Notice of Determination

Appendix D

To:

☐ Office of Planning and Research

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

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

☒ County Clerk
County of: Contra Costa
Address: P.O. Box 350
Martinez, CA 94553

From:
Public Agency: East Bay Regional Park District
Address: 2950 Peralta Oaks Court
Oakland, CA 94605
Contact: Suzanne Wilson
Phone: (510) 544-2609

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

FILED
SEP 20 2012
S.L. WEIR, COUNTY CLERK
CONTRA COSTA COUNTY
BY D. Lee DEPUTY

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

State Clearinghouse Number (if submitted to State Clearinghouse): 2012082010

Project Title: East Bay Regional Park District Feeder Trail #1 Project

Project Applicant: East Bay Regional Park District

Project Location (include county): Between Dutra Road and Ferndale Road (Contra Costa County)

Project Description:
The proposed project consists of improving the approximately three-mile long Feeder Trail #1 between Dutra Road and Ferndale Road near Martinez in unincorporated Contra Costa County as a multi-use trail for hikers, bikers and equestrians with access for emergency vehicles. The existing trail is a fire road which was once part of the Martinez-Richmond stagecoach routebetween Franklin Canyon and Alhambra Valley. The current endpoints of Feeder Trail #1 are Ferndale Road to the south and Dutra Road to the north.

This is to advise that the East Bay Regional Park District (☒ Lead Agency or ☐ Responsible Agency) has approved the above described project on September 18, 2012 (date) and has made the following determinations regarding the above described project.

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

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
EBRPD Headquarters; Pleasant Hill Library (1750 Oak Park Blvd); Martinez Public Library (740 Court St)

Signature (Public Agency): _____ Title: Trails Development Manager

Date: 9/18/12 Date Received for filing at OPR: _____

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

Revised 2011

EAST BAY REGIONAL PARK DISTRICT

RESOLUTION NO.: 2012 – 09 - 241

September 18, 2012

ADOPTION OF A MITIGATED NEGATIVE DECLARATION
AND MITIGATION MONITORING AND REPORTING PLAN FOR THE
FEEDER TRAIL #1 IMPROVEMENT PROJECT: BAY AREA RIDGE TRAIL

WHEREAS, the East Bay Regional Park District issued a Notice of Intent to adopt a Mitigated Negative Declaration for the Feeder Trail #1 Improvement project on August 2, 2012; and

WHEREAS, the 30-day public review period for the Mitigated Negative Declaration for the project and concluded at 5:00 PM on August 31, 2012; and

WHEREAS, during the 30-day public review period, no individual or public agency provided evidence that a significant environmental impact would occur; and

WHEREAS, the Mitigated Negative Declaration reflects the independent judgment of the East Bay Regional Park District;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the East Bay Regional Park District hereby adopts the Mitigated Negative Declaration (Attachment 1) and Mitigation Monitoring and Reporting Program for the three- mile Feeder Trail #1 Improvement Project (Attachment 2); and

BE IT FURTHER RESOLVED that the General Manager is hereby authorized and directed, on behalf of the District and in its name, to execute and deliver such documents and to do such acts as may be deemed necessary or appropriate to accomplish the intentions of this resolution.

Moved by Director Radke, seconded by Director Siden, and approved on this 18th day of September, 2012, by the following vote:

FOR: Directors Whitney Dotson, Beverly Lane, Carol Severin, Doug Siden, John Sutter, Ted Radke.

AGAINST: NONE.
ABSTAIN: NONE.
ABSENT: Director Ayn Wieskamp.

Carol M Severin
Carol Severin
Board President

CERTIFICATION
I, Allen Pulido, Clerk of the Board of Directors of the East Bay Regional Park District, do hereby certify that the above and foregoing is a full, true and correct copy of Resolution No. 2012 - 09-241 adopted by the Board of Directors at a regular meeting held on SEPT. 18, 2012

Allen Pulido

Environmental Checklist Form
Prepared Pursuant to the California Environmental Quality Act (CEQA)

A. INTRODUCTION AND PROJECT DESCRIPTION

1. **Project Title**: East Bay Regional Park District Feeder Trail #1 Project

2. **Project Location**: Between Dutra Road off of Franklin Canyon Road and Ferndale Road off of Alhambra Road, outside Martinez in unincorporated Contra Costa County (Figure 1)

3. **Project Sponsor's Name and Address**:
East Bay Regional Park District
Attn: Suzanne Wilson, Trails Coordinator
2950 Peralta Oaks Court
Oakland, CA 94605

4. **Lead Agency**:
East Bay Regional Park District
2950 Peralta Oaks Court
Oakland, CA 94605

5. **General Plan Designation**:
PR (Parks and Recreation) and AL (Agricultural Lands)

6. **Zoning**:
A-2 (General Agriculture – Parcel 5 Acre Minimum) and A-4 (Agriculture Preserve – Parcel 20 Acre Minimum)

7. **Description of Project**:
The proposed project consists of improving the approximately three-mile long Feeder Trail #1 between Dutra Road and Ferndale Road near Martinez in unincorporated Contra Costa County as a multi-use trail for hikers, bikers and equestrians (Figure 2) with access for emergency vehicles. The existing trail is a fire road which was once part of the Martinez-Richmond stagecoach route between Franklin Canyon and Alhambra Valley. The trail was conveyed from the County to the East Bay Regional Park District (EBRPD) in 2009 and is a high priority for EBRPD due to its long history as a public route and importance to the trail-using community. The current endpoints of Feeder Trail #1 are Ferndale Road to the south and Dutra Road to the north.

The existing trail is in a degraded condition and contributing to off-trail slope instability, erosion and sedimentation. Proposed improvements to Feeder Trail #1 to create a safe, sustainable, and multi-use trail include: landslide clearing, road grading, fence and gate installation, vegetation clearing, upgrading existing culverts and installation of additional culverts and articulated fords, and placement of riprap to stabilize portions of the trail. Such improvements would also facilitate access for emergency vehicles and EBRPD maintenance vehicles.

Specific construction tasks would occur at various locations within the 40-foot-wide trail easement, along the three-mile route. The proposed work locations and tasks for Feeder Trail #1 are:

Mile 0:	Install headwall with basin at trailhead culvert (24").
Mile 0-0.05:	Grading of outsloping and insloping of trail at gully locations.
Mile 0.05:	Replace 12" culvert with 18" culvert (40 foot length) and build headwall/tailwall and basin.
Mile 0.28:	Install 60 foot-long culvert (24") with headwall/tailwall and basin.

	Grade insloping of trail where gullying has developed.
Mile 0.4:	Remove failed 30 foot culvert (24").
Mile 0.4-0.7:	Grade outsloping of trail where gullying has developed.
Mile 0.46:	Replace 18" culvert with 24" culvert and build headwall/tailwall and basin.
Mile 0.65:	Replace 24" culvert with 36" culvert and build headwall/tailwall and basin.
Mile 0.7-0.8:	Grade slope of trail where gullying has developed.
Mile 0.8:	Install 60 foot-long culvert (48") with headwall/tailwall and basin.
Mile 0.8-0.9:	Grade outsloping of trail.
Mile 0.9:	Construct swale for drainage.
Mile 0.9-2.0:	Grade outsloping of trail.
Mile 2.0:	Stabilize trail with 5 tons of riprap placed in bench and built up to trail level.
Mile 2.0-3.2:	Grade trail with proper sloping applied.
Mile 2.5:	Stabilize trail with 5 tons of riprap placed in bench and built up to trail level. Install 30 foot-long culvert (24") and build headwall/tailwall and basin.
Mile 2.6:	Stabilize trail with 50 tons of riprap placed in bench and build up to trail level.
Mile 2.7:	Install articulated ford, 30 feet in length and 15 feet wide.
Mile 3.0:	Install articulated ford, 30 feet in length and 15 feet wide.

Project improvements are proposed to occur in early Fall of 2013. Equipment required for project construction includes one D4 bulldozer, one 14' blade grader, and one backhoe. Hours of construction and operation for Feeder Trail #1 are from approximately 7 am to 7 pm.

8. **Surrounding Land Uses and Setting**:
Surrounding land uses in the project area include private ranchland and dedicated open space (i.e., Sky Ranch and Dutra Ranch, both owned by the Muir Heritage Land Trust). Sky Ranch and Dutra Ranch are part of the Franklin Ridge, which runs from Mount Wanda westerly to Hercules. Adjacent and nearby trails to Feeder Trail #1 include the Dutra Loop Trail at Dutra Ranch, the Tina Batt Trail at Sky Ranch, and the Bay Area Ridge Trail to the east and west. Feeder Trail #1 is currently accessible via Dutra Road to the northeast and Ferndale Road to the southwest. The project area itself contains ruderal/developed habitat (the fire road itself), annual grassland, and a small amount of oak woodland on the perimeter. The surrounding area is characterized by rolling hills, ephemeral streams, mixed oak woodland, annual and perennial grassland, live oak/bay laurel woodland, and coastal scrub (Figures 1 and 2).

