

ATTACHMENT C

Initial Study/Mitigated Negative Declaration

Department of
Conservation &
Development

Community Development Division

County Administration Building
651 Pine Street
North Wing, Fourth Floor
Martinez, CA 94553-1229

Phone:

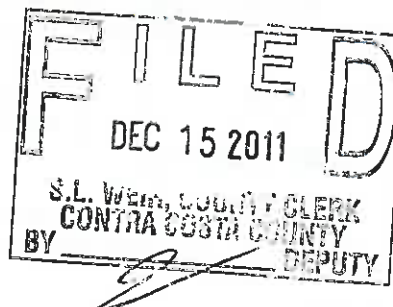
Contra
Costa
County



Catherine O. Kutsuris
Director

Aruna Bhat
Deputy Director
Community Development Division

December 15, 2011



**NOTICE OF PUBLIC REVIEW AND INTENT TO ADOPT A PROPOSED
MITIGATED NEGATIVE DECLARATION
County File # CP 11-91**

ALHAMBRA VALLEY ROAD SAFETY IMPROVEMENTS PROJECT Contra Costa County Public Works Department (CCCPWD) proposes to realign and widen a 2,425-foot long section of Alhambra Valley Road that extends approximately 225 feet west of Bear Creek Road to 2,200 feet east of Bear Creek Road between Pinole and Martinez to provide shoulders and clear recovery areas for motorists to regain full control of their vehicles should they veer off the traveled way. The shoulders will also provide a bicycle lane. The project is located within the upper Pinole Valley watershed, just east of the East Bay Municipal Utility District (EBMUD) watershed lands. The area is rural in character; the surrounding land uses consist of large parcels with residences and associated agricultural and grazing lands; open space associated with EBMUD lands; and a riparian corridor associated with Pinole Creek along the south side of the road. The road segment currently consists of multiple broken back curves, two 10-foot wide travel lanes, and no paved shoulders. The project will realign the road to reduce the number of curves, widen the existing travel lanes to 12 feet each, and add up to 5-foot wide paved shoulders. The road will be shifted to the north away from the adjacent creek which will include cutting into an existing hillside slope at a 2:1 slope which requires removing approximately 4,000 cubic yards of soil from the face of the hillside. However, if it is determined from geotechnical investigations that this is not a stable option, a 250-foot long, 10-foot tall concrete wall will be constructed along the face of the hillside; this option will require removing approximately 1,500 cubic yards of soil. Approximately 12 roadside oak trees and 30 olive orchard trees will also need to be removed to provide improved sight distance.

One lane of the road will be open during construction; full road closure is anticipated for up to 2 weeks. Project construction is planned for 2013 and will take approximately two months to complete. Construction will occur sometime between April and October of the construction year.

CCCPWD will need to acquire land in areas where the existing road right-of-way cannot accommodate the realignment, shoulder widening, and utility relocations. Therefore, real property transactions will be necessary in support of the project.

The project will not cause an increase in traffic or encourage changes to existing land use patterns; therefore no new vehicle trips are expected to occur. The project area is located within designated critical habitat for Alameda whipsnake and California red-legged frog. Permanent and temporary impacts will be offset by off-site compensatory mitigation through a U.S. Fish and Wildlife Service and California Department of Fish and Game approved mitigation bank or to a land preservation trust that supports the creation, enhancement and/or restoration for these species. Avoidance measures will also be implemented during construction to prevent direct and indirect impacts to these species as well as other protected species that have the potential to occur in the area. Removal of the oak trees in the riparian corridor will be mitigated as determined through consultation with the California Department of Fish and Game. Disturbed areas will be re-vegetated upon project completion.

The project is not located within or adjacent to any hazardous waste sites identified on lists enumerated under Section 65962.5 of the Government Code.

The project will not have any significant environmental impacts with the incorporation of proposed off-site mitigation and avoidance measures. A copy of the Mitigated Negative Declaration and all documents referenced in the Mitigated Negative Declaration may be reviewed at the Contra Costa County Public Works Department, 255 Glacier Drive, Martinez, during normal business hours.

Public Comment Period – The period for accepting comments on the adequacy of the environmental document extends to **January 17, 2012**. **ANY COMMENTS SHOULD BE IN WRITING AND SUBMITTED TO THE FOLLOWING ADDRESS:**

Claudia Gemberling, Environmental Analyst II
Contra Costa County Public Works Department
255 Glacier Drive
Martinez, CA 94533
cgemb@pw.cccounty.us

The environmental document is expected to go before the County Board of Supervisors on or around **February 14, 2012** for final approval. To confirm the Board date, please contact Claudia Gemberling at (925) 313-2192.

Any questions regarding the project itself, should be directed to:

Rich Shimano (925) 313-2168
Contra Costa County Public Works Department
255 Glaciers Drive
Martinez, CA 94553

**Contra
Costa
County**

**PUBLIC WORKS DEPARTMENT
INITIAL STUDY OF
ENVIRONMENTAL SIGNIFICANCE**

**PROJECT # 0662-6R4101
CP# 11-91**

PROJECT NAME: Alhambra Valley Road Safety Improvements Project

PREPARED BY: Claudia Gemberling, Environmental Analyst II *LC* **DATE:** November 23, 2011

APPROVED BY: *John C. Case* **DATE:** Nov. 30, 11

RECOMMENDATIONS:

☐ Covered under an existing CEQA document

☐ Negative Declaration

☐ Environmental Impact Report Required

☒ Mitigated Negative Declaration

The project will not have a significant effect on the environment. The recommendation is based on the following: There is no substantial evidence that the project or any of its aspects may cause a significant effect on the environment with incorporation of proposed mitigation measures (Sec.15063 (b) (2)).

What changes to the project would mitigate the identified impacts: N/A

USGS Quad Sheet:
Briones Valley

Base Map Sheet #:
H-8, H-9

Parcel #:
N/A

GENERAL CONSIDERATIONS:

1. **Location:** Bear Creek Road intersection between Pinole and Martinez (Figure 1)
2. **Project Description:** Contra Costa County Public Works Department (CCCPWD) proposes to realign and widen a 2,425-foot long section of Alhambra Valley Road to provide shoulders and clear recovery areas for motorists to regain full control of their vehicles should they veer off the traveled way. The project will realign the road and widen the existing travel lanes from 10 to 12 feet wide which will add 5 feet wide of paved shoulders. This proposed section configuration meets County design standards, matches the dimensions of similar safety projects along Alhambra Valley Road, and significantly improves the function of the road as a Class III bicycle facility.

The project will also require cutting into the existing hillside slope along the north side of the road to accommodate the road realignment. The hillside will be cut at a 2:1 slope which requires removing approximately 4,000 cubic yards of soil from the face of the hillside. However, if it is determined from geotechnical investigations that this is not a stable option, a 250-foot long, 10-foot tall concrete wall will be constructed along the face of the hillside; this option will require removing approximately 1,500 cubic yards of soil. Approximately 12 roadside oak trees and 30 olive orchard trees will be removed to provide improved sight distance.

Existing roadside drainage ditches along the north side of the road will be recreated and lined with rock. In some areas along the south side of the road there are soft shoulders which will be re-graded to maintain existing sheet flow patterns off the road surface. Three existing sub-grade cross-culverts that convey runoff from the roadside ditches along the north side of the road will be extended or replaced to span the widened road. Culvert depth excavations will range between 2 and 8 feet. If necessary, rock slope protection will be placed at the outfalls of the culvert pipes.

One lane of the road will be open during construction; full road closure is anticipated for up to 2 weeks. Project construction is planned for 2013 and will take approximately two months to complete. Construction will occur sometime between April and October.

The project will require property transactions such as right-of-way acquisitions for slivers of adjacent parcels at inverting curves to be realigned and temporary construction easements for work and staging areas. The project may also require utility relocations.

The project will not cause an increase in traffic or encourage changes to existing land use patterns; therefore no new vehicle trips are expected to occur. The project area is located within designated critical habitat for Alameda whipsnake and California red-legged frog. Permanent and temporary impacts will be offset by off-site compensatory mitigation through a U.S. Fish and Wildlife Service and California Department of Fish and Game approved mitigation bank or to a land preservation trust that supports the creation, enhancement and/or restoration of Alameda whipsnake and California red-legged frog habitat which will benefit other species. Further, avoidance and minimization measures will be implemented to minimize impacts to special-status species and the natural environment. Removal of the oak trees in the riparian corridor will be mitigated as determined through consultation with the California Department of Fish and Game. Disturbed areas will be re-vegetated upon project completion.

3. Does it appear that any feature of the project will generate significant public concern?
☐ yes ☒ no ☐ maybe (Nature of concern): _____
4. Will the project require approval or permits by other than a County agency?
☒ yes ☐ no (Federal Highway Administration [FHWA]/Caltrans, U.S. Fish and Wildlife Service [Federal Endangered Species Act Section 7 Consultation], California Department of Fish and Game [Consistency Determination for Alameda whipsnake], San Francisco Bay Regional Water Quality Control Board, State Water Resources Control Board [NPDES permit])
5. Is the project within the Sphere of Influence of any city? No.

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION



ALHAMBRA VALLEY ROAD SAFETY IMPROVEMENTS PROJECT

East of Bear Creek Road/Pereira Road, Contra Costa County

Prepared by:
CONTRA COSTA COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES-ENVIRONMENTAL SECTION
MARTINEZ, CALIFORNIA

Project No.: 0662-6R4101
CP# 11-91

DECEMBER 2011

**CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION**

[Pursuant to Public Resources Code Section 21080(c) and California Code of Regulations, Title 14, Sections 15070-15071]

In compliance with the California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000, et seq.), this Initial Study has been prepared to determine whether an Environmental Impact Report (EIR) or a Negative Declaration needs to be prepared, or to identify the significant environmental effects to be analyzed in an EIR.

PROJECT TITLE

Alhambra Valley Road Safety Improvements Project

LEAD AGENCY NAME AND ADDRESS

Contra Costa County Department of Conservation and Development
651 Pine Street, North Wing – 4th Floor
Martinez, California 94553

CONTACT PERSON AND PHONE NUMBER

Claudia Gemberling, Environmental Analyst II (925) 313-2192

PROJECT LOCATION

Alhambra Valley Road at Bear Creek Road/Pereira Road intersection, between Pinole and Martinez, Contra Costa County (Figures 1 - 3)

PROJECT SPONSOR'S NAME AND ADDRESS

Contra Costa County Department of Public Works
255 Glacier Drive
Martinez, California 94553

GENERAL PLAN AND ZONING DESIGNATIONS

Public/Semi-Public

PROJECT DESCRIPTION

Contra Costa County Public Works Department (CCCPWD) proposes to realign and widen a 2,425-foot long section of Alhambra Valley Road to provide shoulders and clear recovery areas for motorists to regain full control of their vehicles should they veer off the traveled way (Figure 3).

The road segment currently consists of multiple broken back curves, two 10-foot wide travel lanes, and no paved shoulders. The project will realign the road to reduce the number of curves, widen the existing travel lanes to 12 feet each, and add up to 5-foot wide paved shoulders. This proposed section configuration meets County design standards, matches the dimensions of similar safety projects along Alhambra Valley Road, and significantly improves the function of the road as a Class III bicycle facility due to newly paved shoulders. The project also alters the vertical profile of a 0.1-mile segment of the road by reducing the grade by approximately five percent.

The proposed alignment will be excavated to accommodate a pavement thickness of 2 feet. Slurry seal may be placed over the entire paved road surface for the full project length and then the road will be striped with road markings. Proper markings and striping will be adjusted to indicate the realigned travel lanes and new shoulder locations. Existing pavement outside of the realigned roadway will be eliminated.

The project will require cutting into the existing hillside slope along the north side of the road to accommodate the road realignment. The hillside will be cut up to a 2:1 slope which requires cutting into the base of the slope approximately 20 feet from the new edge of road pavement and removing approximately 4,000 cubic yards of soil from the face of the hillside. However, if it is determined from geotechnical investigations that this is not a stable option, an approximately 250-foot long concrete wall up to 10 feet tall will be constructed along the face of the hillside. This option will still require cutting into the base of the hillside approximately 20 feet and removing approximately 1,500 cubic yards of soil.

Existing roadside drainage ditches along the north side of the road will be recreated and lined with rock to ensure they remain stable. In some areas along the south side of the road there are soft shoulders which will be re-graded to maintain existing sheet flow patterns off the road surface.

Three existing sub-grade cross-culverts that convey runoff from the roadside ditches along the north side of the road are constructed of 12-inch and 18-inch diameter corrugated metal pipe and will be extended or replaced to span the widened road. Culvert depth excavations will range between 2 and 8 feet. If necessary, rock slope protection will be placed at the outfalls of the culvert pipes.

Approximately 12 roadside oak trees (six [6] non-riparian trees along the north side and six [6] riparian trees along the south side of the road) and approximately 30 olive orchard trees will be removed to provide at least a 10-foot wide clear zone from the edge of the traveled way to improve sight distance.

Fences along the north side of the road will be relocated to the new right-of-way boundaries. The utility poles will be relocated to be at least 5 feet outside the edge of the new road pavement. A 5-foot tall commemorative trail marker located at the northwest corner of Bear Creek Road/Pereira Road intersection will be relocated further inland to a location within the boundaries of the adjacent East Bay Municipal Utility District (EBMUD) property.

Anticipated construction staging areas have been identified along the east side of Bear Creek Road south of Alhambra Valley Road, along the east side of Pereira Road north of Alhambra Valley Road and an area in a vacant field just south of Alhambra Valley Road in the eastern portion of the project segment. Construction staging areas and other disturbed areas will be re-vegetated with the appropriate grassland hydroseed mix upon project completion.

One-lane traffic control will be required during construction and a full road closure may be required for up to two weeks.

The project will require property transactions such as right-of-way acquisitions for slivers of adjacent parcels at inverting curves in order to straighten the curves and to provide sight distance and temporary construction easements for work and staging areas.

The project is partially funded by federal transportation funds, High Risk Rural Road (HRRRL) program and is included in the 2011 Bay Area Transportation Improvement Program (Metropolitan Transportation Commission 2011). Project construction is planned for 2013 and will take approximately two months to complete. Construction will occur sometime between April and October.

