

**Department of
Conservation and
Development**

30 Muir Road
Martinez, CA 94553

Phone: 1-855-323-2626

**Contra
Costa
County**



November 5, 2015

John Kopchik
Director

Aruna Bhat
Deputy Director

Jason Crapo
Deputy Director

Maureen Toms
Deputy Director



**NOTICE OF PUBLIC REVIEW AND INTENT
TO ADOPT A PROPOSED MITIGATED NEGATIVE DECLARATION**

County File No. CP 15-06

Pursuant to the State of California Public Resources Code and the "Guidelines for Implementation of the California Environmental Quality Act of 1970" as amended to date, this is to advise you that the Department of Conservation and Development of Contra Costa County has prepared an Initial Study for the following project:

PROJECT NAME: Balfour Road Shoulder Widening

LEAD AGENCY: Contra Costa County Department of Conservation and Development

APPLICANT: Contra Costa County Public Works Department

LOCATION: Between Sellers Avenue (Brentwood) to Bixler Road (Discovery Bay), East Contra Costa County

ZONING: A-4, 40 (Agricultural Preserve)

DESCRIPTION: Contra Costa County Public Works Department (CCCPWD) plans to widen Balfour Road from Sellers Avenue in Brentwood to Bixler Road in Discovery Bay in an unincorporated area of East Contra Costa County to bring the shoulders up to current design standard and provide a driver recovery area and a bike lane (Figures 1 and 2). The project segment is approximately three miles long and is a narrow, substandard two-lane road that receives substantial traffic at high speeds. The project segment serves as a thoroughfare between Brentwood and Discovery Bay as well as a commuter route to State Route 4.

The project consists of widening the existing 18- to 20-foot pavement width to 36 feet wide (two 12-foot wide travel lanes with 6-foot wide paved shoulders/bike lanes and 2-foot wide shoulder backing on each side). The project does not increase the number of

travel lanes and will therefore not increase the capacity of the roadway. The majority of the widening will occur along the south side of Balfour Road. The segment between

Sellers Avenue and Byron Highway will require adding 16 to 28 feet of asphalt pavement along the south side. The segment between Byron Highway and Bixler Road will require adding 16 to 18 feet of asphalt pavement primarily along the south side of the road. Left turn pocket lanes will be added on the east and west legs of Balfour Road at Byron Highway and a left turn pocket lane will be added on the west leg of Balfour Road at Bixler Road (Figure 3). A drainage system consisting of an open roadside ditch and underground pipe along the south side of the road will be installed to collect and convey roadside runoff.

Utility relocations include Pacific Gas & Electric (PG&E) poles and at-grade vaults, AT&T telephone manholes and poles, East Contra Costa Irrigation District (ECCID) underground irrigation pipes and channel crossing headwalls, and TV cable lines. The utility relocations will occur primarily along the north side of the road and will be placed between the proposed edge of road and proposed right-of-way (ROW). The ECCID holds easements and fee titles within some of the parcels where they have their canal and underground pipe facilities.

The existing road ROW varies from 40 to 100 feet. CCCPWD will need to acquire strips of land along parcel frontages where the existing ROW cannot accommodate the shoulder widening and utility relocations. The strips of land to be acquired vary between 5 to 15 feet along the north side of Balfour Road from various parcels and between 5 to 44 feet from various parcels along the south side of the road which total approximately 12.7 acres (Figure 3). Residential landscape trees and shrubs (approximately 27) and fences within the proposed ROW will be removed; mailboxes will be relocated. Temporary construction easements will also be needed from some parcels for construction staging areas (Figure 3). Therefore, real property transactions will be necessary in support of the project.

Construction is anticipated to occur in 2017 and will take approximately six months to complete. Signs announcing the construction start date will be posted in the project vicinity seven days prior to start of construction. Standard construction equipment will be used, including but not limited to: excavators, graders, loaders, sweepers/scrubbers, plate compactors, rollers, backhoes, and pavers. Construction activities will be generally limited to the hours between 7:00 a.m. to 5:00 p.m. Traffic control will be in place for westbound traffic to accommodate morning commute traffic whereas eastbound traffic will be directed to a posted detour route which is anticipated to occur up to 18 weeks (Figure 2).

ENVIRONMENTAL EFFECTS: The Initial Study (IS) for the proposed project identified potentially significant impacts in the environmental area of Agricultural Resources and Biological Resources. Environmental analysis determined that measures were available to mitigate potential adverse impacts to insignificant levels. As a result, a Mitigated Negative Declaration (MND) has been prepared pursuant to Public Resources Code Section 21080(c), 21063.5, and Article 6 of the California Environmental Quality Act (CEQA) Guidelines.

Pursuant to the requirements of CEQA (CEQA Guidelines Section 15071) the Initial Study/Mitigated Negative Declaration (IS/MND) describes the proposed project; identifies, analyzes, and evaluates the potential significant environmental impacts, which may result from the proposed project; and identifies measures to mitigate adverse environmental impacts. Mitigations identified in this document designed for the proposed project will ensure that the project will not cause a significant impact on the environment.

A copy of the IS/MND may be reviewed at the Contra Costa County Public Works Department, 255 Glacier Drive, Martinez, during normal business hours. You may also view the IS/MND on the County's webpage: <http://www.co.contra-costa.ca.us> (Click on Government, Departments H-Z, Public Works, Public Notices and/or Department of Conservation and Development, Projects). All documents referenced in the IS/MND are available on request.

PUBLIC COMMENT PERIOD: The 30-day public comment period for accepting comments on the adequacy of the environmental document is from **November 6, 2015 to December 7, 2015**. Any comments should be in writing and submitted to the following address and/or mail address:

Claudia Gemberling, Environmental Analyst II
Contra Costa County Public Works Department
255 Glacier Drive
Martinez, CA 94553
claudia.gemberling@pw.cccounty.us

It is anticipated that the proposed IS/MND will be considered for adoption at the County Board of Supervisors meeting on **December 8, 2015**. To confirm the Board date, please contact Claudia Gemberling at (925) 313-2192.

Attachments: Figure 1: Project Location
Figure 2: Location of Project Area
Figure 3: Project Overview

PUBLIC WORKS DEPARTMENT
INITIAL STUDY OF
ENVIRONMENTAL SIGNIFICANCE

PROJECT NUMBER: 0662-6R4002

CP# 15-06

PROJECT NAME: Balfour Road Shoulder Widening

PREPARED BY: Claudia Gemberling, Environmental Analyst II

DATE: November 5, 2015

APPROVED BY: [Signature]

DATE: 11/5/2015

RECOMMENDATIONS:

☐ Categorical Exemption [Class]

☐ 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 pursuant to **Section 15063 (b) (2)** of the CEQA Guidelines.

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

USGS Quad Sheet: Brentwood, Woodward Island	Base Map Sheet #: M27	Parcel #: N/A
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GENERAL CONSIDERATIONS:

- Location:** The project is located on Balfour Road between Sellers Avenue in Brentwood and Bixler Road in Discovery Bay, east Contra Costa County (Figure 1).
- Project Description:** Contra Costa County Public Works Department (CCCPWD) plans to widen Balfour Road from Sellers Avenue in Brentwood to Bixler Road in Discovery Bay in an unincorporated area of East Contra Costa County to bring the shoulders up to current design standard and provide a driver recovery area and a bike lane (Figures 1 and 2). The project segment is approximately three miles long and is a narrow, substandard two-lane road that receives substantial traffic at high speeds. The project segment serves as a thoroughfare between Brentwood and Discovery Bay as well as a commuter route to State Route 4.

The project consists of widening the existing 18- to 20-foot pavement width to 36 feet wide (two 12-foot wide travel lanes with 6-foot wide paved shoulders/bike lanes and 2-foot wide shoulder backing on each side). The project does not increase the number of travel lanes and will therefore not increase the capacity of the roadway. The majority of the widening will occur along the south side of Balfour Road. The segment between Sellers Avenue and Byron Highway will require adding 16 to 28 feet of asphalt pavement along the south side. The segment between Byron Highway and Bixler Road will require adding 16 to 18 feet of asphalt pavement primarily along the south side of the road. Left turn pocket lanes will be added on the east and west legs of Balfour Road at Byron Highway and a left turn pocket lane will be added on the west leg of Balfour Road at Bixler Road (Figure 3). A drainage system consisting of an open roadside ditch and underground pipe along the south side of the road will be installed to collect and convey roadside runoff.

Utility relocations include Pacific Gas & Electric (PG&E) poles and at-grade vaults, AT&T telephone manholes and poles, East Contra Costa Irrigation District (ECCID) underground irrigation pipes and channel crossing headwalls, and TV cable lines. The utility relocations will occur primarily along the north side of the road and will be placed between the proposed edge of road and proposed right-of-way (ROW). The ECCID holds easements and fee titles within some of the parcels where they have their canal and underground pipe facilities.

Contra Costa County

The existing road ROW varies from 40 to 100 feet. CCCPWD will need to acquire strips of land along parcel frontages where the existing ROW cannot accommodate the shoulder widening and utility relocations. The strips of land to be acquired vary between 5 to 15 feet along the north side of Balfour Road from various parcels and between 5 to 44 feet from various parcels along the south side of the road which total approximately 12.7 acres (Figure 3). Residential landscape trees and shrubs (approximately 27) and fences within the proposed ROW will be removed; mailboxes will be relocated. Temporary construction easements will also be needed from some parcels for construction staging areas (Figure 3). Therefore, real property transactions will be necessary in support of the project.

Construction is anticipated to occur in 2017 and will take approximately six months to complete. Signs announcing the construction start date will be posted in the project vicinity seven days prior to start of construction. Standard construction equipment will be used, including but not limited to: excavators, graders, loaders, sweepers/scrubbers, plate compactors, rollers, backhoes, and pavers. Construction activities will be generally limited to the hours between 7:00 a.m. to 5:00 p.m. Traffic control will be in place for westbound traffic to accommodate morning commute traffic whereas eastbound traffic will be directed to a posted detour route which is anticipated to occur up to 18 weeks (Figure 2).

Evaluation of the project has determined that the project will not have a significant impact on the environment or to humans. There are no natural or historic resources of importance that will be impacted due to absence in the project area or implementation of mitigation and avoidance and minimization measures described in the Agricultural Resources, Biological Resources, and Cultural Resources sections. The project will not significantly impact humans and associated environments as impacts will be limited and avoidance and minimization measures will be implemented as described in the Air Quality, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, and Transportation/Traffic sections. Other known projects in the area would not result in significant cumulative impacts as they are limited and would provide beneficial improvements to the community as described in the Mandatory Findings of Significance section.

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

5. Is the project within the Sphere of Influence of any city? No

CONTRA COSTA COUNTY CALIFORNIA

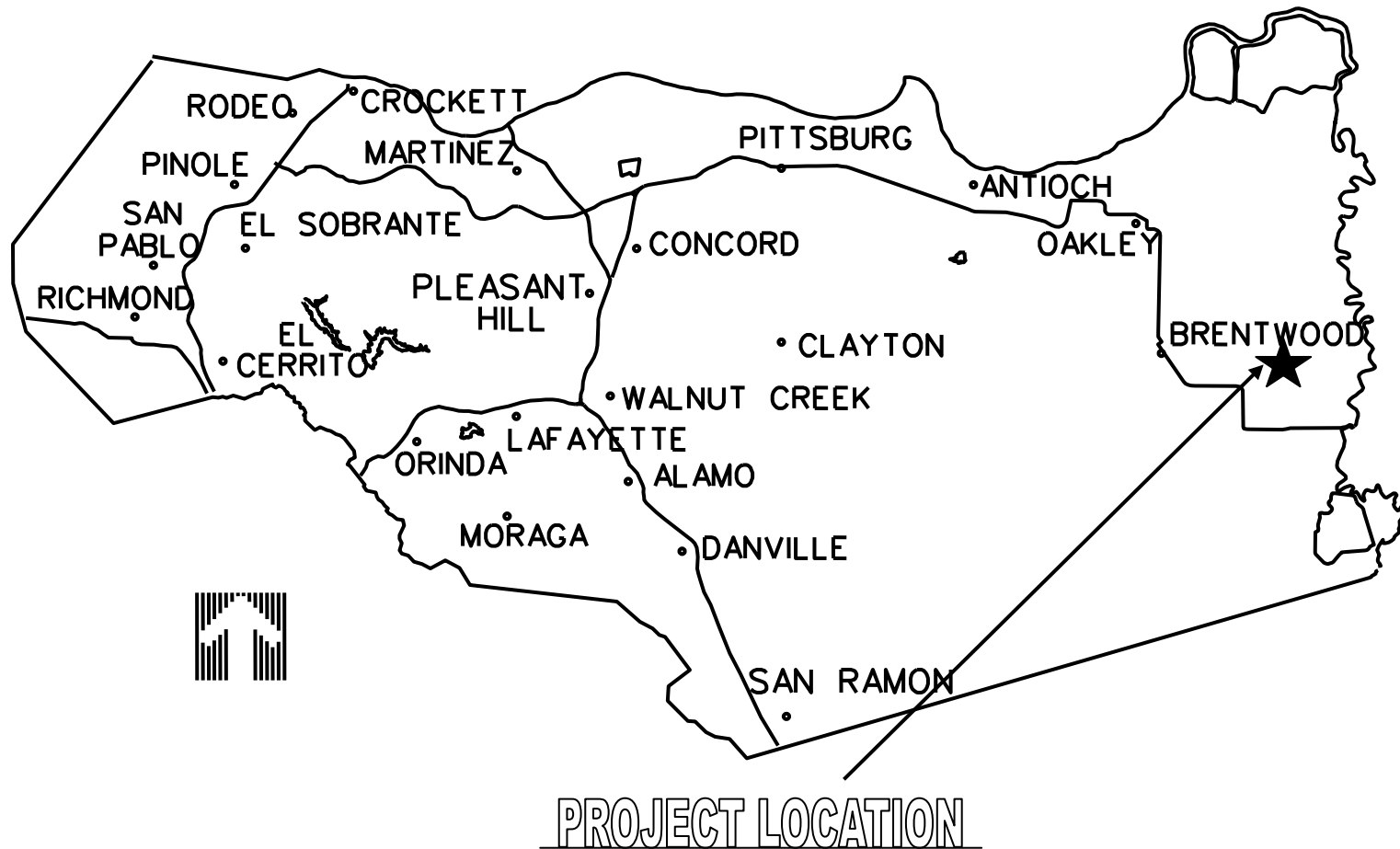


FIGURE 1

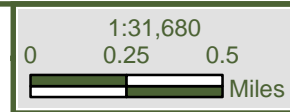


November 2015

Legend

Project Area

Figure 2
Location of the Project Area
 Balfour Road Shoulder Widening Project
 Contra Costa County Public Works Department





November 2015

Legend

Project Area (28.00 acres)
 Existing Right-of-Way (15.31 acres)
 Proposed Right-of-Way (12.69 acres)
 Accepted Offer of Dedication (4.27 acres)
 East Contra Costa Irrigation District Fee Title/Easements (2.89 acres)
 Proposed Temporary Construction Easement (0.40 acre)
 Parcel Boundaries

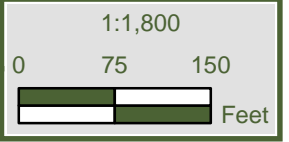


Figure 3 (Sheet 1 of 4)
Project Overview
 Balfour Road Shoulder Widening Project
 Contra Costa County Public Works Department



November 2015

Legend

Project Area (28.00 acres)
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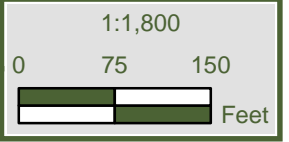
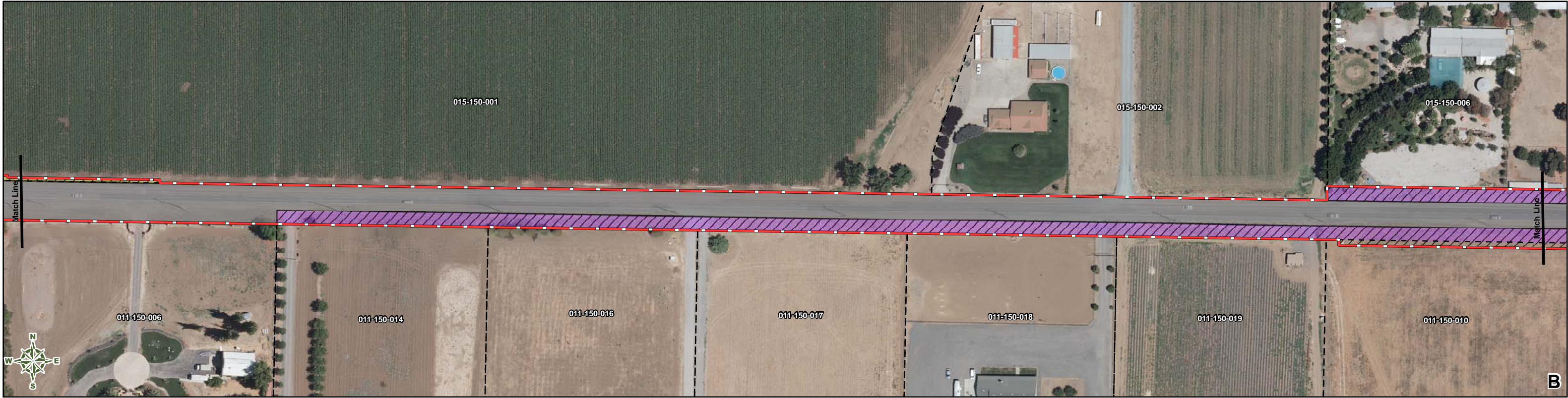


Figure 3 (Sheet 2 of 4)
Project Overview
 Balfour Road Shoulder Widening Project
 Contra Costa County Public Works Department



November 2015

Legend

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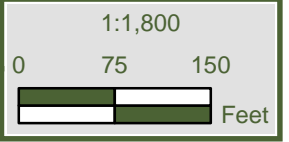
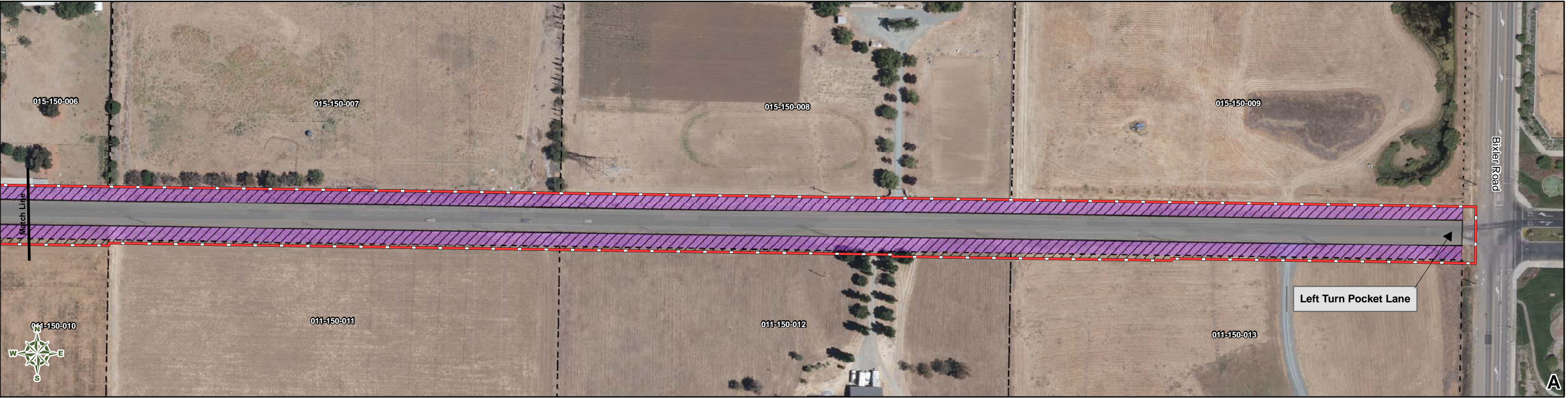


Figure 3 (Sheet 3 of 4)
Project Overview
 Balfour Road Shoulder Widening Project
 Contra Costa County Public Works Department



November 2015

Legend

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Existing Right-of-Way (15.31 acres)

Proposed Right-of-Way (12.69 acres)

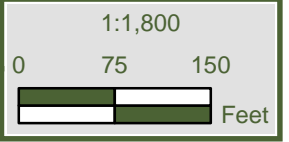
Accepted Offer of Dedication (4.27 acres)

East Contra Costa Irrigation District Fee Title/Easements (2.89 acres)

Proposed Temporary Construction Easement (0.40 acre)

Parcel Boundaries

Figure 3 (Sheet 4 of 4)
Project Overview
Balfour Road Shoulder Widening Project
Contra Costa County Public Works Department



Environmental Checklist Form

1. **Project Title:**
Balfour Road Shoulder Widening (Sellers Avenue to Bixler Road)
2. **Lead Agency Name and Address:**
Contra Costa County Department of Conservation and Development
30 Muir Road, Martinez, CA 94553
3. **Contact Person and Phone Number:**
Claudia Gemberling, Environmental Analyst II, (925) 313-2192
Contra Costa County Public Works Department
4. **Project Location:**
Between Brentwood and Discovery Bay, East Contra Costa County (Figure 1)
5. **Project Sponsor's Name and Address:**
Contra Costa County Public Works Department
255 Glacier Drive, Martinez CA 94553
6. **General Plan Designation:**
AL (Agricultural Lands)
7. **Zoning:**
A-4, 40 (Agricultural Preserve)
8. **Project Description:**
Contra Costa County Public Works Department (CCCPWD) plans to widen Balfour Road from Sellers Avenue in Brentwood to Bixler Road in Discovery Bay to bring the shoulders up to current design standard to provide a driver recovery area and a bike lane. The project segment is approximately three miles long and is a narrow, substandard two-lane road that receives substantial traffic at high speeds. It is used as a thoroughfare between Brentwood and Discovery Bay as well as a commuter route to State Route 4 (Figure 2).