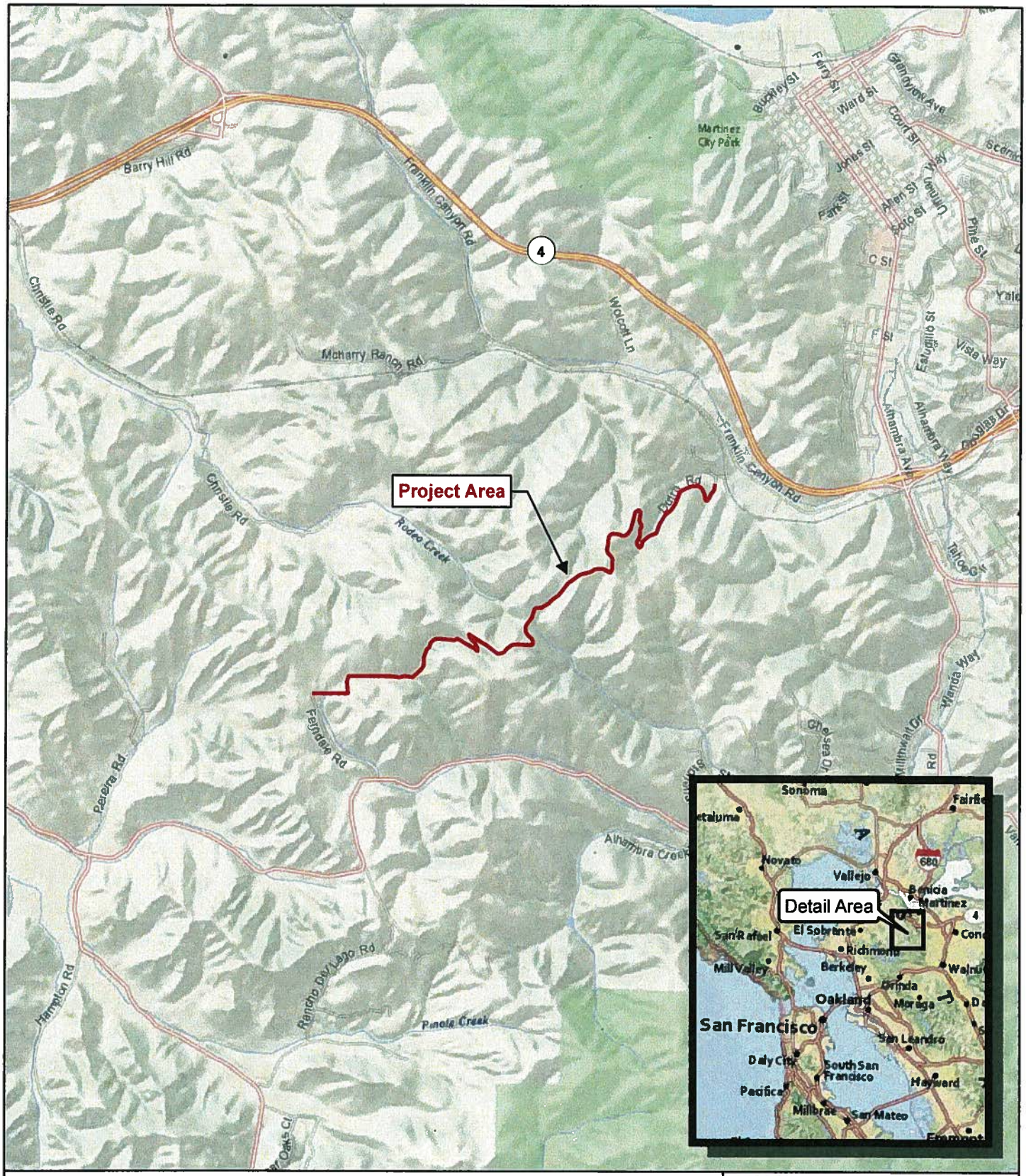

Figure 1. Project Area Location Map

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Miles

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ENVIRONMENTAL CONSULTANTS

EBRPD Feeder Trail #1 Project
Contra Costa County, California

Map Date: April 2012
Map By: Derek Chan
Base Source: ESRI/National Geographic

Path: L:\Acad 2000 Files\22000\22030\GIS\ArcMap\Fig1_LocMap_20120401.mxd

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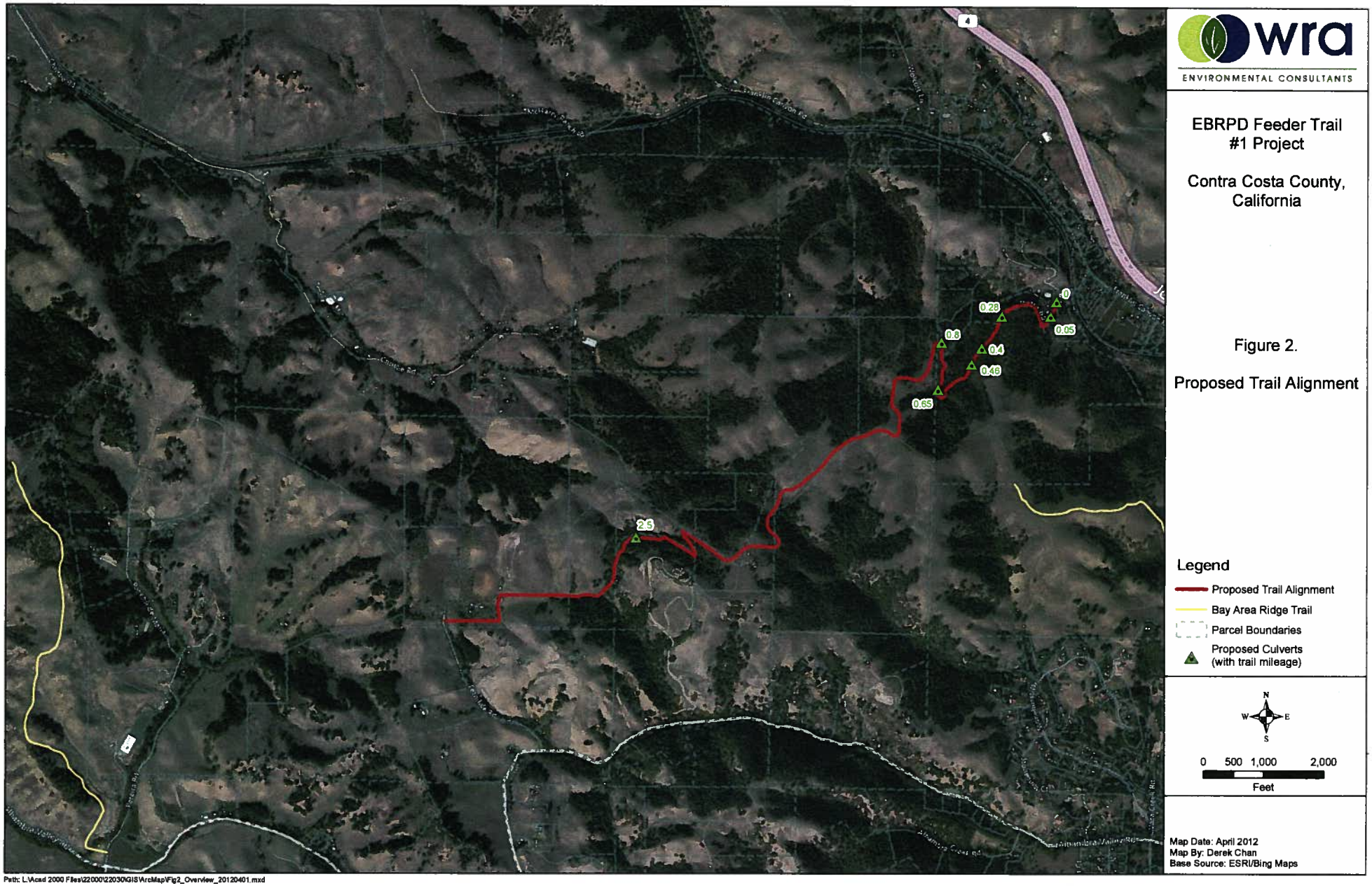
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ENVIRONMENTAL CONSULTANTS
EBRPD Feeder Trail #1 Project
Contra Costa County, California
Figure 2.
Proposed Trail Alignment
0
0.05
0.28
0.4
0.46
0.6
0.65
2.5
Legend
Proposed Trail Alignment
Bay Area Ridge Trail
Parcel Boundaries
Proposed Culverts (with trail mileage)
N
W
E
S
0 500 1,000 2,000
Feet
Map Date: April 2012
Map By: Derek Chan
Base Source: ESRI/Bing Maps
Path: L:\Acad 2000 Files\22000\22030\GIS\ArcMap\Fig2_Overview_20120401.mxd

Exhibit 4: CEQA Documents

9. **Other Public Agencies Whose Approval May Be Required:**

- California Department of Fish and Game (Streambed Alteration Agreement)
- San Francisco Bay Regional Water Quality Control Board (NPDES General Permit for Construction)

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

C. LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

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

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

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

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

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

Signature

7/27/12
Date

D. EVALUATION OF ENVIRONMENTAL EFFECTS

The Environmental Checklist and discussion that follows is based on sample questions provided in the CEQA Guidelines (Appendix G) which focus on various individual concerns within 17 different broad environmental categories, such as air quality, climate change, cultural resources, land use, public services, noise and traffic (and arranged in alphabetical order). The Guidelines also provide specific direction and guidance for preparing responses to the Environmental Checklist. The sample questions are meant to be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential environmental impacts that are not listed in the checklist must also be considered. The sample questions are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

Each question in the Checklist essentially requires a "yes" or "no" reply as to whether or not the project will have a potentially significant environmental impact of a certain type, and, following a Checklist table with all of the questions in each major environmental heading, citations, information and/or discussion that supports that determination. The Checklist table provides, in addition to a clear "yes" reply and a clear "no" reply, two possible "in-between" replies, including one that is equivalent to "yes, but with changes to the project that the proponent and the Lead Agency have agreed to, *no*", and another "no" reply that requires a greater degree of discussion, supported by citations and analysis of existing conditions, threshold(s) of significance used and project effects than required for a simple "no" reply. Each possible answer to the questions in the Checklist, and the different type of discussion required, is discussed below:

a) Potentially Significant Impact. Checked if a discussion of the existing setting (including relevant regulations or policies pertaining to the subject) and project characteristics with regard to the environmental topic demonstrates, based on substantial evidence, supporting information, previously prepared and adopted environmental documents, and specific criteria or thresholds used to assess significance, that the project will have a potentially significant impact of the type described in the question.

b) Less Than Significant With Mitigation. Checked if the discussion of existing conditions and specific project characteristics, also adequately supported with citations of relevant research or documents, determine that the project clearly will or is likely to have particular physical impacts that will exceed the given threshold or criteria by which significance is determined, but that with the incorporation of clearly defined mitigation measures into the project, that the project applicant or proponent has agreed to, such impacts will be avoided or reduced to less-than-significant levels.

c) Less Than Significant Impact. Checked if a more detailed discussion of existing conditions and specific project features, also citing relevant information, reports or studies, demonstrates that, while some effects may be discernible with regard to the individual environmental topic of the question, the effect would not exceed a threshold of significance which has been established by the Lead or a Responsible Agency. The discussion may note that due to the evidence that a given impact would not occur or would be less than significant, no mitigation measures are required.

d) No Impact. Checked if brief statements (one or two sentences) or cited reference materials (maps, reports or studies) clearly show that the type of impact could not be reasonably expected to occur due to the specific characteristics of the project or its location (e.g. the project falls outside the nearest fault rupture zone, or is several hundred feet from a 100-

year flood zone, and relevant citations are provided). The referenced sources or information may also show that the impact simply does not apply to projects like the one involved. A response to the question may also be "No Impact" with a brief explanation that the basis of adequately supported project-specific factors or general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a basic screening of the specific project).

The discussions of the replies to the Checklist questions must take account of the whole action involved in the project, including off-site as well as on-site effects, both cumulative and project-level impacts, indirect and direct effects, and construction as well as operational impacts. Except when a "No Impact" reply is indicated, the discussion of each issue must identify:

a) The significance criteria or threshold, if any, used to evaluate each question; and

b) The mitigation measure identified, if any, to reduce the impact to less than significance, with sufficient description to briefly explain how they reduce the effect to a less-than-significant level.

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D) of the Guidelines). In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.

b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

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

Setting:

Surrounding land uses in the project area include private ranchland and dedicated open space. Views of the project area and surrounding area are characterized by rolling hills, streams, mixed oak woodland, annual and perennial native grassland, invasive species, live oak/bay laurel woodland, and coastal scrub. Portions of the project area provide views of and scenic ridges and waterways identified in the Contra Costa County General Plan. No sources of light and glare exist in the project area with the exception of minimal light and glare sources associated with existing ranches nearby.

Impacts:

I. (a). **No Impact.** A significant impact may occur if a project were to introduce incompatible scenic elements within a field of view containing a scenic vista or substantially block views of a scenic vista. The proposed project would not result in the construction of any buildings on the site and the installation of culverts and rip-rap for slope stabilization would not block or significantly alter existing views or impact scenic vistas. Thus, no impacts would occur.

I. (b). **No Impact.** A significant impact may occur if scenic resources within a state scenic highway would be damaged or removed by a project. The project site is not located within an officially designated state scenic highway or any public road. Therefore, no impacts would occur.

I. (c). **Less Than Significant Impact.** A significant impact may occur if a project were to introduce incompatible visual elements on the project site or visual elements that would be incompatible with the character of the project site or the area surrounding the site. Currently the project site includes open grasslands, ranchlands and trails. The project does not include any changes to the project site other than culvert installation, stabilization and surface grading of an existing trail. The proposed project would not introduce an incompatible visual element to the site or surrounding area or degrade the visual character or quality of the site or surroundings. Therefore, impacts would be less than significant.

I. (d). **Less Than Significant Impact.** A significant impact may occur if a project were to introduce new sources of light or glare on or from the project site which would be incompatible with the area surrounding the project site, or which pose a safety hazard to motorists utilizing adjacent streets or freeways. Currently there are no existing on-site lighting sources. Existing off-site sources of lighting include interior and exterior lighting associated with the nearby land uses. The proposed project does not include construction of structures that would introduce new sources of light or glare that would adversely affect day or nighttime views in the area and its surroundings. The use of temporary nighttime lighting is unlikely to be required during construction. Thus, impacts would be less than significant and no mitigation is required.

II. AGRICULTURE AND FOREST RESOURCES In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓

Setting:

The project area is designated under the County General Plan as Agricultural Land and Parks and Recreation. It is zoned A-2 (General Agriculture – Parcel 5 Acre Minimum) and A-4 (Agriculture Preserve – Parcel 20 Acre Minimum).

Impacts:

II. (a). **No Impact.** A significant impact may occur if a project were to result in the conversion of State-designated agricultural land from agricultural use to another non-agricultural use. The California Department of Conservation, Division of Land Protection, lists Prime Farmland, Unique Farmland, and Farmland of Statewide Importance under the general category of "Important Farmland" in California. The project would not alter the footprint of the existing trail and would not convert agricultural land to non-agricultural use. Therefore, no impacts would occur.

II. (b). **No Impact.** A significant impact may occur if a project were to result in the conversion of land zoned for agricultural use or under a Williamson Act Contract from agricultural use to another non-agricultural use. The Williamson Act of 1965 allows local governments to enter into

contract agreements with local landowners with the purpose of trying to limit specific parcels of land to agricultural or other related open space uses. The project site does not contain any state designated agricultural lands or open space. The project site is not subject to a Williamson Act Contract. Therefore, no impact would occur.

II. (c). **No Impact.** A significant impact may occur if a project were to conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. The project land is zoned agricultural, and the proposed work would not require a change in zoning; therefore implementation of the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. No impacts would occur.

II. (d). **No Impact.** A significant impact may occur if a project were to result in the loss of forest land or conversion of forest land to non-forest use. The project area includes small amounts of oak woodland but tree removal is not anticipated as part of the project. As such, implementation of the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. No impacts would occur.

II. (e). **No Impact.** A significant impact may occur if a project results in the conversion of farmland to another non-agricultural use or conversion of forest land to non-forest use. The project would not alter the footprint of the existing trail and no farmland or forest land would be converted to a non-agricultural or non-forest use as a result of the proposed project. No impacts would occur.

III. AIR QUALITY Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		✓		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		✓		
d) Expose sensitive receptors to substantial pollutant concentrations?			✓	
e) Create objectionable odors affecting a substantial number of people?			✓	

Setting:

The project site is located in Contra Costa County, which is situated in the San Francisco Bay area. The Bay Area Air Quality Management District (BAAQMD) is the regional governmental agency that regulates sources of air pollution in the nine counties of the San Francisco Bay

area. In May 2011, the BAAQMD created new CEQA Guidelines with the purpose of assisting lead agencies in evaluating air quality impacts of projects and plans proposed in the San Francisco Bay Area Air Basin. The Guidelines provides BAAQMD-recommended procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements. These revised Guidelines supersede the BAAQMD's previous CEQA guidance, *BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans* (BAAQMD 1999).

Impacts:

III. (a). **No Impact.** A significant air quality impact may occur if a project is not consistent with the applicable Air Quality Management Plan (AQMP) or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan.

The United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) assess and classify the air quality of each air basin, county, or, in some cases, a specific developed area. The classification is determined by comparing actual monitoring data with federal and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in "attainment." If the pollutant exceeds the standard, the area is classified as a "nonattainment" area. The San Francisco Bay area is considered "nonattainment" for ozone federal standards, and is considered "nonattainment" for State standards for ozone (O_3), respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

To bring the Basin into attainment, the BAAQMD has developed the 2005 Ozone Attainment Plan. This plan is based on population projections through 2020 compiled by the Association of Bay Area Governments (ABAG). The plan includes emission control strategies placed on industrial facilities and other emissions sources through application of BAAQMD rules and regulations. The proposed project's activities would not affect population or vehicle miles traveled forecasts and therefore, would not impact implementation of the 2005 Ozone Attainment Plan. No impacts would occur.

III. (b). **Less Than Significant With Mitigation.** A project may have a significant impact if project-related emissions would exceed federal, state, or regional standards or thresholds, or if project-related emissions would substantially contribute to an existing or projected air quality violation. The project would not result in a significant increase in vehicle trips compared to existing conditions and thus meets the BAAQMD's screening criteria for operational air quality impacts, and operational air quality impacts would be less than significant.

During the construction phase, sources of air emissions and dust include activities such as excavation, grading, vehicle travel on unpaved surfaces, and vehicle and equipment exhaust. Sensitive receptors for these emissions and dust in the project area include residential and recreational users, although the Feeder Trail itself will be closed during construction. The proposed project also meets BAAQMD's screening criteria for construction air quality impacts, and provided the following mitigation measures are implemented, construction air quality impacts would be less than significant.

Mitigation Measures:

AQ–1 To minimize dust associated with construction activities the contractor shall be required to employ the following Best Management Practices for managing dust:

- Regularly water access routes and construction areas using a water source which would either be self-propelled or attached to a vehicle;
- Excavate during calm periods;
- Cover all truck beds hauling soil, vegetation and other loose construction materials;
- Re-establish bare soils resulting from grading and staging activities [with the exception of the natural surface trail approaches] by applying stripping from the project site;
- Routinely cover, water or apply non-toxic soil binders to exposed stockpiled materials as appropriate;
- Maintain all equipment engines in good condition, in proper tune (per manufacturer's specifications), and in compliance with all State and Federal requirements;
- Limit traffic speed to 15 miles per hour; and
- Suspend earth-moving activities if winds exceed 25 miles per hour and/or as directed by the District Inspector.

III. (c). **Less Than Significant With Mitigation.** A significant impact may occur if a project would add a considerable cumulative contribution to federal or state non-attainment pollutant. Although the project-generated traffic would not result in a significant long-term impact on local or regional air quality, short-term construction impacts could represent a significant adverse impact without mitigation. Implementation of Mitigation Measure AQ-1, see III (b) above, would reduce potential impacts to air quality standards to a less-than-significant level.

Mitigation Measures: See Mitigation Measure AQ-1.

III. (d). **Less Than Significant Impact.** A significant impact may occur if a project were to generate pollutant concentrations to a degree that would significantly affect sensitive receptors. However, as noted in the response to Checklist Item III (b and c), the operation of the proposed project would not result in substantial pollutant concentrations. Thus, impacts on sensitive receptors would be less than significant.

