridge and work within the creek. Americano Creek falls under the jurisdiction of USACE, NCRWQCB, CCC, and CDFW. Temporary impacts will result from doing work within the creek, such as constructing access roads down into the creek, building a temporary creek diversion if necessary, and placing wetland mats down for vehicle access etc. Appendix G contains a list of measures that will be implemented during construction to avoid impacting areas downstream and outside the project footprint as a result of this project.

The project footprint supports 0.90 acre of riparian trees all of which fall under CDFW and NCRWQCB jurisdiction. The majority of the riparian vegetation within the ROW will be removed in preparation for this project. All riparian vegetation impacted during construction will be replanted on site at a 1:1 ratio. Offsite restoration and enhancement efforts will be coordinated during the permitting phase of this project.

This project will ultimately enhance the riparian area of Americano Creek, because the new bridge will be 121 feet longer than the existing bridge and will ultimately facilitate the growth of more riparian habitat along the creek. Because of the diversity of vegetation and structural complexity found along streams and creeks, riparian corridors provide valuable habitat for wildlife. Riparian areas are important for providing food, nesting sites, shelter and space for wildlife movement. In general, riparian corridors support a greater abundance of wildlife than other adjacent habitats.

Offsite restoration and enhancement efforts to offset the temporal impacts to wetlands and waters and riparian area of Americano Creek will be coordinated during the design and permitting phase of this project. Temporal impacts include the time it takes for the wetland and riparian vegetation to become reestablished following construction and the two years that the wetland ditches will not be available to migratory birds and wildlife.

Invasive Species

Caltrans recognizes the potential for construction activities to result in the introduction of non-native species to a project area. Caltrans will implement a non-standard special provision to require the cleaning and decontamination of all equipment brought into the construction area and to require this of any vehicles and equipment used on multiple construction sites. "Requiring cleaning of equipment (and materials) prior to use for dewatering" is reasonable. Temporary construction BMPs incorporating vegetation may also introduce invasive species. This is typically addressed by requiring certification that seeds and plants are free of invasive species from the county of origin of the vegetation.

Avoidance and Minimization

Caltrans will restore all disturbed areas on site, including the riparian area of Americano Creek and the ditches that line the roadway. Caltrans will replace all wetland ditches on site following construction. Upland areas impacted during the project will be reseeded with a native seed mix. All riparian trees removed during the project will be replanted on site at a 1:1 ratio. Offsite restoration efforts will be explored during the permitting and design phase of this project but are not needed to avoid significant impacts to wetlands and waters of the U.S. and State and Coastal Zone or protected wildlife and plant species.

The new bridge will ameliorate flooding at the project location and create more space for wildlife passage beneath the roadway. Construction of the retaining walls will reduce the amount of environmental impacts within the Americano Creek floodplain by reducing the amount of wetland impacts nearest the creek and likely preventing wildlife from accessing and crossing the roadway, thereby reducing wildlife mortality. Overall, this project is anticipated to result in a net environmental benefit, because there will ultimately be a larger riparian corridor following construction.

Avoidance and minimization measures that will be implemented during this project to reduce impacts to the local environment, include: worker environmental awareness training, the delineation of work areas with high-visibility fencing to prevent construction equipment encroachment into sensitive areas, minimizing night-time work, only removing the minimum amount of vegetation necessary to complete the project, water quality best management practices, etc.

Additional specific requirements for special-status species or habitat restoration will be addressed in permitting. All avoidance and minimization measures will be incorporated into the bid package and the construction contract.

This discussion highlights the AMMs, a complete list of proposed AMMs can be found in Appendix G.

V. CULTURAL RESOURCES: Would the project:

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

No historic structures have been identified in the immediate vicinity of the project, and the Estero Americano Bridge was found ineligible for National Register listing. No archaeological resources are known to be present, and as the project is constructed on areas that have been previously disturbed or are man-made fill, there is little risk of damage to unknown archaeological resources. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

California State Lands Commission (CSLC) has jurisdiction over all abandoned archaeological sites and historic or cultural resources on or in the tide and submerged lands owned by the State of California. If any cultural resources are discovered during construction of the proposed Project, Assistant Chief Counsel Pam Griggs will be consulted.

The Native American Heritage Commission (NAHC) was contacted to request a search of the Sacred Lands File for sacred lands or other cultural properties of significance to Native Americans within or near the Areas of Potential Effect (APE). No sacred lands were identified in the project APE.

A representative of the Federated Indians of Graton Rancheria requested a list of culturally significant plants that will be removed during the project and the results from testing for the project. Culturally significant plants that are identified in the project area will be included in the seed mix used for onsite re-vegetation purposes. These include plants such as blackberry (*Rubus* spp.), coyote brush (*Baccharis pilularis*), and yarrow (*Achillea millefolium*).

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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:	☐	☐	☐	☒
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?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

The project contains no components which would contribute to soil or slope instability. All slopes will be stabilized using standard Caltrans erosion-control BMPs.

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?	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 GHG 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. See http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research

attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels. Research from such establishments as the Intergovernmental Panel on Climate Change (IPCC) are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO_2) , methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF6) , HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles make up the largest source (second to electricity generation) of GHG emitting sources. The dominant GHG emitted is CO_2, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)[1]

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of vehicle miles traveled (VMT), 3) transitioning to lower GHG emitting fuels, and 4) improving vehicle technologies. To be most effective, all four strategies should be pursued collectively. The following section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

Regulatory Setting

State

With the passage of several pieces of legislation including State Senate and Assembly Bills and Executive Orders, California launched an innovative and pro-active approach to dealing with GHG emissions and climate change. Relevant legislation include the following policies:

- Assembly Bill 1493 (AB 1493), Pavley.
- Executive Order (EO) S-3-05: (signed on June 1, 2005, by former Governor Arnold Schwarzenegger)
- AB 32, the Global Warming Solutions Act of2006, Nunez and Pavley
- Executive Order S-20-06: (signed on October 18, 2006, by former Governor Arnold Schwarzenegger)
- Executive Order S-0 1-07: (signed on January 18, 2007, by former Governor Arnold Schwarzenegger)
- Senate Bill 97 (SB 97) Chapter 185, 2007 • Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. This policy contributes to Caltrans' stewardship goal to preserve and enhance California's resources and assets.

Federal

Although climate change and GHG reduction is a concern at the federal level; currently there are no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level GHG analysis. As stated on FHWA's climate change website (http://www.fl1wa.dot.gov/hep/climate/index.htm), climate change

[1] http://climatechanqe.transportation.org/ghq mitigation

considerations should be integrated throughout the transportation decision-making process – from planning through project development and delivery. Despite the lack of Federal GHG regulations and legislation, FHWA as well as the National Highway Traffic Safety Administration (NHTSA) and U.S. EPA are taking steps to lessen climate change impacts by improving transportation system efficiency, creating cleaner fuels, reducing the growth of vehicle hours travelled, and enabling the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines.

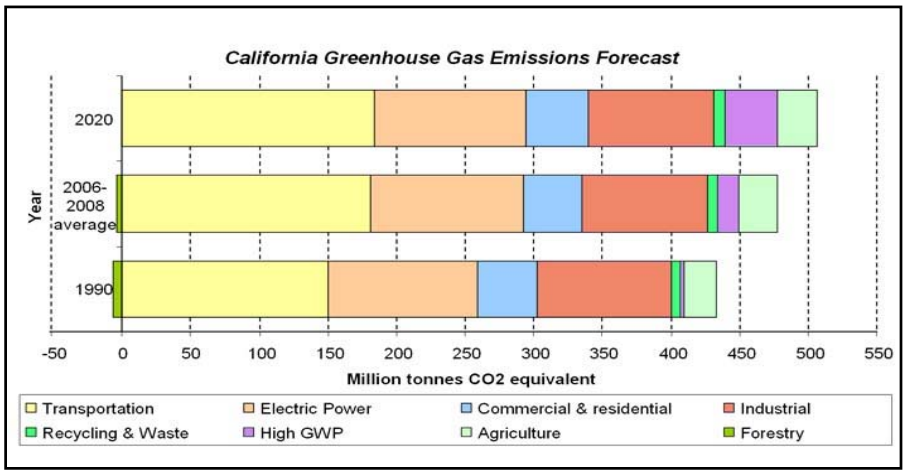
Project Analysis

The proposed project is not a capacity increasing project so it is not anticipated to have any increase in operational GHG emissions as a result. Additionally the project is located in a very rural area that sees low volumes of traffic, and the surrounding communities not likely to experience a significant increase in growth.

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its incremental change in emissions when combined with the contributions of all other sources of GHG.[2] In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines sections 15064(h)(I) and 15130). To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult, if not impossible, task.

The AB 32 Scoping Plan mandated by AB 32 contains the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, ARB released the GHG inventory for California (forecast last updated: October 28, 2010). The forecast is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.

Figure 1 California Greenhouse Gas Forecast



Caltrans and its parent agency, the State Transportation Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of

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

California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.[3]

The purpose of this project is to replace the existing bridge on State Route 1 over the Marin and Sonoma county line southeast of Valley Ford, California with a new 266-foot-long cast-in-place concrete box girder. The existing bridge has a two-foot sag, is structurally deficient, and is subject to periodic flooding due to its low elevation in the landscape. Built in 1925, the bridge is at the end of its service life. The purpose of the project is to maintain the integrity of the roadway and provide flooding relief at this location. As discussed below, construction emissions will be unavoidable, but there will likely be long-term GHG benefits associated reduced maintenance and improved operation through smoother pavement surfaces.

Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

CEQA Conclusion

Although construction emissions are unavoidable and are expected to be minimal, the proposed project will not increase capacity and is not expected to result in additional operational CO_2 emissions. However, 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 determination regarding significance of the project's direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).[4]

Greenhouse Gas Mitigation

AB 32 Compliance – Caltrans continues to be actively involved on the Governor's Climate Action Team as ARB works to implement Executive Orders S-3-05 and S-1-07 and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year.

The following measures will be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

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[3] Caltrans' Climate Action Program is located at the following web address: http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

[4] http://climatechange.transportation.org/g hg_ mitigation/

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

2) Compliance with Title 13, California Code of Regulations §2449(d)(3)-Adopted by the Air Resources Board on June 15, 2008, this regulation would restrict idling of construction vehicles to no longer than 5 consecutive minutes. The Contractor must comply with this regulation in order to reduce harmful emissions from diesel-powered construction vehicles.