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The existing County road ROW varies from 40 to 100 feet. CCCPWD will need to acquire strips of land along parcel frontages where the existing ROW cannot accommodate the shoulder widening and utility relocations. The strips of land to be acquired vary between 5 to 15 feet along the north side of Balfour Road from various parcels and between 5 to 44 feet from various parcels along the south side of the road which total approximately 12.7 acres. Residential landscape trees and shrubs (approximately 27) and fences within the proposed ROW will be removed; mailboxes will be relocated. Temporary construction easements will also be needed from some of the parcels for construction staging areas (Table 1, Figure 3). Therefore, real property transactions will be necessary in support of the project.

Table 1: Proposed ROW Acquisitions and Permanent and Temporary Easements

Address ¹	Assessor Parcel Number ¹	ROW Acquisition	ECCID Fee Title/Easement	Temporary Construction Easement
5651 Balfour Road	015-050-002	X	X ²	-
6101 Balfour Road	015-050-018	X	X ²	-
6425 Balfour Road	015-050-006	-	-	X
(N/L) Chestnut Street	015-060-010	X	X ³	X
2791 Chestnut Street	015-060-009	X	-	-
(N/L) Byron Highway	015-150-001	X	X	X
8001 Balfour Road	015-150-002	-	-	-
8001 Balfour Road	015-150-006	X ⁴	-	-
8037 Balfour Road	015-150-007	X ⁴	-	-
8061 Balfour Road	015-050-008	X ⁴	-	-
8091 Balfour Road	015-050-009	X ⁴	-	-
6110 Balfour Road	011-010-003	X	X	-
5730 Balfour Road	011-010-006	-	-	-
5500 Balfour Road	011-010-009	X	X	X
5930 Balfour Road	011-010-012	X ⁴	-	X
5730 Balfour Road	011-010-018	X	-	-
(N/L) Balfour Road	011-010-020	X	-	-
N/L	011-140-XXX	X ²	-	X
7170 Balfour Road	011-140-013	X	-	-
6760 Balfour Road	011-140-020	X	X ²	-
6700 Balfour Road	011-140-024	X	X ²	-
7540 Balfour Road	011-150-005	X	-	-
7800 Balfour Road	011-150-014	X ⁴	-	-
7900 Balfour Road	011-150-016	X ⁴	-	-
7930 Balfour Road	011-150-017	X ⁴	-	-
7960 Balfour Road	011-150-018	X ⁴	-	-
7990 Balfour Road	011-150-019	X ⁴	-	-
8000 Balfour Road	011-150-010	X; X ⁴	-	-
8030 Balfour Road	011-150-011	X; X ⁴	-	-
8060 Balfour Road	011-150-012	X; X ⁴	-	-
8090 Balfour Road	011-150-013	X; X ⁴	-	-

¹Source: Contra Costa County Mapping Information Center; N/L: Address not listed; ²Existing ECCID fee title/easement

³Proposed ECCID fee title/easement; ⁴Accepted Offer of Dedication – portions of parcels that have been dedicated to and accepted by the County for the purpose of public right-of-way improvements to accommodate future area development.

Construction is anticipated to occur in 2017 and will take approximately six months to complete. Signs announcing the construction start date will be posted in the project vicinity seven days prior to start of construction. Standard construction equipment will be used, including but not limited to: excavators, graders, loaders, sweepers/scrubbers, plate compactors, rollers, backhoes, and pavers. Construction activities will be generally limited to the hours between 7:00 a.m. to 5:00 p.m. Traffic control will be in place for westbound traffic to accommodate morning commute traffic whereas eastbound traffic will be directed to a posted detour route which is anticipated to occur up to 18 weeks (Figure 2).

9. **Surrounding Land Uses and Setting:**

Surrounding land uses are primarily agricultural including vineyards, orchards, cropland, pasturelands, vacant fields, and rural residential development. Aboveground concrete-lined ECCID irrigation canals and underground irrigation pipes primarily cross and line both sides of Balfour Road.

10. **Other public agencies whose approval is required** (e.g. permits, financing, approval, or participation agreement):

State Water Resources Control Board (SWRCB)

National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2012-0006-DWQ) (Construction General Permit [CGP])

Projects that disturb one or more acres of soil are required to obtain coverage under this permit which requires a fee and submittal of a Stormwater Pollution Prevention Plan to be submitted to the SWRCB (SWRCB 2015a). At this time, it is anticipated that the project will disturb approximately 28 acres of soil. Therefore, CCCPWD will obtain coverage.

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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.

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

DETERMINATION: (To be completed by the Lead Agency)

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 mitigations measures that are imposed upon the proposed project, nothing further is required.



Signature

Contra Costa County Department of Conservation and Development



Date

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EVALUATION OF ENVIRONMENTAL IMPACTS:

I. AESTHETICS

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

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).

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

The rolling hills and Mount Diablo ridgelines to the west provide a rural scenic backdrop from the project area. The project will not have a substantial adverse effect on a scenic vista as the project will primarily be limited to ground impacts. The utility pole and line relocations to the north side of the road will not obstruct the view beyond what occurs with the existing utility poles and lines along the south of the road. Therefore, the project will have **no impact**.

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, and is not a County Scenic Route (Caltrans 2015a; Contra Costa County 2005a). The project will require removal of some roadside trees but they are not considered scenic resources as they are associated with residential landscaping and not considered trees of local significance. Further, there are no designated or eligible cultural, historical or natural resources that could be considered important scenic resources within the project area (Condor Country Consulting, Inc. 2009; JRP Historical Consulting 2009; Nomad Ecology 2009, 2015a). Therefore, project impacts will be **less than significant**.

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

The constructed project will not substantially degrade the existing visual character or quality of the site and its surroundings as the project will primarily be limited to ground impacts and the utility pole relocations to the north side of the road from the south side of the road will not introduce additional obstructions beyond what occurs with the existing utility poles and lines along the south of the road. Project construction activities may degrade the visual character of this area but it will be temporary. Therefore, project impacts will be **less than significant**.

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

The constructed project will not introduce a new source of light or glare. Construction of the project will take place during the daylight hours and therefore, will not create additional nighttime light source. Therefore, the project will have **no impact**.

II. AGRICULTURE AND FOREST RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland, to non-agricultural use <u>or</u> conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Background

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 2015).

In order to be shown on FMMP's Important Farmland Maps as Prime Farmland and Farmland of Statewide Importance the land must have been used for irrigated agricultural production at some time during the four years prior to the Important Farmland Map date and must meet physical and chemical soil criteria as determined by the Natural Resource Conservation Service. 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 (California Department of Conservation 2015).

In addition, land may be enrolled under the 'Prime Agricultural Land' designation under the state's Williamson Act if it meets certain economic or production criteria. The California Land Conservation Act of 1965, commonly known as the Williamson Act, created a program to help counties preserve agricultural land

and open space by offering a tax incentive to property owners. The Williamson Act provides an arrangement where private landowners voluntarily restrict their land to agricultural and compatible open space uses under a contract with the County (Contra Costa County Department of Conservation and Development [CCCDCD] 2015).

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 (California Natural Resources Agency 2015).

- 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?*

Prime Farmland, Farmland of Local Importance, and Grazing Land occur within the project area (California Department of Conservation 2012). As noted above, Prime Farmland has the best combination of physical and chemical features able to sustain long-term agricultural production. Farmland of Local Importance contains lands that are capable of producing dryland grain on a two-year summer fallow or longer rotation with volunteer hay and pasture. Grazing Land is land on which existing vegetation is suited to the grazing of livestock (California Department of Conservation 2015).

The project will require sliver right-of-way (ROW) acquisitions and permanent and temporary construction easements from various parcels along Balfour Road to accommodate the road improvements and utility relocations. Right-of-way acquisitions will include approximately 7.86 acres of mapped Prime Farmland of which approximately three acres are actively farmed. The project will also require ROW acquisitions from approximately 3.10 acres of mapped Farmland of Local Importance however none of this farmland is being actively farmed.

The project is located within the County’s Agricultural Preserve District (A-4, A-40) which consists of approximately 11,000 acres (Contra Costa County 2015b; City of Brentwood 2015). The County zoning ordinance for Agricultural Preserve land uses allows only commercial agricultural production. While the project will convert some land to non-agricultural use, the conversion will be considerably less than 1% which includes areas that occur immediately adjacent to the existing road. Further, the project is consistent with the Agricultural Resources goals and policies in the Conservation Element of the County General Plan as the project will provide a circulation system appropriate to rural development to support land uses and economic activity as the widened shoulders will allow for motorists and farm equipment to safely share the road and is consistent with the Transportation and Circulation Element to improve existing roads to eliminate design deficiencies (Contra Costa County 2005b). Therefore, project impacts will be **less than significant**.

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

As noted above, the project area is located within the Agricultural Preserve District. Some parcels located within this District that will be impacted are also protected under a Williamson Act Contract or Brentwood Agricultural Land Trust (BALT) conservation easements (Contra Costa County Mapping Center 2015; pers. comm. Lyddan 2015). Williamson Act Contract parcels include 015-050-006 and 011-010-009;

acquisition of a total of approximately 0.7 acre will be required from these parcels. The BALT conservation easement parcels include 015-050-018, 015-060-010, 011-140-013, and 011-140-024; acquisition of a total of approximately four acres will be required from these parcels.

Williamson Act Contract

The project will require acquisitions of sliver portions of these parcels that occur immediately adjacent to the road for the new ROW to accommodate the improvements. California Government Code Section 51292(b) allows for public improvements if no other land outside the agricultural preserve is reasonably feasible to locate the public improvement (CDC 2015a, b). However, public agencies are required to advise the CDC Director and the local governing body responsible for the administration of the agricultural preserve of its intention to consider the location of a public improvement within the preserve. In accordance with the requirement, the CCCPWD will notify both the CDC and the Contra Costa County Department of Conservation and Development (local agency administering Williamson Act Program) of its intent to locate public improvements within a parcel currently under a Williamson Act contract and a subsequent notification within 10 working days upon completion of the acquisition (CDC 2015a, b). The purpose of the project is to improve the safety of the roadway, which is consistent with the Traffic and Circulation Element of the County General Plan goals and policies as the project will eliminate structural and geometric design deficiencies (Contra Costa County 2005b).

BALT Conservation Easements

Acquisition of the BALT-protected parcels, which include both active and non-active farm land considering entire parcels are encumbered by conservation easements will be mitigated at a ratio mutually agreed upon by CCCPWD and BALT.

IMPACT AGR-1: CONVERSION OF PROTECTED FARMLAND

The project will convert approximately four acres of farmland protected by conservation easement to non-agricultural use. The following mitigation measure will offset this protected farmland loss.

MITIGATION MEASURE AGR-1:

The loss of protected farmland will be mitigated by an in-lieu fee payment based upon an appropriate mitigation ratio for public infrastructure improvements to the BALT which funds agricultural conservation easements within the Agricultural Preserve District. Therefore, the project will have a **less than significant impact with mitigation incorporated**.

- c) *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

The project will not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)) as no forest land or timberland is present within or adjacent to the project area. Therefore, the project will have **no impact**.

- d) *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

The project will not result in the loss of forest land or conversion of forest land to non-forest use because forest land is not present within or adjacent to the project area. Therefore, the project will have **no impact**.

- e) *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 or conversion of forest land to non-forest use?*

The project will not result in other changes that would result in conversion of farmland or forest land other than what was discussed above. Therefore, project impacts will be **less than significant**.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Background

The federal Clean Air Act (CAA) requires the U. S. Environmental Protection Agency (USEPA) to set National Ambient Air Quality Standards (NAAQS) for six common criteria air pollutants: particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. Of the six pollutants, particle pollution and ground-level ozone are the most widespread health threats. The CAA requires the USEPA to designate areas as meeting (attainment) or not meeting (nonattainment) the standards (USEPA 2015). In addition, the California Health and Safety Code requires the California Air Resources Board (CARB), a division of the California EPA, to establish and periodically review area designation criteria for state standards, which are more stringent than federal standards. The project is located within the San Francisco Bay Area Air Basin which is currently designated as nonattainment for national and state ozone and particulate matter standards (Bay Area Air Quality Management District [BAAQMD] 2015a,b).

The CAA also requires states to develop a general plan to attain and maintain the NAAQS and a specific plan to attain the standards for each nonattainment area. The CARB and the BAAQMD periodically prepare and update these plans in cooperation with regional agency partners. These plans usually define control strategies to reduce air pollutant emissions from industrial facilities, commercial processes, motor vehicles, and other sources which are typically implemented through a combination of regulations enforced by the BAAQMD, grant and incentive programs, public education and outreach, and partnerships with other agencies and stakeholders. The current air quality plan is the 2010 Clean Air Plan which includes the most recent ozone attainment plan and focuses on reduction of ozone, particulate matter, and greenhouse gases (GHGs) (BAAQMD 2010a).

In order to address GHGs, which include criteria air pollutants (regional pollutants) and toxic air contaminants (local pollutants), the BAAQMD adopted CEQA thresholds of significance and updated its 1999 CEQA Air Quality Guidelines in 2010 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 2010b, 2011). However, the BAAQMD's 2010 adopted thresholds were challenged in a lawsuit and in March 2012 the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the 2010 thresholds of significance. As such, the 2010 thresholds are not formally in place pending CEQA review and have been pulled from the 2011 CEQA Guidelines which were updated in 2012 to omit the thresholds to reflect this ruling (BAAQMD 2012). In the interim, while the BAAQMD has indicated that Lead Agencies may rely on BAAQMD's updated CEQA Guidelines for assistance in calculating air pollution emissions, obtaining information regarding health impacts of air pollutants, and identifying potential mitigation measures, the BAAQMD suggests that Lead Agencies determine appropriate thresholds for each project, and consider the 1999 thresholds along with the evidence in record for the project to determine air quality impacts. The deferral of the 2010 thresholds was based on a procedural action and not on the scientific merits of the thresholds. For this reason, and in this case, the 2010 thresholds were used to determine the project impacts. The 1999 and 2012 CEQA Guidelines were also consulted (BAAQMD 1999, 2010b, 2012).

In addition to criteria air pollutants, naturally-occurring asbestos (NOA), a toxic air contaminant, is also an air pollutant of concern. 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 implement the best available dust control measures where NOA is likely to be found in order to reduce dust emissions as well as notification to the BAAQMD (BAAQMD 2015c, CARB 2015). The project area is not located within an area identified as having rocks associated with NOA (CDC 2000).

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

There will be no operational air quality impacts as the project will not increase capacity of the road and thus will not contribute to an increase of air pollutant emissions. However, construction of the project will result in temporary increases of air pollutant emissions generated from construction equipment and truck diesel exhaust, soil movement during excavation and grading activities (fugitive dust), and off-gas emissions from paving activities. Construction equipment and truck emissions include carbon monoxide (CO), sulfur dioxides (SO₂), nitrogen oxides (NO_x), reactive organic gases (ROG), and suspended particulate matter (PM) of 10 and 2.5 microns (fugitive dust). Fugitive dust emissions would depend on soil moisture, silt content of soil, wind speed, and the number of equipment pieces operating on-site. Larger dust particles (PM₁₀) would settle near the source, while fine particles (PM_{2.5}) would be dispersed over greater distances from the construction site. Therefore, in accordance with the BAAQMD CEQA Air Quality Guidelines anticipated construction emissions such as areas of disturbance, vehicle and truck trips, construction equipment to be used, duration of use, and other features were quantified using the Road Construction Emissions Model (RoadMod) (version 7.1.5.1) developed by the Sacramento Metropolitan Air Quality Management District (approved for use by the BAAQMD) to determine if project-related construction emissions would exceed the BAAQMD 2010 significance thresholds (LSA Associates 2014).

RoadMod results are estimated in terms of maximum daily emissions and total emissions. Total emissions were averaged across the six-month construction period to determine average daily emissions for comparison to BAAQMD's average daily emissions threshold. The anticipated types of construction equipment that will be used include excavators, graders, loaders, sweepers/scrubbers, plate compactors,

rollers, backhoes, and pavers (although would not be used during all construction phases). Approximately 13,943 cubic yards of soil will be excavated and off-hauled from the project site.