CONTRA COSTA COUNTY CALIFORNIA

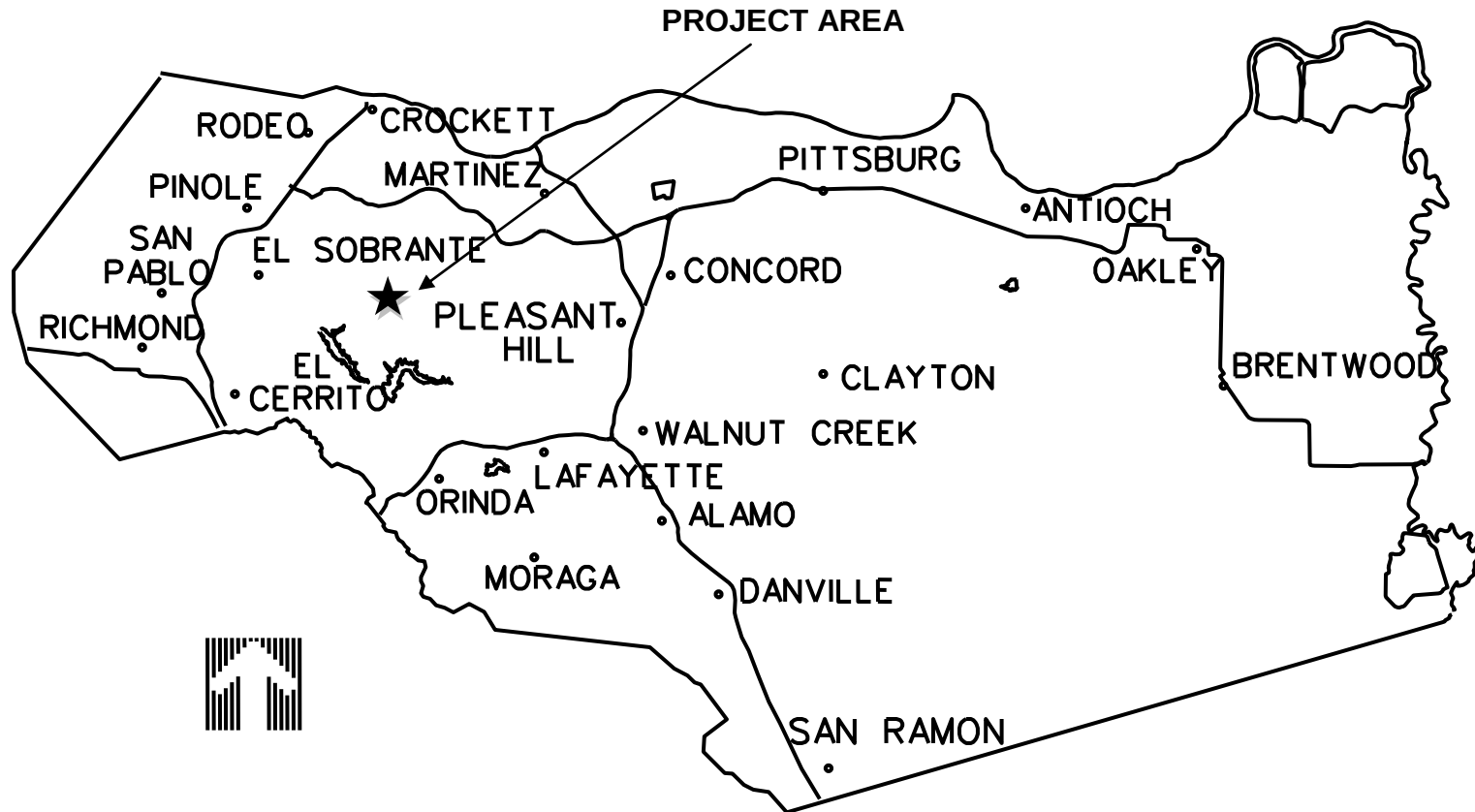


FIGURE 1: PROJECT LOCATION MAP

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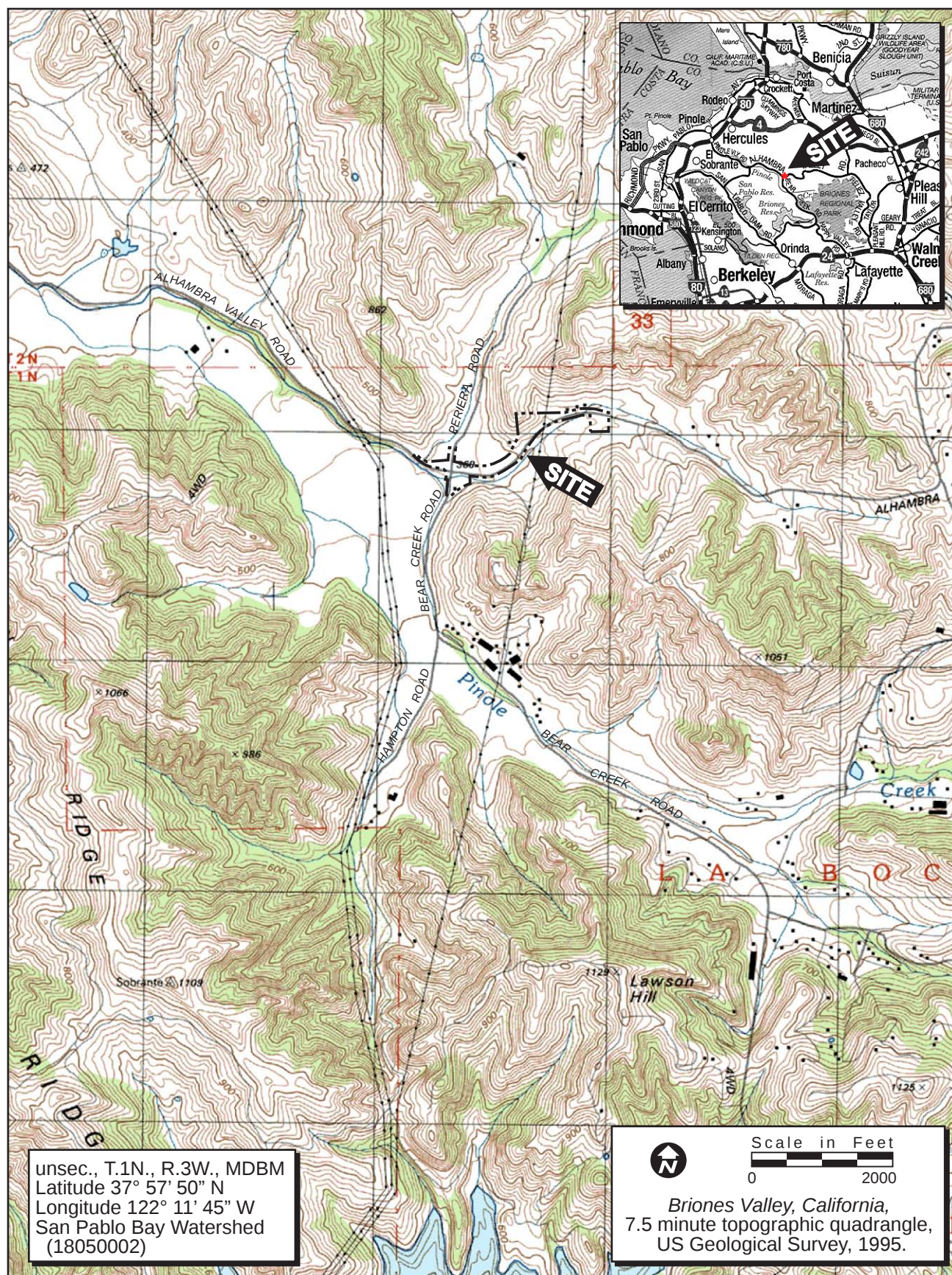
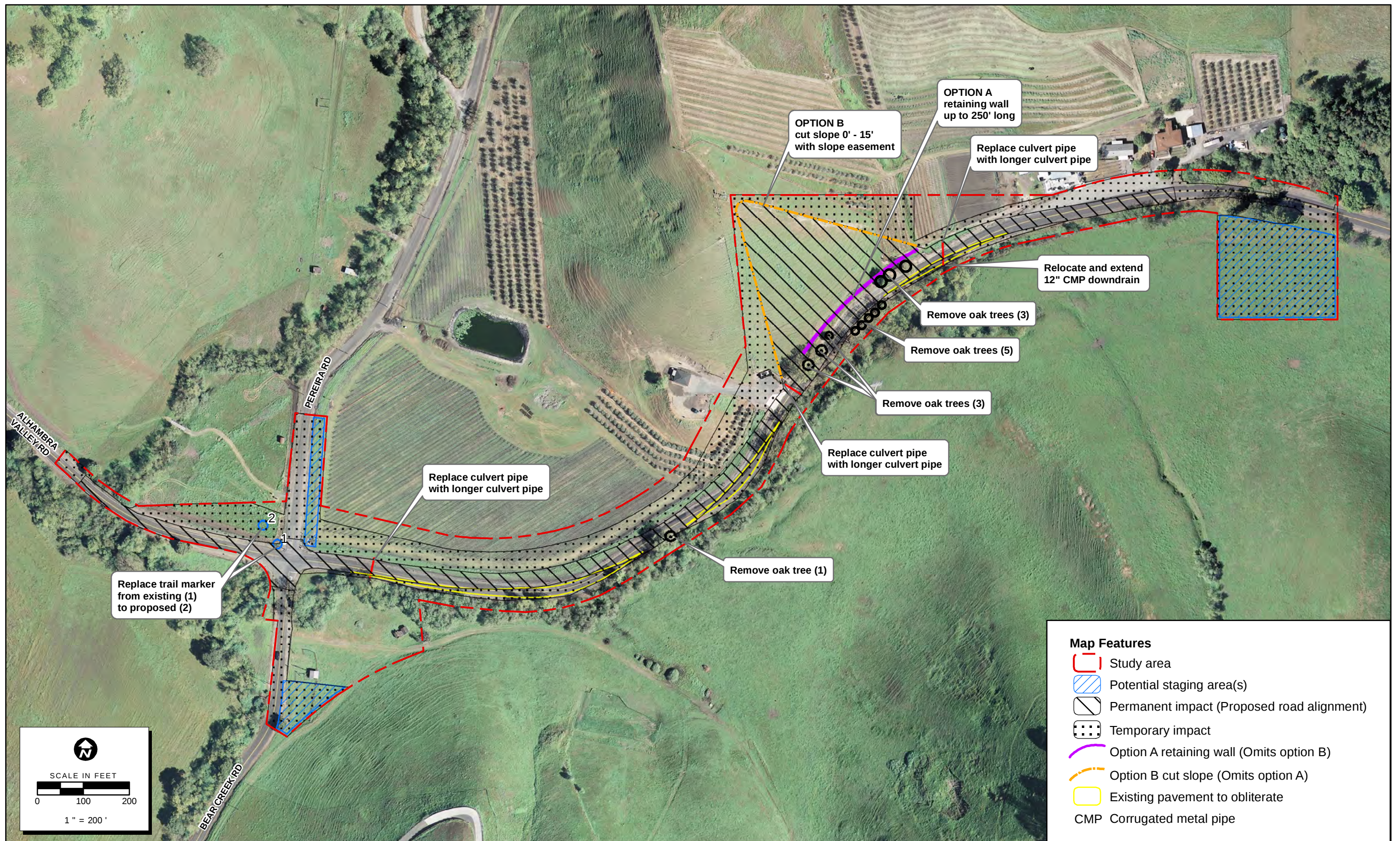


FIGURE 2. Study Area and Vicinity

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Map Date: 11/15/2011

Figure 3. Project Impact Areas

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SURROUNDING LAND USES AND SETTING

The project area is located within the upper Pinole Valley watershed, which is located just east of the East Bay Municipal Utility District (EBMUD) watershed lands. The area is rural in character; land uses include large-parcel residences, rangeland, agricultural, and open space. The land immediately surrounding the project segment consists of a vineyard and wine-making facility, olive tree orchard and associated residential buildings on the north side of the road and a riparian corridor associated with Pinole Creek on the south side of the road; undeveloped land primarily used for grazing is located south of the riparian corridor and to the west on EBMUD lands.

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED

Federal Highway Administration (FHWA), California Department of Transportation (Caltrans)

The project will be partially funded through the High Risk Rural Road (HRRRL) program. Caltrans, on behalf of the FHWA, is the lead agency for the National Environmental Policy Act (NEPA). Therefore, the project will be reviewed by Caltrans for NEPA compliance.

U.S. Fish and Wildlife Service – Sacramento Area Field Office

Federal Endangered Species Act, Section 7, Incidental Take Statement (Biological Opinion)

The project is located within designated critical habitat for Alameda whipsnake, a federal-listed threatened species and California red-legged frog, a federal-listed endangered species, which will have the potential to result in incidental take (USFWS 2011). Therefore, Caltrans, acting as the federal lead agency, will initiate consultation with the USFWS for a Biological Opinion.

California Department of Fish and Game – Bay Delta Region (3)

California Endangered Species Act, Section 2081 (b) and (c), Incidental Take Permit

The project is located within designated critical habitat for Alameda whipsnake, a state-listed threatened species, which will have the potential to result in incidental take. Therefore, an Incidental Take Permit will be obtained (CDFG 2011a).

Fish and Game Code, Section 1602, Lake and Streambed Alteration Agreement

Notification is required when an activity will substantially divert or obstruct the natural flow of any river, stream or lake (CDFG 2011b). There will be minimal impacts to the tributary from the proposed culvert replacements. Therefore, CDFG will be notified.

U.S. Army Corps of Engineers – San Francisco District

Clean Water Act, Section 404 Permit

Section 404 of the Clean Water Act regulates permanent and temporary discharges of dredged or fill material into jurisdictional waters of the United States, including wetlands. The tributary to Pinole Creek along the south side of the road is considered jurisdictional waters of the U.S. (ECORP 2010). There will be minimal impacts to the adjacent tributary from the proposed culvert replacements. This type of activity is authorized under a Nationwide Permit program (U.S. Army Corps of Engineers 2011). Therefore, the U.S. Army Corps of Engineers San Francisco District will be notified for authorization.