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

Adaptation Strategies

"Adaptation strategies" refer to how Caltrans and others can plan for the effects of climate change on the State's transportation infrastructure and strengthen or protect the facilities from damage.

Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the State's infrastructure due to projected sea level rise.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. Caltrans continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

The potential effects to the existing floodplain as a result of climate change near the Estero Americano Bridge project site are discussed further in the Hydrology and Water Quality section of this IS checklist.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Previous investigations have indicated the presence of aerially deposited lead next to the edge of pavement in this area, but the project involves little excavation of existing unpaved soil. Soils at a distance from the roadway, such as the locations of the new ditches, would not contain lead in concentrations that would pose a hazard or trigger regulatory action. Thermoplastic striping and excess construction materials would be removed and disposed of in compliance with standard Caltrans procedures.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
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)?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

The project will add additional impervious area, which includes new pavement and reworked pavement. Additional treatment for increased runoff from this increased impervious area is provided by the biostrips, which are a component of this project. Sediment from construction will be minimized by the use of Caltrans' construction best management practices for stormwater.

The hydraulics engineers defined and quantified the floodplain impacts for the proposed bridge alignment, and the conclusion was that the proposed raised bridge alignment was viable. The water surface elevation does not overtop the proposed new roadway alignment. A hydraulic model produced for this project shows that the both the 50-year- and 100-year-flood events pass under the assumed structure depth of 3.5 feet.

The best available science was utilized to determine if sea level rise (SLR) would affect the existing floodplain near the bridge site and impact the proposed structure. The maximum SLR projections without any future reduction in greenhouse gas emissions from today's levels were used to establish a range of locally-relevant future water levels and shoreline change.

The State of California Sea Level Rise Guidance Document provides guidance for incorporating SLR projections into planning and decision making for projects in California. This document was developed by the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT) in response to Governor Schwarzenegger's Executive Order S-13-08, issued on November 14, 2008, which directed state agencies to plan for sea-level rise and coastal impacts. That executive order also requested the National Research Council (NRC) to issue a report on sea-level rise (SLR) to advise California on planning efforts.

The final report from the NRC, Sea-Level Rise for the Coasts of California, Oregon, and Washington, was released in June 2012. The Sea-Level Rise Guidance Document has been updated with the scientific findings of the 2012 NRC report. The intent of this guidance document is to inform and assist state agencies as they develop approaches for incorporating SLR into planning decisions with the most recent and best available science, as published in the 2012 NRC report. These reports represent the best available science.

Projections of future sea level rise (SLR) from the National Research Council's 2012 report on SLR state that south of Cape Mendocino from the year 2000-2100 the SLR is projected to be between 16.56 and 65.76 inches. Basin-wide satellite images and site survey data were used as a baseline to determine potential effects to the existing floodplain near the Estero Americano Bridge project site. The project site is located 8.5 miles upstream of the Pacific Ocean, and the creek elevation at the project site is 20 feet. Our analysis demonstrates that the highest forecasted SLR of 66 inches for the year 2100 should not impact the tailwater elevation used in the current bridge design model and can be discounted as not a significant impact to this project design. The volume of discharge by the watershed is not enough to increase the tailwater far enough upstream to the point that SLR will impact the new bridge structure and elevated

roadway.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

This project complies with the stated goals, guidelines, and recommendations of each county's plans, including recommendations for view preservation, the minimization of visual degradation of natural landforms, and the construction of roadways to minimize the impacts of roads on wetlands, streams, and the scenic resources of the Coastal Zone.

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

There are no documented mineral resources within the project area.

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?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
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?	☐	☐	☐	☒

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

The project would not introduce new noise impacts or increase ambient noise levels. Construction noise would be temporary and would be within acceptable levels for construction activity. There are no sensitive receptors within the area.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No additional residential or commercial right-of-way is required to construct this project. As such, no displacements will occur.

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?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

To maintain the flow of traffic during construction, Caltrans will prepare a Traffic Management Plan that will ensure accessibility through the project area for vehicles associated with essential services.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

The project does not include any recreational areas, nor will it limit the access to recreational areas, such as those along the State Route 1 Coastline.

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)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
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?	☐	☐	☐	☒

State Route 1 is a conventional highway. Presently there are no existing pedestrian facilities on the bridge. Although no bicycle-specific facilities are provided as part of this project, the project will construct 6-foot shoulders. These shoulders will accommodate bicyclists compared to the current bridge as the current roadway has no shoulders. The proposed barrier railing, Type ST-20S, meets the minimum height required for bicycle railing.

.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

The project proposes alterations to existing drainage facilities and will add 0.5 acre of additional impervious area. Additional treatment for increased runoff from this new impervious area will be provided by biostrips, which are a component of this project. The total volume of additional runoff flowing away from the project area will not cause increases that will result in impacts to the connecting drainage systems, and improvements to local drainage should reduce local flooding issues.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
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?	☐	☐	☒	☐
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)?	☐	☐	☐	☒

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

Caltrans' application of best management practices; the re-establishment of ditches and vegetation in kind, and incorporation of minimization measures into project construction ensure that there will be no residual impacts from this project that can contribute to cumulative impacts.

Appendix A: References

Caltrans District 4 Office of Biological Studies and Permits. Natural Environment Study for the Estero Americano Bridge Replacement Project. Oakland, CA. October 2014

Caltrans District 4 Office of Biological Studies and Permits. Biological assessment for the Estero Americano Bridge Replacement Project. Oakland, CA. July 2014

Caltrans District 4 Office of Cultural Resources. Section 106 Review of the Estero Americano Bridge Replacement Project. Oakland, CA. August 2014.

Caltrans Office of Environmental Engineering. Water Quality Study for the Estero the Estero Americano Bridge Replacement Project. Oakland, CA. May 2014.

Caltrans District 4 Office of Landscape Architecture. Estero Americano Bridge Replacement Project Visual Impact Analysis. Oakland, CA. September 2014.

Kinoshita, Glenn. "Comments from the Air/Noise/Energy Branch". Memorandum, Caltrans Office of Environmental Engineering, November 8, 2013.

Wilson, Chris. "Comments from the Hazardous Waste Branch". Memorandum, Caltrans Office of Environmental Engineering, December 27, 2013.

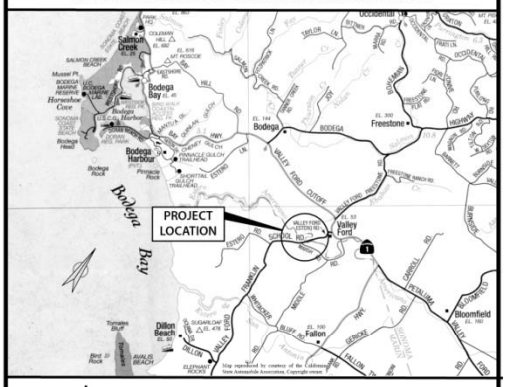
Wilson, Chris. "Estero Americano Bridge Replacement Project", e-mail to Oliver Iberien. August 5, 2014.

U.S. Fish and Wildlife Service. Draft biological opinion for the Estero Americano Bridge Replacement Project. September 29, 2014

Appendix B: Notice of Intent to Adopt a Negative Declaration

PUBLIC NOTICE

NOTICE OF AVAILABILITY OF DRAFT ENVIRONMENTAL DOCUMENT AND INTENT TO ADOPT A NEGATIVE DECLARATION FOR ESTERO AMERICANO BRIDGE REPACEMENT PROJECT



WHAT'S BEING PLANNED

CALTRANS (California Department of Transportation) proposes to replace a bridge spanning Estero Americano Creek, which delineates the border between Marin and Sonoma Counties on State Route 1 southeast of the town of Valley Ford, California. The project will remove the existing 140' long, 24'-wide bridge and replace it with a 266' long, 40'-wide cast-in-place box girder, 6.0' above the elevation of the existing bridge, supporting a roadway consisting of a 12' travel way in each direction and 6.0' shoulders. The purpose of the project is to maintain the integrity of the roadway and provide flooding relief at this location.

WHY THIS NOTICE

CALTRANS has studied the effects this project may have on the environment. Our studies show it will not significantly affect the quality of environment. The report that explains this is called an Initial Study with Proposed Negative Declaration. This notice is to tell you of the preparation of the Initial Study with Proposed Negative Declaration and of its availability for you to read and to offer an opportunity to request a public open house.

WHAT'S AVAILABLE

The Initial Study with proposed Negative Declaration and other project information are available for review and copying at the CALTRANS District 4 Office, 111 Grand Avenue, Oakland, California, on weekdays from 8:00 AM to 5:00 PM. The Initial Study with Proposed Negative Declaration is also available to download at http://www.dot.ca.gov/dist4/envdocs.htm. In addition the document will be made available at the following libraries in the project vicinity.

Occidental Library
73 Main St
Occidental, CA 95465

Sebastopol Regional Library
7140 Bodega Ave
Sebastopol, CA 95472

You are invited to review the Initial Study with Proposed Negative Declaration for the Estero Americano Bridge Replacement Project and provide comments to us. Please send your written comments to Oliver Iberien, Environmental Analysis Senior, at email address provided in the Initial Study or send postal mail to Caltrans District 4, Attn: Oliver Iberien, PO Box 23660 MS 8B, Oakland, CA 94623-0660. Hard copies or compact disks of the document are available by writing to the above mailing address; electronic copies are online at http://www.dot.ca.gov/dist4/envdocs.htm. Be sure to submit comments by the deadline: November 18, 2014.

WHERE YOU COME IN

At this time a public open house meeting is not planned for this project, if you would like to request an open house meeting please contact Oliver Iberien, Environmental Analysis Senior. Send your request to Caltrans District 4, Attn: Oliver Iberien, PO Box 23660 MS 8B, Oakland, CA 94623-0660.

CONTACT

Caltrans

For more information about this study or any transportation matter, call CALTRANS at (510) 286-4444. Individuals who require documents in alternative formats are requested to contact the District 4 Public Affairs Office at (510) 286-6445. TDD users may contact the California Relay Service TDD line at 1-800-735-2929 or Voice Line at 1-800-735-2922.