Table 2: Project Construction Emissions Analysis¹

Construction Phases	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM ₁₀ Exhaust (lbs/day)	PM _{2.5} Exhaust (lbs/day)	CO ₂ (lbs/day)	Fugitive Dust	
							PM ₁₀ (lbs/day)	PM _{2.5} (lbs/day)
Grubbing/Land Clearing	4.3	17.8	32.1	2.0	1.8	3,142.4	6.0	1.8
Grading/Excavation	4.4	19.4	34.4	5.1	2.1	3,555.1	3.0	1.9
Drainage/Utilities/ Sub-Grade	5.5	24.8	41.6	2.6	2.4	4,387.2	3.0	0.6
Paving	5.2	28.1	39.0	2.5	2.3	4,836.5	-	-
Maximum (lbs/day)	5.5	28.1	41.6	2.6	2.4	4,836.5	6.0	1.2
Average Daily Emissions	3.9	17.3	28.6	1.3	1.3	3,190.6	2.6	0
BAAQMD Average Daily Emission Thresholds²	54	NA	54	82	54	NA	NA	NA
Less than Threshold?	Yes		Yes	Yes	Yes			

¹Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model (RoadMod) (version 7.1.5.1)

²BAAQMD 2011

NA: Not applicable – BAAQMD has no formal guidance for evaluation of construction emissions for these pollutants given that volumes necessary to result in a health-based impact are rarely reached due to construction traffic for CO, NO₂ and implementation of BMPs for PM₁₀ and PM_{2.5} (BAAQMD 2009); ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; PM₁₀: particulate matter (10 microns or less); PM_{2.5}: particulate matter (2.5 microns or less); CO₂: carbon dioxide.

The results of the model (as shown in Table 4) indicate that estimated project construction emissions would not exceed thresholds. The project will not conflict with or obstruct implementation of the Clean Air Plan as project-related emissions were estimated in accordance with the BAAQMD Air Quality Guidelines and determined to be below thresholds. Therefore, project impacts would be **less than significant**. While construction emissions would not exceed thresholds, project contract specifications require implementation of best management practices (BMPs) to minimize air pollutant emissions as follows:

- 1) Active unpaved construction areas (e.g., parking areas, staging areas, soil stockpiles, graded area, and unpaved access roads) will be watered at least twice daily.
- 2) Haul trucks transporting soil, sand, or other loose material off-site will be covered.
- 3) Visible mud or dirt track-out onto paved areas (i.e., roads, access roads, staging areas) will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- 4) Vehicle speeds on unpaved roads will be limited to 15 mph.
- 5) Equipment idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes.
- 6) Construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications.
- 7) Signs will be posted at the construction site with a contact name and phone number for construction

emission complaints.

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

The project will not violate any air quality standard or contribute to an existing or projected air quality violation as estimated project-related emissions were determined not to exceed the average daily construction-related thresholds as discussed above in item (a). Further, the project will comply with project contract requirements for air pollution control practices as outlined 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 a non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

The project is located within the San Francisco Bay Area Air Basin which is currently designated as nonattainment for national and state ozone and particulate matter standards (BAAQMD 2015b). The project will not result in a cumulatively considerable net increase of any criteria pollutant as estimated project-related emissions were determined not to exceed the daily construction-related thresholds as discussed above in item (a). Further, the project will comply with project contract requirements for air pollution control practices as outlined above. Therefore, 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 (CARB 2005). Construction-related emissions can expose sensitive receptors to toxic air contaminants (TAC), including diesel particulate matter emissions which are considered to be the most significant potential TAC for construction projects (BAAQMD 2010b). Individuals particularly vulnerable to diesel particulate matter are children and the elderly.

Various residences are located along the project segment, with distances ranging from 70 to 600 feet from the project construction area. Residents could be temporarily exposed to diesel engine exhaust during the construction period from operation of construction equipment (LSA Associates 2014). Based on the construction emissions analysis, the maximum amount of fine particulate matter exhaust (PM_{2.5}) per day is estimated to be 2.4 lbs/day as shown in Table 4 which is far less than the BAAQMD CEQA threshold of 54 lbs/day. The BAAQMD CEQA significance threshold for potential effects of diesel particulate matter applies to the hypothetical exposure of a person continuously for 70 years. The duration of the construction period is anticipated to be approximately six months, which is relatively short when compared to the 70-year risk exposure period. Additionally, the project duration would account for construction of the entire three-mile length of the project, therefore emission concentrations at any one receptor location and the dispersion of project construction emissions, health risk impacts associated with project construction would be **less than significant**. Further, implementation of the BMPS outlined above in item (a) would greatly reduce fine particulate matter.

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

The operational aspects of the project will not generate any objectionable odors. However, construction equipment exhaust and asphalt paving operations may create objectionable odors but will be short term as

described above. Further, implementation of the project air pollution control requirements outlined above in item (a) will minimize construction-related odors. Therefore, project impacts will be **less than significant**.

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IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Background

In 1973, the federal Endangered Species Act (ESA) 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 Wildlife (CDFW). Special-status 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 CDFW 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 such as those identified in the CDFW California Natural Diversity Database; as well as birds and raptors protected under the Federal Migratory Bird Treaty Act (16 U.S.C. 703-711) (Executive Order 13186).

East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan

The project is located within the HCP/NCCP inventory area and is a covered activity. The HCP/NCCP is intended to provide an effective framework to protect natural resources and special-status species recovery in eastern Contra Costa County while improving and streamlining the environmental permitting process for impacts on these species and associated habitats. The HCP/NCCP complies with Section 10(a)(1)(B) of the federal ESA and California Natural Community Conservation Planning Act of 2003 and as such covered activities are authorized incidental take of HCP/NCCP-covered special-status species subject to mitigation fees for both permanent and temporary impacts to species habitats and implementation of specific conditions and conservation measures to avoid or minimize potential effects to species and/or its habitats. The HCP/NCCP requires reporting and fee payment to the HCP/NCCP Implementing Entity, the East Contra Costa County Habitat Conservancy (Habitat Conservancy), a joint exercise of powers authority formed by the Cities of Brentwood, Clayton, Oakley and Pittsburg and Contra Costa County (Jones & Stokes 2006).

Environmental Setting

Qualified biologists conducted habitat assessments to identify habitats within and around the project area (20 feet) (study area) to determine if sensitive habitats, natural communities, and wetlands and waters of the U.S. occur as well as potential presence of special-status wildlife and plant species. Habitat assessments were initially conducted in February and April 2009 and followed up in July 2015 to determine if there have been any habitat changes (Nomad Ecology 2015a,b; 2009a,b).

The majority of the surrounding area is rural and contains farmland including row crops and vineyard, fallow crop fields, several residences, a horse boarding facility, and a helicopter facility. Residential subdivisions are present west of Sellers Avenue and east of Bixler Avenue (Figure 1). Balfour Road crosses two concrete aqueducts that deliver irrigation water north from the Main Canal which parallels Balfour Road one-half mile to the south. Land cover types in the project area include ruderal, urban, cropland, vineyard, and aqueduct.

A number of plant and wildlife species from the region were considered and either determined to have the potential to occur within the project vicinity or not based on lack of suitable habitat within the project area. No special-status plant or fish species have the potential to occur within the project area. The wildlife species in Table 5 were determined to have the potential to occur in the project vicinity.

Table 3: Special-Status Species that Have the Potential to Occur in Project Vicinity

SPECIES	LISTING STATUS*	HCP/NCCP STATUS	POTENTIAL FOR OCCURRENCE
Reptiles			
Giant garter snake	Fed: FT CA: ST	Covered	Possible
Birds			
Swainson's hawk	Fed: None CA: SE	Covered	Present
Burrowing owl	Fed: None CA: SSC	Covered	Possible
Cooper's hawk	Fed: None CA: WL	—	Possible
Sharp-shinned hawk	Fed: None CA: WL	—	Possible
Grasshopper sparrow	Fed: none CA: SSC	—	Possible
Ferruginous hawk	Fed: None CA: WL	—	Possible
White-tailed kite	Fed: None CA: FP	No-Take	Possible
Merlin	Fed: None CA: WL	—	Possible
Loggerhead shrike	Fed: None CA: SSC	—	Present
Allen's hummingbird	Fed: None CA: SA	—	Possible
Mammals			
Western red bat	Fed: None CA: SSC, WBWG	—	Possible
Invertebrates			
Curved-foot hygrotus diving beetle	Fed: None CA: SA	—	Possible

(E) Endangered; (T) Threatened; (SSC) Special Species of Concern; (MBTA) Migratory Bird Treaty Act; (FP) Fully Protected; (SA) California Department of Fish and Wildlife Special Animal list; (WBWG) Western Bat Working Group

- 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 Wildlife or U.S. Fish and Wildlife Service?*

The project will impact habitats that support special-status species as identified in the table above and may impact special-status species if present during construction. Project impacts and the measures to mitigate and avoid impacts are described below (Nomad Ecology 2015a).

IMPACT BIO-1: HCP/NCCP HABITATS

The project will result in permanent impacts to approximately 12.22 acres (cropland, vineyard, ruderal land cover types) and temporary impacts to approximately 0.37 acre (cropland and ruderal land cover types). The following mitigation measure will be implemented to offset impacts to undeveloped habitats. Therefore, project impacts will be **less than significant with mitigation incorporated**.

MITIGATION MEASURE BIO-1:

The project will mitigate permanent and temporary impacts to undeveloped habitats by fee payment to the Habitat Conservancy regardless of whether sensitive habitats and/or species are present. The fee is based on the impact acreage to undeveloped habitats. The development impact fee per acre for permanent and temporary impacts is \$12,926.75; the temporary impact fee is discounted considering the project will occur once during the HCP/NCCP permit term. The project will result in permanent and temporary impacts to approximately 12.59 acres. Therefore, approximately \$158,283.75 will be paid to the Habitat Conservancy. In addition, a planning survey report identifying the impact acreages and species-specific avoidance and minimization measures described below as provided in the HCP/NCCP will also be prepared. Since no wetlands or waters will be impacted no wetland mitigation fee will be required.

POTENTIAL IMPACT BIO-2: GIANT GARTER SNAKE

The giant garter snake is a large, dull-colored snake endemic to the valley floor wetlands of Sacramento and San Joaquin Valleys of California. Coloration varies from dark brown to olive dorsally, with a lighter-colored ventral surface. Cream, yellow, or orange-colored dorsal and lateral stripes are separated by black-checked spots; however, some individuals may completely lack these characteristics. The giant garter snake can obtain a length of 65 inches and has a wide, elongated head. Giant garter snakes are highly aquatic and inhabit freshwater marshes, low-gradient streams, drainage canals, and irrigation ditches, especially those associated with rice farming from Butte County to Fresno County. Currently, 13 populations of giant garter snakes are recognized throughout the Central Valley.

Giant garter snakes feed primarily on aquatic prey, including small fish and amphibians, and are active from early spring to mid-fall. Breeding season begins following emergence from overwintering habitat from March to May. Females give birth to live young from July through September. Giant garter snakes spend the majority of their active period within or adjacent to aquatic habitats and begin seeking winter retreats in October in adjacent upland burrows and soil crevices above the flood plain. Retreats with sunny aspects along south and west facing slopes are generally preferred and are typically located within 820 feet from aquatic habitat. Basking sites consisting of protective banks and waterside vegetation, as well as abundant cover and upland refugia, are key habitat elements.

The study area is located outside the species' known range; however, it is located within the Mid Valley Recovery Unit which includes the Central Valley and eastern portion of Contra Costa County. Five occurrences have been reported approximately 8 to 10 miles to the north in the Delta islands. While the ECCID concrete-lined irrigation canals do not provide key habitat features, this species could occur in the irrigation canals and associated tailwater ponds when inundated.

The project requires modifications to the ECCID irrigation canals and associated headwalls which could result in the direct mortality, injury or harassment of individual giant garter snakes during construction activities or disrupt movement and dispersal if present.

AVOIDANCE MEASURE BIO-2:

The HCP/NCCP provides the following conservation measures to avoid take of giant garter snake:

1. Preconstruction Survey

Prior to any ground disturbance, a USFWS/CDFG-approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having suitable habitat and 200 feet of adjacent uplands, measured from the outer edge of each bank. The surveys will delineate suitable habitat and document any sightings of giant garter snake.

2. Avoidance and Minimization Measures

To the maximum extent practicable, impacts to giant garter snake habitat as a result of covered activities will be avoided. If feasible, in areas near construction activities, a buffer of 200 feet from suitable habitat will be delineated within which vegetation disturbance or use of heavy equipment is prohibited.

If impacts on giant garter snake habitat as a result of covered activities are not avoided, the following measures will be implemented. These measures are based on USFWS's *Standard Avoidance and Minimization Measures during Construction, Activities in Giant Garter Snake Habitat* (USFWS 1999b).

- a. Limit construction activity that disturbs habitat to the period between May 1 and September 30. This is the active period for giant garter snake, and direct mortality is minimized because snakes are more likely to independently move away from disturbed area. If activities are necessary in giant garter snake habitat between October 1 and April 30, the USFWS Sacramento Field Office shall be contacted to determine if additional measures beyond those described below are necessary to minimize and avoid take.
- b. In areas where construction is to take place, dewater all irrigation ditches, canals or other aquatic habitat between April 15 and September 30 to remove habitat of garter snakes. Dewatered areas must remain dry, with no puddled water remaining, for at least 15 consecutive days prior to the excavation or filling of that habitat. If a site cannot be completely dewatered, netting and salvage of prey items may be necessary.

3. Construction Monitoring

If suitable habitat for giant garter snake cannot be avoided between October 1 and April 30, the USFWS Sacramento Field Office shall be contacted to determine if additional measures beyond those described below are necessary, and the following actions will be performed.

- a. A USFWS-approved biologist will conduct a construction survey no more than 24 hours before construction in suitable habitat and will be on site during construction activities in potential aquatic and upland habitat to ensure that individuals of giant garter snake encountered during construction will be avoided. The biologist will provide USFWS with a field report form documenting the monitoring efforts within 24 hours of commencement of construction activities. The monitor will be available thereafter.
- b. If a snake is encountered during construction activities, the monitor shall have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant garter snakes encountered during construction activities should be allowed to move away from the construction area on their own. Only personnel

with a USFWS recovery permit pursuant to Section 10(a)(1)(A) of the ESA will have the authority to capture and/or relocate giant garter snakes that are encountered in the construction area.

- c. The project shall be reinspected whenever a lapse in construction activity of 2 weeks or more has occurred.
- d. To ensure that construction equipment and personnel do not affect nearby aquatic habitat for giant garter snakes outside construction areas, silt fencing will be erected to clearly define the aquatic habitat to be avoided; restrict working areas, spoils, and equipment storage and other project activities to areas outside of aquatic or wetland habitat; and maintain water quality and limit construction runoff into wetland areas through the use of fiber bales, filter fences, vegetation buffer strips, or other appropriate methods.
- e. Fill or construction debris may be used by giant garter snakes as over-wintering sties. Therefore, upon completion of construction activities, any temporary fill or construction debris must be removed from the site.
- f. Construction personnel will be trained to avoid harming giant garter snakes. A qualified biologist, approved by USFWS, shall inform all construction personnel about the life history of giant garter snakes; the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas such as rice fields to giant garter snakes; and the terms and conditions of the HCP/NCCP related to avoiding and minimizing impacts on giant garter snake.

POTENTIAL IMPACT BIO-3: SWAINSON'S HAWK NEST SITES

This species is a gregarious summer resident in California that inhabits open grasslands, shrublands, woodlands, and agricultural areas throughout the Central Valley and the valleys of the Sierra Nevada in Inyo and Mono counties. Central Contra Costa County is the westernmost extent of their current range. Their nests are built in a variety of trees and shrubs often in the vicinity of waterways in areas with abundant prey. Their breeding season occurs from March to August and they are single brooded. Swainson's hawks prey on small mammals, typically California ground squirrels, California meadow voles, Botta's pocket gophers, and deer mice, and seasonally feeding on grasshoppers and crickets.

Suitable nesting habitat is present among the large, mature trees along Balfour Road. The entire study area provides suitable foraging habitat for this species, and several fallow and ruderal fields exhibited moderate ground squirrel activity. Two active Swainson's hawk nests were observed in April 2009: (1) nest located approximately 400 feet south of Balfour Road in a large cottonwood tree on a private residence among a small stand of eucalyptus and other ornamental trees; (2) nest located approximately 0.54-mile north of Balfour Road in a large sycamore tree on a private residence. Land cover types providing suitable nesting habitat for the Swainson's hawk include trees within ruderal grasslands, cropland and urban.

The project will result in removal of landscape trees immediately adjacent to the project area however it is not anticipated that these trees will contain Swainson's hawks nests due to their location next to a busy road and their relatively short height. The nest trees observed during habitat assessments in 2009 were located on private property outside of the project footprint. However, construction activities could disrupt nesting activities, resulting in abandonment or failure of the nest and the death of eggs, nestlings or fledglings as well as foraging activities.

AVOIDANCE MEASURE BIO-3:

The HCP/NCCP provides the following conservation measures to avoid take of nesting Swainson's hawk:

1. Preconstruction Survey

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (*e.g.*, foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).

2. Avoidance and Minimization Measures and Construction Monitoring

- a. During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (*e.g.*, steep topography, dense vegetation, and limited activities) indicate that a smaller buffer could be used, the Habitat Conservancy will coordinate with CDFW/USFWS to determine the appropriate buffer size.
- b. If young fledged prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Habitat Conservancy for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.
- c. All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will be mitigated by the project proponent according to the requirements below.

3. Mitigation for Loss of Nest Tree

The loss of non-riparian Swainson's hawk nest trees will be mitigated by the project proponent by:

- a. If feasible on-site, planting 15 saplings for every tree lost, with the objective of having at least 5 mature trees established for every tree lost according to the requirements listed below.

AND either

1. Pay the Habitat Conservancy an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR
2. Plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Habitat Conservancy (*e.g.*, within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.

The following requirements will be met for all planting options:

- b. Tree survival shall be monitored at least annually for 5 years, then every other year until year 12. All trees lost during the first 5 years will be replaced. Success will be reached at the end of 12 years if at least 5 trees per tree lost survive without supplemental irrigation or protection from

herbivory. Trees must also survive for at least three years without irrigation.

- c. Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.
- d. Native trees suitable for this site should be planted. When site conditions permit, a variety of native trees will be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (5-10 years for cottonwoods and willows) and in the long term (*e.g.*, Valley oak, sycamore). This will also minimize the temporal loss of nest trees.
- e) Riparian woodland restoration conducted as a result of covered activities (*i.e.*, loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.
- f) Whenever feasible and when site conditions permit, trees should be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).
- g) Whenever feasible, plantings on the site should occur closest to suitable foraging habitat outside the urban development area (UDA).
- h) Trees planted in the HCP/NCCP preserves or other approved offsite location will occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.

4. Additional Recommended Avoidance and Minimization Measures

If tree removal, pruning, or grubbing activities are necessary, such activities will be conducted between October and February – outside of the breeding season – and preferably during the fall, prior to the onset of the rainy season, to avoid impacts to nesting Swainson's hawks.

POTENTIAL IMPACT BIO-4: NESTING BURROWING OWL AND HABITAT

Burrowing owls range throughout the Central Valley, the inner and outer Coastal regions, portions of the San Francisco Bay Area, the southern California Coast, from southern California to the Mexican Border, the Imperial Valley, and in portions of the desert and high desert habitats in southeastern and northeastern California. Burrowing owls require habitat with three basic attributes: open, well drained terrain; short, sparse vegetation; and underground burrows or burrow facsimiles. Throughout their range, burrowing owls occupy grasslands, deserts, sagebrush scrub, agricultural areas (including pastures and untilled margins of cropland), earthen levees and berms, coastal uplands, urban vacant lots, and the margins of airports, golf courses, and roads. Burrowing owls rely on burrows excavated by fossorial mammals or reptiles, including prairie dogs, ground squirrels, badgers, skunks, armadillos, woodchucks, foxes, coyotes, and gopher tortoises. Where the number and availability of natural burrows is limited (for example, where burrows have been destroyed or ground squirrels eradicated), owls will occupy drainage culverts, cavities under piles of rubble, discarded pipe, and other tunnel-like structures. Like other owls, burrowing owls breed once each year in an extended reproductive period, during which most adults mate monogamously. Both sexes reach sexual maturity at one year of age. Clutch sizes vary, and the number of eggs laid is proportionate to prey abundance. The breeding season occurs from February 1 to August 31, but peaks between late April and July in most years.