Regional Water Quality Control Board – San Francisco Bay Region (2)

Clean Water Act, Section 401, Water Quality Certification

Section 401 of the Clean Water Act also regulates permanent and temporary discharges of dredged or fill material into jurisdictional waters of the United States, and waters of the state, including wetlands (San Francisco Bay Regional Water Quality Control Board [RWQCB] 2011). There will be minimal impacts to the tributary from the proposed culvert replacements. Therefore, a Water Quality Certification will be obtained from the San Francisco Bay Regional Water Quality Control Board.

State Water Resources Control Board*National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity*

Projects that disturb one or more acres of soil or disturbs less than one acre but is part of a larger development that in total disturbs one or more acres, are required to obtain coverage under the General Permit [CGP] for Discharges of Storm Water Associated with Construction Activity (Order 2009-0009-DWQ) (State Water Resources Control Board [SWRCB] 2011). If the project will disturb less than 5 acres, the CGP allows for a waiver certification if the project will occur when the rainfall erosivity factor is less than five (5) (i.e., typically occurring in dry seasons when rains are less frequent and less force). Therefore, the SWRCB will be notified for coverage under the CGP or waiver certification.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| ☐ Aesthetics | ☐ Agriculture Resources | ☐ Air Quality |
| ☐ Biological Resources | ☐ Cultural Resources | ☐ Geology/Soils |
| ☐ Hazards & 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 | |

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.

Claudia Hernandez
NAME OF PREPARER
Contra Costa County Public Works Department

11-23-11
Date

Contra Costa
LEAD AGENCY NAME
Contra Costa County Development and
Conservation Department

Nov. 30, 2011
Date

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ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?	☐	☐	☐	☒

Contra Costa County has two main scenic resources in addition to many localized scenic features: (1) scenic ridges, hillsides, and rock outcroppings; and (2) the San Francisco Bay/Delta estuary system. Throughout much of the County, there are significant topographic variations in the landscape. The largest and most prominent of these are the hills that form the backdrop for much of the developed portions of the area. Views of these major ridgelines help to reinforce the rural feeling of the County's rapidly growing communities. These major ridges provide an important balance to current and planned development (Contra Costa County 2005a).

The project area is located within the upper Pinole Valley watershed, which is located just east of the EBMUD watershed lands. The area is rural in character, with rangeland, equestrian, agricultural, and open space uses, and residences on large parcels. A tributary to Pinole Creek adjoins the road to the south. The riparian corridor south of Alhambra Valley Road and surrounding open land and hills and ridges provide a natural rural setting.

a) Would the project have a substantial adverse effect on a scenic vista?

The project will not have a substantial adverse effect on a scenic vista as the project is limited to widening and realigning a section of an existing road. Therefore, project impacts will be **less than significant**.

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

The project site is not located within a state scenic highway or an officially designated county scenic highway (Caltrans 2009). Therefore, the project will have **no impact**.

- c) *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

While the project will not substantially degrade the existing visual character or quality of the site and surrounding area, the project will require cutting into the existing hillside slope along the north side of the road to accommodate the road realignment. The hillside will either be cut at a 2:1 slope which requires cutting into the base of the slope approximately 20 feet from the new edge of road pavement and removing approximately 4,000 cubic yards of soil from the face of the hillside which will be hydroseeded with a grassland mix which will re-vegetate within the same year construction is completed and therefore will not degrade the visual character of the area. However, if it is determined from geotechnical investigations that this is not a stable option, a concrete retaining wall up to 250 feet long and approximately 10 feet tall will be constructed along the face of the hillside; this option will still require cutting into the base of the hillside approximately 20 feet and removing approximately 1,500 cubic yards of soil. If a retaining wall is constructed, the wall would be designed in a manner that will blend into the hillside and minimize glare. Further, traffic travels at high speeds along this road and therefore, the proposed retaining wall will not appear as a significant change. Therefore, project impacts will be **less than significant**.

- d) *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

The project will not create a new permanent source of substantial light or glare that would adversely affect day or nighttime views in the area. Construction will take place during the daylight hours. Therefore, the project will have **no impact**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

II. AGRICULTURE RESOURCES

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with existing zoning for agriculture use, or a Williamson Act contract? | ☐ | ☐ | ☒ | ☐ |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | ☐ | ☐ | ☒ | ☐ |

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 in response to a critical need for assessing the location, quality, and quantity of agricultural lands and conversion of these lands over time. FMMP is a non-regulatory program that provides a consistent and impartial analysis of agricultural land use and land use changes throughout California (California Department of Conservation [CDC] 2011).

Prime Farmland has the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Farmland of Statewide Importance is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Unique Farmland is of lesser quality soils used for the production of the state's leading agricultural crops; this land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California (CDC 2011).

The California Land Conservation Act of 1965, commonly known as the Williamson Act (Act), created a program to help counties preserve agricultural land and open space by offering a tax incentive to property owners. The Act provides an arrangement where private landowners voluntarily restrict their land to agricultural and compatible open space uses under a contract with the County, known as a Land Conservation Contract (CCCD CD 2011).

CEQA Guidelines address farmland conversion impacts directly in two ways; first, cancellation of Williamson Act contracts for parcels exceeding 100 acres is an action considered to be of "statewide, regional, or area-wide significance, and thus subject to CEQA review (CEQA Guidelines Section 15206(b)(3)). Second, a project that would convert prime agricultural land to non-agricultural use or impair the agricultural productivity would normally have a significant effect

on the environment.” No set acreage of prime farmland conversion has been determined by case law or regulatory framework which would constitute a significant impact.

- a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

The parcels surrounding the project area are designated as prime and unique farmlands and grazing land. The parcel containing the vineyard and olive orchard along the north side of project segment are designated as prime farmland and parcels along the south side of the project segment are designated as grazing land (CDC 2010).

The project will require right-of-way acquisitions which consist of slivers of adjacent parcels at several inverting curves in order to straighten the curves and to provide sight distance. The right-of-way acquisitions total approximately 0.6 acre for the cut slope design option or 2 acres for the retaining wall option. The project will require acquiring approximately 0.2 acre of designated prime farmland (parcel containing the vineyard and olive orchard) which will require removal of up to 30 olive orchard trees; no vines are anticipated to be removed. The designated prime farmland is approximately 58 acres (Alhambra Valley Ranch 2011). The project cannot avoid acquisition of this parcel due to the presence of a creek located immediately adjacent to the south side of the road.

Based on the United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), Farmland Conversion Impact Rating form (NRCS-CPA-106) for corridor-type projects, project impacts did not exceed the threshold level and therefore, project impacts will be **less than significant**.

- b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The designated prime farmland parcel located along the north side of the project segment is also protected by a Williamson Act contract (Contra Costa County Mapping Center 2011). The project will convert a small portion of this parcel to non-agricultural use for the new right-of-way. The conversion does not conflict with the County General Plan goals and policies which is to ensure that existing circulation facilities are improved and maintained by eliminating structural and geometric design deficiencies, giving priority to safety over other factors as well as providing alternative transportation opportunities by constructing on-road bikeway facilities as shown in the County Bikeway Network Plan (Contra Costa County 2005b). As required by Government Code Section 51291(b), the Director of the California Department of Conservation and the Contra Costa County Department of Conservation and Development will be notified of the proposed acquisition, and a subsequent notification within 10 working days upon completion of the acquisition. Therefore, project impacts will be **less than significant**.

- c) *Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

The project will not involve other changes in the existing environment that would result in conversion of farmland to non-agriculture use as the project is limited to correcting the design deficiencies for road safety. Therefore, project impacts will be **less than significant**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY				
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?	☐	☐	☒	☐

Regulatory Setting

Air pollution can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute effects such as eye watering, respiratory irritation, and headaches (Bay Area Air Quality Management District [BAAQMD] 2010). The 1970 federal Clean Air Act established national ambient air quality standards for six criteria pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead; to protect public health and welfare. Amendments to the federal Clean Air Act require the U.S. Environmental Protection Agency (USEPA) to classify air basins or portions of thereof, as either "attainment" or "nonattainment" for each criteria pollutant, based on whether or not the national standards have been achieved. The California Clean Air Act also requires areas to be designated as "attainment" or "nonattainment" based on whether or not state standards have been achieved. Under the federal and state Clean Air Acts, air basin jurisdictions with "nonattainment" areas are required to prepare air quality plans that include strategies for achieving attainment (Contra Costa Transportation Authority [CCTA] 2009a). The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for assuring that the National and California Air Ambient Standards are attained and maintained in the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB is currently designated as a nonattainment area for state and national ozone standards, and national particulate matter (PM 10, PM 2.5) standards. The Bay Area 2010 Clean Air Plan (BAAQMD 2010a) includes strategies that are implemented through various

BAAQMD programs and rules and regulations; a State Implementation Plan addressing the PM 2.5 non-attainment status will be issued by December 2012 (BAAQMD 2011).

In order to address global climate change associated with air quality impacts, CEQA statutes were amended to require evaluation of greenhouse gas (GHG) emissions (global pollutants) (discussed further in section VII) which includes criteria air pollutants (regional pollutants) and toxic air contaminants (local pollutants). As a result, the BAAQMD adopted CEQA thresholds of significance for criteria air pollutants and GHGs, and issued updated CEQA guidelines to assist lead agencies in evaluating air quality impacts to determine if a project's individual emissions would be cumulatively considerable. Various modeling tools are used to estimate emissions based on the type of project (i.e., land use developments, linear transportation and utility projects) (BAAQMD 2010).

In addition to criteria air pollutants, naturally-occurring asbestos (NOA), a toxic air contaminant, is also an air pollutant of concern (OPR 2008a). It can cause lung cancer and mesothelioma which is dependent upon the type of asbestos fibers inhaled and exposure levels. NOA is typically associated with serpentinite and ultramafic rocks formed in high-temperature environments below the surface of the earth when metamorphic conditions are right for the formation of asbestos. The BAAQMD requires that projects where NOA is likely to be found implement the best available dust mitigation measures in order to reduce and control dust emissions as well as notification to the BAAQMD (BAAQMD 2010). The project area is not located within an area identified as having rocks associated with NOA (CDC 2010c).

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Construction of the project will result in temporary increases of air pollutant concentrations from construction equipment and asphalt paving operations (criteria air pollutants) and soil disturbance (PM dust). Approximately 8.5 acres of surface area will be disturbed and approximately 4,000 cubic yards of soil will be removed if the cut slope design is implemented or 1,500 cubic yards for the retaining wall design. Project construction will take approximately two months to complete. The types of construction equipment that would be used include excavators, haul trucks, crushers, and pavers.

Construction-related activities generate criteria air pollutants including carbon monoxide, sulfur dioxide, particulate matter (PM_{2.5}, PM₁₀) as well as precursor emissions such as reactive organic gases (ROG) and oxides of nitrogen (NO_x) and GHGs from exhaust, fugitive dust, and off-gas emissions (i.e., asphalt paving). The BAAQMD CEQA Air Quality Guidelines (Guidelines) provides preliminary screening criteria to determine if project construction-related emissions would result in a less-than-significant impact as follows (BAAQMD 2011):

- The project is below the applicable screening level size listed for various land use types (Table 3-1 of the Guidelines); and
- All *Basic Construction Mitigation Measures* outlined in the Guidelines (Table 8-1) to meet the best management practices threshold for fugitive dust would be included in the project design and implemented during construction as listed below:
 - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day.
 - All haul trucks transporting soil, sand, or other loose material off-site will be covered.
 - All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. Dry power sweeping will not be used.

- All vehicle speeds on unpaved roads will be limited to 15 mph.
- Idling times will be minimized by either shutting equipment off when not in use or reducing the maximum idling time to 5 minutes. Clear signage will be provided for construction workers at all access points.
- All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Signs will be posted with the telephone number and person to contact regarding dust complaints. Complaints will be corrected within 48 hours. The sign will also include the BAAQMD phone number to ensure compliance.

and

- The project would not include:
 - Demolition activities inconsistent with BAAQMD Regulation 11, Rule 2, Asbestos Demolition, Renovation, and Manufacturing;
 - Simultaneous occurrence of one or more than two construction phases (e.g., paving and building construction would occur simultaneously);
 - Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site);
 - Extensive site preparation that is greater than the default assumptions of the Urban Land Use Emissions Model (URBEMIS) for grading, cut/fill, or earth movement; and
 - Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity.

The project meets the above-listed criteria and therefore will not conflict with or obstruct implementation of the Bay Area 2010 Clean Air Plan. Therefore, project impacts will be **less than significant**.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The project will not violate any air quality standard or contribute substantially to an existing projected air quality violation as the emissions from construction operations will not exceed the BAAQMD threshold levels for criteria air pollutants and particulate matter as described above. Therefore, project impacts will be **less than significant**.

c) Would the project 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)?