Advertisement in the Santa Rosa Press-Democrat, October 20, 2014

Appendix C: Notice of Determination

Print Form

Notice of Determination

Appendix D

To:
☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☐ County Clerk
County of: _____
Address: _____

From:
Public Agency: Department of Transportation
Address: 111 Grand Avenue
Oakland, California 94612
Contact: Stefan Galvez
Phone: _____

Lead Agency (if different from above): _____
Address: _____
Contact: _____
Phone: _____

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2014102047

Project Title: Estero Americano Bridge Replacement Project

Project Applicant: Department of Transportation, District 04

Project Location (include county): Valley Ford, Marin and Sonoma Counties, California

Project Description:
The California Department of Transportation (Caltrans) proposes to replace the existing bridge over Americano Creek on State Route 1 in Marin and Sonoma Counties, California. The Estero Americano Bridge Replacement Project is located in an unincorporated area of Sonoma and Marin Counties about 1.5 miles east of Valley Ford on State Route 1.

This is to advise that the Department of Transportation (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on 12/15/14 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☐ were ☒ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☐ was ☒ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☐ were ☒ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:

_____

Signature (Public Agency): _____ Title: Senior Env. Planner

Date: 12/15/14 Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

Appendix D: List of Preparers

Gifford, Zachary	Caltrans District 4 Office of Environmental Analysis
Iberien, Oliver	Caltrans District 4 Office of Environmental Analysis
Rose, Kathryn	Caltrans District 4 Office of Cultural Studies
Hartman, Lindsay	Caltrans District 4 Office of Cultural Studies
Kinoshita, Glenn	Caltrans District 4 Office of Environmental Engineering
Lindsay, Susan	Caltrans District 4 Office of Landscape Architecture
Malamud-Roam, Frances	Caltrans District 04 Office of Biological Studies and Permits
Vivian, Lindsay	Caltrans District 04 Office of Biological Studies and Permits
Solotar, Bob	GANDA, Caltrans District 04 Coastal Permitting Liaison
Else, Chris	Caltrans District 4 Office of Landscape Architecture
McKee, Lissa	Caltrans District 4 Office of Cultural Studies
Wellen, Jonathan	Caltrans District 4 Office of Environmental Engineering
Wilson, Christopher	Caltrans District 4 Office of Environmental Engineering

Appendix E: Consistency with California Coastal Act

Coastal Resources Planning and Management Policies		
Section #	**Section Topic**	**Consistency Evaluation**
30210	Access: Maximum coastal access shall be provided.	Preferred alternative will improve access through the Coastal Zone by replacing a structurally deficient bridge and creating six-foot shoulders on the roadway, which will improve access and safety for bicyclists across the Estero Americano.
30211	Access: Development shall not interfere with public's access to sea.	Project will not impact shoreline access.
30212 (a-c)	Access: Public access from nearest public roadway to the shoreline shall be provided with new development.	Not applicable to project.
30212.5	Access: public facilities distributed to mitigate overcrowding.	Not applicable to project.
30213	Access: Lower cost facilities shall be protected.	Not applicable to project.
30214	Access: Appropriateness of public access	The project will provide a safer way for bicyclists traveling along the coast to cross Americano Creek by providing shoulders on the bridge which are not present on the existing bridge. Also, the bridge will provide safe vehicular access to the coast.
30220-30224	Recreation	Not applicable to project.
30230	Marine Environment: Marine resources shall be maintained, enhanced and restored. Protection given to areas of biological or economic significance. Use of marine environment must sustain the biological productivity of coastal waters.	The project is located in an inland location of the Coastal Zone and will not impact the marine environment or resources.
30231	Marine Environment: Biological productivity shall be maintained and restored.	The project is located in an inland location of the Coastal Zone and will not impact the marine environment or resources.
30232	Marine Environment: Protection against hazardous waste spills during development.	The project is located in an inland location of the Coastal Zone and will not impact the marine environment or resources.
30233	Marine Environment: Diking, filling or dredging of coastal resources.	The project is located in an inland location of the Coastal Zone and will not impact the marine environment or resources.
30234	Marine Environment: commercial fishing and recreational boating.	Not applicable to project.
30234.5	Marine Environment: commercial and recreational fishing.	Not applicable to project.
30235	Marine Environment: construction which alters natural shoreline.	Not applicable to project.

Coastal Resources Planning and Management Policies		
Section #	**Section Topic**	**Consistency Evaluation**
30236	Marine Environment: substantial alterations to rivers and streams.	Not applicable to project.
30237	Marine Environment: County of Orange	Not applicable to project.
30240	Land Resources: Environmentally sensitive habitat areas protected against significant disruption; only uses dependent on those resources shall be allowed within those areas. Adjacent development shall be sited and designed to prevent significant impacts and compatible.	The project will impact habitat suitable for the California red-legged frog (CRLF), a federally threatened species. The project does not fall within designated critical habitat for the CRLF. This project will also require the fill of coastal wetlands and removal of riparian vegetation along Americano Creek. The wetlands and riparian zone within the project area are considered environmentally sensitive habitat areas (ESHAs). This project has been designed to minimize impacts to these resources, and there is no alternative to build this project without impacting these resources. All impacted wetlands and vegetation will be replaced and restored on site at a 1:1 ratio. Incorporating retaining walls into the project design will leave sufficient space for the recreation of the wetland ditches on site after construction. Implementation of appropriate avoidance and minimization measures will minimize potential impacts to the CRLF and other protected resources.
30241	Land Resources: Maintain maximum amount of prime agricultural land to assure protection of the areas agricultural economy and minimize conflicts between agricultural and urban use through all of the following: a. Establishing stable boundaries separating urban and rural areas; minimize conflicts between agricultural and urban land uses. b. Limit conversions of agricultural lands around the periphery of urban areas to lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development. c. Permit conversion of agricultural land surrounded by urban uses consistent with Section 30250; d. Develop available lands not suited for agricultural prior to conversion of agricultural lands e. Assure that public service and facility expansions do not impair agricultural viability f. Assure that all divisions of prime agricultural land do not diminish the productivity of prime agricultural land.	The project will not impact prime agricultural farmland or impact ranching operations in the vicinity of the project.

Coastal Resources Planning and Management Policies		
Section #	**Section Topic**	**Consistency Evaluation**
30244	Protection of archaeological or paleontological resources.	No cultural resources were identified in the Areas of Potential Effects (APEs) for this project. Surveys of all APEs in the project vicinity, conducted in August 2013 and August 2014, did not identify any cultural resources.
30250	Development:	The project will replace an existing highway bridge with a bridge of similar capacity. The project will have no impact on development in this portion of the coastal zone.
30251	The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance.	There are no views to the ocean from the project site. The preferred project alternative has been designed to minimize alteration of natural landforms and will be visually compatible with the character of the surrounding area.
30252	Facilitate transit, minimize use of coastal access roads, provide non-automobile circulation, adequate parking facilities, correlate development with local parks development to facilitate recreational opportunities.	The project will provide a safer way for bicyclists traveling along the coast to cross Americano Creek by providing shoulders on the bridge which are not present on the existing bridge.
30253	Minimize risks from geologic, flood and fire hazards. Assure stability and structural integrity, minimize erosion, retain natural landforms, consistency with State Air Resources Control Board, minimize energy consumption, and protect special communities.	The current bridge over the creek was constructed in 1925 and is structurally deficient. The bridge was built at a low elevation relative to the highest water levels in Americano Creek and is subject to flooding by the creek in winter. Because of the worsening condition of the bridge and annual flooding, Caltrans is proposing to replace the current 146-foot bridge with one that is 266 feet long. The increased length of the new bridge will alleviate flooding at the project location and create more space for wildlife passage beneath the roadway. Avoidance and minimization measures have been incorporated into the project design to reduce impacts from construction, such as to prevent sediment from washing downstream. The project will not substantially alter natural landforms.
30254	Limit design of new or expanded public works facilities to accommodate needs generated by permitted development. Highway 1 in rural areas of the coastal zone shall remain a scenic two-lane road. Services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state or nation… shall not be precluded by other development.	The proposed project retains the character of Highway 1 as a two-lane highway. Safety improvements, such as the proposed six-foot shoulders incorporated into the project's design, will increase safety for bicyclists using the bridge to cross the Estero Americano. The project will not induce other development in the area.
30254.5	Terms and conditions to sewer treatment plants	Not applicable to project
30255	Priority and siting of coastal-dependent developments	Not applicable to project
30260-& 30265.5	Industrial Development	Not applicable to project

Appendix F: Project Plans

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	MRN/SON	01	50.2/50.5		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