Four burrowing owl occurrences have been reported within one-mile of the study area: (1) in 2007, burrowing owls were reported breeding in an undeveloped field near the intersection of Chestnut Street and Oak Street, approximately ½ mile to the northwest; (2) in 2004, an adult owl was observed using a burrow just west of the Highway 4/Balfour Road intersection, approximately 0.6-mile to the west; (3) in 2004, burrowing owls were reported breeding west of the Highway 4/Balfour Road intersection approximately 0.7-mile to the west; and (4) in 2007, three adult and two juvenile burrowing owls were reported north of Chestnut Street approximately 0.5-mile east of Sellers Avenue and 0.5-mile north of the project footprint. No burrowing owls or sign of their presence was observed during the site visits; however, they could use the site for denning, breeding and foraging at any time of the year. Suitable habitat is present within the fallow fields, ruderal areas and the vicinity of rural residences within the study area. Ground squirrel burrows were observed scattered throughout the ruderal and fallow fields and along the concrete aqueducts.

The project could result in direct mortality or injury to breeding, resident or transient burrowing owls or harassment from noise, vibration, light, or increased human activity. Burrowing owls could be indirectly affected by loss of breeding, foraging and denning habitat, temporary displacement, nest abandonment, and reduced reproductive success due to stress.

AVOIDANCE MEASURE BIO-4:

The HCP/NCCP provides the following conservation measures to avoid take of burrowing owl:

1. Preconstruction Survey

- a. Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist shall conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines.
- b. On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1 – August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 – January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

2. Avoidance and Minimization Measures and Construction Monitoring

- a. If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent should

avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).

- b. If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented for non-nesting owls. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (CDFG 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

3. Construction Monitoring

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing.

POTENTIAL IMPACT BIO-5: OTHER NESTING BIRDS AND RAPTORS

The following birds and raptors have the potential to breed and forage within the project vicinity due to the presence of medium to large mature trees, ruderal grassland, and farmland habitats: Cooper's hawk, ferruginous hawk, sharp-shinned hawk, white-tailed kite, loggerhead shrike, merlin, grasshopper sparrow, and Allen's hummingbird; loggerhead shrike was observed during the 2009 habitat assessment perched on a concrete stand pipe and foraging in a recently disked field within the study area. All of these species are protected by the Migratory Bird Treaty Act (MBTA); some with additional protection as noted in Table 5. Construction of the project will require removal of trees and shrubs located within the frontages of residential properties along Balfour Road. The general avian nesting season is February 1 – August 31 (Swainson's hawk: March 15 – September 15). Therefore, the project may directly or indirectly impact listed and/or MBTA-protected nesting birds and/or raptors if present. The project is not anticipated to impact these species with implementation of the following avoidance measures.

AVOIDANCE MEASURE BIO-5:

1. If tree removal, pruning, or grubbing activities are necessary, such activities will be conducted between October and February – outside of the breeding season – and preferably during the fall, prior to the onset of the rainy season, to avoid impacts to nesting migratory birds.
2. If project construction begins during the breeding season (February 1 to August 31), preconstruction surveys will be conducted within the project footprint and a 300-foot buffer for raptors and a 50-foot buffer for all other nesting birds, by a qualified biologist no more than two weeks prior to staging, pruning/grubbing or surface-disturbing activities. If no active nests are found within the project footprint and a 300-foot buffer, no further measures need to be implemented.
3. If active nests (i.e. nests in the egg laying, incubating, nestling or fledgling stages) are found within 300 feet of the project footprint, non-disturbance buffers will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance and the type/duration of potential disturbance. Sufficient buffers are generally 300 feet for raptors and 50 feet for other nesting birds. No work will occur within the non-disturbance buffers until the young have fledged, as determined by a qualified biologist. Buffer size will be determined in

cooperation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service 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 California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service Migratory Bird Permit Office should be contacted for further guidance.

POTENTIAL IMPACT BIO-6: WESTERN RED BAT

In general, bats exhibit a wide range of habitat usage depending on the species, season, time of day, resource availability, level of disturbance, and other such factors, but often exhibit a high site fidelity and specificity for roost selection. Roost sites consist of maternity (nursery colonies), bachelor, day, night and feeding sites within caves, mines, cliffs, rock crevices, tree hollows, stumps, foliage, under exfoliating bark, and in man-made structures such as buildings and bridges, among others. Some species require a complex network of habitat characteristics that fulfill foraging, water intake, shelter, and thermoregulatory requirements which vary seasonally. The survey effort necessary to document presence of some species, particularly those that roost and forage high off the ground, may require several weeks of monitoring based on a species roost selection, solitary roosting and foraging behaviors during non-breeding periods, rarity within the region, and current limitations of monitoring methods. Given these parameters, bat species and their habitat should be managed on a temporal and spatial scale that accounts for each species' specific habitat requirements, resource availability, and sensitivity to disturbance.

Primarily a riparian obligate species, western red bats are widely distributed throughout the western Americas, from British Columbia to Argentina. They are ubiquitous throughout most of California except the northern Great Basin region. The red bat is easily distinguished by its distinctive reddish coloration. Roosting typically occurs individually in dense clumps of tree foliage in riparian areas, especially willows, cottonwoods and sycamores, and within orchards and suburban areas in trees and shrubs. Roosts are often hidden from view and only accessed from below. Red bats are primarily moth specialists, but individuals will forage for a variety of other insects. Individuals have been observed foraging around street lamps and flood lights in suburban areas. The western red bat migrates long distances, but has been reported to overwinter in the Bay Area with interspersed winter foraging bouts on warm days.

Suitable roost habitat is present among mature trees within the study area, particularly within cottonwoods and other dense leafy ornamental trees. The project could result in the direct mortality or injury of individual western red bats or could indirectly affect the species by loss of roosting and foraging habitat.

AVOIDANCE MEASURE BIO-6:

The following are recommended measures to avoid and minimize impacts to western red bat.

1. Preconstruction surveys will be conducted for all areas that provide suitable bat roosting habitat including man-made structures, snags, rotten stumps, mature trees with broken limbs, trees with exfoliating bark, bole cavities or hollows, dense foliage, etc. Sensitive habitat areas and roost sites will be avoided to the maximum extent practicable.
2. If potential roost sites (trees, snags, etc.) are to be removed or trimmed, limbs smaller than 3 inches in diameter will be cut and the tree left overnight to allow any bats that may be using the tree/snag time locate another roost. A biological monitor will be present during the trimming or removal of trees/snags.

3. Structures or trees will be removed between September and March, outside of the breeding season to avoid disturbance to maternal colonies.

POTENTIAL IMPACT BIO-7: CURVED-FOOTED HYGROTUS DIVING BEETLE

This species inhabits slow-moving freshwater streams, side channel and backwater pools, and freshwater marshes. Suitable habitat is present within drainage ditches, irrigation canals and tailwater ponds within the study area. Three occurrences have been reported within five miles of the study area, the closest approximately 4 miles to the south were within a roadside ditch.

AVOIDANCE MEASURE BIO-7:

If present, the construction activities could result in the direct mortality or injury of individuals of this species or could be indirectly affected by the removal of aquatic habitat, decreased habitat or water quality, changes in the flow or runoff regime, and increased sedimentation and erosion. The following measures will avoid impacts.

1. Prior to the start of surface-disturbing activities, a qualified biologist will conduct a survey to determine if curved-footed hygrotus diving beetles are present within the impact area. If no individuals are found, no further avoidance and minimization measures are necessary. If individuals are found in the impact area, they will be collected and relocated to suitable areas outside the impact area or as otherwise directed by the California Department of Fish and Wildlife. Collection and translocation of these species will be conducted by a biologist in possession of a valid State Scientific Collecting Permit with expressed approval to handle these species by the California Department of Fish and Wildlife.

The attached Mitigation and Monitoring Reporting Plan (MMRP) identifies when these measures will be implemented, the parties that are responsible for ensuring implementation of these measures, and verification that the measures were implemented (Appendix A).

The project is not anticipated to substantially impact any special-status species with implementation of the mitigation and avoidance measures described above. Therefore, project impacts will be **less than significant with mitigation incorporated**.

- 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, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

No state or federally regulated sensitive natural communities or uncommon vegetation or uncommon landscape features as listed in the HCP/NCCP occur within the project area. Therefore, the project will have **no impact**.

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

Three features within the study area were investigated for their potential to be waters of the U.S. and state, and found to be non-jurisdictional as described below: the two aqueducts that cross the Balfour Road and the drainage ditch that parallels Bixler Road, south of Balfour Road (Nomad Ecology 2009b, 2015b). Therefore, the project will have **no impact**.

Aqueducts

The two aqueducts that cross Balfour Road were determined to be non-jurisdictional because they are non-tidal irrigation ditches excavated on dry land. These features would qualify as “ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands” which are clearly defined as not a waters of the U.S. in 33 CFR §328.3 of the 2015 Clean Water Rule, even if they eventually drain to a tributary and could affect the chemical, physical, or biological integrity of the tributary.

An analysis of an historical topographic map and 1939 aerial imagery served by Google Earth was used to determine if the ditches were constructed in wetlands to drain them or in dry lands to deliver water. The original ECCID water system was built in 1911. Historical photographs that show this area prior to the construction of the ditches were not available. The historical 1916 U.S. Geologic Survey topographic map shows only one wetland feature in the area: an unnamed creek in the vicinity of Byron Highway north of Balfour Road that is well away from the aqueducts. Therefore it is assumed the aqueduct is not excavated in a tributary.

Water is actively pumped into the aqueducts at Fallman Slough and transport water in the summer months for irrigation. The concrete aqueducts are dry in the winter months, which imply they are not functioning to drain wetlands. A portion of the aqueduct eventually drains to Marsh Creek (a jurisdictional tributary) but the aqueduct itself would not be considered a jurisdictional feature.

The location of the unnamed creek shown in the 1916 USGS topographic map was investigated for evidence of wetlands. There is currently an irrigation ditch present near the location of the historic creek that is visible on the aerial photograph. This irrigation ditch was shallow and appeared to be recently dug, and was dry at the time of the site visit. No wetland indicators were observed at the location where the historic creek crossed Balfour Road.

Roadside Drainage Ditch

The north-south drainage ditch that parallels Bixler Road did not show any evidence of scour in the northern portion of the ditch near the project area. The channel was choked with upland ruderal vegetation and did not appear to regularly carry water. This drainage ditch contained three box drains approximately 650 feet south of the intersection of Bixler Road and Balfour Road. The box drains feed into three culverts which cross Bixler Road and discharge into Fallman Canal, approximately 2,600' south of the intersection. The portion of the ditch near the box drains contained cattails and other wetland vegetation. At the time of the site visit, the box drains were draining water flowing from the south, fed by a large pond and wetland ringed with willows. The portion of this ditch in the vicinity of the box drains and south would be considered jurisdictional. North of the box drains, the ditch is characterized by upland ruderal vegetation, with no evidence of an ordinary high water mark, and is not considered jurisdictional.

- 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 situated approximately 13 miles northeast of Mt. Diablo proper and lies approximately 2.5 miles northeast of the undeveloped foothills comprising Deer Valley, Briones Valley, Round Valley, Byron Hot Springs and Los Vaqueros Watershed. This undeveloped stretch of

land is part of the northwestern-most extent of the Diablo Mountain Range, which functions as a regional movement corridor. This regional corridor extends from the eastern foothills of Mt. Diablo and Black Diamond Mines Regional Park southeast toward the Altamont Pass. This land tract promotes the dispersal and gene flow between a variety of plant and animal subpopulations occurring within the region. The valley bottom in which the project area is located comprises part of the Sacramento-San Joaquin River Delta floodplain and is predominantly farmed.

The intensive agriculture use, network of rural and heavily-used county roads, and residences have limited the successful dispersal and movement from occupied lands to the southwest. However, the various irrigation canals, fallow and ruderal fields, and scattered aquatic features and trees provide a potential means for some species, such as giant garter snake, burrowing owl, and Swainson's hawk, to disperse and move through the area in addition to common wildlife. The project will not result in permanent disruption to movement of wildlife species. However, activities associated with construction of the project may temporarily inhibit dispersal, migration, and daily movement. This disruption is limited and short term in nature (Nomad Ecology 2015a). Therefore, project impacts will be **less than significant**.

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

The project will not conflict with any local policies or ordinances protecting biological resources as potential impacts and anticipated impacts will be avoided where feasible and where not feasible will be mitigated through the HCP/NCCP which is consistent with the policies for protection of biological resources included in the Conservation Element section of the County General Plan (Contra Costa County 2005d). The project is not subject to the County Tree Ordinance (Contra Costa County Code [CCCC] Title 8, Chapter 816-6.10(6)) as tree trimming and clearing will occur within the County ROW. Therefore, the project will have **no impact**.

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

The project is consistent with the HCP/NCCP as mitigation fees will be paid to offset impacts and the required surveys and required avoidance and minimization measures will be implemented as described above. Therefore, the project will have **no impact**.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in §21074?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 need to be considered when making a significance determination.

1. Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. 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.

Tribal Cultural Resources

Effective July 1, 2015, Assembly Bill 52 (AB 52) amended CEQA to mandate consultation with California Native American tribes during the CEQA process to determine whether or not the proposed project may have a significant impact on a Tribal Cultural Resource, and that this consideration be made separately from cultural and paleontological resources.

Section 21073 of the Public Resources Code defines California Native American tribes as “a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004.” This includes both federally and non-federally recognized tribes.

Section 21074(a) of the Public Resource Code defines Tribal Cultural Resources for the purpose of CEQA as:

- 1) Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are any of the following:
 - A. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
 - B. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
 - C. a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria A and B also meet the definition of a Historical Resource under CEQA, a Tribal Cultural Resource may also require additional consideration as a Historical Resource. Tribal Cultural Resources may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, AB 52 requires that CEQA lead agencies carry out consultation with tribes at the commencement of the CEQA process to identify Tribal Cultural Resources. Furthermore, because a significant effect on a Tribal Cultural Resource is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures. Consultation is concluded when either the lead agency and tribes agree to appropriate mitigation measures to mitigate or avoid a significant effect, if a significant effect exists, or when a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (21080.3.2[b]), whereby the lead agency uses its best judgement in requiring mitigation measures that avoid or minimize impact to the greatest extent feasible.

Cultural and Historical Resource Assessment

In order to determine if the project area contains potential significant cultural and/or historical resources, a qualified cultural resource specialists conducted research of recorded sites and surveys within one mile of the project area and also reviewed historic maps and literature at the Northwest Information Center at California State University, Sonoma, and various libraries (Condor Country

Consulting, Inc. 2009, JRP Historical Consulting 2009). The CCCPWD Environmental Services Division requested a Sacred Lands File search from the Native American Heritage Commission (NAHC) to determine if any recorded Native American sites occur within the project area and also contacted Native American tribal representatives provided by the NAHC that may have knowledge of unrecorded sites (Native American Heritage Commission 2009, Contra Costa County Public Works Department [CCCPWD] 2009a).

The CCCPWD has received only one letter to date requesting formal notification. On August 24, 2015, the County received a notification letter from the Wilton Rancheria requesting formal notification of proposed projects within their geographic area of traditional and cultural affiliation.

Environmental Setting

The project area and surrounding land uses consists of the road and associated gravel shoulders and active farmland and ranchettes. The greatest land changes in the project vicinity are related to early settlement by Euroamericans in the 1800s with introduction of agriculture and livestock which constituted one of the principal reasons for the disappearance of the California grasslands. Another significant land change was the diking of the Delta for the conversion of tule marsh into viable farmland and the construction of the East Contra Costa Irrigation District canals in 1913. The expansion of the City of Brentwood and spread of suburban development in the mid-1990s through 2000s have had the greatest land change in the surrounding. The project area and immediately adjacent area has been subject to extensive landform modification, including construction of ditches along Balfour Road, and ongoing crop tilling (Condor Country Consulting 2009).

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

The records search and field survey did not identify the presence of recorded or unrecorded historical resources within the project area. However, the main canal of the East Contra Costa Irrigation District (ECCID) located approximately ½ mile south of the project area was determined to be eligible for listing to the National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR). The canal was constructed from 1913 through 1930 and is of recognized local historical importance (Condor Country Consulting 2009). Considering that the ECCID lateral canal structures occur within the project area and will require modifications to accommodate the road shoulder widening, a qualified architectural historian evaluated the ECCID lateral canal structures to determine if it meets the criteria for listing on the NRHP and CRHR. It was determined that the ECCID lateral canal structures that would be impacted do not appear to meet either criteria. Further, the ECCID structures have not been identified as Contra Costa County landmarks (JRP Historical Consulting 2009).

The project will require excavations of up to 8 feet below existing grade for drainage inlets and irrigation drain pipes, up to 3.5 feet for the drainage ditches, and up to 6.5 feet for the driveway culvert crossings (pers. comm. Yip 2015). While the records search and field survey did not identify the presence of historical resources, the project may unearth unanticipated historic or pre-historic Native American period resources. The project contract specifications require the contractor to implement the following measures to avoid and minimize potential impacts. Therefore, project impacts will be **less than significant**.

1. Project contract specifications will identify the types of historic and pre-historic Native American period resources that may be encountered.

2. If an inadvertent discovery is made, the construction contractor will cease all ground-disturbing activities in the area of the discovery.
3. The construction contractor will immediately notify the CCCPWD Resident Engineer who will then request the appropriate specialist to evaluate the finding(s).
4. If the finding(s) is determined to be potentially significant, the specialist in consultation with the appropriate agency and cultural resource representative, if applicable, will develop a research design and treatment plan outlining management of the resource, analysis, and reporting of the find.

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

The records search and field survey did not identify archaeological resources within the project area. Further, the NAHC and Native American tribal representatives did not identify native lands, plant gathering areas, archaeological deposits, or traditional cultural properties within the project area (CCCPWD 2009). However, the project will require excavations up to eight feet and therefore while the records search and field survey did not identify the presence of resources, the project may unearth unanticipated historic or pre-historic Native American period resources. Implementation of the above measures provided in above will minimize potential impacts. 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?

The project is not anticipated to destroy any unique paleontological resources or sites because the project is underlain primarily by alluvium soil deposits which are not considered formations that include unique paleontological features (Contra Costa County 2005d). However, the project will require excavations up to seven feet and therefore should unanticipated paleontological resources are unearthed, implementation of the above measures will minimize potential impacts. Therefore, project impacts will be **less than significant**.

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

The project will not impact any formal or informal cemeteries because none are present within or adjacent to the project area. In order to determine if there are any unrecorded burial grounds and/or sacred land sites in the vicinity of the project area, the NAHC was contacted to check their Sacred Lands File of recorded sites. While no recorded sites were found, the NAHC provided a list of Native American tribal representatives for the region to be notified for unrecorded sites. The listed Native American representatives were notified of the project via certified mail and follow up emails or phone calls. None of the representatives who provided responses expressed any concerns relating to this project (CCCPWD 2009). However, the project will require excavations up to eight feet and therefore should unanticipated human remains be discovered, the project contract specifications require the contractor to implement the following measures to minimize potential impacts. Therefore, project impacts will be **less than significant**.