As noted above, the San Francisco Bay Area Air Basin is currently in non-attainment for ozone (state and federal ambient standards) and national particulate matter (PM 10, PM 2.5) standards. The project will not increase the capacity of the road which would not result in a cumulatively considerable net increase of criteria air pollutants. Further, short-term construction emissions will be minimized with implementation of air pollution control practices described above. Therefore, project impacts will be **less than significant**.

d) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Sensitive receptors are locations of human populations such as residences, hospitals, schools, day care centers, retirement homes, and convalescence facilities where there is reasonable expectation of continuous human exposure to poor air quality standards (California Air Resources Board [CARB] 2005). The BAAQMD prepared conservative interim guidelines estimating air quality health risk impacts to sensitive receptors associated with construction activity. Construction-related emissions can expose sensitive receptors to toxic air contaminants, including diesel particulate matter (BAAQMD 2010). Individuals particularly vulnerable to diesel particulate matter are children and the elderly. The guidelines are based on minimum distance between the project area boundary and the sensitive receptor. Based on the acres of land that will be impacted, the offset distance required from sensitive receptors to avoid significant health risks is approximately 400 feet (BAAQMD 2010). There are two residences along the north side of the project segment within 400 feet. While these residences are within the offset distance, the project would not result in substantial pollutant concentrations with implementation of the air pollution control measures described above. Therefore, project impacts will be **less than significant**.

e) *Would the project create objectionable odors affecting a substantial number of people?*

Project construction will take approximately two months to complete. Construction equipment exhaust and asphalt paving operations may create objectionable odors, but will not affect a substantial number of people as the project area is located in a primarily rural area. However, there are two residences along the north side of the road that may be affected by construction-related odors. Implementation of the air pollution control practices described above will minimize construction-related odors. Therefore, project impacts will be **less than significant**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game 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, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined (including, but 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, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Regulatory Background

In 1973, the federal Endangered Species Act was passed by Congress to protect ecosystems supporting special-status species to be administered by the U.S. Fish and Wildlife Service

(USFWS). The California Endangered Species Act was passed as a parallel act to be administered by the California Department of Fish and Game (CDFG). Special-status species plant and wildlife species are defined as those species listed as Endangered, Threatened, or Proposed for listing or are designated as Fully Protected species under one or more of the following regulatory status:

- Federal Endangered Species Act, as amended (Code of Federal Regulations, Title 50, Section 17);
- California Endangered Species Act (California Code of Regulations Title 14, Section 670.5);
- California Fish and Game Code (Section 1901, 2062, 2067, 3511, 4700, 5050, and 5515);
- Species considered to be rare or endangered under the conditions of Section 15380 of the CEQA Guidelines such as those identified in the Inventory of Rare and Endangered Vascular Plants of California by the California Native Plant Society (CNPS) (Native Plant Protection Act of 1977); and
- Other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing, or rejection for state or federal status such as Species of Special Concern (SSC) designated by the CDFG as well as locally rare species defined by CEQA Guidelines 15125(c) and 15380, which may include species that are designated as sensitive, declining, rare, locally endemic or as having limited or restricted distribution by various federal, state, and local agencies, organizations, and watchlists; as well as birds and raptors protected under the Federal Migratory Bird Treaty Act (16 U.S.C. 703-711) (Executive Order 13186).

If the project will have the potential to impact special-status species and/or their associated habitats, the responsible agency will be consulted to determine appropriate avoidance and minimization measures to avoid impacts and mitigation to offset unavoidable impacts.

Site Assessment

A qualified biologist reviewed the above-listed databases for listed species and conducted a habitat assessment of the project area. The study area assessed encompasses a larger area extending 50 feet south and east of the project footprint on Alhambra Valley Road and approximately 375 feet west of the project footprint on Alhambra Valley Road. The study area also encompasses an area north of Alhambra Valley Road extending up to 350 feet to the north of this portion of road. Additional areas assessed include 350 feet north along Pereira Road and 360 feet south along Bear Creek Road. In addition, the study area includes three potential staging areas identified by the CCCPWD: south side of Alhambra Valley Road at the eastern end of the project area; southeast of the Alhambra Valley Road and Bear Creek Road intersection; and along the eastern side of Pereira Road extending north from Alhambra Valley Road (ECORP 2011a) (Figure 3).

Environmental Setting

The study area contains five habitat types: non-native annual grassland, seasonal wetland, agricultural, riparian woodland, and perennial creek. The parcels to the north include a portion of developed orchards, vineyards, and grazed grassland. Parcels to the south include a portion of an unnamed tributary to Pinole Creek and its surrounding riparian woodland and undeveloped grazed grassland. The unnamed tributary connects to Pinole Creek via a culvert under Bear Creek Road. In the western portion of the study area (west of Bear Creek Road intersection) and north of Alhambra Valley Road is ungrazed grassland part of the EBMUD Pinole Valley watershed preserve system and an unnamed tributary to Pinole Creek that connects to Pinole Creek via a culvert under Alhambra Valley Road. Pinole Creek and its surrounding riparian woodland occur along the south side of Alhambra Road (Figures 2 and 3).

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

The project is located in an area that is designated critical habitat for Alameda whipsnake (federal and state listed as threatened) and California red-legged frog (federally listed as endangered and a California species of special concern (SSC)). Other listed species that have the potential to occur in the project vicinity that were considered include: California tiger salamander, Cooper's hawk, great blue heron, northern harrier, white-tailed kite, hoary bat, pallid bat, silver-haired bat, American badger, and San Francisco dusky-footed woodrat. Additionally, three rare plant species were considered: fragrant fritillary, Mt. Diablo cottonweed, and round-leaved filaree however these species were ruled out during focused surveys conducted at their appropriate bloom periods. Project impacts and the measures to mitigate and minimize impacts are described below.

IMPACT BIO-1: The project will result in permanent and temporary impacts to Alameda whipsnake and California red-legged critical habitat which may result in incidental take of either of these species. Permanent impacts include approximately 2 acres from the removal of habitat along the north side of the road to accommodate sections of road realignment; temporary impacts include approximately 4 acres from work areas to construct the project including equipment/material staging areas. The following mitigation and avoidance measures will be implemented to reduce impacts to a less than significant impact:

MITIGATION MEASURE BIO-1:

CCCPWD consulted with the USFWS and CDFG for impacts to Alameda whipsnake and California red-legged frog habitat and potential incidental take of these species. CCCPWD proposes to mitigate impacts by purchasing Alameda whipsnake and California red-legged credits from a USFWS- and DFG-approved conservation bank that protects and manages land established for Alameda whipsnake and California red-legged frog that occur on the site. In addition to the compensatory mitigation, the following avoidance measures will be implemented:

AVOIDANCE MEASURE BIO-1A: ALAMEDA WHIPSNAKE

- Before any project-related activities begin the USFWS-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the Alameda whipsnake and its habitat, its importance, the general measures that are being implemented to conserve the Alameda whipsnake as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is available to answer any questions.
- If vegetation clearing is scheduled to begin from March to November, a USFWS-approved biologist will be present during the vegetation removal. Once the vegetation has been removed, temporary exclusion fencing will be installed in the appropriate area(s) as determined by the biologist in order to exclude AW from entering the cleared work area. The exclusion fence will be four feet high with stakes facing the work area. The integrity of the fence will be checked daily to ensure that AW cannot get into the work area. During site grading a USFWS-approved biologist and/or trained CCCPWD staff will be present to ensure compliance with the protection and avoidance measures.

- If Alameda whipsnake are observed during preconstruction surveys and/or during construction, the USFWS-approved biologist will have the authority to halt all activity in the area until the whipsnake has left the area on its own or, if necessary, has been relocated to a USFWS-approved location, and after buffers have been established, if necessary. The CDFG and USFWS will also be notified of the whipsnake finding.
- Heavy equipment will be restricted to the existing road and areas to be graded to minimize impacts to potential habitat and reduce the potential for whipsnake injury and mortality. Construction vehicles and equipment will be restricted to a 20-mile an hour speed limit.
- All construction debris trash that might attract predators to the area and that could be used as cover by the whipsnake will be properly contained and removed from the construction site daily. Any debris or equipment left overnight will be checked daily prior to use in order to avoid whipsnake injury and mortality.
- Plastic mono-filament netting (erosion control matting) or similar material will not be used because whipsnakes may become entangled or trapped in it. Acceptable substitutes include tightly woven fabric or tackified hydro-seeding compounds.

AVOIDANCE MEASURE BIO-1B: CALIFORNIA RED-LEGGED FROG¹

- At least 15 days prior to the start of project-related activities (i.e., equipment/material staging, tree removal/trimming, clearing/grubbing, soil disturbance), CCCPWD will submit the name(s) and credentials to the USFWS Sacramento field office of biologists that would conduct activities specified in the following measures. No project activities will begin until CCCPWD has received written approval from the USFWS that the biologist(s) is qualified to conduct the work.
- The USFWS-approved biologist will survey the construction area two weeks prior to start of project-related activities. If California red-legged frog, tadpoles, or eggs are found, the approved biologist will contact the USFWS to determine if moving any of these life-stages is appropriate. In making this determination the USFWS will consider if an appropriate relocation site exists. If the USFWS approves relocation, the approved biologist will be allowed sufficient time to move California red-legged frog from the construction area before construction activities begin. Only USFWS-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frog.
- Before any project-related activities begin the USFWS-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, its importance, the general measures that are being implemented to conserve the California red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is available to answer any questions.
- The USFWS-approved biologist will be present at the construction site until all California red-legged frog(s) have been relocated, workers have been trained, and vegetation clearing has been completed. After this time, CCCPWD environmental staff will monitor and/or designate a person to monitor on-site compliance of all avoidance and minimization measures. The USFWS-approved biologist will ensure that this individual receives the training outlined above. The designated monitor and the USFWS-approved biologist will have the authority to halt any action that might result in effects that exceed

the levels anticipated by the CCCPWD and USFWS during review of the proposed action. If California red-legged frog are found during construction, all construction will stop in the area until the California red-legged frog have been relocated by the USFWS-approved biologist to a USFWS-approved location and after buffers have been established, if necessary. The USFWS will also be notified of the finding.

- During project activities, all trash that may attract predators will be properly contained, removed from the construction area and disposed of daily. Following construction, all trash and construction debris will be removed from work areas.
- All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 65 feet from any riparian habitat or water body. The CCCPWD will ensure contamination of habitat does not occur during such operations. Prior to start of any project-related activities, the CCCPWD will ensure that the Contractor has prepared a plan to allow a prompt and effective response to any accidental spills, which will be addressed in the required Storm Water Prevention Pollution Plan (SWPPP) (see Hydrology and Water Quality section below). All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
- The CCCPWD and/or USFWS-approved biologist will ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible. When practicable, invasive exotic plants in the project area will be removed.
- The project area will be re-vegetated with an appropriate mixture of native seeds for the upland annual grassland upon project completion in the fall. Seeded areas will be blanketed with appropriate erosion-control material that will not trap reptiles or amphibians.
- The number and size of access routes and staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal. Routes and boundaries will be clearly demarcated, and these areas will be outside of riparian and wetland areas.
- Work will be completed between April 1 and November 1. If CCCPWD needs to conduct activities outside this period, the CCCPWD will notify the USFWS for authorization.
- Erosion control BMPs will be implemented in accordance to the San Francisco Bay Regional Water Quality Control Board (RWQCB) and other agency permit conditions.

¹ Applicable measures based on *Programmatic Formal Endangered Species Act Consultation on Issuance of Permits Under Section 404 of the Clean Water Act or Authorizations under the Nationwide Permit Program for Projects that May Affect the California Red-legged Frog*. January 26, 1999

IMPACT BIO-2: The project may directly or indirectly impact California tiger salamander, federally listed as threatened and a California species of special concern. However, the likelihood of this species occurring in the project area is low due to the lack of breeding ponds within the vicinity, absence of underground burrows, and proximity to the road.

AVOIDANCE MEASURE BIO-2: CALIFORNIA TIGER SALAMANDER

- If California tiger salamander are present in the area prior to or during construction, the above-listed avoidance measures for Alameda whipsnake and California red-legged frog would also apply.

IMPACT BIO-3: The project may directly or indirectly impact Cooper's hawk (California Species of Special Concern), northern harrier, and white-tailed as well as other raptors and birds protected by the federal Migratory Bird Treaty Act and CDFG.

AVOIDANCE MEASURE BIO-3: MIGRATORY BIRDS AND RAPTORS

- Project construction is expected to occur during April and October of the construction year which is within the general avian nesting season (February 1 – August 31). The project requires removal of approximately 12 oak trees and 30 olive orchard trees. If feasible, the trees will be removed during the non-nesting season (September 1 – January 31). If not feasible, preconstruction surveys will be conducted during the breeding/nesting season (February 1 to August 31) by a qualified biologist no more than two weeks prior to start of project-related activities that may cause disturbance to active nests. If no active nests are found within the survey area, no further avoidance measures will be necessary. If active nest(s) are found, the qualified biologist will evaluate the situation and determine the appropriate non-disturbance buffer zone in consultation with the CDFG and the USFWS Migratory Bird Permit Office. If buffers are established and it is determined that project activities are resulting in nest disturbance, work will cease immediately and the CDFG and USFWS will be contacted for further guidance.

IMPACT BIO-4: The project may directly or indirectly impact hoary, pallid, and/or silver-haired bats if they are present in trees and/or structures in the project vicinity. The pallid bat is a California Species of Special Concern whereas the silver-haired and hoary bats are tracked by the CDFG.

AVOIDANCE MEASURE BIO-4: Prior to tree removals and/or construction activities, a bat roost survey will be conducted by a qualified biologist. If bats are found, CCCPWD will consult with CDFG and/or a bat specialist to develop appropriate avoidance and minimization measures based on factors such as roost type, species, present, colony size, and extend of estimated project-related impacts.

IMPACT BIO-5: The project may directly or indirectly impact San Francisco dusky-footed woodrat, a California Species of Special Concern, if they are present in the project area.

AVOIDANCE MEASURE BIO-5: Several woodrat nests were observed within the riparian woodland of the adjacent tributary during a habitat assessment conducted by a qualified biologist. While no significant impacts will occur to the banks of the tributary minor impacts could occur for the culvert replacements. A qualified biologist will conduct a pre-construction survey no more than 30 days prior to start of construction. If woodrat nests are present in the project area and are determined not to be occupied, the nest will be dismantled and relocated if it cannot be avoided. If the nest(s) are determined to be occupied CDFG will be consulted to determine measures to avoid disturbance or relocation of active nests.

IMPACT BIO-6: The project may directly or indirectly impact the American badger, a California Species of Special Concern, if they are present in the project vicinity.

AVOIDANCE MEASURE BIO-6: A qualified biologist will conduct a pre-construction survey no more than 30 days prior to start of construction. If badger dens are present within or near the project area and are determined not to be occupied, the den will be collapsed if it cannot be

avoided. If the den(s) are determined to be occupied CDFG will be consulted to determine the appropriate measures to avoid disturbance of active den(s).

The Mitigation and Monitoring Reporting Program (MMRP) attached to this document identifies when these measures will be implemented and the parties that are responsible for ensuring implementation of these measures. Project impacts will be **less than significant with incorporation of the proposed mitigation and avoidance measures**.