III. (e). **Less Than Significant Impact.** A significant impact may occur if the project has the potential to create objectionable odors affecting a substantial number of people. According to the BAAQMD, typical uses that may result in significant odor impacts include: wastewater treatment plant, sanitary landfill, transfer station, composting facility, petroleum refinery, asphalt batch plant, chemical manufacturing, fiberglass manufacturing, painting/coating operations, rendering plant, and coffee roasters. The proposed project does not include any of these uses, and trail use is not associated with production of odors. Impacts would be less than significant.

IV. BIOLOGICAL RESOURCES Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
b) Have a substantial adverse effect on any riparian, aquatic or wetland habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?			✓	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		✓		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓
g) Result in conversion of oak woodlands that will have a significant effect on the environment?				✓

Setting:

In February of 2012, WRA, Inc. (WRA) conducted a biological reconnaissance of the project area to identify any potential sensitive habitats including riparian and wetland areas or other environmentally sensitive habitat area, and any potential habitat for threatened, endangered or other special-status plant or wildlife species which may occur in the project area. Literature review of biological resources in the project area included the California Natural Diversity Data Base (CNDDB 2012), the U.S. Fish and Wildlife Species List (USFWS 2012), and the California Native Plant Society list (CNPS 2012).

Impacts:

IV. (a). **Less Than Significant With Mitigation.** A significant impact may occur if a project were to remove or modify habitat for any species identified or designated as a candidate,

sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or the U.S. Fish and Wildlife Service (USFWS). Construction impacts would be potentially significant to special status wildlife species in the project area. Appendix A to this Initial Study lists the special status plants and wildlife that have been observed in the vicinity of the project area and their potential for occurrence on-site, and Figures 3 and 4 show species that have been observed within a 5-mile radius of the project area. Impacts that could occur as a result of the proposed project are summarized as follows:

Special-status Plants

No special-status plant species were considered to have potential to occur in the project area due to limited native habitat and disturbance on-site from the existing trail and eroded slopes. The February 2012 site visit did not identify any special-status plant species on-site. Although special-status plants may be found in the vicinity of the project area, none are likely to occur within the project area due to the disturbance and lack of habitat. Therefore, implementation of the project is not likely to impact any rare plant species.

Nesting Birds

Special-status birds, white-tailed kite and loggerhead shrike, have potential to occur on-site, and other nesting birds protected by the Migratory Bird Treaty Act and California Fish and Game Code may also be impacted by construction during the bird breeding season (February through August). This project may require minimal vegetation removal for accessing some of the culvert outfall locations. Ideally, clearing of vegetation and the initiation of construction should be done outside the breeding season, from September through January. If construction occurs between February 1 and August 31, then impacts would be potentially significant. Implementation of pre-construction nesting bird surveys required in Mitigation Measure BIO-1 would lessen potential impacts to a less-than-significant level.

Bats

Habitats that support large, mature trees and snags have the potential to support roosting habitat for common and special status bats. The project site and surrounding area contain potential bat habitat. Bat roosts are protected by CDFG and removal of occupied roosts would be considered a significant impact. Trees and snags may be removed outside of the maternity roosting season -- between September and March -- without performing pre-construction bat surveys. If construction occurs during the maternity roosting season, impacts to bats would be potentially significant. Pre-construction bat surveys required in Mitigation Measure BIO-2 would lessen potential impacts to a less-than-significant level.

Alameda Whipsnake

Alameda whipsnake, a Federal and State threatened species, is found in scrub, chaparral, grassland and oak woodland habitats in the East Bay hills. Centered in scrub communities, and often found on or near rock outcrops, whipsnakes may also venture into adjacent grasslands and open woodlands. They avoid areas of closed canopy and dense vegetation, and tend to be found on south-facing slopes. They are active in the spring starting in March and typically begin hibernation in November (USFWS 2000). The whipsnake is now found in five discrete populations, its range having been fragmented by development and road construction. The project area is located within Critical Habitat Unit 1 for this species (71 FR 58195; see Figure 4).

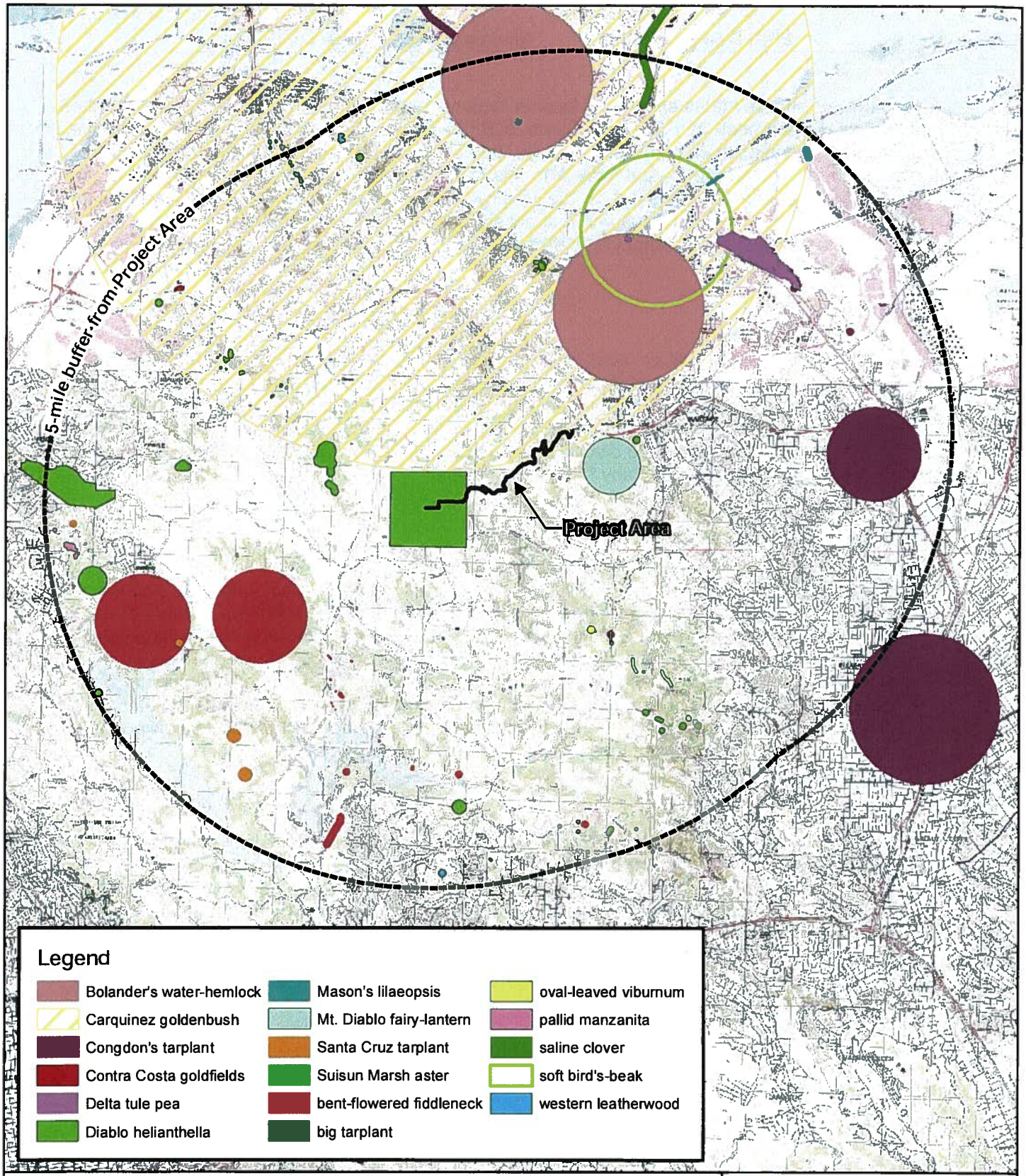

Figure 3. Special-Status Plant Species within 5 miles of the Project Area

EBRPD Feeder Trail #1 Project
Contra Costa County, California

wra
ENVIRONMENTAL CONSULTANTS

Date: April 2012
Map By: Derek Chan
Map Source: CNDDB

Path: L:\Acad 2000 Files\22000\22030\GIS\ArcMap\Fig3_CNDDB_plants_20120401.mxd

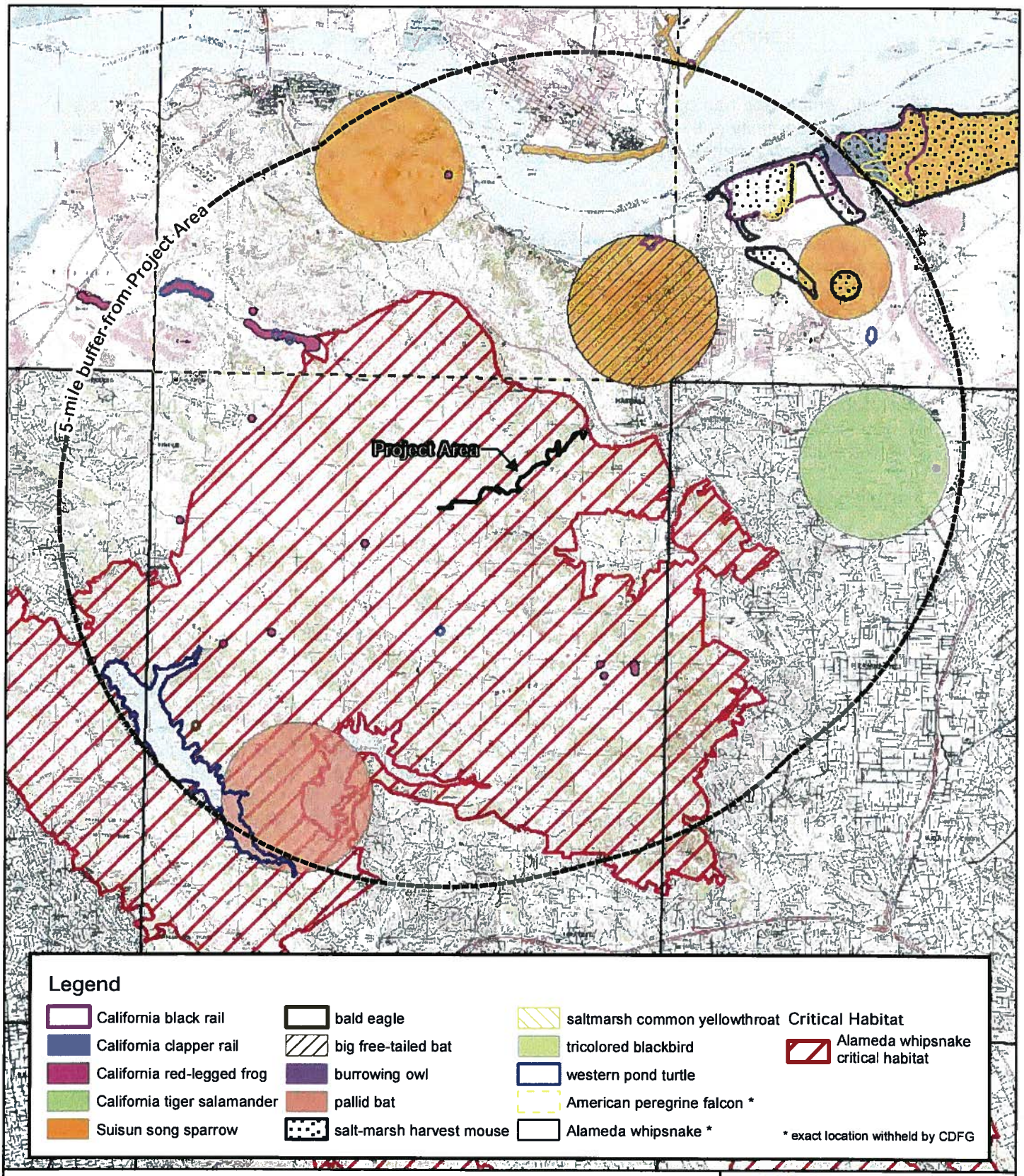

Figure 4. Special-Status Wildlife Species within 5 miles of the Project Area

EBRPD Feeder Trail #1 Project
Contra Costa County, California

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Miles

wra
ENVIRONMENTAL CONSULTANTS

Date: April 2012
Map By: Derek Chan
Map Source: CNDDB

Path: L:\Acad 2000 Files\22000\22030\GIS\ArcMap\Fig4_CNDDB_wildlife_20120425.mxd

Alameda whipsnake has been recorded on the Feeder Trail, and other recorded sightings are frequent in the vicinity of the project area (CNDDB 2012). Implementation of Mitigation Measure BIO-3 would lessen potential impacts to this listed species to a less-than-significant level.

California Red-legged Frog

California red-legged frog, a Federal threatened species, was once found throughout California but now rare outside the San Francisco Bay area. It requires aquatic breeding habitat (wet for minimum 20 weeks), non-breeding aquatic habitat for dispersal, and upland habitat, areas within approximately 200 feet of aquatic habitat (USFWS 2006). The project area lacks aquatic breeding habitat, but may provide non-breeding aquatic habitat during winter months when the ephemeral streambeds are moist. The closest known occurrence of this species is approximately one-mile southwest of the Franklin Road terminus of the trail (see Figure 4) and other occurrences are located approximately two miles to the east and west. Implementation of Mitigation Measure BIO-3 for Alameda whipsnake would also protect this species and lessen potential impacts to a less-than-significant level.

Mitigation Measures:

BIO–1a *Impacts to Raptors*: The following measure was designed to ensure that tree-nesting raptors (e.g., hawks, falcons, kites) are not disturbed during the breeding season.

A qualified biologist shall conduct a pre-construction survey for tree-nesting raptors in all trees occurring within 250 feet of the project route within 14 days of the onset of ground disturbance, if such disturbance will occur during the breeding season (February 1 through August 31). If nesting raptors are detected on the site during the survey, a construction buffer of 250 feet shall be established around each active nest for the duration of the breeding season or until it has been confirmed that all young have fledged. A biological monitor shall monitor the site to ensure nesting raptors are not adversely affected by construction activities, and to determine when young are independent.

BIO–1b *Impacts to Other Nesting Birds*: Harming or disrupting nesting migratory birds and/or their eggs or young is prohibited under state and federal law, and therefore, would be a potentially significant impact. The following measures are designed to ensure that nesting special status and common nesting birds are not disturbed during the breeding season.