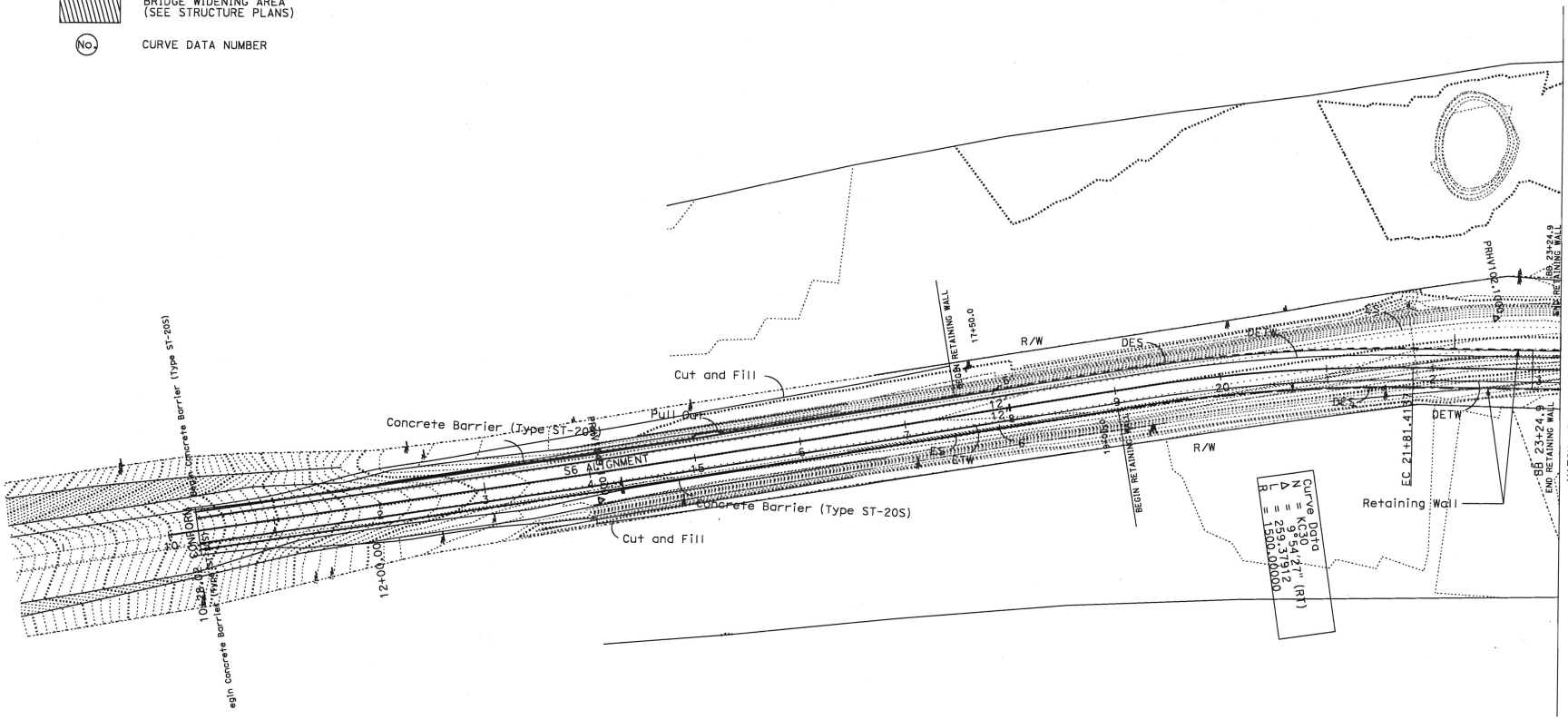
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

- No. — STRUCTURAL SECTION NUMBER
- PAVEMENT WIDENING
- BRIDGE APPROACH SLABS (SEE STRUCTURE PLANS)
- BRIDGE WIDENING AREA (SEE STRUCTURE PLANS)
- No. — CURVE DATA NUMBER

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. FOR DIKE TRANSITIONS SEE CONSTRUCTION DETAILS.
3. INSTALL GUARD RAILING DELINEATOR AT 25 FEET INTERVAL.
4. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.



LAYOUT

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L-1A

FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	VIET HAN	REVISED BY
ZIAD ABUBEKR	CHECKED BY	HILLAL HAMDAN	DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 06-12-14 | DATE PLOTTED => 03-OCT-2014 | TIME PLOTTED => 13:28

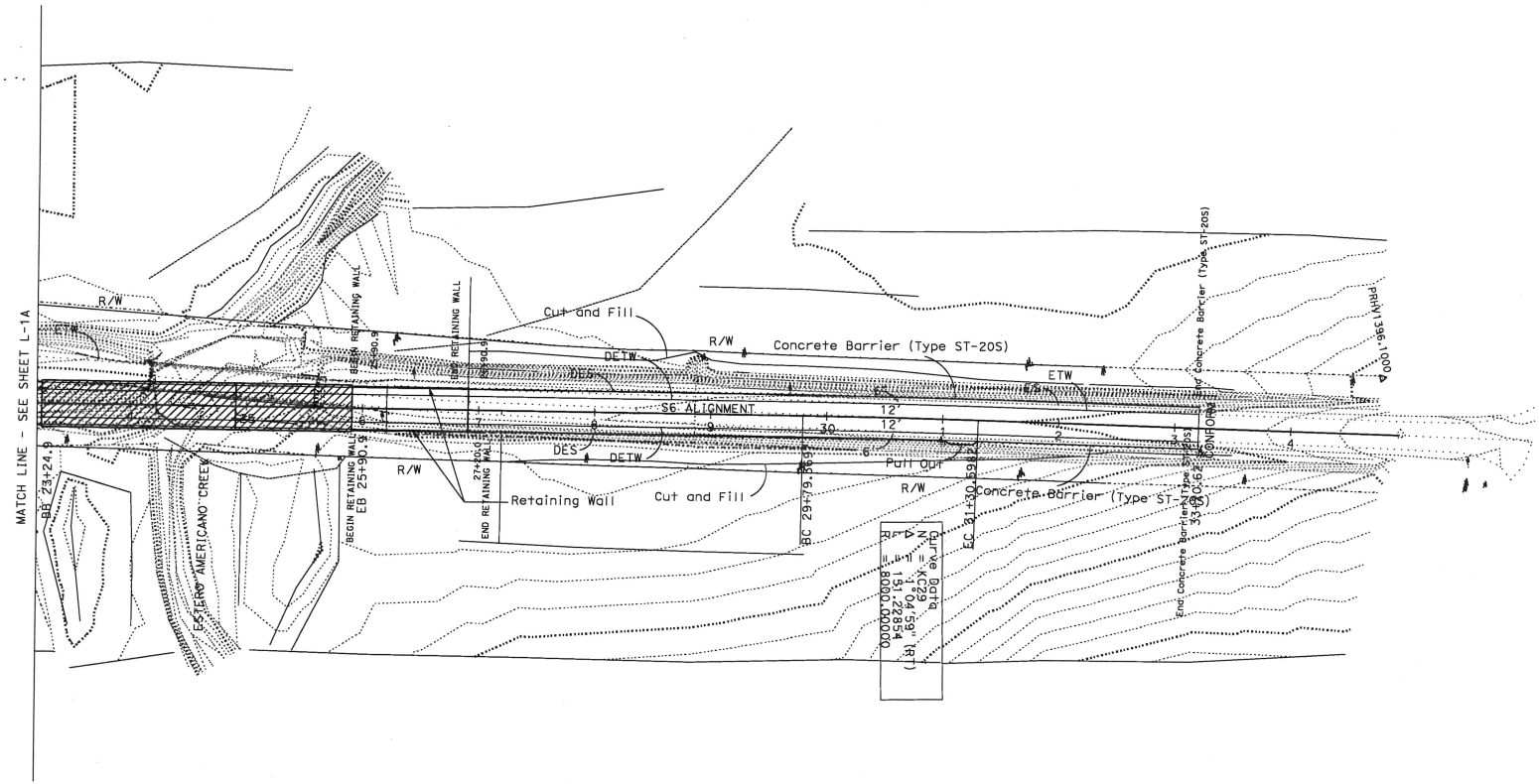
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	MRN/SON	01	50.2/50.5		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



LAYOUT

SCALE: 1:1000

L-1B

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	VIET HAN	REVISED BY	
ZIAD ABUBEKR	CHECKED BY	HILLAL HAMDAN	DATE REVISED	

LAST REVISION 06-12-14 DATE PLOTTED => 03-OCT-2014 TIME PLOTTED => 13:29

BORDER LAST REVISED 7/2/2010 | USERNAME => s127960 DGN FILE => 14081001_LAYOUT_B.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0752 | PROJECT NUMBER & PHASE 04120001160

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	MRN/SON	01	50.2/50.5		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Viet T. Han No. 51541 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TYPICAL PAVEMENT STRUCTURE SECTIONS

1 — 0.70' HMA-A
Varie BASE SOIL

DESIGN DESIGNATION

ESAL(20Y) 29,000

T.I. (20Y) 6.0

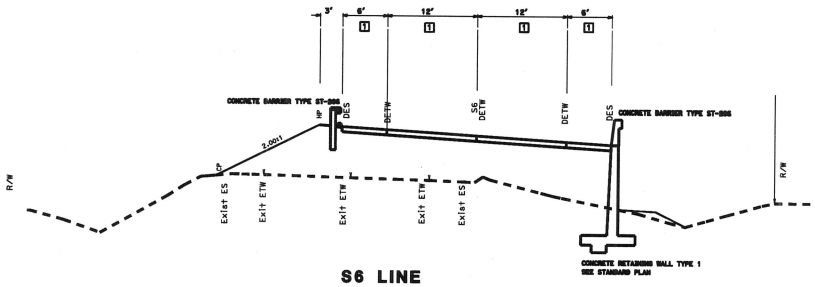
LEGEND

No. — PAVEMENT STRUCTURE SECTION NUMBER

ABBREVIATIONS

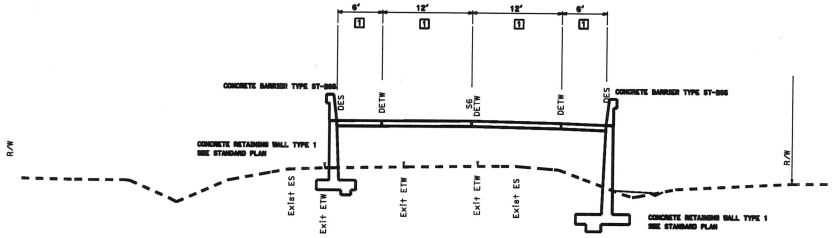
DES	DESIGN EDGE SHOULDER
DETW	DESIGN EDGE TRAVEL WAY
HMA-A	HOT MIX ASPHALT (TYPE A)
OGFC	OPEN GRADE FRICTION COURSE
RHMA-G	RUBBERRIZED HOT MIX ASPHALT (GAP GRADED)

NOTES:



S6 LINE

STA 26+90.9 TO 27+20.0



S6 LINE

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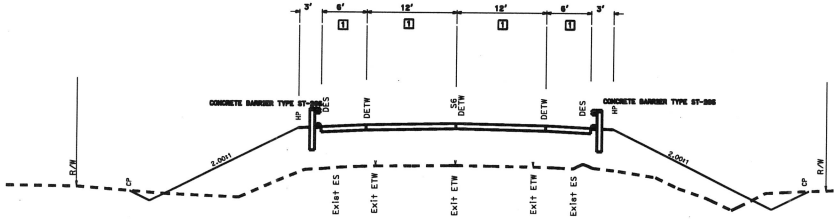
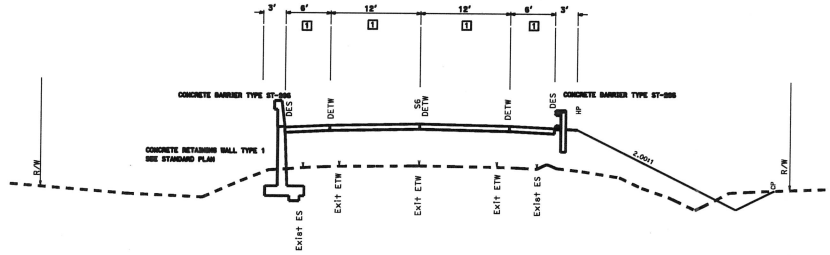
STA 25+90.9 (EB) TO 26+90.9