- b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

An unnamed tributary to Pinole Creek and surrounding riparian woodland adjoins the project segment along the south side of the road. Approximately 6 oak trees will be removed from the riparian corridor. The project will also minimally impact the bank of the tributary for the culvert replacements.

IMPACT BIO-7: The project will impact the adjacent riparian woodland habitat from the removal of approximately 6 oak trees and minor impacts to the bank of the tributary for the culvert replacements.

MITIGATION MEASURE BIO-2: Oak trees or other native species determined in consultation with CDFG will be planted within the riparian woodland in a section along the south side of the road where the road in this section will be shifted to the north. The number of trees to be replanted will be determined during consultation with CDFG.

MITIGATION MEASURE BIO-3: Sections of the bank that currently contain rock slope protection will be re-vegetated with native vegetation suitable for riparian banks. CDFG will be consulted to determine the appropriate re-vegetation plan.

The MMRP located in Appendix A identifies when these measures will be implemented and the parties that are responsible for ensuring implementation of these measures. Project impacts will be **less than significant with incorporation of the proposed mitigation and avoidance measures**.

- c) *Would the project have a substantial adverse effect on federally protected wetlands as defined (including, but limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Seasonal wetlands are located in a pasture south of the tributary along the east side of Bear Creek Road (ECORP 2010). The project will not impact these wetlands. However, an area adjacent to the seasonal wetlands has been identified as a potential construction staging area for equipment and/or material storage which could result in temporary indirect impacts.

IMPACT BIO-8: If the contractor chooses to use this potential staging area, construction staging activities have the potential to temporarily impact the seasonal wetlands.

AVOIDANCE MEASURE BIO-8: Environmentally sensitive area (ESA) fencing will be installed around the staging area to keep staging activities from encroaching onto the adjacent seasonal wetlands. In addition, project specifications will require the contractor to prepare and implement applicable best management practices (BMPs) for water quality and erosion control which will minimize potential indirect impacts.

Therefore, project impacts will be **less than significant with incorporation of the proposed avoidance measures**.

- d) *Would the project 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?*

The project area is located in Pinole Valley which provides a wildlife movement corridor in the area as the valley follows Pinole Creek from its headwaters at the western edge of the Briones Hills to San Pablo Bay approximately 10 miles to the northwest. While the project will not create barriers to fish or wildlife movement, construction of the project may have the potential to temporarily interfere with wildlife movement in the area from construction noise and the installation of wildlife exclusion fencing for the Alameda whipsnake avoidance measure. There will be no barrier to fish species as impacts to the tributary will be limited to the bank. The wildlife exclusion fence would restrict wildlife movement from entering the road area and the riparian woodland corridor would remain open for wildlife movement. Therefore, project impacts will be **less than significant**.

- e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The project will require removal of approximately 12 native oak trees and 30 olive orchard trees. While tree trimming and removal by the CCCPWD is not subject to the County Tree Ordinance, removal of the 6 oak trees in the riparian corridor along the south side of the road will be replaced as described in response to question b) above. Therefore, the project will have a **less than significant impact**.

- f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The project area is not located within an adopted Habitat Conservation Plan or other approved local, regional, or state habitat conservation plan. Therefore, the project will have **no impact**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 geological feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Regulatory Background

CEQA requires lead agencies to determine if a project will have an adverse impact on a significant cultural resource (includes historical and archaeological) (Public Resources Code Sections 21084, 21084.1, 21083.2). A resource is considered significant if it 1) is listed in or has been determined eligible for listing in the California Register of Historic Resources (CRHR); 2) is included in a local register of historical resources, as defined in Public Resources Code 5020.1(k); 3) has been identified as significant in an historical resources survey, as defined in Public Resources Code 5024.1(g); or 4) is determined to be historically significant by the CEQA lead agency [CCR Title 14, Section 15064.5(a)]. The following CRHR eligibility criteria needs to be considered when making a significance determination.

1. is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. is associated with the lives of persons important in our past;
3. embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual, or possesses high artistic values; or
4. has yielded, or may be likely to yield, information important in prehistory or history.

If a significant resource will be impacted, the lead agency must determine whether there is "substantial evidence" in the administrative record to support a finding of significant effect (Section 21080(e)). CEQA requires examination of mitigation measures or feasible project alternatives that would avoid or minimize any impacts or potential impacts.

Environmental Setting

The project segment is adjoined by a tributary to Pinole Creek and associated riparian woodland along the south side of the project segment. The land south of the tributary consists of annual grassland that is grazed by livestock. The land north of the project segment in the eastern portion of the project area consists of several structures used for residential occupation and a winery operation. The central portion of the survey area consists of a steep hill on the north side of the road and a residential structure. The western portion of the project area consists of an olive orchard and vineyard along the north side of the road.

Site Assessment

In order to determine if the project area contains potential significant cultural and/or historical resources, a qualified cultural resource specialist conducted research of recorded cultural resource sites and surveys as well as historic maps and literature at the Northwest Information Center (NWIC) at California State University, Sonoma. The records search covered a one-mile radius of the project area. The results of the records indicated that there are no recorded sites within or near the project area. Only a small portion (less than one acre) of the survey area has been previously surveyed for cultural resources by professional archaeologists (ECORP 2011b).

The Contra Costa County Historical Society (CCCHS) and the Native American Heritage Commission (NAHC) were also contacted for information on recorded sites. No response was received from the CCCHS. The NAHC did not find any recorded sites in the database search but provided a list of local Native American representatives that may have knowledge of unrecorded sites. The listed Native American representatives were notified of the project via certified mail and follow up emails or phone calls. A couple of the representatives requested a copy of the cultural resource assessment results and notification if cultural resources are found and one representative recommended monitoring in areas along the creek (ECORP 2011b).

A field survey of the ground surface was also conducted for indications of surface or subsurface cultural resources. The survey area included the study area used for the biological habitat assessment (Figure 3). No archaeological resources were found during the field survey. Several structures along the north side of the road were determined not to have potential historical significance; dilapidated structures associated with an old schoolhouse from the Briones Valley School District parcel located south of the tributary were recorded. The project will not impact any structures within the survey area.

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

No recorded historical resources were identified from the NWIC records search or from contacts made with the CCCHS. Historical resources were not found from the field survey with the exception of the structures from the Briones Valley School District parcel located south of the tributary. The project will not impact these structures. Since there is the potential of encountering unrecorded resources, project contract specifications stipulate that construction shall stop activity in the area if potential historical resources (i.e., structure/building remains, bottle glass, ceramics, etc.) are encountered until a qualified archaeologist evaluates the findings. Therefore, project impacts will be **less than significant**.

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

No recorded archaeological resources were identified from the NWIC records search results or contacts made with the CCCHS, NAHC, and Native American representatives. No

archaeological resources were found from the field survey. While no archaeological resources were identified, there is the potential of encountering unrecorded archaeological resources. Project contract specifications stipulate that construction shall stop activity in the area if potential archaeological resources (i.e., unusual amounts of shell, stone tools, animal bone, etc.) are encountered until a qualified archaeologist evaluates the findings. Therefore, project impacts will be **less than significant**.

- c) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?*

Based on the records search results and the field survey, no unique paleontological resources or geologic features (i.e., fossil remains) were identified within the project area. Project contract specifications stipulate that construction shall stop activity in the area if such potential resources are encountered until a qualified paleontologist evaluates the findings. Therefore, project impacts will be **less than significant**.

- d) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

No formal cemeteries are present within or adjacent to the project area. The NAHC was contacted to determine if there are any recorded Native American burial grounds and/or sacred land sites in the project vicinity. The NAHC reported that no recorded sites occur in the vicinity of the project area and contacts made with the NAHC-listed Native American representatives did not indicate that there are Native American burial sites in the area.

In accordance with the California Health and Safety Code (Section 7050.5), if human remains are uncovered during ground disturbances, project contract specifications stipulate that the Contractor stop work in the area and immediately notify the CCCPWD Resident Engineer. CCCPWD will immediately notify the respective County Coroner and a qualified archaeologist. The County Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of discovery. If the County Coroner believes, or has reason to believe, that the human remains are those of a Native American, the County Coroner is required to contact the NAHC within 24 hours of making that determination. The archaeologist and NAHC designated Most Likely Descendent will determine the ultimate treatment and disposition of the remains. Therefore, project impacts will be **less than significant**.

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ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?	☐	☐	☒	☐
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 geological 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?	☐	☐	☐	☒

Environmental Setting

The project area is situated in the central portion of the Coast Ranges of Northern California east of San Francisco Bay and south of San Pablo Bay at an elevation ranging from approximately 370 feet to 470 feet above mean sea level. The general topography of the project vicinity is characterized by rounded hills and swales with drainage courses and an overall westerly slope.

The area landforms are a product of uplift events associated with the formation of the Coast Ranges, local fluvial and colluvial erosion processes, and alterations to the landscape as a result of previous development activities (The WestMark Group 2011).

Geology

The generalized geology of the project area consists of a mixture of consolidated and unconsolidated sediments (Quaternary Alluvium) and hard marine sandstone and shale overlain by soft non-marine (Tertiary Formations) units (Contra Costa County 2005d). The underlying rock units in the area belong to the San Pablo Group, composed of marine sandstone, mudstone, siltstone, and shale with minor tuff. Surface exposures of the reported rock units (sandstone) were observed on the hillside north of the road (The WestMark Group 2011).

Soil

Soil types in the project area consists of Clear Lake Clay (0 to 2% slopes; poorly drained soils permeability is slow; runoff is very slow, no erosion hazard where soil is tilled and exposed; soil is subject to flooding once every 7 to 10 years unless surface drainage is provided; high shrink-swell potential), Cropley Clay (2 to 5% slopes; moderately well-drained soils in small upland valleys; permeability is slow; runoff is slow; erosion hazard is slight where the soil is tilled and exposed), Garretson Loam (2 to 5% slopes; well-drained soil on floodplains of small creeks; runoff is very slow, erosion hazard is none to slight where the soil is tilled and exposed), Lodo Clay Loam (9 to 30% slopes; somewhat excessively drained upland soils underlain by soft sandstone and shale; runoff is medium to rapid; erosion hazard is moderate to high where soil is bare), and Tierra Loam (2 to 9% slopes; moderately well-drained upland terrace soils; permeability is slow; runoff is medium; erosion hazard is moderate where soils is bare) (Natural Resource Conservation Service [NRCS] 1977).

Seismic Hazards

Contra Costa County is located within a region of high seismicity; the San Francisco Bay Region has been impacted by severe earthquakes during historic time (Contra Costa County 2005d). In order to provide safety of structures for human occupancy, the Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazards. The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. The project area is located approximately 5 miles east of the Hayward Fault Zone as mapped on the California Division of Mines and Geology, Geologic Map of the San Francisco-San Jose Quadrangle (1990).

A geotechnical investigation will be conducted of the project area to document subsurface geotechnical conditions, provide analysis of anticipated site conditions as they pertain to the project, and to recommend design and construction criteria as well as to establish a geotechnical baseline that may be used to assess changed conditions that may be encountered during construction.

- a) *Would the project 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?*

The nearest fault is the Hayward with the northern end of the fault being mapped approximately 7 miles southwest of the project area. The cut slope along the north side of

the road has the potential to move during a major seismic event. A geotechnical investigation will determine the seismic stability of the project area (primarily the cut slope) in order to provide recommended stability design measures. The project design and construction will incorporate the recommended measures in accordance with local design practice. Therefore, project impacts will be **less than significant**.

ii) Strong seismic ground shaking?

As discussed above, the nearest fault is the Hayward, which has the potential to cause seismic ground shaking in the project area. The duration and intensity of shaking will depend upon both the distance and the magnitude. However, the project area is located on a hard bedrock geologic unit that has the lowest damage susceptibility especially when structures and foundation materials are sound and critical slopes are stable (Contra Costa County 2005d). Further, as mentioned, the geotechnical investigation will provide recommended stability design measures. The project design and construction will incorporate the recommended measures in accordance with local design practice. Therefore, project impacts will be **less than significant**.

iii) Seismic-related ground failure, including liquefaction?

Historically, ground failure in its various forms, including liquefaction, has been a problem in areas of continually wet, unconsolidated geologic units. Areas in Contra Costa County that are most susceptible to ground failure include the geologically young sediments of the San Francisco Bay estuary, including the Delta lowlands (Contra Costa County 2005d). The project vicinity primarily has a low liquefaction potential with the exception of an area along the east side of Bear Creek Road and along the creek corridor west of Bear Creek Road (Contra Costa County 2005d). In order to ensure the stability of the project design, a geotechnical investigation will be conducted which will provide recommended stability design measures. The project design and construction will incorporate the recommended measures in accordance with local design practice. Therefore, project impacts will be **less than significant**.

iv) Landslides?

The major geological hazards aside from earthquake rupture and direct effects of ground shaking are unstable slopes and reclaimed wetlands and marsh fill areas. Slopes may suffer landslides, slumping, soil slips, and rockslides. Reclaimed wetlands, whether filled or not, experience amplified lateral and vertical movements which can be damaging to structures, utilities, and transportation routes and facilities (Contra Costa County 2005d).

Based on United States Geological Survey (USGS) landslide maps the project vicinity contains landslide deposits (Contra Costa County 2005d). In order to ensure the stability of the project design, a geotechnical investigation will be conducted which will provide recommended stability design measures. The project design and construction will incorporate the recommended measures in accordance with local design practice. Therefore, project impacts will be **less than significant**.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Grading and excavation will result in some changes in topography associated with the cut slope along the north side of the road which will include temporary loss of topsoil and the potential for soil erosion from wind. Project contract specifications will require a water pollution control plan which will include standard dust control and erosion control practices to be implemented during

construction, including, but not limited to, general watering of exposed areas and/or use of chemical stabilizers. Permanent rock slope protection that will be placed at the culvert outlets along the south side of the road will minimize exposure of bare soils to the tributary.

Upon project completion, all areas left exposed will be re-seeded and re-vegetated with species appropriate to the area in order to stabilize exposed soil. Therefore, project impacts will be **less than significant**.