To avoid impacting nesting birds (including CDFG Species of Special Concern), **one** of the following shall be implemented:

a) Conduct grading and construction activities, including the removal of branch or snag removal, from September 1st through January 31st, when birds are not likely to be nesting;

- OR -

b) Conduct pre-construction surveys for nesting birds if construction is to take place during the nesting season (February 1 through August 31). A qualified wildlife biologist shall conduct a pre-construction nest survey no

more than 14 days prior to initiation of grading to provide confirmation of the presence or absence of active nests on or immediately adjacent to the project area. If active nests are encountered, species-specific measures shall be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, grading in the vicinity of the nest shall be deferred until the young birds have fledged. A minimum exclusion buffer of 25 feet shall be maintained during construction, depending on the species and location. A qualified biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur.

BIO–2 *Impacts to Bats*: If construction occurs during the roosting season (April through August) then pre-construction surveys for bats in suitable roost trees shall take place. If special status bat species are detected during surveys, an appropriate, treatment plan shall be employed including postponing removal of branches or snags until the end of the maternity roosting season or construction of species-appropriate roosting habitat in the vicinity of the project area.

BIO–3a *Impacts to Alameda Whipsnake:* All trail improvement and maintenance activities in the vicinity of suitable whipsnake habitat shall be conducted during the Army Corps of Engineers' established window for routine maintenance activities, July through October. Prior to the start of construction, a pre-construction survey shall be conducted by a qualified biologist in potential habitat areas. Suitable whipsnake habitat (coyote brush, sage scrub, and riparian scrub) shall be noted and flagged. Because work will be conducted during the active (dry) season for whipsnake, an on-site biological monitor shall be present during activities within 100 feet of chaparral and scrub habitat to reduce potential for harassment, injury or death of whipsnakes.

BIO-3b Prior to initiation of construction activities, a qualified biologist shall train all site workers to ensure that all construction personnel, contractors and operators are aware of the potential presence of the whipsnake, recognize the ramifications of take of a listed species and receive training related to the whipsnake, including identification and protection measures, and requirements for responding to and reporting sightings.

BIO-3c Pre-construction surveys to excavate and collapse any burrows or other retreats shall be conducted within one week of any construction activities involving vegetation removal near whipsnake habitat to prevent re-entry. Following pre-construction surveys, vegetation shall be removed by hand in the area to be graded with a biological monitor present. Three feet of silt fencing above the ground and at least six inches of fence trenched into the ground shall be required around staging and stockpiling areas to prevent incidental take of snakes that may enter the site during non-working hours.

BIO-3d A qualified biologist shall be on-site throughout grading whenever work is being conducted within 100 feet of any suitable whipsnake habitat. The biologist shall be empowered to halt and suspend construction activities which could directly threaten the welfare of any whipsnake. If any whipsnakes are observed, work in the area shall be halted immediately until the snake leaves the area. If the

whipsnake has moved and the biologist confirms that it is no longer in the vicinity of the work area, construction may resume. The whipsnake shall not be collected or moved by the field biologist, unless it is in imminent danger of being killed. If a whipsnake must be moved to avoid injuring or killing it, the whipsnake shall be re-located to suitable habitat a minimum of 0.5 mile from the point of capture. The biologist shall continue to search the exclusion area after construction has halted and check the exclusion fence to ensure the snake has left the area. The observation of any live or dead whipsnake within the construction area shall be reported within 24 hours to USFWS or CDFG. Written records of all biological monitoring activities shall be kept in a daily log at the project site.

BIO-3e To protect whipsnake and other wildlife from disturbance and human-induced predation during construction, dogs and/or other pets shall not be allowed on construction sites; and contractors and their employees shall not be allowed to bring pets onto the project site, including dogs kept either inside or outside of employee vehicles.

BIO-3f To minimize contamination and artificial increase of predators (i.e., raccoons) on construction sites and adjacent protected habitats, all food-related trash materials, e.g., leftovers, wrappers, and containers, shall be removed from the construction site daily.

BIO-3g To minimize wildlife and habitat disturbance, all equipment and vehicle movement shall be confined to designated construction and staging areas and connecting roadways.

IV. (b). **Less Than Significant Impact.** A significant impact may occur if riparian habitat or any other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS were to be adversely modified without adequate mitigation. The project area was surveyed to assess biological communities present and whether any sensitive habitats were present. A preliminary wetland assessment was conducted and findings were based on the presence of wetland plant indicators, indicators of hydrology and hydric soils. No areas met the criteria for definition as a wetland.

Non-sensitive biological communities in the project area include coyote brush scrub, non-native annual grassland, and disturbed areas. Sensitive biological communities included oak woodland.

Anticipated work in the project area includes culvert replacement and installation, grading, and stabilization of slopes. No removal of significant or heritage trees is anticipated; however, it is possible that branches, snags or small trees may be removed in the course of the work. Impacts to high order upland drainages from culvert installation, replacement or removal will follow the requirements of a CDFG Section 1602 Streambed Alteration Agreement. Impacts to oak woodland will be avoided. Therefore, impacts to sensitive biological communities are less than significant.

IV. (c). **No Impact.** A significant impact may occur if federally protected wetlands, as defined by Section 404 of the Clean Water Act, would be modified or removed by the proposed project without adequate mitigation. No wetlands or potentially jurisdictional 'other waters' were observed in the project area during WRA's visit in February 2012. Therefore, the proposed project would not impact wetlands, as defined by Section 404 of the Clean Water Act.

IV. (d). **Less Than Significant With Mitigation.** A significant impact may occur if the proposed project would interfere with or remove access to a migratory wildlife corridor or impede the use of wildlife nursery sites. There are two special-status wildlife species that have the potential to use the project area as a corridor: California red-legged frog (CRLF) and Alameda whipsnake. CRLF may use ephemeral drainages along the Feeder Trail for dispersal habitat, and whipsnake are resident in the chaparral and rock outcrop habitats adjacent to the project area, and may cross it in search of prey or shelter. Grading or culvert work associated with the project could temporarily interfere with or remove access to a migratory wildlife corridor or impede the use of wildlife nursery sites without appropriate mitigation measures.

Mitigation Measures: Adherence to Mitigation Measure BIO-3 above would reduce potential impacts to a less-than-significant level.

IV. (e). **No Impact.** A project-related significant adverse effect could occur if the proposed project would cause an impact that is inconsistent with local regulations pertaining to biological resources. The project is consistent with all the requirements pertaining to biological resources in the Contra Costa County General Plan (2005-2020). Therefore, the proposed project would not affect any local policies or ordinances protecting or preserving biological resources and no impact would occur.

IV. (f). **No Impact.** A significant impact may occur if the proposed project is inconsistent with mapping or policies in any conservation plans of the types cited. The project site is not part of any draft or adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan. No project impact on any adopted habitat or conservation plans would occur.

IV. (g). **No Impact.** A project-related significant adverse effect could occur if the project would result in the conversion of oak woodlands. The project improvements will avoid work in oak woodland areas, and no conversion of oak woodland will take place as a result of the trail improvements. No impacts will occur.

V. CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		✓		
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

Setting:

Climate change is a shift in the average weather patterns observed on earth, which can be measured by such variables as temperature, wind patterns, storms and precipitation. The temperature on earth is regulated by what is commonly known as the "greenhouse effect."

Naturally occurring greenhouse gases in the atmosphere, including carbon dioxide, methane, nitrous oxides, and water vapor, absorb heat from the earth's surface and radiate it back to the surface. Human activities result in increased emissions of greenhouse gases. Burning of fossil fuels releases carbon dioxide gas into the atmosphere and is the largest human contributor in overall greenhouse gas emissions.

The resulting increases in greenhouse gas emissions from human activities are leading to higher concentrations and a change in composition of the atmosphere. For instance, the concentration of CO_2 in the atmosphere has risen about 30 percent since the late 1800s (National Assessment Synthesis Team [NAST], 2001). Many sources and models indicate that temperatures on earth are currently warming as a result, and will continue to warm at unprecedented rates. The global mean surface temperature has increased by 1.1° F since the 19th century (IPCC Synthesis report, 2001), and the 10 warmest years of the last century all occurred within the last 15 years.

The many effects of greenhouse gas emissions are not fully known, but are expected to include increased temperature which would: reduce snowpack, a primary source of drinking water; exacerbate air quality problems, such as smog; adversely impact human health, by increasing heat stress and related deaths, infectious disease incidence, asthma and respiratory health problems; cause sea levels to rise, threatening coastal lands; increase pests and pathogens; and alter crop yields and plant and wildlife habitats.

State of California

In California, the majority of human activity greenhouse gas emissions can be broken down into four sectors: transportation, industrial, electrical power, and agriculture/forestry. The largest source is from the transportation sector. In 2005, Governor Schwarzenegger issued Executive Order S-02-05, calling for statewide reductions to 2000 levels by 2010, 1990 levels by 2020 and to 80 percent below 1990 levels by 2050. The Executive Order also called for the creation of a state "Climate Action Team", which would report to the Governor every two years on both progress toward meeting the targets and effects of Greenhouse Gas Emissions on the state.

Assembly Bill 32 (AB32), the "Global Warming Solutions Act of 2006," committed the State of California to reducing greenhouse gas emissions to 1990 levels by 2020. The statute requires CARB to track emissions through mandatory reporting, determine 1990 emissions levels, set annual emissions limits that will result in meeting targets, and identify discrete early actions that directly address greenhouse gas emissions, are regulatory, and can be enforced by January 1, 2010.

In May 2011, the BAAQMD adopted new CEQA Guidelines with the purpose to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the SFBAAB. The Guidelines provides BAAQMD-recommended procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements. These revised Guidelines supersede the BAAQMD's previous CEQA guidance titled *BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans* (BAAQMD 1999).

Impacts

V. (a). **Less Than Significant Impact with Mitigation.** A significant impact may occur if a project would generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment. The project would not result in a significant

increase in vehicle trips compared to existing conditions and thus would not exceed the BAAQMD's 1,100 MT of CO2e/yr threshold of significance for greenhouse gas emissions. Operational greenhouse gas emission impacts would be less than significant.

The construction phase of the project includes grading and slope stabilization using equipment. Sources of construction-related GHGs include exhaust, for which the same detailed guidance as described for criteria air pollutants and precursors shall be followed. The BAAQMD CEQA Guidelines do not include screening criteria or thresholds of significance for construction-related GHG emissions. However, implementation of Mitigation Measure AQ-1 would ensure construction-related GHG emissions would be less than significant.

Mitigation Measures: See Mitigation Measure AQ-1.

V. (b). **Less Than Significant Impact.** A significant impact would occur if a project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases and operational impacts of the proposed project would be less than significant.

VI. CULTURAL RESOURCES Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Cause a substantial adverse change in the significance of an historical resource as defined in '15064.5?			✓	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?		✓		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d) Disturb any human remains, including those interred outside of formal cemeteries?		✓		

Setting:

The East Bay hills including the project area have a long history of Native American presence stretching back thousands of years. The Bay Miwok people were hunter-gatherers and occupied most of Contra Costa County until the establishment of missions in the early 19th century. Following settlement of Contra Costa by ranchers, Feeder Trail #1 was established in the late 19th century as an early through-route between Alhambra Valley and Franklin Canyon. It is considered the oldest trail in Contra Costa County and was once part of the Martinez-Richmond stagecoach line. Conservationist John Muir reportedly used it to reach western Contra Costa ferry stations from his ranch in Martinez, and it has been narrowly saved from development during the past decade (MHLT 2009). At the present time, however, there is no visible evidence of this historic use on the route, and no known historic sites or artifacts of pre-historic or historic importance on the trail (Origer 2012).

Impacts:

VI. (a). **Less Than Significant Impact.** Section 15064.5 of the State CEQA Guidelines defines a historical resource as: 1) a resource listed in or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources; 2) a resource listed in a local register of historical resources or identified as significant in an historical resource survey meeting certain state guidelines; or 3) an object, building, structure, site, area, place, record or manuscript which a lead agency determines to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided that the lead agency's determination is supported by substantial evidence in light of the whole record. A project-related significant adverse effect would occur if a project were to adversely affect a historical resource meeting one of the above definitions.

The project site is not listed on the National Register or California State Historic Resource properties, California Historical landmarks, California Points of Historic Interest. No historical or cultural resources are known to exist in the project area; the nearest site is a historic home located over one mile to the southwest (Origer 2012). Though there is the potential for unknown resources to be discovered in the area, because no known resources are present, the impact to historical resources would be less than significant.

VI. (b). **Less Than Significant With Mitigation.** Section 15064.5 of the State CEQA Guidelines defines significant archaeological resources as resources which meet the criteria for historical resources, as discussed above, or resources which constitute unique archaeological resources. A project-related significant adverse effect could occur if a project were to affect archaeological resources which fall under either of these categories.

The project area is not known to contain archaeological resources, but it has a long history of human use, and has not undergone an exhaustive archaeological survey, so it is possible that such resources could exist along the trail. Therefore, the proposed project could result in potentially significant impacts to unknown cultural resources. Mitigation Measure CULT–1 would reduce potentially significant impacts to a less-than-significant level.

Mitigation Measures:

CULT–1 If potentially significant cultural resources or human remains are encountered during project excavation or construction, all activity in the vicinity of the suspected resources or remains shall be immediately suspended and the Park District and a qualified archaeologist shall be contacted to evaluate the situation. Project personnel shall not alter any of the uncovered materials or their context. EBRPD, in consultation with a qualified archaeologist, in the case of cultural resources, shall complete a resource inventory, declaration, and mitigation plan prior to the continuation of any on-site grading or construction activity. Any previously undiscovered resources found during construction shall be recorded. Significant cultural resources consist of, but are not limited to, stone, bone, wood, and shell artifacts; fossils; and features including structural remains, stagecoach artifacts, and historic dumpsites. In the case of human remains, work shall cease until the county coroner makes a report. The county coroner is required to contact the Native American Heritage Commission within 24 hours if the coroner determines the remains to be Native American.

VI. (c). **Less Than Significant Impact with Mitigation.** A significant impact would occur if a project were to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. No known paleontological resources have been noted to occur in the area. However, it is possible that subsurface earthwork activities may encounter previously undiscovered paleontological resources. Implementation of Mitigation Measure CULT-1 would ensure that this impact would be less than significant.

VI. (d). **Less Than Significant Impact with Mitigation.** A significant impact would occur if a project were to disturb any human remains, including those interred outside of formal cemeteries. No known human remains are interred on the site. However, it is possible that subsurface earthwork activities may encounter previously undiscovered human remains or burial sites. According to California Health and Safety Code 7050.5, upon discovery of human remains outside of a dedicated cemetery, work shall cease until a county coroner makes a report. As described in Mitigation Measure CULT-1 above, the county coroner is required to contact the Native American Heritage Commission within 24 hours if the coroner determines that the remains are Native American. Therefore, impacts to human remains would be less than significant with mitigation.