1. Stop work in the area of any discovery and immediately notify CCCPWD Resident Engineer who will then contact the County Coroner, NAHC, and a qualified archeologist to determine how to appropriately deal with the remains in accordance with the California Health and Safety Code (Health and Safety Code Section 7050.5[b]).

- e) *Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in §21074?*

On September 1, 2015, CCCPWD sent out a notice of opportunity to consult letter. A brief description of the project and its location, and the lead agency contact information was provided, along with notification that the tribe had 30 days to request consultation. The letter was signed as received on September 2, 2015. The 30-day response period concluded on October 1, 2015. No response was received. The project will not cause a substantial adverse change in the significance of a Tribal Cultural Resource as no response was received from the only tribe that has requested formal notification. Therefore, the project will have **no impact**.

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VI. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1 Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Geology

The project area is located within the Westside Alluvial Fans and Terraces subsection of the Great Valley Section. Westside Alluvial Fans and Terraces comprise terraces and alluvial fans along the western edge of the San Joaquin Valley, adjacent to the Coast Ranges. This is a subsection of very gently to gently sloping terraces and alluvial fans with few large streams that drain across the terraces and alluvial fans on the west side of the San Joaquin Valley. Elevations range from sea-level to 1,500 feet. Fluvial erosion and deposition are the main geomorphic processes here. Westside Alluvial Fans and Terraces contain mostly Quaternary alluvium, and some Plio-Pleistocene sediments. The alluvium is predominantly from sedimentary rock sources in the Coast Ranges. There are small areas of Eocene, Miocene, and Pliocene sedimentary rocks (Nomad Ecology 2015a).

Soil

The soil types in the project area consists of Brentwood clay loam, Brentwood clay loam wet, Capay clay (0-2% slopes), Capay clay, wet (0-2% slopes). The Brentwood soil series are on nearly level to gently sloping

fans and formed in valley fill from sedimentary rocks. These soils are well- to moderately-well drained with very slow to medium runoff and moderately slow permeability. Capay soils are on alluvial fans, alluvial flats, interfan basins and basin rims. These soil series consists of very deep, moderately well-drained soils that formed in moderately fine and fine textured alluvium derived from mostly sandstone and shale with negligible to high runoff and slow to very slow permeability. Some areas are subject to rare, occasional or frequent flooding ((Nomad Ecology 2015a).

a) *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving?*

1 *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

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 2005e). 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 (Association of Bay Area Governments [ABAG] 2015).

The closest faults are the Greenville located approximately 10 miles to the southwest and the Concord-Green Valley located approximately 25 miles to the west. The Greenville fault would result in strong seismic shaking in the project vicinity and the Concord-Green Valley fault would result in moderate shaking (ABAG 2015). The project is not expected to expose people or structures to potential substantial adverse effects from a rupture of a known earthquake fault as the project does not include features that would increase risk to people or structures as it is primarily limited to shoulder widening of an existing road. Nevertheless, the project design and construction will incorporate measures that are in accordance with applicable state and local design practice and guidelines to ensure the project will withstand seismic activity as defined in the Caltrans Highway Design Manual (Caltrans 2015b). Therefore, project impacts will be **less than significant**.

2 *Strong seismic ground shaking?*

As discussed above, while the project area is located in an area of moderate to strong seismic shaking, the project is not expected to expose people or structures to potential substantial adverse effects from strong seismic ground shaking as the project does not include features that would increase risk to people or structures as it is primarily limited to shoulder widening of an existing roadway. Further, the project design and construction will incorporate measures that are in accordance with applicable state and local design practices and guidelines to ensure that the project will withstand seismic activity. Therefore, project impacts will be **less than significant**.

3 *Seismic-related ground failure, including liquefaction?*

The project area is located within a moderate to high liquefaction potential (Contra Costa County 2005e, ABAG 2015). The project design and construction will incorporate measures that are in accordance applicable state and local design practice and guidelines to ensure that the project will withstand seismic-related failures. Therefore, project impacts will be **less than significant**.

4 Landslides?

The project area is not located within a potential landslide area (Contra Costa County 2005e: Figure 10-6). Therefore, the project will have **no impact**.

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

The project will not result in substantial soil erosion or the loss of topsoil because minor grading and excavation associated with the road improvements will result in a negligible change in topography. Construction of the project will temporarily increase the exposure of soils to wind erosion from grading and excavation activities. However, standard dust and erosion control practices will be implemented as outlined in discussion item (a) of the Air Quality section during construction to minimize impacts. 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?

As discussed above, the project area is not located within an area subject to landslides but within a moderate to high potential for liquefaction. The project design and construction will incorporate measures in accordance with state and local design practice and guidelines as defined in the Caltrans Highway Design Manual to ensure that the project will withstand seismic activity and liquefaction. Further, the project is limited to shoulder widening of an existing road and will not introduce new land uses that could be impacted by unstable soils. 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?

The Quaternary Alluvium geological formation that occurs beneath the project area consists of consolidated and unconsolidated sediments which can cause localized problems for building due to expansive clays, hillside earth flows and unstable cut slopes (Contra Costa County 2005e: Figure 10-1). 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 2005e).

As noted above, the project area is located on clay type soils. The project will not create a substantial risk to life or property as the project is limited to shoulder widening of an existing road. Nevertheless, the project will be engineered according to standard industry practice, which includes design considerations for soil type. Therefore, project impacts will be **less than significant**.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?

The constructed project and project construction will not require septic or other waste disposal systems. Therefore, the project will have **no impact**.

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VII. GREENHOUSE GAS EMISSIONS

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

Regulatory Background

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. 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 (California Office of Planning and Research [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 (OPR 2008b). 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 (OPR 2008b). This bill directed the California Air Resources Board (CARB) to begin developing discrete early actions to reduce GHGs to reach the GHG reduction goals by 2020.

As discussed in the air quality section, in order to address global climate change associated with air quality impacts, CEQA statutes were amended to require evaluation of 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). While the BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions, sources of construction-related GHGs include exhaust (carbon dioxide, nitrous oxide) for which the same detailed guidance as described for criteria air pollutants and precursors should be followed (BAAQMD 2010b).

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

The constructed project would not result in an increase of GHG emissions as no additional travel lanes will be created; however, construction activities will generate GHGs from construction equipment and vehicle exhaust. While the BAAQMD does not have an adopted threshold of significance for construction related-GHG emissions Lead Agencies should quantify and disclose GHG emissions that would occur during construction, and make a determination on the significance of these construction-generated impacts. As discussed in the Air Quality section, estimated project construction emissions were determined to be below the thresholds of significance. Further, project contract specifications will require implementation of air pollution control practices. 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?*

The project will not conflict with an applicable plan, policy or regulation as project emissions were estimated and determined to be below the thresholds of significance in accordance with BAAQMD air quality plans. Further, project contract specifications will require implementation of air pollution control practices. Therefore, project impacts will be **less than significant**.

VIII. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory 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. The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies. The California Environmental Protection Agency (Cal/EPA) which consists of the Air Resources Board, Department of Pesticides Regulation, Department of Resources and Recycling and Recovery, Department of Toxic Substance Control (DTSC), Office of Environmental Health Hazard Assessment, and State Water Resources Control Board (SWRCB) regulates hazardous materials and waste. Under Government Code Section 65962.5, the DTSC maintains a list of hazardous substance sites (Cortese List) which includes leaking underground storage tank sites, hazardous material sites, and landfills with evidence of groundwater

contamination (Cal/EPA 2015). The Contra Costa County Health Services, Hazardous Materials Program (2015) serves area residents by responding to emergencies and monitoring hazardous materials.

- 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 because once constructed, the project would not result in routine transport, use or disposal of hazardous materials other than what already occurs by the traveling public. Therefore, project 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 will not create a significant hazard to the public or the environment because once constructed, the project would not result in accident conditions of hazardous materials other than what already occurs by the traveling public. However, there is the potential for a release of hazardous substances from construction equipment operations (e.g., accidental petroleum spills) during construction. Project contract specifications will require that the contractor prepare a Stormwater Pollution Prevention Plan to identify best management practices (BMPs) (i.e., placement of drip pans under stationary equipment, routine equipment inspections, and on-site spill cleanup materials) to prevent accidental releases to the environment and workers. In addition, project contract specifications will require the contractor to contact Underground Service Alert (USA) prior to conducting any ground-disturbing work that could potentially impact utilities. 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 1/4 mile of the project area. The constructed project will not emit hazardous emissions or handle hazardous or acutely hazardous materials or substances. While construction equipment exhaust will generate an increase in air pollutant concentrations, it would be temporary and effects would be negligible as estimated emissions were determined to be less than the BAAQMD thresholds of significance as discussed in the Air Quality section. Further, project contract specification requirements for air and water pollution control pollution practices will be implemented. 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 Section 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 compiled pursuant to Government Code 65962.5 (Cortese List) or any lists maintained by the CalEPA, California DTSC, or CCHS, Hazardous Materials Program databases (SWRCB 2015b, DTSC 2015). Field observations noted an adjacent parcel occupied by Mid-Valley Agricultural Supply Services which stores and sells farm-related chemicals such as herbicides and pesticides, however this business was not listed on any databases and no evidence of contamination was observed of the property from the road or elsewhere within the project area. Therefore, the project will have **no impact**.

- 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.*

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?*

The constructed project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Access for emergency vehicles will be provided at all times during construction. 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 will not expose people or structures to a significant risk of loss, injury or death involving wildland fires as the project area is not located adjacent to wildlands (CalFire 2007, 2009). Therefore, the project impact will have **no impact**.

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IX. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface run-off in a manner which would result in flooding on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Hydrological Resources

Hydrology on site is influenced by many factors, such as precipitation, run-off, geologic stratigraphy, topography, soil permeability, and plant cover. The mean annual precipitation for this region ranges from 8 to 16 inches and nearly all of the precipitation is rainfall. The mean annual temperature is generally between 59 and 62°F and the mean freeze-free period is from 250 to 275 days. Streams in this subsection drain to the

San Joaquin River and all but the larger streams are dry during the summer (Nomad Ecology 2015a). The project area is located within the East County Delta Drainages which is tidally influenced by the Delta and repeated flooding has deposited sediment and created a fertile environment which has attracted agricultural industry to this region. Flood control infrastructure was constructed to protect farmland and irrigation canals were constructed to channel water through the region (Contra Costa County 2003).

The project area is fairly level, with elevations ranging from 60 feet above mean sea level at Sellers Avenue to 10 feet above mean sea level at Bixler Road. As noted in the Geology section, the project vicinity is underlain by Quaternary alluvium, and some Plio-Pleistocene sediments. The soil types in the project area consists of Brentwood clay loam and Capay clay which; Brentwood soils are well- to moderately-well drained with very slow to medium runoff and moderately slow permeability and Capay soils are very deep, moderately well-drained soils with negligible to high runoff and slow to very slow permeability. The surrounding lands appeared to be level and well-drained as observed during site visits (Nomad Ecology 2015a).

The edges of the road are nearly level, and roadside ditches are absent. A north-south running drainage ditch is present on the west side of Bixler Road, just south of the intersection with Balfour Road. This drainage ditch contained three box drains approximately 650 feet south of the intersection. The box drains feed into three culverts which cross Bixler Road and discharge into Fallman Canal, approximately 2,600 feet south of the intersection. The portion of the ditch near the culverts contained cattails and other wetland vegetation. At the time of the site visit, the box drains were draining water flowing from the south, fed by a large pond and wetland ringed with willows. The portion of the ditch in the project area was the northernmost extent of the ditch, was characterized by upland ruderal vegetation, did not contain an ordinary high water mark, and did not appear to regularly carry water (Nomad Ecology 2015a).

Balfour Road crosses two concrete aqueducts that deliver irrigation water north from the Main Canal which parallels Balfour Road one-half mile to the south. The Main Canal is operated by the East Contra Costa Irrigation District (ECCID). The original ECCID water system was built in 1911. Water is pumped into the Main Canal from Indian Slough to the east, immediately north of Discovery Bay. Water is conveyed west along the open, concrete-lined Main Canal to its terminus at Fairview Avenue. A total of seven pump stations are located along the canal. Water is pumped from the Main Canal into several north-south-running irrigation canals along its length. A grid of canals, pipelines, and ditches runs throughout the ECCID (Nomad Ecology 2015a).

The westernmost of the two concrete aqueducts that cross Balfour Road parallels Sellers Avenue in the project area. This aqueduct carries water north from the Main Canal on the east side of Sellers Ave – crossing to the west side of Sellers Avenue near the intersection with Chestnut and continues north to Sunset Road. At Sunset Road, it enters the “boosting station” and travels in pipes until it is discharged into Marsh Creek. The easternmost of the two concrete aqueducts carries water in a single channel north from the Main Canal. After crossing to the north side of Balfour Road, it splits into two concrete aqueducts: one continues north, and the other parallels Balfour Road, heading east for one-quarter mile, then turning northeast. At the time of the July 2015 site visit, all channels that cross Balfour Road were carrying water, presumably for irrigating crops.

Flood Hazard Areas

Special flood hazard areas are subject to 1% chance of flooding in any given year (100-year flood), also known as the base flood. 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. FEMA produces flood insurance rate maps (FIRM) that show areas that have been evaluated which are updated periodically. The project area is not located within a 100-year floodplain zone; the area is located within Zone X which includes areas of 2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than one square mile; and areas protected by levees from 1% annual chance flood (FEMA 2009).

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

The federal and state Clean Water Acts have promulgated a number of program permits to improve surface and groundwater quality and meet water quality objectives through the National Pollutant Discharge Elimination System (NPDES) permit program. The NPDES *Waste Discharge Requirements for Storm Water Discharges from Municipal Separate Storm Sewer Systems* for jurisdictions in East Contra Costa County (Order No. R5-2010-0102) require new development and redevelopment projects that create more than 10,000 square feet of impervious surface area to construct stormwater treatment systems to treat stormwater runoff (Provision C.3) (Regional Water Quality Control Board 2010). While the project will create approximately 138,300 square feet (3.2 acres) of additional impervious surface area for the road and shoulder improvements, it was determined that the project will not be required to implement Provision C.3 of this waste discharge permit as no additional travel lanes will be constructed that would contribute to additional pollutant runoff, and the additional individual left turn lanes would not exceed 10,000 square feet (CCCPWD 2009b; pers. comm. Swartz 2010).

The NPDES *General Permit for Storm Water Discharges Associated with Construction and Land Disturbances* (Order No. 2012-0006-DWQ) requires that construction projects that disturb more than one acre of soil to seek permit coverage from the State Water Resources Control Board (SWRCB) which requires notification, fees, and preparation of a Stormwater Prevention Pollution Plan (SWPPP) that identifies best management practices (BMPs) to be implemented during and after construction to avoid and minimize polluted runoff from construction sites (SWRCB 2015a).

The project will not violate any water quality standards or waste discharge requirements for the reasons discussed above. 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 (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 require the need for groundwater supply. 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 existing drainage pattern consists of sheet flow runoff onto the adjacent farmlands and irrigation ditches. An open roadside ditch will be constructed along the south side of the road with a couple of segments that will be piped underground and connect to an existing drainage inlet at the southwest corner of Balfour Road and Bixler Road intersection where flows will drain south along the west side of Bixler Road within the existing drainage ditch. Open ditches will be piped under existing driveways. Underground cross drain pipes will be installed under the road at several locations throughout the

project segment to collect gravity-fed sheet flow runoff from along the north side of the road. The project will not substantially alter the existing drainage pattern of the area that would result in substantial on-site or off-site erosion or siltation as the project area is fairly level. However, project construction could result in erosion or siltation from soil disturbance. Implementation of applicable BMPs identified in the SWPPP will avoid or minimize on- and off-site erosion and siltation. 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 run-off in a manner which would result in flooding on-or off-site?*

The project will create additional impervious surface area for the widened travel lanes, new shoulders, and left turn pocket lanes at Byron Highway intersection. While there will be an increase in impervious area which could potentially increase the amount of surface run-off, this will be negligible considering the substantial undeveloped adjacent acreage, and the proposed drainage improvements described above will reduce on- and off-site flooding. 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?*

As noted above, the constructed project will create additional impervious surface area. While there will be an increase in impervious area which could potentially increase the amount of surface run-off, the proposed drainage improvements described above will not exceed the capacity of the existing drainage system as none exists. The proposed stormwater drainage system will accommodate the additional surface run-off. The project will not contribute to substantial additional sources of polluted runoff as no new through travel lanes will be created. Therefore, project impacts will be **less than significant**.

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

The constructed project will not otherwise substantially degrade water quality. Further, implementation of applicable BMPs identified in the SWPPP will avoid potential impacts. 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 is not located within a 100-year flood zone. Further, the project will not create 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?*

As noted above, the project is not located within a 100-year flood plain zone, and the project will not create any structures which would not impede or redirect flood flows. In addition, while there will be an increase in impervious area for the shoulders closer to residential properties, the proposed drainage improvements (i.e., construction of roadside ditch, installation of storm drain inlets) will improve stormwater flows. 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 the failure of a levee or dam?*

The project will not expose people or structures to a significant risk of loss, injury or death involving flooding as the project will not create levees or dams and is not located within a dam or levee failure

inundation area (California Department of Water Resources 2015; ABAG 2015). Further, the project involves improvement to an existing road. Therefore, the project will have **no impact**.

- j) *Would the project the expose people or structures to risk of inundation by seiche, tsunami, or mudflow?*
The project area is not subject to seiche, tsunami, or mudflow (CDC 2009). Therefore, the project will have **no impact**.

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X. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or the regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project is located within unincorporated Contra Costa County. Land use policies are established in the County's General Plan and Zoning Code. In addition, the project is subject to the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP) (Jones and Stokes 2006).

The project area is located outside the Urban Limit Line and within the Agricultural Preserve District (A-4, A-40) which is intended to provide areas that provide primarily for the commercial production of food and fiber and other compatible uses consistent with the intent and purpose of the Land Conservation Act of 1965 (MuniCode, Contra Costa County 2015).

a) *Would the project physically divide an established community?*

The project would not physically divide an established community because the project involves improvement to an existing roadway which will benefit the motorists and farm equipment using the road by providing a safer road. Therefore, the project will have **no impact**.

b) *Would the project conflict with any applicable land use plan, policy, or the 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 (Contra Costa County 2005g):

- 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

Further, impacts will be mitigated and minimized as discussed in the Agricultural Resources, Biological Resources, and Cultural Resource sections which are consistent with the goals and policies of the Conservation Element of the County General Plan (2005d). Therefore, the project will have **no impact**.

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

The project is located within the East Contra Costa County HCP/NCCP inventory area and is a covered activity. As such, required mitigation fees will be paid prior to construction and applicable avoidance and minimization measures will be implemented as required by the HCP/NCCP as discussed in the Biological Resources section. Therefore, the project will have **no impact**.

XI. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss or availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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; domestone 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 shale in the Port Costa area, which has been designated for protection by the County General Plan (Contra Costa County 2005h).

- 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 (Contra Costa County 2005h). 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 (Contra Costa County 2005h). As such, the project will not adversely affect the availability of a locally important mineral resource recovery site shown in the General Plan. Therefore, the project will have **no impact**.

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XII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of, excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Background

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 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).