- c) *Would the project 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?*

Localized problems for building on Quaternary Alluvium sediments include expansive clays, hillside earthflows, and unstable cut slopes whereas slope stability conditions for the Tertiary Formations sediments range from good (marine sandstone) to poor (Orinda Formation) (Contra Costa County 2005d). In order to ensure the stability of the project design, a geotechnical investigation will be conducted which will provide recommended stability design measures. The project design and construction will incorporate the recommended measures in accordance with local design practice. Therefore, project impacts will be **less than significant**.

- d) *Would the project 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?*

Expansive soils swell when they absorb water and shrink as they dry. The basic cause of expansion is the attraction and absorption of water in the expandable crystal structures of clays. These areas must be recognized because they can cause cracking to foundations during wet or dry periods (Contra Costa County 2005d).

As discussed above, the project area consists of a mixture of consolidated and unconsolidated sediments (Quaternary Alluvium) which includes expansive clays, and hard marine sandstone and shale overlain by soft non-marine (Pliocene) units. In order to ensure the stability of the project design, a geotechnical investigation will be conducted which will provide recommended stability design measures. The project design and construction will incorporate the recommended measures in accordance with local design practice. Therefore, project impacts will be **less than significant**.

- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

Septic tanks and alternative wastewater disposal systems are not part of the project. Therefore, the project will have **no impact**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time (Office of Planning and Research [OPR] 2008). There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of greenhouse gases (GHGs) that keep the earth's surface warm by trapping heat in the atmosphere. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. The major GHGs that are released from human activity include carbon dioxide (CO₂), methane (CH₄), and nitrous oxides (NO_x). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies) (OPR 2008b).

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, recognized that California is the source of substantial amounts of GHG emissions which poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. Potential adverse impacts of global warming include severe air quality problems, a reduction in the quality and supply of water from the Sierra snowpack, a rise in sea levels causing the displacement of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems (Health and Safety Code, section 38501). Other potential threats include increased heat and ozone days, forest fires, and droughts. In order to avoid these consequences, AB 32 established a state goal of reducing GHG emissions to 1990 levels by the year 2020 (a reduction of approximately 25 percent from forecast emission levels) with further reductions to follow (OPR 2008b).

In order to address global climate change associated with air quality impacts, CEQA statutes were amended to require evaluation of greenhouse gas (GHG) emissions (global pollutants) which includes criteria air pollutants (regional pollutants) and toxic air contaminants (local pollutants). As a result, the BAAQMD adopted CEQA thresholds of significance for criteria air pollutants and GHGs, and issued updated CEQA guidelines to assist lead agencies in evaluating air quality

impacts to determine if a project's individual emissions would be cumulatively considerable. Various modeling tools are used to estimate emissions based on the type of project (i.e., land use developments, linear transportation and utility projects) (BAAQMD 2010a).

- a) *Would the project generate greenhouse gas emissions either directly or indirectly, that may have a significant impact on the environment?*

The project will not generate additional GHGs as the road will not introduce additional travel lanes. However, construction of the project will result in temporary increases of air pollutant concentrations from construction equipment and asphalt paving operations (criteria air pollutants) and soil disturbance (PM dust). Approximately 8.5 acres of surface area will be disturbed and approximately 4,000 cubic yards of soil will be removed if the cut slope design is selected or 1,500 cubic yards of soil for the retaining wall design. Project construction will take approximately two months to complete. The types of construction equipment that would be used include excavators, haul trucks, crushers, and pavers.

Construction-related activities generate criteria air pollutants including carbon monoxide, sulfur dioxide, particulate matter (PM_{2.5}, PM₁₀) as well as precursor emissions such as reactive organic gases (ROG) and oxides of nitrogen (NO_x) and GHGs from exhaust, fugitive dust, and off-gas emissions (i.e., asphalt paving). The BAAQMD CEQA Air Quality Guidelines (Guidelines) provides preliminary screening criteria to determine if project construction-related emissions would result in a less-than-significant impact as outlined in item a) of the Air Quality section.

While the BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions, sources of construction-related GHGs only include exhaust (carbon dioxide, nitrous oxide) for which the same detailed guidance as described for criteria air pollutants and precursors should be followed. As discussed in the Air Quality section, the project met the BAAQMD preliminary screening criteria for construction-related emissions. Therefore, project impacts will **be less than significant**.

- b) *Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

As discussed above and in the Air Quality section, implementation of the air pollution control measures will minimize air quality impacts which are consistent with the BAAQMD air quality plans on achieving GHG reductions. Therefore, project impacts will be **less than significant**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?	☐	☐	☒	☐

ISSUES:	Less Than Significant			
	Potentially Significant Impact	With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Regulatory Background

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Section 66261.10, Title 22 of the California Code of Regulations (CCR) as:

A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies. Under Government Code Section 65962.5, the California Department of Toxic Substances Control maintains a list of hazardous substance sites. This list, referred to as the "Cortese List," includes CALSITE hazardous material sites, sites with leaking underground storage tanks, and landfills with evidence of groundwater contamination.

Numerous federal and state laws regulate hazardous materials and waste such as the California Environmental Protection Agency (CalEPA), California Department of Toxic Substance Control (DTSC), and California Department of Health Services (CDHS). However, depending on the waste, the California Air Resources Board (CARB) or the State Water Resources Control Board (SWRCB) or another agency may be involved. Locally, the Contra Costa Health Services (CCHS), Hazardous Materials Program serves area residents by responding to emergencies and monitoring hazardous materials.

As discussed in the Air Quality section, naturally-occurring asbestos (NOA) which is typically associated with serpentinite and ultramafic rocks was designated a toxic air contaminant by the California Air Resources Board in 1986. The state-mandated Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations is enforced by the Bay Area Air Quality Management District (BAAQMD) in order to reduce public exposure to NOA from construction and mining activities that emit dust which may contain NOA. The ATCM requires that projects where NOA is likely to be found implement the best available dust mitigation measures in order to reduce and control dust emissions (BAAQMD 2010). The project area is not located within an area identified as having rocks associated with NOA (The WestMark Group 2011).

- a) *Would the project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?*

The project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials as the purpose of the project is to improve the design features of an existing road. However, the project has the potential to release hazardous materials as a result of accidental petroleum spills from construction equipment operation during project construction. The project contract specifications require the contractor to implement best management practices (BMPs) such as placement of stationary equipment over drip pans and having spill clean-up materials on-site. Therefore, potential impacts will be **less than significant**.

- b) *Would the project 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?*

As discussed above, the project has the potential to release hazardous materials as a result of accidental petroleum spills from construction equipment operation during project construction. The project contract specifications require the contractor to implement BMPs such as placement of stationary equipment over drip pans and having spill clean-up materials on-site. Therefore, project impacts will be **less than significant**.

- c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?*

There are no existing or proposed schools within one quarter mile of the project area. Further, the project will not emit hazardous emissions or handle hazardous materials. Therefore, the project will have **no impact**.

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

The project area and surrounding properties were not identified on any lists maintained by the CalEPA, California DTSC, or CCHS, Hazardous Materials Program databases (The WestMark Group 2011). Further, field observations did not reveal evidence of contamination. Therefore, there will be **no impact**.

- e) *For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?*

The project area is not located within two miles of a public airport. Therefore, the project will have **no impact**.

- f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

The project is not located in the vicinity of a private airstrip. Therefore, the project will have **no impact**.

- g) *Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?*

Construction of the project will temporarily require one-way traffic control with an approximate two-week road closure just east of Bear Creek Road to just west of Rancho la Boca Road. A detour plan would require motorists to travel from Reliez Valley Road to Bear Creek Road via an alternate route (e.g., Happy Valley Road-Deer Hill Road-Pleasant Hill Road; 8.8 miles/15 minutes). Local emergency response services will be contacted prior to construction to coordinate alternate routes. In addition, aside from the period of road closure, traffic control measures around the work area will ensure through traffic for emergency vehicles. Therefore, project impacts will be **less than significant**.

- h) *Would the project 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?*

The project area is located within a moderate to high fire hazard zone (California Department of Forestry and Fire Protection 2011). The project does not consist of development of structures that would expose people or structures to a significant loss, injury, or death from wildland fires as the purpose of the project is to provide safety improvements of an existing roadway. Further, project contract specifications require that the contractor prepare a fire hazard safety plan. Therefore, the project will have **no impact**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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 floodplain hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Environmental Setting

Hydrological Resources

An unnamed tributary to Pinole Creek adjoins the project segment along the south side of the road. Pinole Creek is a perennial creek that drains a 9,705-acre watershed in western Contra Costa County (Contra Costa Watershed Atlas 2003). The headwaters of Pinole Creek are located in the Briones Hills located to the southwest at an elevation of 1,240 feet. The creek follows a northwesterly trend for approximately 11 miles before reaching its outlet at San Pablo Bay. The central reaches of Pinole Creek and its tributaries meander through a broad, open valley and have a relatively intact flood plain (Contra Costa Watershed Atlas 2003). The drainage within the study area consist primarily of sheet flow toward Alhambra Valley Road and the tributaries to Pinole Creek. Runoff from the roads and agricultural fields flows into the roadside ditches on the northern side of the road, which are connected via culverts to Pinole Creek or its tributaries. Both tributaries are connected via culverts under the road to Pinole Creek. The seasonal wetlands found within the annual grassland are adjacent to the unnamed tributary on the southern side of Alhambra Valley Road (ECORP 2011a).

Groundwater flow is considered to be governed by topography, subsurface geologic conditions (rock units/aquifers), and geologic contacts. Hydraulic gradient information for the project area has not been reported, however the gradient direction is likely to be toward the northwest based on the topographic profile and stream gradient of the area (The WestMark Group 2011).

100-year Floodplain

These are areas that are subject to flooding in a stream that is likely to occur once every 100 years. The Federal Emergency Management Agency (FEMA) conducts flood elevation studies to determine flood prone areas which are mapped for local communities to administer floodplain management regulations and mitigate flood damage as well as to determine flood insurance rates. The project area is immediately adjacent to a designated 100-year floodplain zone (tributary to Pinole Creek east of Bear Creek Road and Pinole Creek west of Bear Creek Road) (FEMA 2009).

a) Would the project violate any water quality standards or waste discharge requirements?

Pinole Creek is listed as an impaired water body in the State Water Resources Control Board (SWRCB) 303(d) list (USEPA 2010). Diazinon, a compound found in insecticides, is the

pollutant of concern. The project will not violate any water quality standards or waste discharge requirements as there will be no in-creek work or discharge into the creek. Although, the culvert replacements may minimally impact the creek due to incidental fall back. Best management practices (BMPs) for water quality and erosion control will be implemented during construction activities during the culvert replacements to minimize incidental fallbacks into the creek. Further, the project will comply with the National Pollution Discharge Elimination System (NPDES) Construction General Permit which requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP) to identify BMPs that will reduce or minimize discharge of pollutants to be implemented during construction activities. Therefore, project impacts will be **less than significant**.

- b) *Would the project 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)?*

The project will not involve any withdrawals from an aquifer or groundwater table. Therefore, the project will have **no impact**.

- c) *Would the project 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?*

The project will not alter the course of a stream or river nor will it substantially alter the existing drainage pattern of the area that would result in substantial on-site or off-site erosion or siltation. The existing roadside ditches in the project area will be relocated along the new road alignment and will be lined with rock which will help to minimize erosion or siltation into nearby culverts that drain into the adjacent tributary. Further, applicable BMPs for water quality and erosion control will be implemented during this activity and therefore, project impacts will be **less than significant**.

- d) *Would the project 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 that would result in flooding on- or off-site?*

As discussed above, the project will not substantially alter the existing drainage pattern of the area. The existing roadside ditches in the project area will be relocated along the new road alignment and will be lined with rock which will help to reduce stormwater flow velocity. Therefore, project impacts will be **less than significant**.

- e) *Would the project 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?*

The project will not create or contribute runoff water which would exceed the capacity of the existing stormwater drainage system in the area. The existing roadside ditches in the project area will be relocated along the new road alignment and will be lined with rock which will help to minimize pollution runoff into the nearby culverts that drain into the adjacent tributary. Therefore, project impacts will be **less than significant**.

- f) *Would the project otherwise substantially degrade water quality?*

No additional impacts other than those discussed above are anticipated. Therefore, project impacts will be **less than significant**.

- g) *Would the project 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?*

The project does not include the construction of housing. Therefore, the project will have **no impact**.

- h) *Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?*

The project does not include the construction of structures. Therefore, the project will have **no impact**.

- i) *Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?*

The project does not include the construction or alteration of any levees or dams and would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam. No levees are present within project vicinity. Two dams associated with the Briones and San Pablo reservoirs are located approximately 5 miles southwest of the project area. Dam safety is regulated by the State Department of Water Resources, Division of Safety of Dams. The Office of Emergency Services has produced inundation maps and emergency plans covering various scenarios of dam failure in the County (Contra Costa County 2005e). The project area is not located within an area that would be inundated from a dam failure (ABAG 1995). Therefore, the project will have **no impact**.

- j) *Would the project be subject to inundation by seiche, tsunami or mudflow?*

The project area is not located within an area subject to seiches or tsunamis. Debris flow deposits could be present on the face of the hills above the road. In order to ensure the stability of the project, design and construction of the project will incorporate the recommended measures in accordance with local design practice. Therefore, project impacts will be **less than significant**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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? | ☐ | ☐ | ☐ | ☒ |

State law requires every city and county to formulate and adopt a Land Use Element which through the development of policies, plans, and standards, shows the proposed general distribution, location, density, and intensity of land uses for all parts of the jurisdiction. As with other elements of the General Plan, the goals, directive policies, and implementation measures are mandatory, rather than advisory. Under state law, many land use approvals made by planning commissions and boards of supervisors, including rezoning, subdivisions, development agreements, redevelopment and specific plans, park dedications, and others, must be consistent with and conform to the jurisdiction's General Plan (Contra Costa County 2005f).

a) Would the project physically divide an established community?

The project will not physically divide an established community as the project will improve a segment of an existing road for safety purposes and provide widened shoulders. Therefore, the project would have **no impact**.

b) Would the project 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?