VII. GEOLOGY AND SOILS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			✓	
ii) Strong seismic ground shaking?			✓	
iii) Seismic-related ground failure, including liquefaction?			✓	
iv) Landslides?			✓	
b) Result in substantial soil erosion or the loss of topsoil?		✓		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓

Setting:

The coastal region of California is located at the margin of two lithospheric plates of the earth's crust, the Pacific plate to the west and the North American plate to the east. The movement of the Pacific plate northward relative to the North American plate results in the accumulation of stress along the margin of the plates. Earthquakes result as the strain is released by the rupture of the earth. The plate motion has resulted in the development of the San Andreas Fault System, a series of northwest-southeast trending active faults, including the San Andreas, San Gregorio, Hayward-Rodgers Creek, Calaveras, and other active faults. All of these active regional faults are capable of generating damaging earthquakes. The U.S. Geological Survey has estimated that there was a 63 percent probability that between 2008 and 2037, a 6.7 or greater magnitude earthquake will occur within the San Francisco Bay Region.[1] The probability of a 6.7 magnitude or greater earthquake occurring along individual faults was estimated to be 31 percent along the Hayward-Rodgers Creek Fault, 21 percent along the San Andreas Fault, seven percent along the Calaveras Fault and six percent along the Garlock fault.

Impacts:

VII. (a). **Less Than Significant Impact**

(i) Earthquake Fault: A significant impact may occur if the project site is subject to fault rupture from a known earthquake fault as delineated on the most recent Alquist-Priolo Fault Zoning Map or based on substantial evidence of a known fault. The project site is not located in an Alquist-Priolo Fault zone or in an area subject to fault rupture. Therefore, impacts are less than significant and no mitigation is necessary.

(ii) Seismic Shaking: A significant impact may occur if the proposed project were to represent an increased risk to public safety or destruction of property by exposing people, property, or infrastructure to seismically induced ground shaking hazards that are greater than the average risk associated with locations in the Northern California region. The project site is located within the larger seismically active San Francisco Bay Area region, which has several known seismically active faults. According to the Uniform Building Code's (UBC) Seismic Hazard Zone map, the entire Bay Area, including the project site, is located in Seismic Zone 4 (as mapped by the California Geological Survey), which has the highest seismic risk (i.e., even though no faults are located on the site, faults within the region could cause strong seismic ground shaking in the project Area during a large earthquake event). The probability of strong seismic ground shaking due to ground rupture exists throughout the region. However, the project only proposes trail improvements to an existing public trail, and because no buildings will be located at the site, the risk of potential impacts is less than significant.

(iii) Risk of Ground Failure: According to the USGS Susceptibility Map of the San Francisco Bay Area, the site has a low to moderate susceptibility of liquefaction.[2] Slope stability is indicated as good to fair (primarily hard marine sandstone and shale) (CCC General Plan 2005). The proposed project consists of improvements to an existing public trail and fire road; no development other than installation of

1 *United States Geologic Survey, 2008. Forecasting California's Earthquakes – What Can We Expect in the Next 30 Years. Website: http://pubs.usgs.gov/fs/2008/3027/fs2008-3027.pdf. Web Accessed November 30, 2010.*

2 *USGS San Francisco Bay Region Geology and Geologic Hazards, Susceptibility Map of the San Francisco Bay Area interactive map. Website: http://geomaps.wr.usgs.gov/sfgeo/liquefaction/susceptibility.html.*

culverts and slope stabilization is proposed. Therefore, impacts related to risk of ground failure would be less than significant.

(iv) Risk of Landslides: A project-related significant adverse effect may occur if the project is located in a hillside area with soil conditions that would suggest a high potential for landslides. The topography of the site is sloping and there are a number of areas proposed for stabilization, which would reduce risk of landslides. Thus, implementation of the project may have a beneficial effect on landslide risk, and the risk of landslides is less than significant.

VII. (b). **Less Than Significant Impact with Mitigation.** A significant impact may occur if a project exposes large areas to the erosional effects of wind or water for a protracted period of time. The soils underlying the project site are classified as presenting slight to no hazard. Project construction activities, such as grading, may increase the potential for erosion to occur at the project site. These potential impacts would be reduced by the implementation of a Stormwater Pollution Prevention Plan (SWPPP). With the implementation of Mitigation Measure HYD–1, impacts associated with the proposed project would be less than significant.

Mitigation Measures: See Mitigation Measure HYD-1 in Section IX (a).

VII. (c, d). **Less Than Significant Impact.** A significant impact may occur if a project is built in an unstable area without proper site preparation or design features to provide adequate foundations for the project buildings, thus posing a hazard to life and property. The project does not propose construction of any buildings on-site, and incorporates slope stabilization measures to reduce the risk of collapse. Therefore, impacts would be less than significant.

VII. (e). **No Impact.** The project would not involve the use of septic tanks or alternative waste water disposal systems.

VIII. HAZARDS AND HAZARDOUS MATERIALS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				✓
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓

VIII. HAZARDS AND HAZARDOUS MATERIALS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: 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?				✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			✓	

Setting:

The proposed project is bordered by residential development and ranchland to the north, public lands, ranches and agricultural lands to the east, west and south. It is an important north-south connector for trail users and emergency vehicles travelling between Alhambra Valley and Franklin Canyon. Buchanan Airport is located approximately six miles east of the project site.

Impacts:

VIII. (a). **No Impact.** A significant impact may occur if the proposed project would involve the use, transport or disposal of hazardous materials as part of its routine operations. Operation of the proposed project would not involve the use of hazardous materials that would have the potential to generate toxic or otherwise hazardous emissions. No impact would occur.

VIII. (b). **Less Than Significant Impact.** A significant impact may occur if the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. All potentially hazardous materials used during the construction of the proposed project would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable Federal, State and local standards and regulations. Impacts would be less than significant.

VIII. (c). **No Impact.** A project-related significant adverse effect may occur if the project site is located within 0.25 miles of an existing or proposed school site, and is projected to release toxic emissions, which would pose a health hazard beyond regulatory thresholds. The project would not emit hazardous emissions, nor handle hazardous materials or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school. No school is located within 0.25 miles of the site. Therefore, no impacts are expected.

VIII. (d). **No Impact.** California Government Code Section 65962.5 requires various State agencies to compile lists of hazardous waste disposal facilities, unauthorized release from underground storage tanks, contaminated drinking water wells, and solid waste facilities from which there is known migration of hazardous waste and submit such information to the Secretary for Environmental Protection on an annual basis. This question would apply only if the project site were included on any of the above lists, and therefore would pose an environmental hazard to surrounding sensitive uses. The project area is not a pre-determined hazardous materials site, pursuant to Government Code Section 65962.5. Therefore, no impacts would occur.

VIII. (e, f). **No Impact.** A significant project-related impact may occur if the proposed project were placed within a public airport land use plan area or within two miles of a public airport, and subject to a safety hazard. The nearest airport is Buchanan Airport, located approximately 6 miles east of the project site. Thus, the project site is not located within an airport land use plan area or within 2 miles of a public airport or public use airport, and the project site is not located within the vicinity of a private airstrip that would subject area residents and workers to a safety hazard. Therefore, there would be no impact.

VIII. (g). **No Impact.** A significant impact may occur if the project were to interfere with roadway operations used in conjunction with an emergency response plan or emergency evacuation plan, or would generate sufficient traffic to create traffic congestion that would interfere with the execution of such a plan. The proposed project improves an existing trail and would facilitate access for emergency vehicles when needed. It is not expected to result in a significant increase of daily vehicle trips at the site. Thus the proposed project would not impair the implementation of, or physically interfere with, any adopted emergency response plan or emergency evacuation plan and no impacts would occur.

VIII. (h). **Less Than Significant Impact.** A significant impact may occur if a project is located in proximity to wildland areas and would pose a potential fire hazard, which could affect persons or structures in the area in the event of a fire. The project site is located outside areas designated "Very High Fire Hazard Severity Zones" as recommended by CAL FIRE and depicted on the Fire Resource Assessment Program (FRAP) maps.[3] Thus, impacts would be less than significant.

IX. HYDROLOGY AND WATER QUALITY Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Violate any water quality standards, conflict with water quality objectives, fail to meet waste discharge requirements, significantly degrade any surface water body or groundwater, or adversely affect the beneficial uses of such waters, including public uses and aquatic, wetland and riparian habitat?		✓		

3 *California Department of Forestry and Protection, Fire and Resource Assessment Program (FRAP). Contra Costa County Fire Hazard Severity Zones. Website: http://frap.cdf.ca.gov/webdata/maps/contra_costa/fhszs_map.7.pdf.*

IX. HYDROLOGY AND WATER QUALITY Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				✓
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site (i.e. within a watershed)?		✓		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff (e.g., due to increased impervious surfaces) in a manner which would result in flooding on- or off-site (i.e. within a watershed)?			✓	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems due to changes in runoff flow rates or volumes?				✓
f) Result in a significant increase in pollutant discharges to receiving waters (marine, fresh, and/or wetlands) during or following construction (considering water quality parameters such as temperature, dissolved oxygen, turbidity, and typical storm water pollutants such as heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash)?		✓		
g) Result in an increase in any pollutant for which a water body is listed as impaired under Section 303(d) of the Clean Water Act?		✓		
h) 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?				✓
i) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓
j) 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?				✓
k) Inundation by seiche, tsunami, or mudflow?				✓

Setting:

The project area is located on north- and south-facing slopes in the hills outside Martinez. The area has Mediterranean climate conditions; dry, hot summers and cool, moist winters. The average annual rainfall of 19-20 inches occurs primarily from November through March[4]. The nearest temperature gauge is in Richmond, CA, where average temperatures range from 50° F in the winter to 67° F in the summer[5]; however, this station is along the coast where weather conditions are typically cooler than inland. Thus, the high temperature value is likely to be an underestimate of actual conditions at the site.

The trail route crosses a number of ephemeral drainages, some of which are presently culverted and others which would be culverted as part of the proposed project. One of the purposes of the project is to improve drainage and slope stability during runoff events, and reduce the potential for transport of eroded sediments in site runoff water. Drainage from the site could ultimately contribute to water quality in San Pablo Bay.

Federal and State Requirements

Pursuant to Clean Water Act Section 402 and the Porter-Cologne Water Quality Control Act, on September 2, 2009, the State Water Resources Control Board (State Water Board) adopted an NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002 (Construction General Permit).

To obtain coverage under the Construction General Permit, the project applicant must provide via electronic submittal, a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as grubbing or excavation. The permit also covers linear underground and overhead projects such as pipeline installations. Construction General Permit activities are regulated at a local level by the San Francisco Bay Regional Water Quality Control Board (Water Board).

The performance standard in the Construction General Permit is that dischargers shall minimize or prevent pollutants in stormwater discharges and authorized non-stormwater discharges through the use of controls, structures, and management practices that achieve Best Available Technology (BAT) for treatment of toxic and non-conventional pollutants and Best Conventional Technology (BCT) for treatment of conventional pollutants.[6] The permit also imposes numeric action levels[7] (Level 2 and Level 3 projects) and numeric effluent limits (Level 3 projects) for pH and turbidity, as well as minimum BMPs that must be implemented at all sites.

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4 *World Climate website: http://www.worldclimate.com/cgi-bin/grid.pl?gr=N37W122.*

5 *Ibid.*

6 *As defined by U.S. EPA, Best Available Technology (BAT) is a technology-based standard established by the CWA as the most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. The BAT effluent limitations guidelines, in general, represent the best existing performance of treatment technologies that are economically achievable. Best Conventional Technology (BCT) is a technology-based standard that applies to treatment of conventional pollutants, such as total suspended solids.*

7 *Numeric action levels are used as a warning to evaluate if BMPs are effective and to take necessary corrective actions.*

A SWPPP must be prepared by a Qualified SWPPP Developer that meets the certification requirements in the Construction General Permit. The purpose of the SWPPP is to (1) to help identify the sources of sediment and other pollutants that could affect the quality of stormwater discharges; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges resulting from construction activity. Operation of BMPs must be overseen by a Qualified SWPPP Practitioner that meets the requirements outlined in the permit. For Level 2 and Level 3 projects, the discharger must also prepare a Rain Event Action Plan as part of the SWPPP that must be designed to protect all exposed portions of the construction site; a Rain Event Action Plan must be prepared 48 hours before each predicted qualifying rain event.

The SWPPP must also include a construction site monitoring program. The monitoring program includes, depending on the project risk level, visual observations of site discharges, water quality monitoring of site discharges (pH, turbidity, and non-visible pollutants, if applicable), and receiving water monitoring (pH, turbidity, suspended sediment concentration, and bioassessment).

Impacts:

IX. (a). **Less Than Significant With Mitigation.** The proposed project includes the construction of storm water drainage infrastructure (culverts) which have been sized to accommodate estimated storm water flows. This runoff would flow generally north-westward through the culverts and ultimately drain to Rodeo Creek, which drains into San Pablo Bay. The project will not include any impervious area and is not anticipated to result in additional runoff during storm events. Operation of the project would not violate any water quality standards or significantly degrade any water body. However, during project construction, soil disturbances at the project site may impact water quality of storm water runoff. These potential impacts would be reduced by the implementation of a Stormwater Pollution Prevention Plan (SWPPP). With the implementation of Mitigation Measure HYD–1, impacts associated with the proposed project would be less than significant.

Mitigation Measures:

HYD–1 The applicant shall prepare a SWPPP which shall be implemented during construction and the following Best Management Practices (BMPs) shall be included in the SWPPP to ensure that water quality of surface runoff is maintained and no siltation of downstream waterways occurs:

- To the extent possible, project grading would take place in the dry season between July 1 and October 31 to minimize immediate erosion/siltation.
- Construction materials and waste shall be handled and disposed of properly in compliance with applicable law to prevent contact with storm water.
- Discharge of all potential pollutants, including petroleum products, chemicals, wash water or sediments, and non-storm water discharges to storm drains and watercourses shall be controlled and prevented.
- Sediment controls such as straw mulch, silt fences, sediment basins or traps and/or other measures shall be employed during construction.
- Tracking dirt or other materials off-site shall be avoided and off-site paved areas shall be cleaned regularly using dry sweeping methods.

- The contractor shall train and provide instruction to all employees and subcontractors regarding construction BMPs.

IX. (b). **No Impact.** A significant impact may occur if a project includes deep excavations resulting in the potential to interfere with groundwater movement or includes withdrawal of groundwater or paving of existing permeable surfaces important to groundwater recharge. The project does not propose major excavation work. Minor grading would be required at the site on existing slopes, which would not intersect the groundwater table. The proposed project does not include the use of wells or an increase in impermeable surface. Thus, no impacts would occur.