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. This state law requires that a jurisdiction's noise element identify and work toward mitigation of noise problems in the community and include implementation measures and possible solutions that address any existing and perceivable noise problems. The Contra Costa County General Plan Noise Element follows the guidelines established by the California Department of Health Services entitled *Guidelines for the Preparation and Content of the Noise Element of the General Plan*, which defines noise metrics, discusses the process of noise element development, and present land use compatibility guidelines based on various noise levels and provides goals, policies, and implementation measures for consideration (Contra Costa County 2005i).

Land Use Setting

The land uses in the surrounding the project area consist of active farms and associated residences. Noise sensitive land uses consist of residences that adjoin the project area.

- a) *Would the project cause 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?*

Contra Costa County does not have a noise ordinance and therefore, does not specify operational or construction noise level limits. The Noise Element does specify 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 5 p.m. (Contra Costa County 2005i).

The existing noise environment in the project area is governed primarily by vehicular traffic traveling on Balfour Road. The Noise Element includes traffic noise contour levels for various roads throughout the County used to guide land uses so that exposure of community residences to excessive noise is minimized. Noise contours are shown in terms of day/night average sound level (L_{dn}). There are no traffic noise contours for Balfour Road but there are noise contours for Byron Highway. The traffic noise contour level ranges between 60 and 67 dBA L_{dn} at 100 feet from the centerline of the road (Contra Costa County 2005i). Balfour Road and Byron Highway have similar traffic conditions however trucks typically use Byron Highway to get to State Route 4 due to the limitations of the narrow width of Balfour Road (pers. comm. Yip 2015).

The constructed project will not increase ambient noise levels above what already exists as no additional travel lanes will be created. However, project construction may temporarily increase the noise level in the project area from construction equipment noise. Standard construction equipment anticipated to be used include excavators, graders, loaders, sweepers/scrubbers, plate compactors, rollers, backhoes, and pavers. In general, these types of construction equipment generate noise levels ranging from about 76 to 83 decibels at 50 feet from the noise source (FHWA 2015).

In addition, based on the Caltrans Standard Specifications Section 14-8.02, Noise Control (2010), which regulates construction noise for activities on state highways, the following rules are applicable to the project's construction activities.

1. Do not exceed 86 dBA at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.
2. Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

In accordance with the Noise Element of the General Plan, the project will occur during the daytime which is not the noise sensitive period. Further, project contract specifications will require the contractor to implement the following measures to minimize potential impacts. Therefore, project impacts be **less than significant impact**.

1. Advance written notification to adjacent land owners and occupants of the upcoming project and schedule with contact information of the project manager to address noise concerns;
2. Comply with manufacturer's muffler requirements for construction equipment;
3. Turn off construction equipment when not in use; and
4. Locate stationary equipment as far as practical from noise-sensitive uses.

- b) *Would the project cause exposure of persons to or generation of, excessive ground borne vibration or ground borne noise levels?*

Road traffic is rarely the source of perceptible ground-borne vibration. Exceptions to this occur when there is a significant discontinuity in the roadway surface. Vehicles traveling over a discontinuity can impart energy into the ground that can be perceived as ground-borne vibration (Caltrans 2013). The project will result in a smoother road pavement surface. Therefore, the constructed project is not expected to result in perceptible ground-borne vibration.

Construction activities include operation of large pieces of equipment (e.g., graders, excavators) that may result in the periodic temporary generation of ground-borne vibration. While the project vicinity is rural in nature, there are a quite a few residences near the project segment. Construction of the project will take approximately six months to complete and will not include significant vibrating equipment (i.e., pile drivers). Further, heavy construction equipment will primarily be operated during the clearing/grubbing and grading phases which is anticipated to occur over a three-month period but not continuously at one location as it would move throughout the three-mile project segment. Therefore, project impacts will be **less than significant**.

- c) *Would the project cause 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 what exists currently as the project will not create additional travel lanes. Further, the road improvements will create a smoother roadway which generally reduces noise levels (Asphalt Pavement Alliance 2015). Therefore, the project will have **no impact**.

- d) *Would the project cause 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 but will occur during the daytime which is not during the noise sensitive period. Further, BMPs outlined in discussion item (a) above will be implemented to reduce noise. Therefore, the project will have a less than significant impact.

- 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?*

There is no public airport located within two miles of the project area. Therefore, the project will have **no impact**.

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

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

XIII. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 (Contra Costa County 2005j).

- a) *Would the project 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)?*

The project is a road safety improvement and does not include new development or creation of new travel lanes or other infrastructure that could induce substantial population growth. Therefore, the project will have **no impact**.

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

While the project will require sliver right-of-way acquisitions along the frontage of privately-owned parcels to accommodate the road shoulder improvements, the project will not result in the displacement of existing homes because no homes will be demolished or removed by the project. 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 residents because as stated above no residences will be removed or demolished. Therefore, the project would have **no impact**.

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XIV. PUBLIC SERVICES

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

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

1 Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4 Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5 Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

1 Fire Protection?

The East Contra Costa Fire Protection District provides fire protection services and emergency services for east Contra Costa County (Contra Costa County 2005k). The constructed project will not increase demand for fire protection services and thus no new government facilities or expansion of existing facilities will be required. However, project construction may spark unintentional fires that may require fire services. Standard practice and Occupational Safety and Health Administration (OSHA) regulations require fire suppressive equipment at construction sites (OSHA 2015). In addition, construction to alleviate any disruption to fire protection services during construction, the contractor will contact local fire protection response services prior to project construction and provide at least one passable lane at all times during construction for fire protection vehicles. Therefore, project impacts will be **less than significant**.

2 Police Protection?

The Contra Costa County Sheriff's Department provides general public safety and law enforcement services in unincorporated areas of Contra Costa County (Contra Costa County 2005k). The constructed project will not increase demand for police services and thus no new government facilities or expansion of existing facilities will be required. However, to alleviate any disruption to police protection services during construction, the contractor will contact local police protection response services prior to project construction and provide at least one passable lane at all times during construction for police vehicles. Therefore, project impacts will be **less than significant**.

3 Schools?

The project area is located in the Brentwood, Byron, Knightsen Union School Districts (elementary and middle schools) and Liberty Union High School Unified School District (Contra Costa County 2015). The project will not increase demand for school services and thus no new government facilities or expansion of existing facilities will be required. Therefore, the project will have **no impact**.

4 Parks?

The project area is not located within or near a park. The constructed project will not increase demand for parks and thus no new facilities or expansion of existing facilities will be required. Therefore, the project will have **no impact**.

5 Other public facilities?

There are no other public facilities that would require new or expanded service facilities. Therefore, the project will have **no impact**.

XV. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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></p> <p>The project is a road safety improvement and does not include new development that could increase the use of existing parks or recreational facilities that could result in deterioration of facilities. Therefore, the project will have no impact.</p>				
<p>b) <i>Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?</i></p> <p>As noted above, the project is a road safety improvement and does not include new development that could require construction or expansion of existing recreational facilities. Therefore, the project will have no impact.</p>				

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XVI. TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Background

The Contra Costa Transportation Authority (CCTA) is a public agency formed to manage the County's transportation sales tax program and to conduct countywide transportation planning. CCTA is responsible for maintaining and improving the County's transportation system by planning, funding, and delivering critical transportation infrastructure projects and programs that connect the communities safely and efficiently including bicycle and pedestrian projects as described in the *2009 Countywide Bike and Pedestrian Plan*. In addition, the Transportation and Circulation Element of the County General Plan includes goals and policies.

Existing Traffic Conditions

Balfour Road is a narrow two-lane arterial road that connects Brentwood and Discovery Bay in the project area (Contra Costa County 20051). The most recent average daily traffic (ADT) count for this segment is from 1,300 feet west of Byron Highway in 2013. The ADT for the eastbound direction was 114 in the morning and 169 in the evening; the westbound direction was 201 in the morning and 147 in the evening. Morning traffic peaks occurred between 7:30 a.m. and 8:30 a.m. and evening traffic peaks occur between 5:00 p.m. and 6:00 p.m. Balfour Road has a speed limit of 50 miles per hour (CCCPWD 2013a).

- a) *Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

The constructed project will not conflict with applicable plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system as the purpose of the project is to improve the structural and geometric design of the existing roadway to bring the shoulders up to current design standard to provide recovery areas for motorists and a bike lane (Contra Costa County 2005l, Contra Costa Transportation Authority [CCTA] 2009a,b).

There are no existing or proposed designated bicycle facilities along Balfour Road at this time (CCTA 2009b). Although, the widened paved shoulders will be marked as a bike lane and will provide shared use of the road for bicyclists and motorists within the project area.

Tri-Delta Transit provides public transit for east Contra Costa County. The project segment is not part of the bus route system. Although, Balfour Road within the project area is a designated school bus route (pers. comm. McElhaney 2015).

While the constructed project will improve traffic circulation and will not interfere with other modes of motorized and non-motorized transportation, construction of the project will temporarily disrupt traffic circulation as it will result in traffic congestion and delays from one-way road closures and detour. Construction activities will be generally limited to the hours between 7:00 a.m. to 5:00 p.m. Monday through Friday. Traffic control will be in place for westbound traffic to accommodate morning commute traffic, whereas eastbound traffic will be directed to a detour route. The detour route for eastbound traffic on Balfour Road from Sellers Avenue to Byron Highway would be via Sellers Avenue to the north, to Chestnut Street to the east, and to Byron Highway to the south, and is anticipated for 18 weeks (approximately three miles and five minutes). The detour route for eastbound traffic on Balfour Road from Byron Highway to Bixler Road would be via Byron Highway to the north, to Orwood Road to the east, and Bixler Road to the south, and is anticipated for 10 weeks (approximately three miles and five minutes) (pers. comm. Yip) (Figure 2).

The project contract specifications require the contractor to implement the following measures to minimize potential impacts. Therefore, project impacts will be **less than significant**.

1. Letter notification to local residents seven calendar days in advance of construction and road closure start date(s).
2. Publish press release in local newspapers seven days before construction start date.
3. Placement of portable changeable message signs at various locations in project vicinity with construction start and road closure dates and period at least seven calendar days in advance of start dates.
4. Placement of detour signs along detour route to direct motorists.
5. Provide accessibility to driveways to properties outside the project area throughout the project.

- b) *Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

As noted above, the constructed project will not conflict with a congestion management program as the purpose of the project is to improve the existing roadway to bring the shoulders up to current design standard. While there will be additional traffic generated during project construction from construction-related vehicles and increased traffic flow on proposed detour route roads, the traffic increases are short-term. In addition, there are additional alternate routes other than the proposed detour route. 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 constructed project will not substantially increase hazards due to a design feature as the purpose of the project is to improve design deficiency of the road which will benefit the driving public and farm equipment. However, the construction area could result in driving hazards. The project contract specifications require the contractor to implement the following measures to minimize potential impacts.

1. Traffic control for westbound traffic on Balfour Road to accommodate morning commute traffic and eastbound traffic will be directed to a detour route onto local roads. (Figure 2)
2. Placement of construction zone speed limits

- e) *Would the project result in inadequate emergency access?*

The constructed project would not result in inadequate emergency access. However, project construction could interfere with emergency access. The project contract specifications include the following measures to minimize potential impacts. Therefore, project impacts will be **less than significant**.

1. Advance letter notification to local emergency response services to coordinate alternate routes.
2. Provide full width of the unfinished roadway at the end of each working day.

- f) *Would the project conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

As discussed above, there are no existing or proposed public transit or bicycle or pedestrian facilities for Balfour Road within the project segment. However, while Balfour Road is not designated as a proposed bicycle facility, the widened paved shoulders will provide shared use of the road with motorists which is consistent with the County transportation policies (Contra Costa County 2005l, CCTA 2009a,b). Therefore, the project will have **no impact**.

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XVIII. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Water Supply

The project area receives domestic water from private groundwater wells and irrigation water from East Contra Costa Irrigation District (ECCID) (Contra Costa County 2005m; Contra Costa LAFCO 2011, 2014; Contra Costa Health Services 2013).

Wastewater Treatment

The project area is not located within a service area due to its location in a rural area beyond city limits, which relies on septic tanks and leach fields (Contra Costa County 2005m; Contra Costa LAFCO 2011, 2014; Contra Costa Health Services 2013).

Solid Waste

Solid waste disposal in the project area is serviced by Garaventa Enterprises (Contra Costa Waste Services, Mt. Diablo Recycling) (per. comm. Carlson 2015).

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

The project will not exceed wastewater requirements because the completed project would not result in the need for wastewater treatment. Therefore, the project will have **no impact**.

- b) *Would the project 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 will not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities because the completed project will not require or result in the need for water or wastewater services. Therefore, the project will have **no impact**.

- c) *Would the project require or result in the construction of new storm water drainage facilities, the construction of which could cause significant environmental effects?*

The existing drainage pattern in the project area consists of sheet flow runoff onto the adjacent farmlands and irrigation ditches. An open roadside ditch will be constructed along the south side of the road with two segments that will be piped underground and connected to an existing drainage inlet at the southwest corner of Balfour Road and Bixler Road intersection where flows will drain south along the west side of Bixler Road within the existing drainage ditch. Open ditches will be piped under existing driveways. Underground cross drain pipes will be installed under the road at several locations throughout the project segment to collect gravity-fed sheet flow runoff from along the north side of the road. The project will not cause significant environmental effects as it will improve the drainage in the area. Implementation of applicable BMPs identified in the SWPPP will avoid or minimize on- and off-site erosion and siltation. Therefore, project impacts will be **less than significant**.

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

The completed project will not require water service, and any water needed during construction activities would be provided by water trucks from off-site water sources. Therefore, the project will have **no impact**.

- e) *Would the project 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?*

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

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

The completed project will not require waste disposal needs. Solid waste generated by the project would be limited to construction debris, including vegetative matter and asphalt and concrete, generated by the excavation of existing roadway and construction of associated improvements which will be disposed of by the project construction contractor. Therefore, project impacts will be **less than significant**.

- g) *Would the project comply with federal, state and local statutes and regulations related to solid waste?*

The project specifications will require that the contractor dispose of solid waste generated from construction in accordance with federal, state and local regulations. Therefore, the project will have **no impact**.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a 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?*

The project will not degrade the quality of the environment. There are no natural or historic resources of importance that will be impacted due to absence in the project area or implementation of mitigation and avoidance and minimization measures as described in the Agricultural Resources and Biological Resources sections. Further, measures will be implemented for the Cultural Resources to minimize potential impacts should there be an inadvertent discovery. Therefore, 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)?*

Primarily the CCCPWD improves existing roads for public safety. The CCCPWD Capital Road Improvement and Preservation Program, updated every odd year, identifies a number of road improvements planned for the next seven years (CCCPWD 2013b). Typically road safety improvement projects do not result in significant cumulative impacts as it is limited to the existing road and impacts

to sensitive habitats are mitigated for and/or measures are implemented to avoid and minimize impacts to people and the environment. Therefore, project 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 will not cause substantial adverse direct or indirect effects on human beings as impacts will be limited and measures will be implemented to offset and minimize impacts as described in the Air Quality, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, and Transportation/Traffic sections. Therefore, project impacts will be **less than significant**.

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APPENDIX A: MITIGATION AND MONITORING REPORTING PROGRAM (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
II. AGRICULTURAL RESOURCES					
IMPACT AGR-1 CONVERSION OF PROTECTED FARMLAND	MITIGATION MEASURE AGR-1: The loss of protected farmland will be mitigated by an in-lieu fee payment based upon an appropriate ratio for public infrastructure improvements to the Brentwood Agricultural Land Trust which funds agricultural conservation easements within the Agricultural Core District.	Prior to construction	CCCPWD	CCCPWD Environmental Services Division	
IV. BIOLOGICAL RESOURCES					
IMPACT BIO-1 HCP/NCCP HABITATS	MITIGATION MEASURE BIO-1: The project will mitigate permanent and temporary impacts to undeveloped habitats by fee payment to the Habitat Conservancy regardless of whether sensitive habitats and/or species are present. The fee is based on the impact acreage to undeveloped habitats. The development impact fee per acre for permanent and temporary impacts is \$12,926.75; the temporary impact fee is discounted considering the project will occur once during the HCP/NCCP permit term. The project will result in permanent and temporary impacts to approximately 12.59 acres. Therefore, approximately \$158,283.75 will be paid to the Habitat Conservancy. In addition, a planning survey report identifying the impact acreages and species-specific avoidance and minimization measures described below as provided in the HCP/NCCP will also be prepared. Since no wetlands or waters will be impacted no wetland mitigation fee will be required.	Prior to construction	CCCPWD Environmental Services Division	CCCPWD Environmental Services Division, Contra Costa County Department of Conservation and Development (CCCD CD)	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
<p>POTENTIAL IMPACT BIO-2</p> <p>GIANT GARTER SNAKE</p>	<p>AVOIDANCE MEASURE BIO-2:</p> <p>1. Preconstruction Survey</p> <p>Prior to any ground disturbance, a USFWS/CDFG-approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having suitable habitat and 200 feet of adjacent uplands, measured from the outer edge of each bank. The surveys will delineate suitable habitat and document any sightings of giant garter snake.</p>	<p>Prior to start of any ground-disturbing activities</p>	<p>Biologist, CCCPWD Environmental Services Division</p>	<p>Biologist, CCCPWD Environmental Services Division, CCCDCD</p>	
	<p>2. Avoidance and Minimization Measures</p> <p>To the maximum extent practicable, impacts to giant garter snake habitat as a result of covered activities will be avoided. If feasible, in areas near construction activities, a buffer of 200 feet from suitable habitat will be delineated within which vegetation disturbance or use of heavy equipment is prohibited.</p> <p>If impacts on giant garter snake habitat as a result of covered activities are not avoided, the following measures will be implemented. These measures are based on USFWS's <i>Standard Avoidance and Minimization Measures during Construction, Activities in Giant Garter Snake Habitat</i> (USFWS 1999b).</p>	<p>Prior to start of any ground-disturbing activities</p>	<p>Biologist, CCCPWD Environmental Services Division</p>	<p>Biologist, CCCPWD Environmental Services Division</p>	
	<p>a. Limit construction activity that disturbs habitat to the period between May 1 and September 30. This is the active period for giant garter snake, and direct mortality is minimized because snakes are more likely to independently move away from disturbed</p>	<p>Prior to construction</p>	<p>CCCPWD Design/Construction Division, CCCPWD Environmental Services Division</p>	<p>CCCPWD Environmental Services Division</p>	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
<p>(continued)</p> <p>POTENTIAL IMPACT BIO-2</p> <p>GIANT GARTER SNAKE</p>	<p>area. If activities are necessary in giant garter snake habitat between October 1 and April 30, the USFWS Sacramento Field Office shall be contacted to determine if additional measures beyond those described below are necessary to minimize and avoid take.</p>				
	<p>b. In areas where construction is to take place, dewater all irrigation ditches, canals or other aquatic habitat between April 15 and September 30 to remove habitat of garter snakes. Dewatered areas must remain dry, with no puddle water remaining, for at least 15 consecutive days prior to the excavation or filling of that habitat. If a site cannot be completely dewatered, netting and salvage of prey items may be necessary.</p>	<p>During construction</p>	<p>CCCPWD Design/Construction Division, CCCPWD Environmental Services Division, Biologist</p>	<p>CCCPWD Environmental Services Division</p>	
	<p>3. Construction Monitoring</p> <p>If suitable habitat for giant garter snake cannot be avoided between October 1 and April 30, the USFWS Sacramento Field Office shall be contacted to determine if additional measures beyond those described below are necessary, and the following actions will be performed.</p> <p>a. A USFWS-approved biologist will conduct a construction survey no more than 24 hours before construction in suitable habitat and will be on site during construction activities in potential aquatic and upland habitat to ensure that individuals of giant garter snake encountered during construction will be avoided. The biologist will provide USFWS with a field report form documenting the monitoring efforts</p>	<p>Prior to construction and disturbance to suitable habitat</p>	<p>CCCPWD Environmental Services Division, Biologist</p>	<p>CCCPWD Environmental Services Division, Biologist</p>	