S6 LINE

STA 10+00.0 TO 17+50.0
STA 27+20.0 TO 33+00.0



S6 LINE

STA 17+50.0 TO 19+00.0

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

FUNCTIONAL SUPERVISOR: ZIAD ABUBEKR
CALCULATED-DESIGNED BY: VIET HAN
CHECKED BY: HILLAL HAMDAN
REVISED BY: V H
DATE REVISED: x/x/14

LAST REVISION 07-10-2014
DATE PLOTTED => 03-OCT-2014
TIME PLOTTED => 13:24

BORDER LAST REVISED 7/2/2010
USERNAME => s127960
DGN FILE => 14081001_Typ X Section.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0752
PROJECT NUMBER & PHASE 041200011160

Appendix G: Avoidance and Minimization Measures

Caltrans has incorporated several avoidance and minimization measures into the proposed project to avoid and minimize the impacts of this project on special-status species, migratory birds, and protected resources that occur in the project area. Special-status species known to occur or with a potential to occur in the project area include the California red-legged frog (CRLF), Myrtle's silverspot butterfly (MSB), Contra Costa goldfields (CCG), steelhead trout, tricolored blackbird, bats, and migratory birds. Measures taken to minimize the likelihood of take of federally listed species (CRLF, MSB, and CCG) have been identified through consultation with the USFWS pursuant to section 7 of the federal Endangered Species Act. Proposed avoidance measures include conducting construction activities during specific work windows to avoid the time of year when protected species is most active, worker education awareness training, and species surveys of the project area ahead of construction. Caltrans has also developed other measures to avoid impacts to species of special concern as part of the proposed project. The principal measures listed below are not all inclusive and not an iterative list. For example, the final biological opinion contains several, very specific measures that will ultimately be incorporated into the contractor's bid package but are not listed here. The list below is categorized by species and includes a general overview of the most important and applicable measures. The proposed avoidance and minimization measures are as follows:

Protected or Regulated Resource	Proposed Avoidance and Minimization Measures
General Avoidance and Minimization Measures	1. Vegetation will be cleared only where necessary; grubbing will be minimized to the maximum extent practicable. Efforts will be taken to minimize impacts to well-established vegetation, particularly within the Americano Creek floodplain where feasible 2. Construction activities will only be conducted between April 15 and November 1 outside the creek. Work in the creek will be limited to when the creek is dry or mostly dry as much as practicable, likely June 1 through November 1. These windows were implemented to avoid working during the time of year when the CRLF is most active and to avoid working in the creek during the wet season when construction activities would have a higher likelihood of impacting areas downstream. 3. Grubbing will only be conducted during the summer dry season and during the time when work is allowed in the creek. 4. Nighttime work will be avoided to the maximum extent practicable. Should nighttime work need to be conducted, all lighting will be directed downwards and towards the construction work taking place. 5. All construction personnel will attend a mandatory environmental education program delivered by a USFWS-approved biologist prior to working on the project site. The program will include an explanation of how to best avoid the incidental take of listed species and how to avoid impacting sensitive areas. The program will include an explanation of applicable federal and state laws protecting endangered species as well as the importance of compliance with Caltrans and various resource agency conditions. 6. Project-related vehicle traffic will be restricted to established roads and construction areas. Access roads will be constructed

Protected or Regulated Resource	Proposed Avoidance and Minimization Measures
	to the minimum amount necessary. Project vehicles will observe a 20-mile-per-hour speed limit while in the action area. 7. Dust control measures will be implemented consisting of regular truck watering of construction access areas and disturbed soil areas, including the use of organic soil stabilizers if needed. 8. All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once daily from the project footprint. 9. Dedicated fueling and refueling practices will be designated as part of the approved SWPPP. Dedicated fueling areas will be protected from stormwater run-on and will be located at least 50 feet from downslope drainage facilities and water courses. Fueling must be performed on level-grade areas. On-site fueling will only be used when and where it is impractical to send vehicles and equipment off-site for fueling. 10. All grindings and asphaltic-concrete waste will be stored within previously disturbed areas absent of habitat and at a minimum of 150 ft from any downstream riparian habitat, aquatic habitat, culvert, or drainage feature. 11. Any and all dredge material produced as a result of removing the existing bridge abutments and constructing the new abutments will be fully contained within the project limits and removed offsite. 12. All areas that are temporarily affected during construction will be revegetated with an assemblage of native species. The wetland ditches that line the roadway will be reconstructed within the ROW as part of the project. All riparian vegetation removed will be replanted at a 1:1 ratio on site.
California red-legged frog (CRLF)	1. USFWS-approved biological monitors will be present daily during all initial, major vegetation removal and all grubbing activities. Prior to the vegetation clearing and initial ground-disturbing activities, a pre-construction survey will be conducted. Once the project footprint is cleared, there will be daily biological monitoring during the early stages of the project. Monitoring activities and the intensity needed will be determined in coordination with the USFWS throughout the project. 2. All USFWS-approved biologists on site will have the authority to halt work through coordination with the Resident Engineer in the event that a California red-legged frog gains access to the project footprint. The Resident Engineer will ensure construction activities remain suspended in any construction area where the biologist has determined that take of CRLF could occur. Work will resume once the animal leaves the site voluntarily, is removed by the biologist(s) to a release site using USFWS-approved handling techniques, or it is determined that the frog is not being harassed by construction activities. 3. The boundaries of each active construction area will be delineated with temporary, high-visibility, wildlife exclusion fencing to prevent the

Protected or Regulated Resource	Proposed Avoidance and Minimization Measures
	encroachment of construction personnel and equipment beyond the described construction footprint and to promote exclusion of the CRLF into active work areas. The fencing will be removed only when all construction equipment is removed from the job site, following each construction season. 3. All major vegetation removal will be conducted between September 1 and October 15. Vegetation will be cleared only where necessary and grubbing will be minimized to the maximum extent practicable. Grubbing will only be conducted between April 15 and November 1 outside the creek and June 1 and November 1 within the creek. 4. If nighttime work is needed to avoid safety issues or to complete work within the allotted construction season, all lighting will be directed downwards and towards the construction work taking place. 5. Project-related vehicle traffic will be restricted to established roads and construction areas. Access roads will be constructed to the minimum amount necessary. Project vehicles will observe a 20-mile-per-hour speed limit while within the project limits. 6. To prevent the inadvertent entrapment of the California red-legged frog, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day by plywood or similar materials. If it is not feasible to cover an excavation, one or more escape ramps constructed of earthen fill or wooden planks will be installed. 6. Plastic mono-filament netting (erosion control matting) or similar material will not be used at the project site. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds. 7. Rodenticides will not be used at the project site. Herbicides will only be used if needed to control noxious weeds. 8. Injured California red-legged frog will be cared for by a USFWS-approved biologist or a licensed veterinarian, if necessary. 9. Caltrans will submit post-construction compliance reports prepared by the USFWS-approved biologist to the USFWS within 60 calendar days following completion of each construction season or within 60 calendar days of any break in construction activity lasting more than 60 calendar days.
Myrtle's silverspot butterfly	1. A USFWS-approved biologist will conduct surveys for foraging Myrtle's silverspot butterfly adults ahead of any major vegetation clearing within the project footprint and at regular intervals until all clearing is completed. 2. Major vegetation removal at the project site will be conducted outside the typical MSB adult flight period.

Protected or Regulated Resource	Proposed Avoidance and Minimization Measures
Bats	1. Nighttime work will be avoided to the maximum extent practicable. If nighttime work must be conducted, all lights will be directed onto the road and active construction areas. 2. Any large snags or trees with large cavities potentially used as roosting sites within the construction impact area will be removed using a two-phased approach to allow any roosting bats to leave on their own volition. This approach involves removing limbs from the tree on the afternoon of the first day and stumping the tree on the following day.
Contra Costa goldfields	1. Wildlife exclusion fencing or silt fencing will be erected at the edge of the project footprint along the edge of the field where CCG have been observed. 2. Water quality and dust control BMPs will be implemented to prevent dust and sediment from washing into or entering Contra Costa goldfields habitat.
Purple-stemmed checkerbloom and Johnny nip	1. Environmentally sensitive area fencing will be erected around the area where purple-stemmed checkerbloom is known to occur. This area lies just north of the northernmost project limits. The fencing will prevent the inadvertent encroachment of construction personnel and vehicles into the area where the species has been observed. 2. Water quality BMPs will prevent dust generated from construction activities from washing into the field where Johnny nip has been observed.
Tri-colored Blackbird	1. Species-specific surveys for the tricolored blackbird will be conducted in 2015 to determine if the species is present at the project site. If so, the measures below will minimize impacts to the species during construction. Additional measures will be identified as necessary. 2. If present, pre-construction surveys for the tricolored blackbird will be conducted ahead of all vegetation removal, grubbing, and ground-disturbing activities (2015-2017). Major vegetation removal will be conducted outside the typical migratory bird nesting season, which will help avoid the tricolored blackbird nesting season. If any nesting birds are present within the vicinity during construction, disturbance to the nesting birds will be avoided by implementing a 50-foot project buffer or the minimum amount necessary to avoid disturbing the species until all birds have fledged. 3. If tricolored blackbird nests are observed within the project footprint, Caltrans will coordinate necessary measures to protect the species with the California Department of Fish and Wildlife. 3. The project footprint will be reseeded with a native seed mix and by replanting all impacted riparian vegetation following construction to restore the area to its pre-project condition. This will replace suitable blackbird habitat lost during construction.