IX. (c). **Less Than Significant With Mitigation.** A significant impact may occur if a project results in a substantial alteration of drainage patterns that would result in a substantial increase in erosion or siltation during construction or operation of the project. The project does not propose to substantially alter the course of a stream or river, nor substantially increase the rate or amount of surface runoff in a manner that would result in flooding. However, if appropriate Best Management Practices are not used during on-site grading and operation of the proposed project, the project could result in potentially significant impacts related to erosion or siltation. With the implementation of Mitigation Measures HYD–1, impacts would be less than significant.

Mitigation Measures: See Mitigation Measure HYD-1.

IX. (d). **Less Than Significant Impact.** A significant impact may occur if a project results in increased runoff volumes during construction or operation of the project that would result in flooding conditions affecting the project site or nearby properties. The proposed project includes the construction of storm water drainage infrastructure (culverts) which have been sized to accommodate estimated storm water flows. This runoff would flow generally north-westward through the culverts and ultimately drain to Rodeo Creek, which drains into San Pablo Bay. The project will not include any impervious area and is not anticipated to result in additional runoff during storm events. Therefore, impacts would be less than significant.

IX. (e). **No Impact.** A significant impact may occur if a project would increase the volume of storm water runoff to a level which exceeded the capacity of the storm drain system serving a project site. The area is not served by a storm drain system. No impacts would occur.

IX. (f, g). **Less Than Significant With Mitigation.** A significant impact may occur if a project includes potential sources of storm water pollutants that would have the potential to substantially degrade water quality or result in an increase in any pollutant for which a water body is listed as impaired under Section 303(d) of the Clean Water Act. The ephemeral drainages along the project route eventually drain to Rodeo Creek, which is an impaired water body for the pesticide diazinon (Pacific Institute 2009). The project will not use diazinon during construction or operation, or contribute to diazinon concentrations in Rodeo Creek. During construction, sediments from the site have the potential to degrade water quality, but these impacts would be less than significant with implementation of mitigation measure HYD-1.

Mitigation Measures: See Mitigation Measure HYD-1.

IX. (h). **No Impact.** A significant impact may occur if a project were to 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. No housing would be placed on the site as a

result of this project, and the project site is not within a 100-year flood hazard area; thus, no impact would occur.

IX. (i, j). **No Impact.** A significant impact may occur if a project were to place within a 100-year flood hazard area structures which would impede or redirect flood flows. The project will not place any structures and is not within a 100-year flood hazard area. No impact would occur.

IX. (k). **No Impact.** A significant impact may occur if a project were to expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow. The project is not located along the coast and would not expose any people or structures to risk of inundation. No impacts would occur.

X. LAND USE AND PLANNING Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Physically divide an established community.				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

Setting:

The project site is designated as Parks and Recreation and Agricultural and zoned as General Agriculture (5 acre minimum) and Agriculture Preserve (20 acre minimum). It is bordered by rural residences to the north, ranchland and open space to the east, west, and south. It abuts Muir Heritage Land Trust properties Sky Ranch, Dutra Ranch and Gustin properties, all recently dedicated as open space.

Impacts:

X. (a). **No Impact.** A significant impact may occur if a project were sufficiently large enough or otherwise configured in such a way as to create a physical barrier within an established community. No established community is present in the area, and no physical division of an established community would result from the proposed project. No impacts would occur.

X. (b). **No Impact.** A significant impact may occur if a project is inconsistent with applicable land use plans or zoning designations and would cause adverse environmental effects, which these regulations are designed to avoid or mitigate. The Contra Costa County General Plan designates the project area as Parks and Recreation and Agricultural. The proposed project involves improvements to an existing public trail and fire road. It is zoned Agriculture and Agriculture Preserve. The proposed project would grade and improve an existing trail. No

substantial changes or alterations to present or planned uses are proposed by the project. Thus, no impacts would occur.

X. (c). **No Impact.** A significant impact may also occur if a project were to conflict with any applicable habitat conservation plan or natural community conservation plan. Western Contra Costa County does not have a habitat conservation plan or natural community conservation plan. The County General Plan does define goals for protection of biological resources. The project was reviewed within the General Plan framework and does not conflict with those goals or policies.

XI. MINERAL RESOURCES Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

Impacts:

XI. (a, b). **No Impact.** A significant impact may occur if the project site is located in an area used or available for extraction of a regionally important mineral resource, or if the proposed project would convert an existing or future regionally important mineral extraction use to another use, or if the proposed project would affect access to a site used or potentially available for regionally important mineral resource extraction. No mineral resources of value are known to occur in the area of the Feeder Trail; it follows an established route between rural residential and ranch holdings and dedicated open space. The construction of the proposed project would neither result in the loss of availability of a known mineral resource, nor 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. No impact would occur.

XII. NOISE Would the project result in:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			✓	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	

XII. NOISE Would the project result in:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓

Setting:

Sound is described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is typically defined as unwanted sound. A typical noise environment consists of a base of steady "background" noise that is the sum of many indistinguishable noise sources. Superimposed on this background noise is sound from individual local sources, such as an occasional aircraft or train passing by, or continuous traffic on a major highway.

Several rating scales have been developed to analyze the adverse effect of noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq} – An L_{eq}, or equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{max} – The maximum instantaneous noise level experienced during a given period of time.
- L_{min} – The minimum instantaneous noise level experienced during a given period of time.
- CNEL – The Community Noise Equivalent Level is a 24-hour average Leq with a 5 dBA "weighting" during the hours of 7:00 P.M. to 10:00 P.M. and a 10 dBA "weighting" added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in

the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24 hour L_{eq} would result in a measurement of 66.7 dBA CNEL.

Given the site's relatively remote location, existing ambient noise in the project area is quiet; nearby road (Franklin Canyon Road and Alhambra Boulevard) noise is minimal.

Impacts:

XII. (a). **Less Than Significant With Mitigation.** A significant impact may occur if the proposed project would generate excess noise that would cause the ambient noise environment at the project site to exceed noise levels in excess of local standards. Contra Costa County does not have a noise ordinance. The construction activities associated with the project may involve the use of heavy equipment such as tractors, loaders, and graders. Trucks would be used to deliver equipment and materials and to haul away waste materials. This equipment would generate temporary steady-state and episodic noise that would be heard both on and off the project site.

The noisiest pieces of construction equipment, jack hammers and pavers, would not be used on the project. As with all construction equipment, noise levels would diminish rapidly with distance from the construction site. There are few residences located adjacent to the project route; along the majority of the route adjacent property is open space or ranch land. However, residents near the Dutra Road terminus of the project could experience temporary, periodic, noticeable increases in noise levels during the project's construction period, even with implementation of the noise control measures. Therefore, project impacts related to temporary noise increases associated with project construction would be potentially significant but adherence to the following mitigation measures to require compliance with local ordinances addressing construction hours and practices, would reduce potential noise impact during project construction and operation to a less-than-significant level.

Mitigation Measures:

NOISE–1 In addition to compliance with existing local, State and federal regulations, the following measures shall be required for new construction associated with the project:

- Construction activity shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday.
- All construction vehicle and equipment shall be fitted with working mufflers.
- All stationary noise-generating equipment, such as compressors, should be located as far as possible from existing houses.
- Machinery, including motors, shall be turned off when not in use.
- Mobile equipment shall not run idle near existing residences.

XII. (b). **Less Than Significant Impact.** A significant impact may occur if the proposed project were to generate excessive vibration during construction or operation activities. Vibration is sound radiated through the ground. Vibration can result from a source (e.g., subway operations, vehicles, machinery equipment, etc.) causing the adjacent ground to move, thereby creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as groundborne vibration. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or

the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

Due to the limited nature of project construction and that heavy equipment such as pile drivers would not be required, the project is not anticipated to cause exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels during project construction. Impacts during project construction would be less than significant, and no impacts would occur during project operation.

XII. (c). **Less Than Significant Impact.** A significant impact may occur if the proposed project were to result in a substantial permanent increase in ambient noise levels above existing ambient noise levels without the proposed project. As discussed previously, it is widely accepted that in the community noise environment the average healthy ear can barely perceive CNEL noise level changes of 3 dBA. CNEL changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA CNEL increase is readily noticeable, while the human ear perceives a 10 dBA CNEL increase as a doubling of sound.

Generally, in order to achieve a 3 dBA CNEL increase in ambient noise from traffic, the volume on any given roadway would need to double. The proposed project does not include an increase in the overall amount of vehicle trips. Given this small amount of vehicle trips to the project site, the existing traffic volumes on the roadways in the project vicinity would not be doubled. As a result of the project, no long-term significant increase in ambient noise levels is expected. Thus, impacts associated with traffic noise levels from the proposed project would be less than significant.

XII. (d). **Less Than Significant With Mitigation.** A significant impact may occur if a project were to result in a substantial temporary or periodic increase in ambient noise levels above existing ambient noise levels without the proposed project. See answer XII (a).

Mitigation Measures: See Mitigation Measure NOISE-1.

XII. (e, f). **No Impact.** A significant impact may occur if a project were 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. A significant impact may also occur if a project would expose people residing or working in the in the vicinity of a private airstrip to excessive noise levels. The project site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. Therefore, no impact would occur.

XIII. POPULATION AND HOUSING Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

Impacts:

XIII. (a-c). **No Impact.** A significant impact would occur if a project would locate new development such as homes, businesses, or infrastructure, with the effect of substantially inducing growth in the project area that would otherwise not have occurred as rapidly or in as great a magnitude. A significant impact may also occur is the project would result in the substantial displacement of existing housing units or people, necessitating the construction of replacement housing elsewhere.

The proposed project would improve the existing route of Feeder Trail #1, an established north-south through route used by hikers, cyclists, equestrians, and emergency vehicles. The project does not include the extension of roadways or other infrastructure, and thus would not induce population growth in the area. The proposed project would not displace substantial numbers of housing or people, necessitating the construction of replacement housing elsewhere. Therefore, no impacts to population and housing would occur.

XIV. PUBLIC SERVICES 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 following public services:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Fire protection?				✓
b) Police protection?				✓
c) Schools?				✓
d) Parks?				✓
e) Other public facilities?				✓

Impacts:

XIV. (a-e). **No Impact.** A significant impact to public services may occur if a project resulted in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, or the 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 objective for any of the following public services.

The proposed project would improve the existing route of Feeder Trail #1, an established north-south through route used by hikers, cyclists, equestrians, and emergency vehicles. The proposed project would not introduce new land uses and associated population that would significantly increase demands for public services. Therefore, the proposed project would not result in the substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, nor the 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 public service. Therefore, no impacts would occur.

XV. RECREATION Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	

Impacts:

XV. (a, b). **Less Than Significant Impact.** A significant impact may occur if a project would include substantial employment or population growth which could generate an increased demand for public park facilities that exceeds the capacities of existing parks and causes premature deterioration of the park facilities. A significant impact may also occur if a project includes the construction or expansion of park facilities and such construction would have a significant adverse effect on the environment.

The proposed project would not introduce new recreational facilities nor induce an increase in population that could require construction or expansion of recreational facilities. Although a modest increase in use of the open space accessed by Feeder Trail #1 may occur as a result of the improvements anticipated in this project, it would not result in the construction of any facility that would have an adverse physical effect on the environment. Impacts would be less than significant.

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

Setting:

The project area is located between Dutra Road, off Franklin Canyon Road, to the north, and Ferndale Road to the south. The existing Feeder Trail #1 is an established route for hikers, bikers, and equestrians.

Impacts:

XVI. (a). **Less Than Significant Impact.** A significant impact may occur if a project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. During construction, there may be some increase in vehicle trips to the trail. Following construction, the trail improvements may result in an increase of trail users, but the increase is expected to be modest because no additional parking is being provided at either access point. The proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. Therefore, impacts would be less than significant.

XVI. (b). **No Impact.** A significant impact may occur if adopted California Department of Transportation (Caltrans) or County thresholds for congestion management would be exceeded. This project connects to two rural roads, Ferndale Road and Dutra Road, which do not have

congestion management plans. The project will not provide any additional parking beyond the limited number of spaces (approximately four) currently available off Dutra Road. Thus, the trail improvements would not induce a major increase in traffic to and from the site, and would have no impact on congestion on major roads.

XVI. (c). **No Impact.** This question would apply to the proposed project only if it were an aviation-related use. The project site does not contain any aviation-related uses, and the proposed project would not include the development of any aviation-related uses. Thus, the proposed project would have no impact on air traffic patterns.

XVI. (d). **No Impact.** A significant impact may occur if a project were to include a new roadway design, introduce a new land use or project features into an area with specific transportation requirements and characteristics that have not been previously experienced in that area, or if project access or other features were designed in such a way as to create hazardous conditions. The proposed project does not include any roadway design or road features. Sight distance for motorists to access and depart the project site would not be altered, and no impacts would occur.

XVI. (e). **No Impact.** A significant impact may occur if a project design would not provide emergency access or in any other way threaten the ability of emergency vehicles to access and serve the project site or adjacent uses. The proposed project would improve emergency vehicle access to the areas served by Feeder Trail #1; it would not alter existing circulation patterns, street design or access. The proposed project would not create features which might generate hazardous road conditions, and no design features are proposed that would create new traffic hazards or result in inadequate emergency access. No impacts would occur.

XVI. (f). **No Impact.** A significant impact may occur if a project would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The project does not impact or conflict with adopted policies, plans or programs supporting alternative transportation. Therefore, no impact would occur.

XVII. UTILITIES AND SERVICE SYSTEMS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		✓		
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	

XVII. UTILITIES AND SERVICE SYSTEMS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g) Comply with federal, state, and local statutes and regulations related to solid waste?				✓

Impacts:

XVII. (a, b). **No Impact.** A significant impact may occur if a project exceeds wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB). A significant impact may also occur if a project would increase water consumption or wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded. The proposed project does not involve any uses that would discharge wastewater to sanitary sewer or on-site wastewater (septic) systems. Therefore, there would be no impacts.

XVII. (c). **Less Than Significant Impact with Mitigation.** A significant impact may occur if the proposed project would result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. The proposed project includes the construction and replacement of culverts and drainage basins for ephemeral channels which ultimately flow to the Bay via Rodeo Creek. Improving drainage along the trail is one of the goals of the project and once installed, the culverts should have a limited and potentially beneficial effect on the environment, by reducing erosion and sedimentation. During construction, the project's impacts would be mitigated as described above in the Hydrology section (Measure HYDRO-1). With implementation of this measure, impacts would be less than significant.

XVII. (d). **Less Than Significant Impact.** A significant impact may occur if a project were to increase water consumption to such a degree that new water sources would need to be identified, or that existing resources would be consumed at a pace greater than planned for by purveyors, distributors, and service providers. While limited amounts of water would be used during the construction phase, the operational phase of the project does not involve or require water service.