The project does not conflict with any applicable land use plan, policy or regulation; the project is consistent with the Transportation and Circulation Elements goals and policies of the County General Plan:

- Roadway and Transit Goals #5-A: To provide a safe, efficient and balanced transportation system)
- Roadway and Transit Policy #5-9: Existing circulation facilities shall be improved and maintained by eliminating structural and geometric design deficiencies, and

- Roadway and Transit Policy #5-17: The design and the scheduling of improvements to arterials and collectors shall give priority to safety over other factors including capacity (Contra Costa County 2005f).

Therefore, the project will have **no impact**.

- c) *Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?*

There is no applicable habitat conservation plan or natural community conservation plan for the project area. Therefore, the project will have **no impact**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Mineral resources such as crushed rock, sand, among other resources, are important minerals in the region as they provide the necessary components for construction materials including asphalt and concrete for current and future development in our region. The most important mineral resources that are currently mined in the County include diabase near Mt. Zion on the north side of Mt. Diablo, which provides crushed rock primarily for roadbase and streambank stabilizations; domegine sandstone, located in the eastern portion of the County just south of Camino Diablo and east of Vasco Road in the Byron area. which is the sole deposit in the state and an important resource nationally, primarily used by Pacific Gas & Electric Company as trench backfill and is a primary ingredient in the manufacture of heat-resistant glass used in the national space program; and shale in the Port Costa area, which has been designated for protection by the County General Plan (Contra Costa County 2005g).

- a) *Would the project 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?*

There are no mapped mineral resource areas in the project area. Therefore, the project will have **no impact**.

- b) *Would the project 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 mapped mineral resource areas in the project area. Therefore, the project will have **no impact**.

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ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 groundbourne 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 effects of noise on people include subjective effects of annoyance, nuisance, and dissatisfaction. Persistent and escalating noise sources can affect one's overall health including stress-related illnesses, high blood pressure, hearing loss, speech interference, sleep disruption, and lost productivity (USEPA 2010). The Noise Control Act of 1972 directed EPA to promote an environment that is free from noise that could jeopardize human health and welfare. The Quiet Communities Act of 1978 amended the Noise Control Act to encourage noise control programs at the State and community level (HUD 2010). Section 65302(f) of the California Government Code requires that a noise element be prepared as a part of all city and county general plans. The Noise Element of a General Plan provides a basis for comprehensive local programs to control and abate environmental noise and to protect citizens from excessive exposure. The California Department of Health Services prepared Noise Element Guidelines which defines noise metrics, discusses the

process of noise element development, and present land use compatibility guidelines based on various noise levels (California Environmental Resources Evaluation System 2010).

The main contributors to a community noise problem are transportation sources such as highways, railroads, and airport as they are the most pervasive and continual. Other temporary noise sources can add to the noise problem such as a jackhammer at a construction site. The dynamic of the noise problem are based on the relationship between the noise source, the person or place exposed to the noise (receiver or sensitive receptor) and the path the noise will travel from the noise source to the receiver/sensitive receptor. Since the ear is not as sensitive at some frequencies and sound pressure level as at others, several methods of expressing average noise levels over a period of time have been developed (HUD 2010).

Sound intensity is typically measured in decibels (dB) from a range of 0 (threshold of hearing) to 140 (threshold of pain); the higher the decibels, the greater the intensity. For example, a decibel level of 10 is the sound of leaves rustling, a decibel level of 30 is a whisper, a decibel level of 60 is freeway traffic, a decibel of 90 is a noisy urban street, and a decibel level of 140 is a nearby jet engine. Prolonged exposure from at least 75 dB increases tension affecting blood pressure, heart function, and nervous system; prolonged exposure from at least 85 dB causes physical damage to human hearing; above 90 dB results in permanent cell damage, at 140 dB feeling of pain, and 190 dB will rupture the eardrum and permanently damage the inner ear (HUD 2010).

In general, construction equipment generates noise levels ranging from about 76 to 88 decibels at 50 feet from the noise source, with slightly higher levels of about 88 to 91 decibels for certain types of earthmoving and impact equipment (USEPA 1971). Construction activities for this project will have comparable noise levels. In general, project contract specifications require the contractor ensure that stationary and mobile construction equipment are properly tuned and maintained to minimize noise impacts as well as eliminating unnecessary equipment idling and placement of equipment such that emitted noise is directed away from sensitive noise receptors, if feasible.

The Contra Costa County General Plan (2005) does not have a noise ordinance and therefore, does not specify construction or operational noise level limits. However, the Plan specifies that construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours. Construction activities are generally limited to the hours between 7 a.m. to 7 p.m.

The land uses in the general area consist primarily of rural residences and associated agricultural and grazing lands, and restricted open space part of the East Bay Municipal Utility District (EBMUD) watershed lands. Several single-family residences are located along the north side of the project segment. The closest residential community is located approximately two miles to the east in the City of Martinez.

- a) *Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?*

The project will not increase ambient noise levels above what already exists. Construction of the project will temporarily increase the noise level in the project. Construction of the project will take approximately two months to complete. While the project vicinity is rural in nature, there are a few residences along the north side of the project segment. The County General Plan provides a general guideline of conducting construction activities during the hours of the day that are not noise-sensitive for adjacent land uses and should occur during normal work hours

of the day to provide relative quiet during the more sensitive evening and early morning periods. Construction activities would occur during the daytime hours of the work week. Further, Project contract specifications require that the contractor complies with applicable local sound control and noise level rules, regulations, and ordinances as well as require the use of properly tuned and muffled equipment to minimize noise. Therefore, project impacts will be **less than significant**.

- b) *Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

The project will not result in generation of excessive groundbourne vibration or noise levels than what exists currently. Construction activities include operation of large pieces of equipment (e.g., graders, excavators) that may result in the periodic temporary generation of groundborne vibration. While the project vicinity is rural in nature, there are a few residences along the north side of the project segment. Construction of the project will take approximately two months to complete. Construction activities would occur during the daytime hours of the work week. Groundborne vibration as a result of equipment movement and operations would not be continuous. Therefore, project impacts will be **less than significant**.

- c) *Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

The project will not contribute to a substantial permanent increase in the ambient noise levels in the project vicinity above than what exists currently as the project will not create additional travel lanes. Therefore, the project will have **no impact**.

- d) *Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

As discussed above, construction activities will result in a temporary increase in ambient noise levels above what exists currently. While the project vicinity is rural in nature, there are a few residences along the north side of the project segment. Construction will occur during the daytime hours of the work week Further, Project contract specifications require that the contractor complies with applicable local sound control and noise level rules, regulations, and ordinances as well as require the use of properly tuned and muffled equipment to minimize noise. Therefore, project impacts will be **less than significant**.

- e) *For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The project area is not located within two miles of an airport. Further, the project would not create additional permanent noise levels. Therefore, the project will have **no impact**.

- f) *For a project located 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 area is not located in the vicinity of a private airstrip. Further, the project would not create additional permanent noise levels. Therefore, the project will have **no impact**.

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ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?	☐	☐	☐	☒

Section 15126.2(d) of the CEQA Guidelines states that the lead agency shall discuss ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment including the removal of obstacles that would encourage population growth. Increases in the population may stress existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.

- a) *Would the project induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?*

The project will not directly or indirectly induce substantial population growth as the project will improve a segment of an existing road for safety purposes and provide widened shoulders. The project will not increase the number of travel lanes. Therefore, the project will have **no impact**.

- b) *Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

The project will not displace substantial numbers of existing housing, necessitating the construction of replacement elsewhere as the project will improve a segment of an existing road for safety purposes and provide widened shoulders. Further, the project vicinity does not contain housing. Therefore, the project will have **no impact**.

- c) *Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

The project will not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere as the project will improve a segment of an existing road for safety purposes and provide widened shoulders. Therefore, the project will have **no impact**.

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ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of 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?	☐	☐	☐	☒

The Contra Costa Fire Protection District provides fire protection services and emergency services for west Contra Costa County (Contra Costa County 2005j). The Contra Costa County Sheriffs Department provides general public safety and law enforcement services in unincorporated areas of Contra Costa County (Contra Costa County 2005j). The project area is located in the Martinez Unified School District.

The project will not result in substantial adverse physical impacts to existing service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities as it will not result in a new development requiring additional responsibilities from these public services. Therefore, the project will have **no impact**.

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ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?	☐	☐	☐	☒
a) <i>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?</i> The project will not result in an increase of the use of existing parks in the area and does not include the construction of any recreational facilities. Therefore, the project will have no impact.				
b) <i>Does the project include recreational facilities, or require the construction or expansion of existing facilities, which might have an adverse physical effect on the environment?</i> The project does not include the construction of any recreational facilities and would not require the construction or expansion of recreational facilities. Therefore, the project will have no impact.				

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ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC				
Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard 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) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Alhambra Valley Road is an arterial road that connects Highway 680 and Highway 4 in the Central County and Highway 80 in West County. Arterial roads move traffic from freeways, expressways, or collectors and are part of an integrated system of major through roadways (Contra Costa County 2005k). The most recent average daily traffic (ADT) count for this segment of Alhambra Valley Road is from December 2008. The east leg of the Bear Creek Road/Pereira Road intersection is 994 ADT in both directions; the west leg of the intersection is 718 ADT in both directions. Traffic peaks occur between 8 a.m. and 9 a.m. and 5 p.m. and 6 p.m. (CCPWD 2011)

Construction would occur from Monday and Friday between 7 a.m. and 5 p.m. Construction of the project will temporarily require one-way traffic control for the majority of the project. If feasible, one-way traffic control will begin outside of the peak commute hours to minimize delays to commuters.

In addition, a full road closure from just east of Bear Creek Road to just west of Rancho la Boca Road is anticipated for approximately two weeks. A detour plan would require motorists to travel from Reliez Valley Road to Bear Creek Road via an alternate route (e.g., Happy Valley Road-Deer Hill Road-Pleasant Hill Road; 8.8 miles; 15 minutes). Residences and motorists that use the road will be notified in advance of construction as follows:

- Local residents will be notified by letter a minimum of 10 calendar days in advance of the construction start date.
- A press release will be run in local newspapers before construction.
- Three (3) portable changeable message signs will be installed at least 14 calendar days in advance of construction to notify motorists of the detour period.
- Detour signs will be installed along the detour route to direct motorists prior to and during full road closure.

- a) *Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?*

The project will not cause an increase in traffic to what already exists as the project will not increase the number of travel lanes. Rather, the project will improve a segment of an existing road for safety purposes and provide widened shoulders. While there will be additional traffic generated during project construction from trucks, the traffic will be temporary and insignificant. Therefore, project impacts will be **less than significant**.

- b) *Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?*

As discussed above, the project will not cause an increase in traffic to what already exists as the project will not increase the number of travel lanes. Rather, the project will improve a segment of an existing road for safety purposes and provide widened shoulders. While there will be additional traffic generated during project construction from construction-related vehicles and increased traffic flow on roads of the proposed detour route during the anticipated two-week full road closure, the traffic increases are temporary and considered insignificant because there are additional alternate routes around the Alhambra Valley Road closure including Highway 4 to Highway 80. Therefore, project impacts will be **less than significant**.

- c) *Would the project 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?*

The project will not result in a change in air traffic patterns as there will be no increase in traffic levels or change in location that would pose a substantial safety risk. Therefore, the project will have **no impact**.

- d) *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The project will not substantially increase hazards due to a design feature as the purpose of the project is to improve the safety of the road. The construction area could result in driving hazards; however traffic control measures such as advanced notifications, on-site flaggers directing traffic through the construction area, temporary signage of construction zone speed

limits, and other related construction zone safety precautions will minimize driving hazards. Therefore, the project will have a **less than significant impact**.

e) Would the project result in inadequate emergency access?

The project would not result in inadequate emergency access. Local emergency response services will be contacted by the construction contractor to coordinate alternate routes before construction begins. In addition, traffic control measures during construction will provide access for emergency vehicles and the full width of the unfinished roadway will be made passable and open for use by local and emergency traffic at the end of each working day. Therefore, project impacts will be **less than significant**.

f) Would the project result in inadequate parking capacity?

While the project area does not contain any designated parking areas, there is an area along the north side of the road in the eastern portion of the project area that provides parking for vehicles and equipment associated with the winery operation and on-site residences. The project contractor will coordinate with the owner to identify alternative parking areas and to ensure access during construction. Therefore, project impacts will be **less than significant**.

g) Would the project conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The project will not conflict with adopted policies, plans or programs supporting alternative transportation as Alhambra Valley Road has been identified as a planned Class III bicycle facility route between Martinez and Pinole (Contra Costa Transportation Authority 2009b). Class III bicycle facilities share the road with motorists and pedestrians by use of right-of-ways designated with signs or permanent markings. The project will provide wider shoulders and bike route signs to achieve the County goals. Therefore, the project will have **no impact**.

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ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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 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?	☐	☐	☐	☒

Water Supply

The project area is located within the EBMUD water service area (Contra Costa County 2005I).

Wastewater Treatment

The project area is not located within a service area due to its location in a rural area, which relies on septic tanks and leach fields (Contra Costa County 2005I).

Solid Waste

Solid waste disposal in the project area is serviced by the Richmond Sanitary Service (Pers. Comm. CCCDC 2009).

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

The project will not produce wastewater. Therefore, the project will have **no impact**.

- 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?*

The project does not include construction of new water or wastewater treatment facilities or expansion of existing facilities. Therefore, the project will have **no impact**.

- 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?*

The project will replace several existing culverts that extend from the north side of the road to the south side of the road that drains area runoff into the adjacent tributary. In addition, the existing roadside ditches will be relocated upon project completion. Water quality control practices will be implemented during construction to minimize impact to the adjacent tributary. The roadside ditches will be placed with rock which will minimize the runoff velocity and therefore allow contaminants to settle out. Therefore, the project will have a **less than significant impact**.

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

The project will not require water service. Therefore, the project will have **no impact**.

- e) *Result in a determination by the wastewater treatment provider that 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?*

The project does not require wastewater treatment services. Therefore, the project will have **no impact**.

- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

The project will not generate the need for a new solid waste facility. However, waste such as asphalt and concrete will be generated by the excavation of existing roadway where necessary to accommodate placement of the new pavement overlay. Project contract specifications will require that the contractor dispose of solid waste in accordance with federal, state and local regulations. Therefore, the project will have a **less than significant impact**.

- g) *Comply with federal, state and local statutes and regulations related to solid waste?*

The project would conform to all applicable state and federal solid waste regulations. Therefore, the project will have **no impact**.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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? ☐ ☐ ☐ ☒

- 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, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?*

The project will not degrade the quality of the environment. The project will not substantially reduce the habitat or affect populations of any fish or wildlife species (see Section IV) or eliminate important examples of the major period of California history or prehistory (see Section V). Project impacts will be **less than significant with mitigation incorporated**.

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

As discussed in Section IV (Biological Resources) impacts will be reduced to less than significant through the incorporation of mitigation measures. As discussed in Sections I-III and VI-XVI the project will have no impacts or impacts will be less than significant. Other safety improvement projects in the area that could result in cumulative effects would be offset with the implementation of avoidance and minimization measures as well as with on-site or off-site

mitigation, if necessary. Therefore, cumulatively considerable impacts will be **less than significant**.

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

The project is intended to improve the safety and site distance in this section of Alhambra Valley Road. Therefore, project impacts will be **less than significant**.

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APPENDIX A MITIGATION AND MONITORING REPORTING PLAN

CCCPWD has prepared this Mitigation and Monitoring Reporting Plan (MMRP) in accordance to Section 15097 of CEQA which requires that public agencies adopt a monitoring or reporting program for projects whenever a project approval involves the adoption of mitigation measures. CCCPWD and/or its Contractors will be responsible for implementing the following measures. CCCPWD will be responsible for monitoring to ensure the following measures are implemented.

IMPACT	MITIGATION MEASURE	TIMING	IMPLEMENTATION RESPONSIBILITY	MONITORING RESPONSIBILITY
IV. BIOLOGICAL RESOURCES				
BIO-1: The project will result in permanent and temporary impacts to Alameda whipsnake critical habitat and California red-legged frog habitat, which may result in incidental take of these species.	MITIGATION MEASURE BIO-1A: CCCPWD will submit the mitigation fees required by Section 7 consultation under the federal Endangered Species Act to the appropriate USFWS- and CDFG-approved mitigation bank, if available, or a local land trust project focused on California red-legged frog and Alameda whipsnake habitat creation or restoration.	Prior to construction bid award	CCCPWD: Environmental, Transportation Engineering	CCCPWD: Environmental
	AVOIDANCE MEASURE BIO-1A: ALAMEDA WHIPSNAKE - Before any project-related activities begin the USFWS-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the Alameda whipsnake (whipsnake) and its habitat, its importance, the general measures that are being implemented to conserve the whipsnake as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is available to answer any questions. - If vegetation clearing is scheduled to begin from March to November, a USFWS-approved biologist will be present during the vegetation removal. Once the vegetation has been removed, temporary exclusion fencing will be installed in the appropriate area(s) as determined by the biologist in order to exclude snakes from entering the cleared work area. The exclusion fence will be four feet high with stakes facing the work area. The integrity of the fence will be checked daily to ensure	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)

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IMPACT	MITIGATION MEASURE	TIMING	IMPLEMENTATION RESPONSIBILITY	MONITORING RESPONSIBILITY
(continued) BIO-1: The project will result in permanent and temporary impacts Alameda whipsnake critical habitat and California red-legged frog habitat and may result in incidental takes of these species.	(continued) AVOIDANCE MEASURE BIO-1A: ALAMEDA WHIPSNAKE that snakes cannot get into the work area. During site grading a qualified biologist and/or CCCPWD staff will be present to ensure compliance with the protection and avoidance measures. ▪ If Alameda whipsnake are observed during preconstruction surveys and/or during construction, the USFWS-approved biologist will have the authority to halt all activity in the area until the whipsnake has left the area on its own or, if necessary, has been relocated to a USFWS-approved location, and after buffers have been established, if necessary. The Department of Fish and Game (DFG) and USFWS will also be notified of the whipsnake finding. ▪ Heavy equipment will be restricted to the existing road and areas to be graded to minimize impacts to potential habitat and reduce the potential for whipsnake injury and mortality. Construction vehicles and equipment will be restricted to a 20-mile an hour speed limit. ▪ All construction debris trash that might attract predators to the area and that could be used as cover by the whipsnake will be properly contained and removed from the construction site daily. Any debris or equipment left overnight will be checked daily prior to use in order to avoid whipsnake injury and mortality. ▪ Plastic mono-filament netting (erosion control matting) or similar material will not be used because whipsnakes may become entangled or trapped in it. Acceptable substitutes include tightly woven fabric or tackified hydro-seeding compounds.	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)

APPENDIX A MITIGATION AND MONITORING REPORTING PLAN

IMPACT	MITIGATION MEASURE	TIMING	IMPLEMENTATION RESPONSIBILITY	MONITORING RESPONSIBILITY
(continued) BIO-1: The project will result in permanent and temporary impacts Alameda whipsnake critical habitat and California red-legged frog habitat and may result in incidental takes of these species.	AVOIDANCE MEASURE BIO-1B: CALIFORNIA RED-LEGGED FROG - At least 15 days prior to the start of project-related activities (i.e., equipment/material staging, tree removal/trimming, clearing/grubbing, soil disturbance), CCCPWD will submit the name(s) and credentials to the USFWS Sacramento field office of biologists that would conduct activities specified in the following measures. No project activities will begin until CCCPWD has received written approval from the USFWS that the biologist(s) is qualified to conduct the work. - The USFWS-approved biologist will survey the construction area two weeks prior to start of project-related activities. If RLF frogs, tadpoles, or eggs are found, the approved biologist will contact the USFWS to determine if moving any of these life-stages is appropriate. In making this determination the USFWS will consider if an appropriate relocation site exists. If the USFWS approves relocation, the approved biologist will be allowed sufficient time to move RLF from the construction area before construction activities begin. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of RLF. - Before any project-related activities begin the USFWS-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the RLF and its habitat, its importance, the general measures that are being implemented to conserve the RLF as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is available to answer any questions.	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)

APPENDIX A MITIGATION AND MONITORING REPORTING PLAN

IMPACT	MITIGATION MEASURE	TIMING	IMPLEMENTATION RESPONSIBILITY	MONITORING RESPONSIBILITY
(continued) BIO-1: The project will result in permanent and temporary impacts Alameda whipsnake critical habitat and California red-legged frog habitat and may result in incidental takes of these species.	(continued) AVOIDANCE MEASURE BIO-1B: CALIFORNIA RED-LEGGED FROG ▪ The USFWS-approved biologist will be present at the construction site until all RLFs have been relocated, workers have been trained, and vegetation clearing has been completed. After this time, CCCPWD environmental staff will monitor and/or designate a person to monitor on-site compliance of all avoidance and minimization measures. The USFWS-approved biologist will ensure that this individual receives the training outlined above. The designated monitor and the USFWS-approved biologist will have the authority to halt any action that might result in effects that exceed the levels anticipated by the CCCPWD and USFWS during review of the proposed action. If RLF are found during construction, all construction will stop in the area until the RLF have been relocated by the USFWS-approved biologist to a USFWS-approved location and after buffers have been established, if necessary. The USFWS will also be notified of the RLF finding. ▪ During project activities, all trash that may attract predators will be properly contained, removed from the construction area and disposed of daily. Following construction, all trash and construction debris will be removed from work areas. ▪ All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 65 feet from any riparian habitat or water body. The CCCPWD will ensure contamination of habitat does not occur during such operations. Prior to start of any project-related activities, the CCCPWD will ensure that the Contractor has prepared a plan to allow a prompt and effective response to any accidental spills, which will be addressed in the required Storm Water Prevention	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)

APPENDIX A MITIGATION AND MONITORING REPORTING PLAN

IMPACT	MITIGATION MEASURE	TIMING	IMPLEMENTATION RESPONSIBILITY	MONITORING RESPONSIBILITY
(continued) BIO-1: The project will result in permanent and temporary impacts Alameda whipsnake critical habitat and California red-legged frog habitat and may result in incidental takes of these species.	(continued) AVOIDANCE MEASURE BIO-1B: CALIFORNIA RED-LEGGED FROG Pollution Plan (SWPPP). All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. ▪ The CCCPWD and/or USFWS-approved biologist will ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible. When practicable, invasive exotic plants in the project area will be removed. ▪ The project area will be re-vegetated with an appropriate mixture of native seeds for the upland annual grassland and seasonal wetland vegetation upon project completion in the fall. Seeded areas will be blanketed with appropriate erosion-control material that will not trap herptiles. ▪ The number and size of access routes and staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal. Routes and boundaries will be clearly demarcated, and these areas will be outside of riparian and wetland areas. ▪ Work will be completed between April 1 and November 1. If CCCPWD needs to conduct activities outside this period, the CCCPWD will notify the USFWS for authorization. ▪ Erosion control BMPs will be implemented in accordance to the San Francisco Bay RWQCB and other agency permit conditions.	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)

APPENDIX A MITIGATION AND MONITORING REPORTING PLAN

IMPACT	MITIGATION MEASURE	TIMING	IMPLEMENTATION RESPONSIBILITY	MONITORING RESPONSIBILITY
BIO-2: The project may result in incidental takes of California tiger salamander if present in the area.	AVOIDANCE MEASURE BIO-2: CALIFORNIA TIGER SALAMANDER If California tiger salamander are present in the area prior to or during construction, the above-listed avoidance measures for Alameda whipsnake and California red-legged frog would also apply.	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)
BIO-3: The project may impact nesting birds and/or raptors.	AVOIDANCE MEASURE BIO-3: NESTING BIRDS/RAPTORS If feasible, project-related activities (i.e., equipment/material staging, tree removal/trimming, clearing/grubbing, soil disturbance) will occur during the non-nesting (September 1 – January 31). If not feasible, preconstruction surveys will be conducted during the breeding/nesting season (February 1 to August 31) by a qualified biologist no more than two weeks prior to start of the activity. If no active nests are found within the survey area, no further mitigation is necessary. If active nest(s) are found, the qualified biologist will evaluate the situation and determine the appropriate non-disturbance buffer zone in consultation with the DFG and the USFWS Migratory Bird Permit Office. If buffers are established and it is determined that project activities are resulting in nest disturbance, work will cease immediately and the CDFG and USFWS will be contacted for further guidance.	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)
BIO-4: The project may directly or indirectly impact hoary, pallid, and/or silver-haired bats if they are present in trees and/or structures in the project vicinity.	AVOIDANCE MEASURE BIO-4: BATS Prior to tree removals and/or construction activities, a bat roost survey will be conducted by a qualified biologist. If bats are found, CCCPWD will consult with CDFG and/or a bat specialist to develop appropriate avoidance and minimization measures based on factors such as roost type, species, present, colony size, and extent of estimated project-related impacts.	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)

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IMPACT	MITIGATION MEASURE	TIMING	IMPLEMENTATION RESPONSIBILITY	MONITORING RESPONSIBILITY
BIO-5: The project may directly or indirectly impact San Francisco dusky-footed woodrat if they are present in the project area.	AVOIDANCE MEASURE BIO-5: Several woodrat nests were observed within the riparian woodland of the adjacent tributary during a habitat assessment conducted by a qualified biologist. While no significant impacts will occur to the banks of the tributary minor impacts could occur for the culvert replacements. A qualified biologist will conduct a pre-construction survey no more than 30 days prior to start of construction. If woodrat nests are present in the project area and are determined not to be occupied, the nest will be dismantled and relocated if it cannot be avoided. If the nest(s) are determined to be occupied CDFG will be consulted to determine measures to avoid disturbance or relocation of active nests.	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)
BIO-6: The project may directly or indirectly impact the American badger if they are present in the project vicinity.	AVOIDANCE MEASURE BIO-6: While no significant impacts will occur to the banks of the tributary there will be minor impacts the culvert replacements. A qualified biologist will conduct a pre-construction survey no more than 30 days prior to start of construction. If badger den(s) are present within or near the project area and are determined not to be occupied, the den(s) will be collapsed if it cannot be avoided. If the den(s) are determined to be occupied CDFG will be consulted to determine the measures to avoid disturbance.	Prior to construction and during construction as necessary	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)
BIO-7: The project will impact the adjacent riparian woodland habitat from the removal of 12 oak trees and minor impacts to the bank of the tributary for the culvert replacements.	MITIGATION MEASURE BIO-2: Oak trees will be planted within the riparian woodland in a section along the south side of the road where the road in this section will be shifted to the north. CDFG will be consulted to determine the appropriate number of trees to be planted. MITIGATION MEASURE BIO-3: Sections of the bank that currently contain rock slope protection will be re-vegetated with native vegetation suitable for riparian banks. CDFG will be consulted to determine the	During and after construction During and after	CCCPWD: Environmental, Qualified Biologist(s)	CCCPWD: Environmental, Qualified Biologist(s)

APPENDIX A MITIGATION AND MONITORING REPORTING PLAN

IMPACT	MITIGATION MEASURE	TIMING	IMPLEMENTATION RESPONSIBILITY	MONITORING RESPONSIBILITY
	appropriate re-vegetation plan.	construction		
BIO-8: The project has the potential to temporarily impact a seasonal wetland if the contractor chooses to use a staging area adjacent to the wetlands.	AVOIDANCE MEASURE BIO-8: SEASONAL WETLAND Environmentally sensitive area (ESA) fencing will be installed around the staging area to keep staging activities from encroaching onto the adjacent seasonal wetlands. In addition, project specifications will require the contractor to prepare and implement applicable best management practices (BMPs) for water quality and erosion control which will minimize potential indirect impacts.	Prior to construction and during construction as necessary	CCCPWD: Contractor under direction by CCCPWD Environmental and/or Qualified Biologist(s)	CCCPWD: Resident Engineer, Environmental, Qualified Biologist(s)

¹ Applicable measures based on *Programmatic Formal Endangered Species Act Consultation on Issuance of Permits Under Section 404 of the Clean Water Act or Authorizations under the Nationwide Permit Program for Projects that May Affect the California Red-legged Frog*. January 26, 1999