Protected or Regulated Resource	Proposed Avoidance and Minimization Measures
Migratory Birds	1. All initial, vegetation clearing, but not grubbing, will be conducted outside the typical bird nesting season, February 15 to August 31. Major vegetation removal will be conducted between September 1 and October 15. 2. At least five (5) days prior to construction or any vegetation clearing, the project area will be surveyed for migratory birds and their nests, regardless of the time of year. Should any active nest be found, appropriate buffers will be applied. No work will be allowed to occur within 50 feet of nesting passerine birds or 300 feet of nesting raptors. Any nesting migratory birds within or near the project footprint will be regularly monitored for signs of disturbance; work will be avoided in such areas until all birds have fledged.
Salmonids	1. If necessary, a fish relocation plan will be implemented to remove protected steelhead (*Oncorhynchus mykiss*) away from the project site. This plan will be submitted to CDFW and NMFS for approval prior to project implementation.
Invasive Species	1. Caltrans will implement a non-standard special provision to require the cleaning and decontamination of all equipment brought into the construction area and to require this of any vehicles and equipment used on multiple construction sites.

Appendix G: Response to Comments

Letter 1

STATE OF CALIFORNIA

EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 *Fax* (916) 574-1810
California Relay Service TDD Phone 1-800-735-2929
from Voice Phone 1-800-735-2922

Contact Phone: (916) 574-1890
Contact FAX: (916) 574-1885

Established in 1938

November 18, 2014

File Ref: SCH #2014102047

Caltrans, Office of Environmental Management
Attention: Oliver Iberien
111 Grand Avenue
Oakland, CA 94612

Subject: Negative Declaration (ND) for the Estero Americano Bridge Replacement, Marin and Sonoma Counties

Dear Mr. Iberien:

The California State Lands Commission (CSLC) staff has reviewed the subject ND for the Estero Americano Bridge Replacement (Project), which is being prepared by the California Department of Transportation (Caltrans). Caltrans, as a public agency proposing to carry out a project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their accompanying Public Trust resources or uses. Additionally, because the Project involves work on sovereign lands, the CSLC will act as a responsible agency. 1-1

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark,

except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

After review of the information contained in the ND, CSLC staff has determined that Americano Creek, at the Project location, is under the jurisdiction of the CSLC. Therefore, the Project will require formal authorization for the use of sovereign land from the CSLC for the portion of the Project encroaching on State owned lands, and, pursuant to the provisions of Section 101.5 of the California Streets and Highways Code, an application must be submitted. Please contact George Asimakopoulos, Public Land Management Specialist (see contact information below), for further information. 1-2

Project Description

The Project will include the removal and replacement of the existing bridge over Americano Creek on State Route 1 in an unincorporated area of Marin and Sonoma Counties, about 1.5 miles east of Valley Ford. The existing bridge, built in 1925, is 146 feet long and 25 feet wide, has a two-foot sag, is structurally deficient and subject to periodic flooding due to its low elevation in the landscape, and is at the end of its service life. The Project would replace the existing bridge with a 266-foot-long and 40-foot-wide cast-in-place concrete box girder bridge, and would be about 6 feet higher that the existing bridge to accommodate a 100-year flood event. The purpose of the Project is to maintain the integrity of the roadway and provide flooding relief at this location.

Environmental Review

CSLC staff requests that Caltrans consider the following comments on the Project's ND.

General Comments

1. Type of Document. The identification of avoidance and minimization measures (as outlined in Appendix G of the ND) indicate that Project impacts would be potentially significant without the implementation of such measures; therefore, CSLC staff suggests that a Mitigated Negative Declaration (MND) would be the appropriate document required CEQA (see generally sections 15060 and 15061 of the State CEQA Guidelines). In addition, a Mitigation Monitoring and Reporting Program should be adopted pursuant to section 15097 of the State CEQA Guidelines that clearly presents the Project's potentially significant impacts and the associated mitigation measures that reduce those impacts to a less-than-significant level. 1-3 1-4

2. Responsible Agency. CSLC staff requests that the CSLC be added to the list of "Other public agencies whose approval is required." 1-5

3. Project Description. A thorough and complete Project Description should be included in the ND in order to facilitate meaningful environmental review of potential impacts and proposed mitigation measures. Currently, the Project Description does not provide enough information regarding the methods used for bridge removal or replacement for CSLC staff to provide comprehensive comments on either the analysis or the significance conclusions reached by Caltrans in the ND. As a 1-6

responsible agency that will be asked to rely on the Caltrans' ND for lease issuance, the CSLC must be provided a document that is both more detailed and as precise as possible in describing all anticipated Project activities (e.g., methods/equipment used for bridge removal and replacement, methods/locations of dewatering, figures showing the locations for staging or disposal of cut and fill material, etc.), as well as the details of the timing and length of each activity; therefore, CSLC staff recommends that Caltrans revise the Project Description and perform a more robust analysis of the impacts resulting from all Project-related activities.

Biological Resources

4. Noise. The ND lists "construction-related noise" as one of the impacts to biological resources; however, no discussion is provided as to what the source of the noise will be or at what decibel level. Although Caltrans has indicated that it is in consultation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service, the ND should evaluate noise and vibration impacts on aquatic animals and birds from the proposed Project. In particular, Caltrans should specify whether or not the use of the proposed rig-mounted drills or other equipment would result in the disturbance or injury of aquatic species to allow a more comprehensive review by the reader. 1-7

5. Invasive Species. Dewatering activities could introduce aquatic invasive species to the Project area, and is not discussed in the ND. Aquatic invasive species may be introduced to the Project area by fouling surfaces of temporary reusable equipment used for dewatering, such as coffer dams or water pillows. The ND should consider the potential for these technologies to spread aquatic invasive species from other locations to the Project site. The ND should also consider a range of options to prevent the introduction of aquatic invasive species to Americano Creek, including acquiring dewatering equipment from nearby or requiring cleaning of equipment prior to use for dewatering activities. 1-8

Cultural Resources

6. Title to Resources. The ND should mention that the title to all abandoned archaeological sites and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the CSLC. CSLC staff requests that Caltrans consult with Assistant Chief Counsel Pam Griggs (see contact information below) should any cultural resources on State lands be discovered during construction of the proposed Project. 1-9

Climate Change

7. Greenhouse Gases. The ND states that "Although construction emissions are unavoidable and are expected to be minimal, the proposed project will not increase capacity and is not expected to result in additional operational $C0_2$ emissions." A greenhouse gas (GHG) emissions analysis consistent with the California Global Warming Solutions Act (Assembly Bill [AB] 32) and required by the State CEQA Guidelines should be included in the ND. Caltrans states that "it is too speculative to 1-10

make a determination regarding the significance of the Project's direct impact and its contribution on the cumulative scale to climate change;" however, CSLC staff recommends that Caltrans quantify and analyze construction emissions and make a significance determination regarding GHG emissions from construction of the bridge replacement. To determine the significance of GHG emissions, CSLC staff recommends that Caltrans identify a threshold for significance for GHG emissions, calculate the level of GHGs that would be emitted as a result of construction of the Project, and compare the calculated emissions against the threshold to determine whether impacts are significant. If impacts are significant, then mitigation measures should be identified that would reduce them the extent feasible.

Water Quality and Stormwater Runoff

8. Water Quality. The ND states that "Sediment from construction will be minimized by the use of Caltrans' construction best management practices for stormwater." However, there is no analysis of potential impacts to water quality. CSLC staff requests that the ND describe all specific activities that could affect water quality (bridge removal, dewatering activities, etc.) and clearly detail the measures that would reduce impacts to water quality to a less-than-significant level. 1-11

Thank you for the opportunity to comment on the ND for the Project. As a responsible and trustee agency, the CSLC may need to rely on the Final ND (or MND) and, therefore, we request that you consider our comments prior to adoption of the ND (or MND).

Please send copies of future Project-related documents, including electronic copies of the Final ND (or MND), Mitigation Monitoring and Reporting Program (MMRP) if applicable, and Notice of Determination (NOD), when they become available, and refer questions concerning environmental review to Cynthia Herzog, Senior Environmental Scientist, at (916) 574-1310 or via e-mail at Cynthia.Herzog@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Assistant Chief Counsel Pam Griggs at (916) 574-1854 or via email at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact George Asimakopoulos, Public Land Management Specialist, at (916) 574-0990, or via email at George.Asimakopoulos@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
G. Asimakopoulos, LMD, CSLC
C. Herzog, DEPM, CSLC
J. Rader, Legal, CSLC

Comment Letter 1, California State Lands Commission, November 18, 2014

Response to Comment 1-1

CSLC is now recognized as a responsible agency; please see the Initial Study with Negative Declaration signature page.

Response to Comment 1-2

Caltrans understands that CSLC authorization for this project is needed, and we look forward to working with you during the application process.

Response to Comment 1-3

The draft environmental document does not have any ambiguous language regarding the level of significance; the significance determination of less than significant is consistent within the document. The CEQA checklist does not call out any significant impacts that are reduced with mitigation measures. The project development team and technical studies supporting the environmental document did not identify any potentially significant impacts during the scoping process. Caltrans has incorporated several avoidance and minimization measures (AMMs) into the project to minimize project impacts on protected resources. However, none of these were implemented to avoid what would otherwise be a significant impact.

Response to Comment 1-4

A Mitigation and Monitoring Report (MMRP) is required only when an agency has adopted a Mitigated Negative Declaration or Environmental Impact Report if it is found that a project would have potential significant impacts. Caltrans has not prepared a MMRP because the project development team and the technical studies supporting the environmental document did not identify any potentially significant impacts during the scoping process. Caltrans has incorporated several avoidance and minimization measures (AMMs) into the project to minimize project impacts on protected resources. However, none of these were implemented to avoid what would otherwise be a significant impact. The AMMs for this project are included in the draft IS checklist and include such measures as biomonitoring, environmental awareness training for construction personnel, and water quality best management practices.

Response to Comment 1-5

CSLC has been added to the list of other public agencies whose permission is required for approval of this project. Please see the Initial Study with Negative Declaration signature page.

Response to Comment 1-6

Caltrans has provided sufficient project description information to disclose project impacts as required by CEQA. Per State law, Caltrans cannot dictate the contractor's means and methods of construction.

Precise information regarding bridge removal or replacement is not available at this time, because Caltrans has not yet entered into the project's design phase. During the environmental project phase, Caltrans can establish and select environmental alternatives and discuss general project effects and potential impacts. Contractors can ultimately implement the most efficient means to meet the project objective, including avoidance and minimization measures.