XVII. (e). **No Impact.** A significant impact may occur if a project would increase wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded. The proposed project does not include wastewater infrastructure and would not produce any wastewater; therefore, the project would not interfere with any wastewater treatment provider's service capacity, and no impacts would occur.

XVII. (f). **Less Than Significant Impact.** A significant impact may occur if a project were to increase solid waste generation to a degree that existing and projected landfill capacity would be insufficient to accommodate the additional solid waste. The project consists of improvements to an existing trail; the construction phase of the project would not generate a significant amount of solid waste nor place any burden on the existing permitted capacity of any landfill or transfer station. Impacts would be less than significant.

XVII. (g). **No Impact.** A significant impact may occur if a project would generate solid waste that was not disposed of in accordance with applicable regulations. The proposed project would comply with federal, state, and local statutes related to solid waste, and no significant regulatory impacts are anticipated. Therefore, no impact would occur.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			✓	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			✓	

XVIII. (a). **Less Than Significant Impact with Mitigation.** The proposed project may result in several impacts that would be significant if left unmitigated. Mitigation Measures AQ-1, BIO-1, BIO-2, BIO-3, CULT-1, NOISE-1, and HYDRO-1 would fully mitigate all potential impacts to levels of less than significant. With the implementation of these mitigation measures, the proposed project would have less than significant impacts.

XVIII. (b). **Less Than Significant Impact.** No other planned or reasonably foreseeable projects were identified in the vicinity of the project site. Given the size of the project, its impacts and mitigation measures, the incremental effects of the project are not considerable when considered in connection with the effects of past, current, and probable future projects. Therefore, the proposed project would not result in a cumulatively considerable impact and impacts would be less than significant.

XVIII. (c). **Less Than Significant Impact.** As noted in the responses to Question I through XVII above, the proposed project would not result in any significant impacts that cannot be fully mitigated. Thus, the proposed project would result in less than significant adverse effects on human beings.

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Appendix A

Special-Status Species Table

Exhibit 4: CEQA Documents

Appendix A. Potential for Special-Status Plant and Wildlife Species to Occur in the Project Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (2012), U.S. Fish and Wildlife Service Species Lists, and California Native Plant Society Inventory (2012) searches of the Mare Island, Benicia, Richmond, Briones Valley, Vine Hill, Las Trampas Ridge, Walnut Creek, Oakland West and Oakland East USGS 7.5' quadrangles and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Mammals				
Long-eared myotis *Myotis evotis*	WBWG High Priority	Primarily a forest-associated species. Day roosts in hollow trees, under exfoliating bark, rock outcrop crevices and buildings. Other roosts include caves, mines and under bridges.	**Moderate Potential.** Species may occasionally roost or forage near the site.	No further action recommended for this species.
Fringed myotis *Myotis thysanodes*	WBWG High Priority	Associated with a wide variety of habitats including mixed coniferous-deciduous forest and redwood/sequoia groves. Buildings, mines and large snags are important day and night roosts.	**Unlikely.** Species may occasionally forage near the site.	No further action recommended for this species.
Long-legged myotis *Myotis volans*	WBWG High Priority	Generally associated with woodlands and forested habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings.	**Moderate Potential.** Species may occasionally roost or forage near the site.	No further action recommended for this species.
Silver-haired bat *Lasionycteris noctivagans*	WBWG Medium Priority	Summer habitats include coastal and montane coniferous forests, valley foothill woodlands, pinyon-juniper woodlands, and riparian habitats. This species is primarily a forest dweller, feeding over streams, ponds, and open brushy areas. It roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark.	**Moderate Potential.** Species may occasionally roost or forage near the site.	No further action recommended for this species.
Townsend's western big-eared bat *Corynorhinus townsendii townsendii*	SSC, WBWG High Priority	Primarily found in rural settings in a wide variety of habitats including oak woodlands and mixed coniferous-deciduous forest. Day roosts highly associated with caves and mines. Building roost sites must be cave like. Very sensitive to human disturbance.	**Moderate Potential.** Species may occasionally roost or forage near the site.	No further action recommended for this species.

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SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Pallid bat *Antrozous pallidus*	SSC, WBWG High Priority	Occupies a variety of habitats at low elevation including grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	**Unlikely.** Species may occasionally forage near the site.	No further action recommended for this species.
Big Free-tailed bat *Nyctinomops macrotis*	SSC, WBWG Medium Priority	Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	**Unlikely.** Typical roost habitat is not present but species may occasionally forage over the site.	No further action recommended for this species.
Western red bat *Lasiurus blossevillii*	WBWG High Priority	Roosts primarily in trees, less often in shrubs. Roost sites often are in edge habitats adjacent to streams, fields, or urban areas.	**Moderate Potential.** Species may occasionally roost or forage near the site.	No further action recommended for this species.
Hoary bat *Lasiurus cinereus*	WBWG Medium Priority	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Moderate Potential.** Species may occasionally roost or forage near the site.	No further action recommended for this species.
Suisun shrew *Sorex ornatus sinuosus*	SSC	Found in tidal marshes of the north shores of San Pablo and Suisun Bays. Requires dense, low-lying cover, driftwood and other litter above mean high-tide line for nesting and foraging.	**Unlikely.** The Project Area is outside of the known range for this species.	No further action recommended for this species.
Salt marsh wandering shrew *Sorex vagrans halicoetes*	SSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6 to 8 feet above sea level where abundant driftwood is scattered among *Salicornia*.	**Not Present.** No suitable marsh habitat is located in the Project Area.	No further action recommended for this species.
Salt marsh harvest mouse *Reithrodontomys raviventris*	FE, SE	Occurs in pickleweed habitats in tidal, muted-tidal, and diked areas.	**Not Present.** No suitable marsh habitat is located in the Project Area.	No further action recommended for this species.

Appendix A. Potential for Special-Status Plant and Wildlife Species to Occur in the Project Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (2012), U.S. Fish and Wildlife Service Species Lists, and California Native Plant Society Inventory (2012) searches of the Mare Island, Benicia, Richmond, Briones Valley, Vine Hill, Las Trampas Ridge, Walnut Creek, Oakland West and Oakland East USGS 7.5' quadrangles and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
San Pablo vole *Microtus californicus sanpabloensis*	SSC	Saltmarshes of San Pablo Creek, on the south shore of San Pablo Bay. Constructs burrow in soft soil. Feeds on grasses, sedges and herbs. Forms a network of runways leading from the burrow.	**Not Present.** No suitable marsh habitat is located in the Project Area.	No further action recommended for this species.
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable, uncultivated soils. Prey on burrowing rodents.	**Unlikely.** Typical habitat is present but large burrows were not observed in the Project Area.	Avoid large burrows if present in the Project Area.
Ring-tailed cat *Bassariscus astutus*	CFP	Found in a variety of habitats throughout the western US including riparian areas, semi-arid country, deserts, chaparral, oak woodlands, pinyon pine woodlands, juniper woodlands and montane conifer forests usually under 1400m in elevation. Typically uses cliffs or large trees for shelter.	**Unlikely.** May pass through Project Area but typical denning habitat is not present.	No further action recommended for this species.
Birds				
California brown pelican *Pelecanus occidentalis californicus*	FE, SE, CFP	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators.	**Not Present.** This species is found along the coast.	No further action recommended for this species.
White-tailed kite *Elanus leucurus*	CFP	Year-long resident of coastal and valley lowlands. Preys on small diurnal mammals and occasional birds, insects, reptiles, and amphibians.	**High Potential.** This species likely forages in the Project Area, and may nest in the vicinity.	Pre-construction nesting surveys recommended for this species.
Northern harrier *Circus cyaneus*	SSC	Coastal salt and freshwater marsh. Nests and forage in grasslands, from salt grass in desert sink to mountains. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	**Unlikely.** Suitable nesting habitat is not present but species may forage in the area.	No further action recommended for this species.

Appendix A. Potential for Special-Status Plant and Wildlife Species to Occur in the Project Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (2012), U.S. Fish and Wildlife Service Species Lists, and California Native Plant Society Inventory (2012) searches of the Mare Island, Benicia, Richmond, Briones Valley, Vine Hill, Las Trampas Ridge, Walnut Creek, Oakland West and Oakland East USGS 7.5' quadrangles and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Ferruginous hawk *Buteo regalis*	BCC	Winter resident of open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats.	**Unlikely.** This species may forage in the Project Area in the winter months but does not nest here.	No further action recommended for this species.
Golden eagle *Aquila chrysaetos*	CFP, SSC	Found in rolling foothills with open grasslands, scattered trees, and cliff-walled canyons.	**Unlikely.** This species may forage in the Project Area, however, suitable nesting habitat is scarce.	No further action recommended for this species.
Bald eagle *Haliaeetus leucocephalus*	FD, SE, CFP	Frequents ocean shores, lake margins, and rivers for both nesting and wintering. Requires large bodies of water, or free-flowing rivers with abundant fish and adjacent snags or other perches. Most nests are located within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branchwork. Shows a preference for ponderosa pine. Roosts communally in winter.	**Not Present.** Suitable aquatic habitat for this species is not present in the Project Area.	No further action recommended for this species.
Swainson's hawk *Buteo swainsoni*	ST, BCC	Nests in stands with few trees in juniper-sage flats, riparian areas and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grains fields supporting rodent populations.	**Unlikely.** The Project Area is on the edge of this species' range.	No further action recommended for this species.
American peregrine falcon *Falco peregrinus anatum*	FT, SE	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	**Unlikely.** This species may forage in the Project Area; however, suitable nesting habitat is unavailable.	No further action recommended for this species.
California clapper rail *Rallus longirostris obsoletus*	FE, SE, CFP	Associated with tidal salt marsh and brackish marshes supporting emergent vegetation, upland refugia, and incised tidal channels.	**Not Present.** Suitable marsh habitat is not present in the Project Area.	No further action recommended for this species.

Appendix A. Potential for Special-Status Plant and Wildlife Species to Occur in the Project Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (2012), U.S. Fish and Wildlife Service Species Lists, and California Native Plant Society Inventory (2012) searches of the Mare Island, Benicia, Richmond, Briones Valley, Vine Hill, Las Trampas Ridge, Walnut Creek, Oakland West and Oakland East USGS 7.5' quadrangles and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
California black rail *Laterallus jamaicensis coturniculus*	ST, CFP, BCC	Occurs in tidal salt marsh with dense stands of pickleweed as well as freshwater to brackish marshes.	**Not Present.** Suitable marsh habitat is not present in the Project Area.	No further action recommended for this species.
Western snowy plover *Charadrius alexandrinus nivosus*	FT, SSC, BCC, RP	Federal listing applies only to the Pacific coastal population. Found on sandy beaches, salt pond levees and shores of large alkali lakes. Requires sandy, gravelly or friable soils for nesting.	**Unlikely.** Typical sandy habitat for this species is not present.	No further action recommended for this species.
Caspian tern *Sterna caspia*	BCC	Nests in small colonies inland and along the coast. Inland fresh-water lakes and marshes; also, brackish or salt waters of estuaries and bays.	**Unlikely.** Typical aquatic habitat for this species is not present.	No further action recommended for this species.
California least tern *Sterna antillarum browni*	FE, SE	Nests along the coast from San Francisco bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas.	**Unlikely.** Typical sandy habitat for this species is not present.	No further action recommended for this species.
Western burrowing owl *Athene cunicularia hypugea*	SSC, BCC	Open, dry annual or perennial grasslands, deserts and scrub lands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	**Unlikely.** May occasionally roost or forage in area, but limited open grassland with suitable low-growing vegetation and burrows.	No further action recommended for this species.
Short-eared owl *Asio flammeus*	SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	**Unlikely.** Suitable swamp and lowland habitat is not present in the Project Area. May occasionally be found in grasslands along the route.	No further action recommended for this species.

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SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Northern spotted owl *Strix occidentalis caurina*	FT, SSC	Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. Prefers high, multistory canopy dominated by big trees, trees with cavities or broken tops, woody debris and space under canopy.	**Not Present.** Suitable old-growth forest habitat is not available for this species.	No further action recommended for this species.
Bank swallow *Riparia riparia*	ST	Migrant in riparian and other lowland habitats in western California. Colonial nester in riparian areas with vertical cliffs and bands with fine-textured or fine-textured sandy soils near streams, rivers, lakes or the ocean.	**Not Present.** Typical nesting habitat is not available.	No further action recommended for this species.
Loggerhead shrike *Lanius ludovicianus*	SSC, BCC	Prefers open habitats with scattered shrubs, trees, posts, or other perches. Eats mostly large insects.	**Moderate Potential.** Suitable foraging and nesting habitat is available.	Pre-construction nesting surveys recommended for this species.
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	SSC, BCC	Resident of San Francisco bay region fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging, tall grasses, tule patches, willows for nesting.	**Not Present.** Suitable marsh habitat is not present in the Project Area.	No further action recommended for this species.
Yellow-breasted chat *Icteria virens*	SSC	A summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forage and nest within 10 feet of ground.	**Unlikely.** Suitable riparian nesting habitat is not available.	No further action recommended for this species.
Alameda song sparrow *Melospiza melodia pusillula*	BCC, SSC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits *Salicornia* marshes; nests low in *Grindelia* bushes (high enough to escape high tides) and in *Salicornia*.	**Not Present.** The known range of this species is further south.	No further action recommended for this species.

Appendix A. Potential for Special-Status Plant and Wildlife Species to Occur in the Project Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (2012), U.S. Fish and Wildlife Service Species Lists, and California Native Plant Society Inventory (2012) searches of the Mare Island, Benicia, Richmond, Briones Valley, Vine Hill, Las Trampas Ridge, Walnut Creek, Oakland West and Oakland East USGS 7.5' quadrangles and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
San Pablo song sparrow *Melospiza melodia samuelis*	BCC, SSC	Resident of salt marshes along the north side of San Francisco and San Pablo Bays. Inhabits tidal sloughs in the *Salicornia* marshes; nests in *Grindelia* bordering slough channels.	**Not Present.** Typical marsh habitat is not present in the Project Area.	No further action recommended for this species.
Grasshopper sparrow *Ammodramus savannarum*	SSC	(Nesting) dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting.	**Unlikely.** This species is uncommon in Contra Costa County and has not been observed in the vicinity of the Project Area.	No further action recommended for this species.
Bryant's savannah sparrow *Passerculus sandwichensis alaudinus*	SSC	Associated with the coastal fog belt, primarily between Humboldt and northern Monterey Counties. Occupies low tidally-influenced habitats, adjacent to ruderal areas; often found where pickleweed communities merge into grassland, infrequently in drier grassland. Builds nests in taller grasses and rushes along roads, levees, and water conveyance canals.	**Not Present.** Typical tidally-influenced habitat is not present in the Project Area.	Pre-construction nesting surveys recommended for this species.
Tricolored blackbird *Agelaius tricolor*	SSC, BCC	Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs. Nesting area must be large enough to support about 50 pairs.	**Not Present.** Typical freshwater marsh habitat is not present in the Project Area.	No further action recommended for this species.
Yellow-headed blackbird *Xanthocephalus xanthocephalus*	SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water, often along borders of lakes or ponds. Nests only where large insects are abundant; nesting timed with maximum emergence of aquatic insects.	**Not Present.** Typical freshwater marsh habitat is not present in the Project Area.	No further action recommended for this species.