APPENDIX A: MITIGATION AND MONITORING REPORTING PROGRAM (MMRP)

IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
(continued) POTENTIAL IMPACT BIO-2 GIANT GARTER SNAKE	within 24 hours of commencement of construction activities. The monitor will be available thereafter.				
	b. If a snake is encountered during construction activities, the monitor shall have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant garter snakes encountered during construction activities should be allowed to move away from the construction area on their own. Only personnel with a USFWS recovery permit pursuant to Section 10(a)(1)(A) of the ESA will have the authority to capture and/or relocate giant garter snakes that are encountered in the construction area.	During construction	CCCPWD Resident Engineer, CCCPWD Biologist, CCCPWD Environmental Services Division	CCCPWD Biologist, CCCPWD Environmental Services Division	
	c. The project shall be reinspected whenever a lapse in construction activity of 2 weeks or more has occurred.	During construction	CCCPWD Biologist, CCCPWD Environmental Services Division	CCCPWD Biologist, CCCPWD Environmental Services Division	
	d. To ensure that construction equipment and personnel do not affect nearby aquatic habitat for giant garter snakes outside construction areas, silt fencing will be erected to clearly define the aquatic habitat to be avoided; restrict working areas, spoils, and equipment storage and other project activities to areas outside of aquatic or wetland habitat; and maintain water quality and limit construction runoff into wetland areas through the use of fiber	Prior to construction	CCCPWD Resident Engineer and Contractor, CCCPWD Biologist	CCCPWD Biologist, CCCPWD Environmental Services Division	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
(continued)	bales, filter fences, vegetation buffer strips, or other appropriate methods.				
POTENTIAL IMPACT BIO-2 GIANT GARTER SNAKE	e. Fill or construction debris may be used by giant garter snakes as over-wintering sites. Therefore, upon completion of construction activities, any temporary fill or construction debris must be removed from the site.	During and after construction	CCCPWD Resident Engineer and Contractor	CCCPWD Biologist, CCCPWD Environmental Services Division	
	f. Construction personnel will be trained to avoid harming giant garter snakes. A qualified biologist, approved by USFWS, shall inform all construction personnel about the life history of giant garter snakes; the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas such as rice fields to giant garter snakes; and the terms and conditions of the HCP/NCCP related to avoiding and minimizing impacts on giant garter snake.	Prior to and during construction	CCCPWD Biologist, CCCPWD Environmental Services Division	CCCPWD Biologist, CCCPWD Environmental Services Division	
POTENTIAL IMPACT BIO-3 SWAINSON'S HAWK NEST SITES	AVOIDANCE MEASURE BIO-3: 1. Preconstruction Survey Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity	Prior to construction	CCCPWD Biologist, CCCPWD Environmental Services Division	CCCPWD Biologist, CCCPWD Environmental Services Division	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
<p>(continued)</p> <p>POTENTIAL IMPACT BIO-3</p> <p>SWAINSON'S HAWK NEST SITES</p>	<p>(e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).</p>				
	<p>2. Avoidance and Minimization Measures and Construction Monitoring</p> <p>a. During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, and limited activities) indicate that a smaller buffer could be used, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.</p>	<p>Prior to and during construction</p>	<p>CCCPWD Biologist, CCCPWD Environmental Services Division</p>	<p>CCCPWD Biologist, CCCPWD Environmental Services Division</p>	
	<p>b. If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.</p>	<p>Prior to and during construction</p>	<p>CCCPWD Biologist, CCCPWD Environmental Services Division</p>	<p>CCCPWD Biologist, CCCPWD Environmental Services Division</p>	
	<p>c. All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will</p>	<p>Prior to and during construction</p>	<p>CCCPWD Design/Construction Division</p>	<p>CCCPWD Biologist, CCCPWD Environmental Services Division</p>	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
(continued)	be mitigated by the project proponent according to the requirements below.				
POTENTIAL IMPACT BIO-3 SWAINSON'S HAWK NEST SITES	3. Mitigation for Loss of Nest Tree The loss of non-riparian Swainson's hawk nest trees will be mitigated by the project proponent by: a. If feasible on-site, planting 15 saplings for every tree lost, with the objective of having at least 5 mature trees established for every tree lost according to the requirements listed below. AND either	During or after construction	CCCPWD Design/Construction Division, CCCPWD Contractor, CCCPWD Environmental Services Division	CCCPWD Biologist, CCCPWD Environmental Services Division	
	1. Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR	Prior to construction	CCCPWD Design/Construction Division, CCCPWD Environmental Services Division	CCCPWD Environmental Services Division	
	2. The project proponent will plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.	During or after construction	CCCPWD Design/Construction Division, CCCPWD Environmental Services Division	CCCPWD Environmental Services Division	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
<p>(continued)</p> <p>POTENTIAL IMPACT BIO-3</p> <p>SWAINSON'S HAWK NEST SITES</p>	<p>The following requirements will be met for all planting options:</p> <p>b. Tree survival shall be monitored at least annually for 5 years, then every other year until year 12. All trees lost during the first 5 years will be replaced. Success will be reached at the end of 12 years if at least 5 trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.</p>	<p>After construction</p>	<p>CCCPWD Design/Construction Division, CCCPWD Maintenance Division, CCCPWD Environmental Services Division</p>	<p>CCCPWD Environmental Services Division</p>	
	<p>c. Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.</p>	<p>After construction</p>	<p>CCCPWD Design/Construction Division, CCCPWD Maintenance Division, CCCPWD Environmental Services</p>	<p>CCCPWD Environmental Services Division</p>	
	<p>d. Native trees suitable for this site should be planted. When site conditions permit, a variety of native trees will be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (5-10 years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.</p>	<p>Prior to, during, and/or after construction</p>	<p>CCCPWD Design/Construction Division, CCCPWD Contractor, CCCPWD Maintenance Division, CCCPWD Environmental Services Division</p>	<p>CCCPWD Environmental Services Division</p>	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
<p>(continued)</p> <p>POTENTIAL IMPACT BIO-3</p> <p>SWAINSON'S HAWK NEST SITES</p>	e. Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.	Prior to, during, and/or after construction	CCCPWD Design/Construction Division, CCCPWD Contractor, CCCPWD Maintenance Division, CCCPWD Environmental Services Division	CCCPWD Environmental Services Division	
	f. Whenever feasible and when site conditions permit, trees should be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).	Prior to, during, and/or after construction	CCCPWD Design/Construction Division, CCCPWD Contractor, CCCPWD Maintenance Division, CCCPWD Environmental Services Division	CCCPWD Environmental Services Division	
	g. Whenever feasible, plantings on the site should occur closest to suitable foraging habitat outside the urban development area (UDA).	Prior to, during, and/or after construction	CCCPWD Design/Construction Division, CCCPWD Contractor, CCCPWD Maintenance Division, CCCPWD Environmental Services Division	CCCPWD Environmental Services Division	
	h. Trees planted in the HCP/NCCP preserves or other approved offsite location will occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.	After construction	CCCPWD	CCCPWD Environmental Services Division	
	<p>4. Additional Recommended Avoidance and Minimization Measures</p> <p>a. If tree removal, pruning, or grubbing activities are necessary, such activities will be conducted between October and February –</p>	Prior to construction	CCCPWD Design/Construction Division, CCCPWD Contractor, CCCPWD Maintenance Division, CCCPWD	CCCPWD Environmental Services Division	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
	outside of the breeding season – and preferably during the fall, prior to the onset of the rainy season, to avoid impacts to nesting Swainson’s hawks.		Environmental Services Division		
POTENTIAL IMPACT BIO-4 NESTING BURROWING OWL AND HABITAT	AVOIDANCE MEASURE BIO-4: 1. Preconstruction Survey a. Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist shall conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines.	Prior to construction	CCCPWD Biologist	CCCPWD Environmental Services Division	
	b. On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1 – August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 – January 31), surveys will document whether	Prior to construction	CCCPWD Biologist	CCCPWD Environmental Services Division	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
(continued) POTENTIAL IMPACT BIO-4 NESTING BURROWING OWL AND HABITAT	burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.				
	<p>2. Avoidance and Minimization Measures and Construction Monitoring</p> <p>a. If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).</p>	Prior to and during construction	CCCPWD Biologist	CCCPWD Environmental Services Division	
	If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented for non-nesting owls. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The	Prior to construction	CCCPWD Biologist	CCCPWD Environmental Services Division	

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(continued) POTENTIAL IMPACT BIO-4 NESTING BURROWING OWL AND HABITAT	<p>project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (CDFG 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow. 3. Construction Monitoring</p> <p>b. During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing.</p>				
POTENTIAL IMPACT BIO-5 OTHER NESTING BIRDS AND RAPTORS	<p>AVOIDANCE MEASURE BIO-5:</p> <p>1. If tree removal, pruning, or grubbing activities are necessary, such activities will be conducted between October and February – outside of the breeding season – and preferably during the fall, prior to the onset of the rainy season, to avoid impacts to nesting migratory birds.</p>	Prior to construction	CCCPWD Design/Construction Division, CCCPWD Maintenance	CCCPWD Environmental Services Division	
	<p>2. If project construction begins during the breeding season (February 1 to August 31), preconstruction surveys will be conducted within the project footprint and a 300-foot buffer for raptors and a 50-foot buffer for all other nesting birds, by a qualified biologist no more than two weeks prior to staging,</p>	Prior to and during construction	CCCPWD Biologist	CCCPWD Environmental Services Division	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
<p align="center">(continued)</p> <p>POTENTIAL IMPACT BIO-5</p> <p>OTHER NESTING BIRDS AND RAPTORS</p>	<p>pruning/grubbing or surface-disturbing activities. If no active nests are found within the project footprint and a 300-foot buffer, no further measures need to be implemented.</p>				
	<p>3. If active nests (i.e. nests in the egg laying, incubating, nestling or fledgling stages) are found within 300 feet of the project footprint, non-disturbance buffers will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance and the type/duration of potential disturbance. Sufficient buffers are generally 300 feet for raptors and 50 feet for other nesting birds. No work will occur within the non-disturbance buffers until the young have fledged, as determined by a qualified biologist. Buffer size will be determined in cooperation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service 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 California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service Migratory Bird Permit Office should be contacted for further guidance.</p>	<p align="center">Prior to and during construction</p>	<p align="center">CCCPWD Biologist</p>	<p align="center">CCCPWD Biologist, CCCPWD Environmental Services Division</p>	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
POTENTIAL IMPACT BIO-6: WESTERN RED BAT	AVOIDANCE MEASURE BIO-6: 1. Preconstruction surveys will be conducted for all areas that provide suitable bat roosting habitat including man-made structures, snags, rotten stumps, mature trees with broken limbs, trees with exfoliating bark, bole cavities or hollows, dense foliage, etc. Sensitive habitat areas and roost sites will be avoided to the maximum extent practicable.	Prior to and during construction	CCCPWD Biologist, CCCPWD Resident Engineer and Contractor	CCCPWD Environmental Services Division	
	2. If potential roost sites (trees, snags, etc.) are to be removed or trimmed, limbs smaller than 3 inches in diameter will be cut and the tree left overnight to allow any bats that may be using the tree/snag time locate another roost. A biological monitor will be present during the trimming or removal of trees/snags.	Prior to and during construction	CCCPWD Resident Engineer and Contractor	CCCPWD Biologist, CCCPWD Environmental Services Division	
	3. If possible, structures or trees will be removed between September and March, outside of the breeding season to avoid disturbance to maternal colonies.	Prior to construction	CCCPWD Design/Construction Division, CCCPWD Maintenance Division	CCCPWD Biologist, CCCPWD Environmental Services Division	

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IMPACT	MITIGATION, AVOIDANCE, AND MINIMIZATION MEASURES	IMPLEMENTATION TIMING	IMPLEMENTATION RESPONSIBILITY	VERIFICATION RESPONSIBILITY	COMPLIANCE VERIFICATION DATE
<p align="center">POTENTIAL IMPACT BIO-7 CURVED-FOOTED HYGROTUS DIVING BEETLE</p>	<p>AVOIDANCE MEASURE BIO-7:</p> <ol style="list-style-type: none"> 1. Prior to the start of surface-disturbing activities, a qualified biologist will conduct a survey to determine if curved-footed hygrotus diving beetles are present within the impact area. If no individuals are found, no further avoidance and minimization measures are necessary. If individuals of either species are found in the impact area, they will be collected and relocated to suitable areas outside the impact area or as otherwise directed by the California Department of Fish and Wildlife. Collection and translocation of these species will be conducted by a biologist in possession of a valid State Scientific Collecting Permit with expressed approval to handle these species by the California Department of Fish and Wildlife. 	<p align="center">Prior to construction</p>	<p align="center">CCCPWD Biologist</p>	<p align="center">CCCPWD Environmental Services Division</p>	

ATTACHMENT B

Response to Comments

LIST OF COMMENT LETTERS

1. CONTRA COSTA HEALTH SERVICES (November 13, 2015)
2. CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD (December 1, 2015)
3. CASEY F. RUSH (December 3, 2015)
4. BRENTWOOD AGRICULTURAL LAND TRUST (December 4, 2015)
5. DELTA PROTECTION COMMISSION (December 8, 2015)
6. GOVERNOR'S OFFICE OF PLANNING AND RESEARCH (STATE CLEARINGHOUSE) (December 9, 2015)

WILLIAM B. WALKER, M.D.
HEALTH SERVICES DIRECTOR

RANDALL L. SAWYER
CHIEF ENVIRONMENTAL HEALTH & HAZMAT OFFICER

MARILYN C. UNDERWOOD, PH.D. REHS
DIRECTOR OF ENVIRONMENTAL HEALTH



CONTRA COSTA
ENVIRONMENTAL HEALTH

2120 Diamond Blvd., Suite 200
Concord, California 94520
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www.cchealth.org/eh/

November 13, 2015

Claudia Gemberling
Contra Costa Public Works Department
255 Glacier Dr.
Martinez, CA 94553



RE: Balfour Rd. Shoulder Widening Project (CP 15-06)
Balfour Rd. (between Sellers Ave. and Bixler Rd.)
APN Various

Dear Ms. Smyth:

The Contra Costa Environmental Health Division (CCEHD) has received a request for agency comments for the above referenced project. The following are our comments:

1. A permit from CCEHD is required for any well or soil boring prior to commencing drilling activities, including those associated with water supply, environmental investigation and cleanup, or geotechnical investigation.
2. Any abandoned wells (water, environmental, or geotechnical) and septic tanks must be destroyed under permit from CCEHD. If the existence of such wells or septic tanks are known in advance or discovered during construction or other activities, these must be clearly marked, kept secure, and destroyed pursuant to CCEHD requirements.

1-1

These comments do not limit an applicant's obligation to comply with all applicable laws and regulations. If you should have any questions, please feel free to call me at (925) 692-2535.

Sincerely

Joseph G. Doser, R.E.H.S.
Supervising Environmental Health Specialist

JGD:tf



INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
CONTRA COSTA COUNTY PUBLIC WORKS DEPARTMENT
BALFOUR ROAD SHOULDER WIDENING PROJECT (#0662-6R4002)
COUNTY CEQA FILE #: CP 15-06

COMMENT LETTER #1. CONTRA COSTA HEALTH SERVICES (November 13, 2015)

Comment 1-1: Contra Costa Health Services comments that permits will be required for well or soil boring activities prior to commencing drilling activities and abandoned wells and septic tanks must be destroyed under permit.

Response: Comments have been noted and forwarded to the Design/Construction division. No further response is necessary.

Central Valley Regional Water Quality Control Board

1 December 2015

COMMENT LETTER #2

Claudia Gemberling
Contra Costa County
Department of Conservation Development
255 Glacier Drive
Martinez, CA 94553

CERTIFIED MAIL
91 7199 9991 7035 8420 8625

**COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE
DECLARATION, BALFOUR ROAD SHOULDER WIDENING PROJECT,
SCH# 2015112014, CONTRA COSTA COUNTY**

Pursuant to the State Clearinghouse's 9 November 2015 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Balfour Road Shoulder Widening Project, located in Contra Costa County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

2-1

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources

Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:

http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan

(SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements – Discharges to Waters of the State

If USACOE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board’s Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/app_approval/index.shtml; or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.
2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100.** Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently \$1,084 + \$6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.



Stephanie Tadlock
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

**COMMENT LETTER #2. CENTRAL VALLEY REGIONAL WATER QUALITY
CONTROL BOARD** (December 1, 2015)

Comment 2-1: The Central Valley Regional Water Quality Control Board (RWQCB) states that their agency is delegated with the responsibility of protecting the quality of surface and ground waters of the state and as such their comments will address concerns surrounding those issues. The RWQCB identifies various permits that may be required for the project.

Response: The Hydrology and Water Quality (IX) section notes that a National Pollutant Discharge Elimination System (NPDES) *General Permit for Storm Water Discharges Associated with Construction and Land Disturbances* [Order No. 2012-0006-DWQ] will be obtained. No further response is necessary.

CASEY F. RUSH

5730 Balfour Road, Brentwood CA 94513

Direct Dial: (925) 337-9340 Email: RushFamily555@yahoo.com

December 3, 2015



Via Regular Mail &

Email Claudia.Gemberling@pw.cccounty.us

Claudia Gemberling, Environmental Analyst II
Contra Costa County Public Works Department
255 Glacier Drive
Martinez CA 94553

Dear Ms. Gemberling,

Please accept this letter as my formal objections to the Balfour Road Shoulder Widening project (County File No. CP 15-06) and the insufficient Notice of Public Review and Intent to Adopt a Proposed Mitigated Negative Declaration, filed on November 5, 2015.

It appears from the aforementioned notice that I received that the Contra Costa County Department of Conservation and Development intends to take a portion of my real property via eminent domain. However, your notice is vague, ambiguous, and fails to provide sufficient notice pursuant to Code of Civil Procedure section § 1245.235. As you know, pursuant to Code of Civil Procedure section § 1240.030, the power of eminent domain may be exercised to acquire property for a proposed project only if all of the following are established: (a) The public interest and necessity require the project; (b) The project is planned or located in the manner that will be most compatible with the greatest public good and the least private injury; and (c) The property sought to be acquired is necessary for the project. I am requesting to be heard on these issues, and it is completely unclear from your November 5, 2015 notice if, when, and where these issues will be addressed. Please note that I am hereby objecting to the project on all three grounds of Code of Civil Procedure section § 1240.030. Furthermore, to my knowledge, a resolution of necessity has not yet been adopted, and I therefore object to any taking via eminent domain pursuant to Code of Civil Procedure section § 1240.040. Additionally, I object to any resolution of necessity.