In general, bridge demolition activities will involve excavator-mounted hydraulic hammers (hoe-rams) and excavators with "thumbs" to separate and sort concrete rubble. Smaller equipment, such as skip loaders, forklifts, and trucks, will be on site to clean up the any rubble and to off haul separated rebar and concrete. Bridge construction will include the use of excavators and trucks to excavate footings and pile driving cranes or drill rigs to install pile footings. If necessary when going to construction, dewatering will be accomplished by pumping standing water out of a sump into an on-site "Baker" tank. This water will be hauled off site post construction. Stage construction will be within Caltrans' right-of-way. Fill materials will be hauled from an offsite location at the contractor's discretion but must be certified to be weed free. More detailed sequence and scheduling will be developed in the design phase. The environmental document is intended to represent what we anticipate at this point, to act as a snapshot in time. More detailed design features, sequencing, and scheduling will be developed in the design phase.

Response to Comment 1-7

The maximum noise level of construction equipment used on site would be 110 decibels (dB) at 50 feet from the source, although more typical maximum noise levels will be around 90 dB at 50 feet. Such equipment might include a vibratory or impact pile driver. At this time, Caltrans is not anticipating the need to do pile driving in Americano Creek to construct the bridge. If needed, Caltrans would need to obtain a separate biological opinion from NMFS for this project and would not be covered under the programmatic biological opinion. Physical harm of birds can occur with single noise blasts of 140 dB at zero feet from the noise source and 72 hours of continuous exposure to levels above 110 dB. This condition is unlikely to occur with this project; therefore no injury to birds is anticipated as a result of construction-related noise. With construction noises of 90 dB and no obstructions, the noise would attenuate to ambient levels between 800 and 1600 feet away from the project site. Therefore, wildlife within 1600 feet may be subject to potential disturbance from construction-related noise from this project. However, this disturbance buffer is likely to be much less in areas surrounding the creek because of the absorption of sound from the abundant riparian vegetation present in Americano Creek. Away from the highway and without attenuation, noise levels above 93 dB can cause behavioral changes and result in masked communication. However, MBTA only prohibits the take of nesting migratory birds in the form of harm, harassment, and mortality. Caltrans will implement pre-construction surveys for migratory birds, and no work will occur within 50 feet of any nesting birds and 300 feet of raptors, unless it can be demonstrated to CDFW and USFWS that the bird is showing no changes in behavior as a result of construction activities. Work in the creek will occur during the dry season, and any standing water will be diverted from the construction area, so that there are no aquatic species within the project footprint. Fish and other aquatic species are likely to be absent from the surrounding project area at the time of construction, because the creek typically dries in summer.

Response to Comment 1-8

Caltrans recognizes the potential for construction activities to result in the introduction of non-native species to a project area. Caltrans will implement a non-standard special provision to require the cleaning and decontamination of all equipment brought into the construction area and to require this of any vehicles and equipment used on multiple construction sites. "Requiring cleaning of equipment (and materials) prior to use for dewatering" is reasonable. Temporary construction BMPs incorporating vegetation may also introduce invasive species. This is typically addressed by requiring certification that seeds and plants are free of invasive species from the county of origin of the vegetation.

Response to Comment 1-9

Please see the following text added to the CEQA Checklist on page 19:

California State Lands Commission (CSLC) has jurisdiction over all abandoned archaeological sites and historic or cultural resources on or in the tide and submerged lands owned by the State of California. If any cultural resources are discovered during construction of the proposed Project, Assistant Chief Counsel Pam Griggs will be consulted.

Response to Comment 1-10

CEQA requires a lead agency to make a good faith effort to identify impacts and gives the lead agency discretion on the approach methodology for this analysis. A qualitative analysis has been completed for this proposed project consistent with Section 15064.4 of the CEQA guidelines. Caltrans has determined that although there will be construction related GHG emissions, the proposed bridge replacement project will not modify the number of through lanes and therefore will not increase the vehicular capacity of this facility, resulting in no operational increase in GHG emissions. There is currently no scientific data available to link the impact of the proposed project to the global greenhouse gas effects on a cumulative scale to climate change. Measures have been included in the Initial Study to minimize construction-related emissions.

Response to Comment 1-11

Caltrans complies with State requirements, per the regional Water Quality Control Board Construction General Permit (CGP) for analyzing the project's sediment risk on a project-wide basis, which consider rainfall, topographic and soil characteristics, and the project duration. The results of this analysis guide the choice of construction BMPs, and related implementation and monitoring plans. Activities not covered by the CGP are analyzed individually, including in-stream work. Caltrans will prepare a stream diversion plan to address water pollution control related to the bridge removal. Groundwater from foundations is typically analyzed onsite to determine appropriate methods of disposal.

The BMPs we recommend in the Storm Water Data Report are approved for statewide usage and are standardized. Construction site BMPs such as installing silt fences and fiber rolls, street sweeping, protecting drainage inlets are considered common practice. If you would like to review the Storm Water Data Report for further details, we can furnish it upon request.

Letter 2

COUNTY OF MARIN

DEPARTMENT OF PUBLIC WORKS

Quality, Excellence, Innovation

Raul M. Rojas
DIRECTOR

Administration
PO Box 4186
San Rafael, CA 94913-4186
415 473 6528 T
415 473 3799 F
415 473 3232 TTY
CRS Dial 711
www.marincounty.org/pw

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County Garage

Disability Access

Engineering & Survey

Flood Control & Water Resources

Land Development

Purchasing

Real Estate

Reprographic Services

Road Maintenance

Stormwater Program

Transportation & Traffic Operations

Waste Management

November 14, 2014

Oliver Iberien
Environmental Analysis Senior
Caltrans District 4
PO Box 23660 MS 8B
Oakland, CA 94623-0660

RE: Estero Americano Bridge Replacement Project, Initial Study with Proposed Negative Declaration

Dear Mr. Iberien:

Thank you for the opportunity to provide comments. At this time, we are unable to provide meaningful input into the project, particularly the Aesthetics section of the CEQA Environmental Checklist without additional detail. Our comments reflect a desire for the replacement bridge to blend into the surroundings, and be consistent with the character of the existing landscape.

Specific comments on Project Description:

Bridge Structure

The Project Description references a 40' wide bridge, and a 12' travel lane in each direction with 6' shoulders, which would be 36'. Please clarify. 2-1

Please provide an analysis of 12' lanes versus 11' lanes. Please provide the existing lane widths at the project limits where the work will join. 2-2

Please provide an analysis of alternate narrower shoulder widths to the proposed 6'. 2-3

Please evaluate a narrower shoulder when there is no barrier or rail adjacent to the roadway, such as 4'. Please provide the existing shoulder widths at the project limits where the work will join. 2-4

2-5

Retaining Walls

The project proposes over 1,200 feet of retaining walls. Please provide more detail on alternatives that include contoured fill slopes that eliminate or reduce the need for retaining walls. 2-6

Please provide color architectural details on the proposed aesthetic treatment. Please provide details of other aesthetically treated walls in the nearby area. 2-7

Embankment

Please provide analysis of flatter embankments that would reduce the severity of a vehicle going over the embankment slope, thereby reducing the need for guardrail. 2-8

Barrier Rail

Please provide color details on the proposed Type ST-20S railing atop the bridge and retaining walls. Please include details of the existing bridge railing. Please provide details of other existing railings in the nearby area. 2-9

Again thank you for the opportunity to express our comments. You may contact me at (415) 473-3770 or bdavidson@marincounty.org

Sincerely,

Berenice Davidson

C: Eric Steger
Craig Tackabery

\\admin\fs1\DPWLanddata\Land Development\Environmental Documents for DPW Comments\Estero American Bridge Replacement\Estero American Bridge Replacement Caltrans.docx

Comment Letter 2, County of Marin, Department of Public Works, November 14, 2014

Response to Comment 2-1

The roadbed is 36 feet, however the total width of the bridge is 40 feet to accommodate the bridge railing on each side. The traveled roadway through the new approaches will be 36 feet wide.

Response to Comment 2-2

The project team did consider incorporation of 11-foot lanes into the project. However, 12-foot lanes are being proposed for this project because the area is leading up to a major intersection at Valley Ford Road and Highway 1 which has standard geometric features, and this width is the current Design standard.

Response to Comment 2-3

The existing lane widths outside the project limits are between 11 and 12 feet at the south end and 12 feet at the north end.

Response to Comment 2-4

Six-foot shoulders are necessary wherever bridge railings and railings atop the retaining walls are constructed. Particularly on bridges wider shoulders are needed to accommodate disabled or stopped vehicles and maintenance staff for periodic structure inspections. The proposed 6-foot shoulders will also provide sufficient space for the mobility of non-motorized traffic; narrower shoulders on the bridge would unsafely confine cyclists and pedestrians between passing vehicles and the metal railings.

Response to Comment 2-5

Existing shoulder widths vary from 3 to 5 feet. Six feet is the minimum to provide clear recovery zone for disabled vehicles and maintenance crews. Eight-foot shoulders is the design standard for this type of facility.

Response to Comment 2-6

Retaining walls have been incorporated into the proposed project to constrain the width of the new roadway approaches. This will allow for Caltrans to reconstruct the wetland ditches that line the roadway within the right-of-way (ROW). Constructing retaining walls will also avoid any ROW acquisition from adjacent properties, thereby avoiding any adverse effects on agricultural lands and private landowners. Reconstructing the wetlands is an important component of the project so that the site can be restored to its pre-project condition as much as practicable. Retaining walls minimize the lateral limits of construction by eliminating the construction of embankment at those locations. Because the roadway approaches are being raised to meet the new bridge, embankment constructed at 2:1 side slopes where retaining walls are proposed would extend out to 35 feet from the structure. This would substantially increase the project footprint. The walls will also limit the ability of wildlife, including the

California red-legged frog from accessing the roadway, thereby reducing wildlife mortality following project completion.

Response to Comment 2-7

The architectural details of the walls and railings, including colors and aesthetic treatments, are in keeping with various provisions and goals of the Local Coastal Program. The Program describes the importance of preserving the areas unique character, particularly as reflected in the Agricultural, Built Environment, and Transportation sections. The Introduction to the Built Environment section of the Local Coastal Program, described as including transportation, states that the build environment "is subordinate to the natural environment." Through the minimization of design elements that would tend to draw one's attention from the landscape and toward the structure, the project supports that goal.

The project's design is intended to be simple so as not to attract attention. To that end, exposed concrete surfaces will receive subtle formed texture, the specifics of which will be determined during the design phase of the project. The textured surface will facilitate superficial weathering of the outer concrete surfaces without adding adornment to the structure that would appear out of place in the project setting. This surface will aid colonization of the concrete by lichens and contribute to a more rapidly weathered appearance. The texture will also reduce reflected light and glare, helping the structures to visually recede in the landscape. More elaborate architectural treatments, including added colors and patterns, would tend to focus highway users' attention onto the roadway structures rather than the surrounding landscape.

While keeping with the character of the area, the proposed bridge improves upon the old design not only in safety, but also in the improvement of views of the waterway and beyond through use of a see-through or "transparent" railing, railing Type ST-20S. Through these measures the farmland and natural landscape surrounding the project site remain the focal point for users of Highway 1.

Nearby walls such as at Stemple Creek are simple in design and avoid becoming eye-catching features of the landscape. This aesthetic is in keeping with the character of the area.

Response to Comment 2-8

Guardrails are needed on the bridge and retaining walls for safety purposes. The retaining walls have been proposed to constrain the width of the project's lateral limits, reduce the impact of this project on endangered species, and to ensure no right-of-way acquisitions are involved. Elsewhere, embankment will be constructed at various lengths outside the walls at 2:1 side slopes, which is steeper and less impactful than Caltrans' standard of 4:1 side slopes. Side slopes of 2:1 will be safe enough to reduce the severity of an accident given the lower traffic volume and design speeds on SR 1. There will be no guardrail along the sections of embankment.

Response to Comment 2-9

A photo of the ST-20S railing type proposed for this project is provided with this response. That railing is located a few miles to the north near Cheney Gulch. As discussed more fully in our response to

comment 2-7 regarding architectural details, one goal of the Sonoma County Local Coastal Program, the Built Environment section, encourages constructed elements, including those related to transportation, to maintain a subservient role in the hierarchy of the area's visual landscape. For the bridge railing, Type ST-20S, a matte, galvanized finish is the best way to meet that goal and avoid having the railing become more visually dominant. Paint or other finishes would not have the same effect; flat galvanized elements visually recede. Galvanized elements are a common feature along Highway 1 and are therefore easily overlooked by highway users. A galvanized finish will match the railing in place near Cheney Gulch, and the metal beam guardrail in place at multiple crossings of Highway 1 such as that found at Stemple Creek. Additionally, steel galvanization is used on ranch gates, some fence posts, water troughs, ranch outbuildings, etc. and is therefore established as a characteristic element of a rural landscape. As with the concrete of the structure, highway users attention is best focused outward rather than inward, calling attention to the scenic landscape rather than to highway structures. Type ST-20S railing will not draw attention to the railing itself and affect the ability of users to view the surrounding landscape.

Letter 3

From: Dawson, Dan [DDawson@marincounty.org]
Sent: Thursday, November 20, 2014 5:03 PM
To: Iberien, Oliver@DOT
Subject: Estero Americano Bridge Replacement IS

Mr. Iberien,

The County of Marin has reviewed the initial study documents and has no comment on the initial study, but are very supportive of the project as it addresses multiple issues, including traffic concerns and provision of shoulders for the many cyclists that use the roadway traveling down the coast, as well as improving creek conditions and reducing flooding. 3-1

Thanks,

Dan

Dan Dawson, AICP
Principal Transportation Planner
Marin County Department of Public Works
1600 Los Gamos Drive, Suite 350
San Rafael, CA 94903
415-473-6287
415-473-7847 (fax)

Email Disclaimer: http://www.marincounty.org/main/disclaimers

Comment Letter 3, Dan Dawson AICP, Principal Transpiration Planner, Marin County Department of Public Works, November 20, 2014

Response to Comment 3-1

Comment Noted. We are very appreciative of the support.

Letter 4

From: Erickson [mailto:erickson@ap.net]
Sent: Saturday, November 01, 2014 11:39 AM
To: Iberien, Oliver@DOT
Subject: Estero Americano Creek Highway 1 Bridge Replacement

Mr. Iberien-

I am a local rancher and consulting civil engineer living on a ranch at 30901 State Highway 1, just south of the subject project and have reviewed the Initial Study prepared for the work. The following comments apply:

On Page 13 of the pdf document under Environmental Setting, "ditches" perpendicular to Highway 1 in the field east of the project area on the Caselli ranch are mentioned. They are not ditches, but are relict dead furrows remaining from when the field was plowed many decades ago. They are created when plowing the field in sections, where soil is thrown away from the common line between sections. 4-1

The same field is indicated as being used for sheep pasture. In fall 2014 the +-40-acre field was farmed, and is presently planted to a yet-to-germinate silage crop. The farming activities have somewhat obliterated the dead furrows mentioned in the paragraph above.

The pastured field to the north east of the bridge on the McClelland ranch was also farmed this year, for the first time in decades. The result is that all fields surrounding the bridge and related riparian corridor are presently being farmed. 4-2

The proposed replacement bridge will be higher than the surrounding terrain, and will be above the 100-year flood elevation. However the existing roadway between the new bridge and the hill to the south will still be subject to flooding, negating the flood mitigation effects of the raised bridge and ramped approaches. The new bridge will not allow traffic passage during flooding events because it will be an island or an isthmus extending into the flooded area from the north. A more thoughtful design would include hydrological assessment of the several hundred feet of roadway to the south of the southern bridge abutment, and would raise that section of road by 12-24" to prevent overtopping in that area as well. It would be a small add-on to the total project which would substantially benefit traffic patterns under winter flooding conditions. A portion of the segment in question will already be treated by placment of the ramped southerly approach to the bridge, so the incremental work would be minimal. 4-3

That section of road is already elevated to an extent and slightly protected by an elevated AC berm on the east side of the road, but it still floods to a depth of 6" or more several times a year in normal winters. An alternative to raising the road (with minimal environmental impacts) would be to create a more robust flood containment levee using a larger, taller AC berm on the east side of the road. The new bridge provides a wider cross section for in-channel flows than does the existing structure, and should be able to handle the incremental flood volume diverted back to the channel by such a levee system.

We would encourage Caltrans to slightly expand the scope of work as noted above, so that the entire stretch of road remains above or protected from flood flows. 4-4

Regards,

Lee Erickson PE PhD
Civil and Agricultural Engineer
707.795.2498
erickson@ap.net

Comment Letter 4, Lee Erickson PE PhD, Civil and Agricultural Engineer, November 1, 2014

Response to Comment 4-1

Comment noted.

Response to Comment 4-2

Comment noted. The field north and east of the bridge was never surveyed because of a lack of access. The condition of the field was noted in the biological assessment submitted to USFWS and in the Natural Environment Study. The farming in the field south and east of the bridge was not observed in 2013 or 2014, and this has changed the environmental baseline of the project area.

Response to Comment 4-3

As part of the environmental scoping effort for this project, Caltrans' Hydraulics Structures Office completed a hydraulic model of the area to determine at what elevation and height the road and bridge would need to be, respectively, to clear the 100-year flood event. The model demonstrated that raising the bridge six feet and the approaches to meet the new bridge would be adequate to alleviate annual flood events and larger storms. Only a small portion of the approach from the north will still be subject to flooding during the 100-year storm event. The roadway will be raised going back over 1000 feet from the south end of the bridge. The proposed roadway profile will be raised about 6 feet from its existing roadway. The water surface elevation in the Q50 and Q100 hydraulic models does not overtop the proposed roadway.

Response to Comment 4-4

Comment Noted.

Letter 5

10-31-14A09:52 RCVD

10-

Oct. 27, 2014

5-1

Bijan,

thank you for providing my office a copy of the proposed Negative Declaration Initial Study for the Estero Americano Bridge Replacement Project in Valley Ford. We appreciate the opportunity to offer comment. We would certainly welcome a public meeting for the community on this project & its scope.

thanks again!

Efren

SONOMA COUNTY 1850 CALIFORNIA

EFREN CARRILLO

Supervisor, Fifth District

County of Sonoma

Comment Letter 5, Efren Carrillo, Supervisor, Fifth District County of Sonoma, October 27, 2014

Response to Comment 5-1

Caltrans made a call to Supervisor Carrillo's office to clarify the intent of the comment letter. It was explained that the letter was a courtesy letter expressing the supervisor's willingness to assist with outreach to the public in the event that the public requested an open house for the proposed project.

John McKeon, Natural Resource Management Specialist, with National Oceanic and Atmospheric Administration (NOAA) Fisheries on November 14, 2014

In addition to the written public comments, Caltrans received a phone call from John McKeon, Natural Resource Management Specialist, with National Oceanic and Atmospheric Administration (NOAA) Fisheries on November 14, 2014. He was concerned Caltrans did not adequately address the potential for this project to impact the federally threatened steelhead (*Oncorhynchus mykiss*) or coho salmon (*Oncorhynchus kisutch*). In the environmental document, Caltrans had previously come to the conclusion that anadramous fish would not be present at the project site. This conclusion was made utilizing information from Gold Ridge Resource Conservation District's (RCD) watershed management plan (2007) and spatial data available from NOAA Fisheries. The data demonstrate that this project is outside the current known distribution for salmonids and that only one fish was observed during an intense sampling effort in the watershed in 1988-1989 (Gold Ridge RCD 2007). Other sampling efforts have found two steelhead or resident rainbow trout (not listed) upstream of the project site. Nevertheless, through follow-up conversations with NOAA, clarification was made that in a very wet year, steelhead could potentially be present in Americano Creek once this project goes to construction. This project also falls within federally designated critical habitat for coho salmon, which the project team was not aware of. Coho critical habitat includes all historically accessible watersheds within the distribution of the species. However, the fish is not considered present in the Estero Watershed presently. Therefore, Caltrans will seek coverage for the take of steelhead and adverse impacts to coho critical habitat as part of the programmatic biological opinion between NOAA and Caltrans. No mitigation is proposed because this project is ultimately likely to improve the environmental baseline of Americano Creek post-construction.