Given the insufficient notice, I am left to guess at what stage the agency is at in the project. Accordingly, I am hereby objecting on the following additional grounds, and reserve my right to raise future objections given the lack of clarity:

1. The agency has not yet complied with any portion of Gov. Code § 7267.2.
2. The agency has not made any effort to acquire expeditiously real property by negotiation, nor has any appraisal occurred. Real property must be appraised before

- the initiation of negotiations, and I desire to accompany the appraiser during his or her inspection of my property. Gov. Code § 7267.1.
3. Furthermore, pursuant to Code of Civil Procedure § 1263.025, I am hereby demanding that the agency pay the reasonable costs for me to employ my own independent appraiser.
 4. Should the aforementioned project proceed, and a portion of my real property is taken for the project, my family and I will suffer significant economic damages. The project is not planned or located in a manner that will be most compatible with the greatest public good and the least private injury, and my real property is unnecessary for the project.

Sincerely,

CASEY F. RUSH

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
CONTRA COSTA COUNTY PUBLIC WORKS DEPARTMENT
BALFOUR ROAD SHOULDER WIDENING PROJECT (#0662-6R4002)
COUNTY CEQA FILE #: CP 15-06

COMMENT LETTER #3. CASEY F. RUSH (December 3, 2015)

Comment 3-1: Your notice is vague, ambiguous, and fails to provide sufficient notice pursuant to Code of Civil Procedure section § 1245.235.

Response: The notice pertains to the intention to adopt the CEQA MND document which does not address the property acquisition or eminent domain process but rather evaluates potential project impacts to environmental resources. The CEQA document needs to be adopted by the County Board of Supervisors prior to notification to property owners of the proposed land acquisitions.

Comment 3-2: I am requesting to be heard on these issues, and it is completely unclear from your November 5, 2015 notice if, when, and where these issues will be addressed.

Response: As noted in our response above, the notice pertains to the intention to adopt the CEQA MND document which does not address the property acquisition or eminent domain process but rather evaluates potential project impacts to environmental resources. As noted above, the CEQA document needs to be adopted by the County Board of Supervisors prior to notification to property owners of the proposed land acquisitions. The property acquisition process which will include appraising properties necessary for the project will begin after the CEQA document has been adopted.

Comment 3-3: Please note that I am hereby objecting to the project on all three grounds of Code of Civil Procedure section § 1240.030.

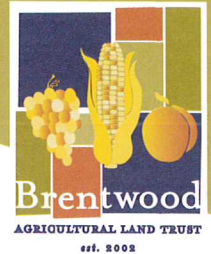
Response: CCCPWD believes the project will improve the roadway for both the driving public considering it is a narrow substandard two-lane road that receives substantial traffic at high speeds. The project will bring the shoulders up to current design standard to provide a driver recovery area and a bike lane which is consistent with the Transportation and Circulation Element of the County General Plan to improve existing roads to eliminate design deficiencies and thus is a necessary project.

Comment 3-4: Given the insufficient notice, I am left to guess at what stage the agency is at in the project.

Response: Please refer our responses to Comments 3-1 and 3-2. In addition, you had contacted me by phone on December 8, 2015 to find out when and where the meeting is. As noted in the *Notice of Public Review and Intent to Adopt a Proposed Mitigated Negative Declaration* for this project mailed to the property owners along Balfour Road and interested parties, the CEQA MND was scheduled to be brought to the Board of Supervisors meeting on December 8, 2015 at 650 Pine Street, Martinez, but at this time

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BALFOUR ROAD SHOULDER WIDENING PROJECT (#0662-6R4002)
COUNTY CEQA FILE #: CP 15-06

has been rescheduled to December 15, 2015. The purpose of the meeting is to adopt the CEQA MND and not the land acquisition process. You expressed that you were not clear on what the impacts were to your properties (Assessor Parcel Numbers 011-010-006 and 011-010-018). I informed you that this information can be obtained from the project engineer for whom I provided you the contact name and phone number (Adelina Huerta, 313-2305).



December 4, 2015

Claudia Gemberling, Environmental Analyst II
Contra Costa County Public Works Department
255 Glacier Drive
Martinez, CA 94553

Re: Proposed Mitigated Negative Declaration. County File No. CP 15-06

Dear Ms. Gemberling;

Thank you for the opportunity to comment on the Proposed Mitigated Negative Declaration for the widening of Balfour Road between Sellers Avenue and Bixler Road in the Contra Costa Agricultural Core. As noted in the Mitigated Negative Declaration, the California Farmland Mapping and Monitoring Program has designated the land in the County Agricultural Core as some of the most fertile and important farmland in California. The proposed widening of Balfour Road will result in the loss of 7.86 acres of Prime Farmland (the highest designation for California farmland) and 3.10 acres of Farmland of Local Importance for a total loss of 10.96 acres of irrigated, food-producing farmland.

Because the farmland along Balfour Road is so important, the Brentwood Agricultural Land Trust (BALT) has acquired agricultural conservation easements on four farms along Balfour Road. The widening of Balfour Road will impact all four of BALT's conservation easements. The conservation easements, which were funded by the City of Brentwood and the California Farmland Conservancy Program, represent an investment of public funds of over \$7,290,000.

The Proposed Negative Declaration does not propose to fully mitigate the loss of the 10.96 acres of farmland that will be taken out of production when Balfour Road is widened. Instead, the Proposed Negative Declaration proposes to mitigate for the loss of only four acres of farmland with "*an in-lieu fee payment based upon an appropriate mitigation ratio for public infrastructure improvements.*"

4-1

As evidenced by our efforts to permanently protect the farmland along Balfour Road, we believe that the farmland along Balfour Road is an important resource. The proposed mitigation of four acres does not adequately mitigate for the loss of 10.96

BALT Letter re Balfour Road Proposed Negative Declaration
December 4, 2015

Brentwood Agricultural Land Trust | PO Box 2046 | Brentwood, CA 94513 | (p) 925.634.6738

www.brentwoodaglandtrust.org

acres of this important resource. Consequently, the project cannot be deemed to have a less than significant impact as claimed by the Proposed Negative Declaration. Adequate mitigation for the loss of 10.96 acres of farmland requires mitigation sufficient to permanently protect at least 10.96 acres of farmland of equal quality to the land along Balfour Road.

We note that even a one-to-one mitigation of the 10.96 acres will not fully mitigate the cumulative impacts of widening Balfour Road. As the City of Brentwood and Discovery Bay have grown, encroaching on surrounding farmland, urbanization, schools and transportation improvements continue to have cumulative impact on the farming operations. The widening of Highway 4 took acreage out of production, bisected farms and brought additional traffic to the County Agricultural Core. The widening of Balfour Road will similarly take land out of production, increase traffic through the County Agricultural Core and make farming more difficult along the Balfour Road corridor. East Contra Costa farmers have been absorbing these cumulative impacts for decades, and every additional public infrastructure improvement built to support urbanization makes farming more difficult.

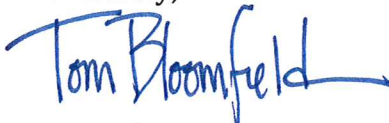
4-2

In summary, the Proposed Negative Declaration for the widening of Balfour Road does not provide adequate mitigation for the loss of agricultural land. For the project to have a less than significant impact, the project must provide at least one-to-one mitigation for all 10.96 acres that will be lost when Balfour Road is widened. The mitigation must be calculated based on the cost of permanently protecting prime farmland of the same quality as the farmland that will be taken out of production along Balfour Road.

4-3

Thank you for an opportunity to comment on the Proposed Negative Declaration. Please do not hesitate to call me (925-550-5540) or Kathryn Lyddan, (925-818-1511) if you have questions or would like additional information.

Sincerely,



Tom Bloomfield

COMMENT LETTER #4. BRENTWOOD AGRICULTURAL LAND TRUST (December 4, 2015)

Comment 4-1: The Proposed Negative Declaration does not propose to fully mitigate the loss of the 10.96 acres of farmland that will be taken out of production when Balfour Road is widened. Instead, the Proposed Negative Declaration proposes to mitigate for the loss of only four acres of farmland with "*an in-lieu fee payment based upon an appropriate mitigation ratio for public infrastructure improvements.*"

As evidenced by our efforts to permanently protect the farmland along Balfour Road, we believe that the farmland along Balfour Road is an important resource. The proposed mitigation of four acres does not adequately mitigate for the loss of 10.96 acres of this important resource. Consequently, the project cannot be deemed to have a less than significant impact as claimed by the Proposed Negative Declaration. Adequate mitigation for the loss of 10.96 acres of farmland requires mitigation sufficient to permanently protect at least 10.96 acres of farmland of equal quality to the land along Balfour Road.

Response: CCCPWD proposed an in-lieu fee payment for impacts to lands under BALT Conservation Easements to recognize the value of and account for impact to lands held in the public trust. CCCPWD intended to compensate impacts based upon an appropriate mitigation ratio for a beneficial public infrastructure improvement since the safety improvements will be for both the driving public and farm-related mobile equipment which is consistent with the Agricultural Resources goals and policies in the Conservation Element of the County General Plan as the project will provide a circulation system appropriate to rural development to support land uses and economic activity and is consistent with the Transportation and Circulation Element to improve existing roads to eliminate design deficiencies.

Further, in the absence of a County farmland mitigation program and no set threshold determined by case law or regulatory framework that would indicate a significant impact for the purposes of CEQA analysis, CCCPWD considered the amount of total impact acreage in relation to the approximately 11,000-acre County Agricultural Preservation District. The impact was determined to be considerably less than 1% (0.001 acre). In addition, most of the areas that will be impacted immediately adjoin the road and are not used for agricultural production or operations. For these reasons the impacts to prime farmland and farmland of local importance were determined to be less than significant.

Comment 4-2: We note that even a one-to-one mitigation of the 10.96 acres will not fully mitigate the cumulative impacts of widening Balfour Road. As the City of Brentwood and Discovery Bay have grown, encroaching on surrounding farmland,

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urbanization, schools and transportation improvements continue to have cumulative impact on the farming operations. The widening of Highway 4 took acreage out of production, bisected farms and brought additional traffic to the County Agricultural Core. The widening of Balfour Road will similarly take land out of production, increase traffic through the County Agricultural Core and make farming more difficult along the Balfour Road corridor. East Contra Costa farmers have been absorbing these cumulative impacts for decades, and every additional public infrastructure improvement built to support urbanization makes farming more difficult.

Response: As noted above, CCCPWD believes the project will improve the road for both the driving public and farm-related mobile equipment which is consistent with the Agricultural Resources goals and policies in the Conservation Element of the County General Plan. Nevertheless, CCCPWD acknowledges the cumulative impacts to farmland in the County Agricultural Preservation District as a result of urbanization and associated improvements. Therefore, CCCPWD proposes to mitigate for impacts to prime farmland and farmland of local importance regardless of whether the land is under Agricultural Conservation Easement at a 1:1 ratio for those lands that will be completely converted to non-agricultural use but mitigate at a lower ratio for those lands that will not be completely converted (i.e., utility easements that will continue to allow agricultural operations) and temporary construction easements that will be returned to pre-project conditions or better upon project completion.

Comment 4-3: In summary, the Proposed Negative Declaration for the widening of Balfour Road does not provide adequate mitigation for the loss of agricultural land. For the project to have a less than significant impact, the project must provide at least one-to-one mitigation for all 10.96 acres that will be lost when Balfour Road is widened. The mitigation must be calculated based on the cost of permanently protecting prime farmland of the same quality as the farmland that will be taken out of production along Balfour Road.

Response: Please refer to responses to Comments 4-1 and 4-2. In summary, CCCPWD proposes to mitigate at a 1:1 ratio for prime farmland and farmland of local importance that will be completely converted to non-agricultural use (regardless of whether they are under conservation easement), and at a lower ratio for all lands that will be either temporarily impacted by construction but returned to full use following construction, or that will be permanently encumbered by utility easements that allow for restricted agricultural production (e.g., orchard or vineyard restricted but row crops allowed). In addition, the initial impact acreage of 10.96 is an estimate based on current design and may be further refined as we continue with the project design process.

DELTA PROTECTION COMMISSION

2101 Stone Blvd., Suite 210
West Sacramento, CA 95691
Phone (916) 375-4800 / FAX (916) 376-3962
www.delta.ca.gov



Mary N. Piepho, Chair
Contra Costa County
Board of Supervisors

Skip Thomson, Vice Chair
Solano County
Board of Supervisors

Don Nottoli
Sacramento County
Board of Supervisors

Bob Elliott
San Joaquin County
Board of Supervisors

Oscar Villegas
Yolo County
Board of Supervisors

Norman Richardson
Cities of Contra Costa and
Solano Counties

Christopher Cabaldon
Cities of Sacramento and
Yolo Counties

Susan Lofthus
Cities of San Joaquin County

Michael Scriven
Central Delta
Reclamation Districts

Justin van Loben Sels
North Delta Reclamation Districts

Robert Ferguson
South Delta Reclamation Districts

Brian Kelly
CA State Transportation Agency

Karen Ross
CA Department of Food and
Agriculture

John Laird
CA Natural Resources Agency

Brian Bugsch
CA State Lands Commission

Ex Officio Members

Honorable Jim Frazier
California State Assembly

Honorable Cathleen Galgiani
California State Senate

December 8, 2015

Claudia Gemberling, Environmental Analyst
Contra Costa County Public Works Department
2555 Glacier Drive
Martinez, CA 94553

RE: Initial Study and Proposed Mitigated Negative Declaration for Balfour
Road Shoulder Widening (SCH No. 2015112014)

Dear Ms. Gemberling:

The staff of the Delta Protection Commission (Commission) has reviewed the Initial Study and Proposed Mitigated Negative Declaration (IS/MND) for widening the shoulder of Balfour Road between Sellers Avenue and Bixler Road in Contra Costa County. Although the project lies outside the Primary Zone of the Delta and therefore does not fall under the Commission's jurisdiction over development projects, we offer these advisory comments for your consideration.

The project consists of widening the existing road to accommodate two 12-foot-wide travel lanes with 6-foot-wide paved shoulders or bike lanes. The IS/MND proposes to mitigate for the loss of approximately four acres of farmland by paying an in-lieu fee to the Brentwood Agricultural Land Trust (BALT) (Mitigation Measure AG-1). BALT may use the fee for acquiring agricultural land conservation easements within the Agricultural Preserve District. To ensure the sustainability of commercial agriculture in the Delta, we encourage you to specify that the appropriate mitigation ratio should be at least 1:1, preferably 2:1 to avoid a net reduction in agricultural lands.

As you may know, the California Public Resources Code directs the Commission to develop and adopt a plan and implementation program for the Great Delta Trail, a continuous regional recreational corridor around the Delta (Sections 5852 – 5855). To this end, the Commission approved two resolutions that support bicycle lanes along State Routes 4, 12, and 160, and along improved Delta levees. Although Balfour Road is not on a levee, we encourage Contra Costa County to include bike lanes, where feasible, in transportation projects throughout the Delta in support of the Great Delta

Ms. Claudia Gemberling, Environmental Analyst
Contra Costa County Public Works Department
December 8, 2015
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Trail. We believe that widening the road and creating shoulders that can serve as bike lanes will increase the safety of cyclists and encourage more bicycling in the Delta.

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Thank you for considering our comments. If you have any questions, please do not hesitate to contact Jennifer Ruffolo at (916) 375-4882 or jennifer.ruffolo@delta.ca.gov.

Sincerely,



Erik Vink
Executive Director

cc: Mary N. Piepho, Commission Chair and Contra Costa County Supervisor

COMMENT LETTER #5. DELTA PROTECTION COMMISSION (December 8, 2015)

Comment 5-1: Delta Protection Commission (DPC) commented that the IS/MND proposes to mitigate for the loss of approximately four acres of farmland by paying an in-lieu fee to the Brentwood Agricultural Land Trust (BALT) which may use the fee for acquiring agricultural land conservation easements within the Agricultural Preserve District. To ensure sustainability of commercial agriculture in the Delta, DPC encourages CCCPWD to specify that the appropriate mitigation ratio should be at least 1:1, preferably 2:1 to avoid a net reduction in agricultural lands.

Response: CCCPWD acknowledges the cumulative impacts to farmland in the County Agricultural Preservation District as a result of urbanization and associated improvements. Therefore, CCCPWD proposes to mitigate at a 1:1 ratio for prime farmland and farmland of local importance that will be completely converted to non-agricultural use (regardless of whether they are under conservation easement), and at a lower ratio for all lands that will be either temporarily impacted by construction but returned to full use following construction, or that will be permanently encumbered by utility easements that allow for restricted agricultural production (e.g., orchard or vineyard restricted but row crops allowed).

CCCPWD believes that the mitigation ratio is appropriate as CCCPWD considers this a beneficial project as it will improve the roadway for both the driving public and farm-related mobile equipment and is consistent with the Agricultural Resources goals and policies in the Conservation Element of the County General Plan as the project will provide a circulation system appropriate to rural development to support land uses and economic activity and is consistent with the Transportation and Circulation Element to improve existing roads to eliminate design deficiencies.

Comment 5-2: We believe that widening the road and creating shoulders that can serve as bike lanes will increase the safety of cyclists and encourage more bicycling in the Delta.

Response: Letter in support of this project is acknowledged. No further response is necessary.

Claudia Gemberling

From: OPR State Clearinghouse <State.Clearinghouse@opr.ca.gov>
Sent: Wednesday, December 09, 2015 10:23 AM
To: Claudia Gemberling
Subject: RE: SCH# 2015112014 - Balfour Road Shoulder Widening Project


We received 1 comment from Regional Water Quality Control #5. Hopefully you received it as well. A closing letter with comment attached will be mailed today to your attention.

Best,
Sheila Brown
Grants Coordinator
OPR/State Clearinghouse
1400 Tenth Street, Suite 212
Sacramento, CA 95814
916 445-0613

From: Claudia Gemberling [<mailto:claudia.gemberling@pw.cccounty.us>]
Sent: Tuesday, December 08, 2015 8:41 PM
To: OPR State Clearinghouse
Subject: SCH# 2015112014 - Balfour Road Shoulder Widening Project

Hello, I am checking in to find out if your office has received any comment letters for SCH# 2015112014 - Balfour Road Shoulder Widening Project (IS/MND). The comment period ended today. Please let me know if you need additional information.

Thank you.

Claudia Gemberling
Environmental Analyst II
 Contra Costa County
Public Works
Department
255 Glacier Drive
Martinez, CA 94553
(925) 313-2192



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Query Parameters: Contra Costa BALFOUR ROAD
MND

Date Range: 2015-10-01 to 2015-12-31

SCH#	Lead Agency	Project Title	Description	Document Type	Date Received
2015112014	Contra Costa County	Balfour Road Shoulder Widening	Widen Balfour Road to bring the shoulders up to current design standard and provide a driver recovery area and a bike lane. The project segment is approx.3 miles long and is a narrow, substandard two-lane road that receives substantial traffic at high speeds. The Project segment serves as a thoroughfare between Brentwood and Discovery Bay as well as a commuter route to SR 4. The project will widen the existing 18 to 20 foot pavement width to 36 feet wide (two 12-foot wide travel lanes with 6-foot wide paved shoulders/bike lanes and 2 foot wide shoulder backing on each side). The project does not increase the number of travel lanes and will therefore not increase the capacity of the roadway.	MND	11/9/2015

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INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
CONTRA COSTA COUNTY PUBLIC WORKS DEPARTMENT
BALFOUR ROAD SHOULDER WIDENING PROJECT (#0662-6R4002)
COUNTY CEQA FILE #: CP 15-06

COMMENT LETTER #6. STATE CLEARINGHOUSE (December 9, 2015)

Comment 6-1: Email from Governor's Office of Planning and Research, State Clearinghouse and Planning Unit stating that one comment was received from the Regional Water Quality Control Board (Comment Letter #2).

Response: No further response is necessary.