Appendix A. Potential for Special-Status Plant and Wildlife Species to Occur in the Project Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (2012), U.S. Fish and Wildlife Service Species Lists, and California Native Plant Society Inventory (2012) searches of the Mare Island, Benicia, Richmond, Briones Valley, Vine Hill, Las Trampas Ridge, Walnut Creek, Oakland West and Oakland East USGS 7.5' quadrangles and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Reptiles and Amphibians				
Western pond turtle *Actinemys marmorata*	SSC	Occurs in perennial ponds, lakes, rivers and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs) and submerged shelter.	**Unlikely.** Perennial freshwater habitat is not present in the Project Area.	No further action recommended for this species.
Coast horned lizard *Phrynosoma blainvillii*	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Needs open areas for sunning, bushes for cover and abundant supply of ants and other insects.	**Not Present.** Suitable habitat is not present for this species.	No further action recommended for this species.
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT, ST	Restricted to valley-foothill hardwood habitat, found on south-facing slopes and ravines where shrubs form a vegetative mosaic with oak trees and grasses.	**Present.** This species has reportedly been observed in the Project Area and the Project Area is within Critical Habitat.	Avoidance measures for this species are included in the IS.
Giant garter snake *Thamnophis gigas*	FT, ST	Prefers freshwater marsh and low-gradient streams. Has adapted to drainage channels and irrigation ditches.	**Not Present.** Suitable habitat is not present for this species.	No further action recommended for this species.
Western spadefoot toad *Scaphiopus hammondi*	SSC	Occurs primarily in grasslands but occasionally populates valley-foothill hardwood woodlands. Feed on insects, worms, and other invertebrates.	**Unlikely.** Project Area is on the edge of the species' range.	No further action recommended for this species.
California tiger salamander *Ambystoma californiense*	FT, SSC	Need underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	**Unlikely.** Suitable breeding habitat is not present in the vicinity of the Project Area.	No further action recommended for this species.
California red-legged frog *Rana draytonii*	FT, SSC	Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Documented to disperse through upland habitats after rains.	**Moderate Potential.** Potential dispersal habitat in the Project Area from known occurrences in the vicinity.	Avoidance measures for Alameda whipsnake will also protect this species.

Appendix A. Potential for Special-Status Plant and Wildlife Species to Occur in the Project Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (2012), U.S. Fish and Wildlife Service Species Lists, and California Native Plant Society Inventory (2012) searches of the Mare Island, Benicia, Richmond, Briones Valley, Vine Hill, Las Trampas Ridge, Walnut Creek, Oakland West and Oakland East USGS 7.5' quadrangles and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).				
SPECIES	**STATUS***	**HABITAT**	**POTENTIAL FOR OCCURRENCE**	**RECOMMENDATIONS**
Foothill yellow-legged frog *Rana boylii*	SSC	Found in or near rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	**Not Present.** Suitable habitat is not present for this species.	No further action recommended for this species.
Fish				
No fish habitat is present in the Project Area.				
Invertebrates				
monarch butterfly *Danaus plexippus*	winter roosts monitored by CDFG	Winter roost sites located in wind-protected tree groves (Eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	**Not Present.** Suitable roost habitat is not present.	No further action recommended for this species.
Callippe silverspot butterfly *Speyeria callippe callippe*	FE	Hostplant is *Viola pedunculata,* most adults found on east-facing slopes, males congregate on hilltops in search of females.	**Not Present.** Remaining populations of this species are in Alameda, San Mateo and Solano Counties.	No further action recommended for this species.
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT, SSI, RP	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *O. purpurscens* are the secondary host plants.	**Not Present.** Suitable habitat is not present for this species in the Project Area.	No further action recommended for this species.
vernal pool fairy shrimp *Branchinecta lynchi*	FT	Endemic to the grasslands of the central valley, central coast mountain, and south coast mountains. Inhabit small, clear- water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**Not Present.** Suitable habitat is not present for this species in the Project Area.	No further action recommended for this species.

Appendix A. Potential for Special-Status Plant and Wildlife Species to Occur in the Project Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (2012), U.S. Fish and Wildlife Service Species Lists, and California Native Plant Society Inventory (2012) searches of the Mare Island, Benicia, Richmond, Briones Valley, Vine Hill, Las Trampas Ridge, Walnut Creek, Oakland West and Oakland East USGS 7.5' quadrangles and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Conservancy fairy shrimp *Branchinecta conservatio*	FE	Endemic to the grasslands of the northern Central Valley; found in large, turbid pools located in swales formed by old, braided alluvium; filled by winter/spring rains and lasting until June.	**Not Present.** Suitable habitat is not present for this species in the Project Area.	No further action recommended for this species.
California freshwater shrimp *Syncaris pacifica*	FE, SE	Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy, in shallow pools away from main stream flow.	**Not Present.** Suitable habitat is not present for this species in the Project Area.	No further action recommended for this species.
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	Occurs only in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberrries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	**Unlikely.** No elderberry shrubs were observed in the Project Area.	No further action recommended for this species.
Delta green ground beetle	FT	Occupies vernal pool habitats and surrounding areas, emerging in January following winter rains and lying dormant in May throughout the summer.	**Not Present.** Suitable habitat is not present for this species in the Project Area.	No further action recommended for this species.

Plants				
bent-flowered fiddleneck *Amsinckia lunaris*	List 1B	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. 3-500m. Blooms March-June.	**Unlikely**. The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
slender silver moss *Anomobryum julaceum*	List 2	Broadleafed upland forest, coniferous forest; damp rock and soil on outcrops, usually on roadcuts. 100 - 1000 m.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
pallid manzanita *Arctostaphylos pallida*	FT, SE, List 1B	Broad leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub. On uplifted marine terraces on siliceous shale or thin chert. May require fire. 185-465m. Blooms December-March.	**Not Present.** No manzanita shrubs were observed in the Project Area during the site walk.	No additional surveys or mitigation measures are recommended.
alkali milk-vetch *Astragalus tener* var. *tener*	List 1B	Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands. 1-170m. Blooms March-June.	**Not Present.** Suitable habitat is not present for this species. The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Alkali soils are not present and grassland to be disturbed is >100 meters higher in elevation than the species' observed distribution.	No additional surveys or mitigation measures are recommended.
San Joaquin spearscale *Atriplex joaquiniana*	List 1B	Chenopod scrub, alkali meadow, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with *Distichlis spicata*, *Frankenia*, etc. 1-250m. Blooms April-October.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Alkali soils are not present.	No additional surveys or mitigation measures are recommended.
big-scale balsamroot *Balsamorhiza macrolepis* var. *macrolepis*	List 1B	Valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 35-1000m. Blooms March-June.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
big tarplant *Blepharizonia plumosa*	List 1B	Valley and foothill grassland. 30- 505 m. Blooms July- October.	**Not Present.** Suitable habitat is not present for this species. The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.

round leaved filaree *California macrophylla*	List 1B	Cismontane woodland, valley and foothill grassland. 15-2000m. Blooms March-May.	**Not Present.** Suitable habitat is not present for this species. The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
Mt. Diablo fairy-lantern *Calochortus pulchellus*	List 1B	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. 30-840m. Blooms April-June.	**Not Present.** Suitable habitat is not present for this species. The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
coastal bluff morning glory *Calystegia purpurata* spp. *saxicola*	List 1B	Coastal dunes, coastal scrub, and North Coast coniferous forest. 10- 105 m. Blooms May- September.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
bristly sedge *Carex comosa*	List 2	Coastal prairie, marshes and swamps (along lake margins), and valley and foothill grassland. 1-625m. Blooms May-September.	**Not Present.** Suitable habitat is not present for this species. The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	List 1B	Valley and foothill grassland (alkaline). 1-230m. Blooms June-November.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Alkali soils are not present.	No additional surveys or mitigation measures are recommended.
Point Reyes bird's-beak *Chloropyron maritimum* ssp. *palustre*	List 1B	Marshes and swamps (coastal salt). 0 - 10 meters. Blooms June-October.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
soft bird's-beak *Chloropyron molle* ssp. *molle*	FE, SR, List 1B	Marshes and swamps (coastal salt). 0 - 3 meters. Blooms July-November.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
San Francisco spineflower *Chorizanthe cuspidata var. cuspidata*	List 1B	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. 3-215m. Blooms April-July.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.

robust spineflower *Chorizanthe robusta var. robusta*	FE, List 1B	Chaparral, cismontane woodland, coastal dunes, and coastal scrub. 3-300m. Blooms April-September.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Spotted water hemlock *Cicuta maculata var. bolanderi*	List 2	Marshes and swamps, coastal, fresh and brackish water. 0-200m. Blooms July-September.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Franciscan thistle *Cirsium andrewsii*	List 1B	Broad-leafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub/ mesic, sometimes serpentine. 0-135m. Blooms March-July.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Presidio clarkia *Clarkia franciscana*	FE, SE, List 1B	Coastal scrub, valley and foothill grassland. 25-335m. Blooms May-July.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
soft bird's beak *Cordylanthus mollis* ssp. *mollis*	FE, SR, List 1B	Marshes and swamps (coastal salt). 0-3m. Blooms July-November.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
western leatherwood *Dirca occidentalis*	List 1B	Broad-leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland/mesic. 50-395m. Blooms January - April.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Tiburon buckwheat *Eriogonum luteolum* var. *caninum*	List 3	Chaparral, coastal prairie, valley and foothill grassland on serpentine soils 10-500m. Blooms June-September.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Serpentine soils are not present.	No additional surveys or mitigation measures are recommended.
fragrant fritillary *Fritillaria liliacea*	List 1B	Coastal scrub, valley and foothill grassland, coastal prairie. Often on serpentine; various soils reported though usually clay, in grassland. 3-410m. Blooms February-April.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Serpentine soils are not present.	No additional surveys or mitigation measures are recommended.
dune gilia *Gilia capitata* ssp. *chamissonis*	List 1B	Coastal dunes and coastal scrub. 2-200m. Blooms April-July.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Diablo helianthella *Helianthella castanea*	List 1B	Broad-leafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. 60-1300m. Blooms March-June.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.

Hayfield tarweed *Hemizonia congesta* ssp. *congesta*	List 1B	Valley and foothill grassland, sometimes on roadsides. 20-560m. Blooms April-November.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
Loma prieta hoita *Hoita stobilina*	List 1B	Chaparral, cismontane woodland, and riparian woodland. Usually on serpentine, mesic soils. 30- 860 m. Blooms in May- July; uncommonly in August- October.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Santa Cruz tarplant *Holocarpha macradenia*	FT, SE, List 1B	Coastal prairie, valley and foothill grassland. Light, sandy soil or sandy clay; often with nonnatives. 10-260m. Blooms June-October.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
Kellogg's horkelia *Horkelia cuneata ssp. sericea*	List 1B	Closed-cone coniferous forest. 10-200m. Blooms April-September.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Carquinez goldenbush *Isocoma arguta*	List 1B	Valley and foothill grassland (alkaline). 1 - 20 m. Blooms August-December.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Alkali soils are not present.	No additional surveys or mitigation measures are recommended.
Northern California black walnut *Juglans hindsii*	List 1B	Riparian forest or woodland. 0 – 440 m. Blooms April-May.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Contra Costa goldfields *Lasthenia conjugens*	FE, List 1B	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools/mesic. 0-470m. Blooms March-June.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Alkali soils are not present.	No additional surveys or mitigation measures are recommended.
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	List 1B	Marshes and swamps (freshwater and brackish). Usually on marsh and slough edges. 0-4m. Blooms May-September.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Beach tidytips *Layia carnosa*	FE, SE, List 1B	Coastal dunes and coastal scrub on sandy soils. 0-60m. Blooms March-July.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Rose leptosiphon *Leptosiphon rosaceus*	List 1B	Coastal bluff scrub. 0-100m. Blooms April-July.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.

Mason's lilaeopsis *Lilaeopsis masonii*	SR, List 1B	Marshes and swamps (brackish or freshwater), riparian scrub. Usually found in tidal zones in muddy or silty soil formed through river deposition or river bank erosion. 0-10m. Blooms April-November.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Delta mudwort *Limosella subulata*	List 2	Marshes and swamps. 0 -3 m. Blooms May-August.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Hall's bush-mallow *Malacothamnus hallii*	List 1B	Chaparral, coastal scrub. 10 - 760 meters. Blooms May-September or October.	**Not Present.** The small amount of scrub that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
Oregon meconella *Meconella oregana*	List 1B	Coastal prairie, coastal scrub. 250-500m. Blooms March-April.	**Not Present.** The small amount of scrub that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
Mt. Diablo cottonweed *Micropus amphibolus*	List 3	Broad-leafed upland forest, chaparral, cismontane woodland, valley and foothill grassland, rocky areas. 45 -825 m. Blooms March-May.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
San Antonio Hills monardella *Monardella antonina* ssp. *antonina*	List 3	Chaparral, cismontane woodland. 500-1000m. Blooms June-August.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Woodland monolopia *Monolopia gracilens*	List 1B	Broad-leafed upland forest openings, chaparral openings, cismontane woodland, north coast coniferous forest openings, valley and foothill grassland on serpentine soils. 100-1200m. Blooms March-July.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Serpentine soils are not present.	No additional surveys or mitigation measures are recommended.
Lime Ridge navarretia *Navarretia gowenii*	List 1B	Chaparral. 180 - 305 meters. Blooms May-June.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Antioch Dunes evening-primrose *Oenothera deltoides ssp. howeii*	FE, SE, List 1B	Inland dunes. 0-30 m. Blooms March-September.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.

artist's popcornflower *Plagiobothrys chorisianus* var. *chorisianus*	List 1B	Chaparral, coastal prairie and coastal scrub. 15-160m. Blooms March-June.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
San Francisco popcornflower *Plagiobothrys diffusus*	SE, List 1B	Coastal prairie, valley and foothill grassland. 60-360m. Blooms March-June.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species.	No additional surveys or mitigation measures are recommended.
adobe snakeroot *Sanicula maritima*	SR, List 1B	Chaparral, coastal prairie, meadows and seeps, and valley and foothill grasslands on serpentinite soils. 30-240m. Blooms February-May.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Serpentine soils are not present.	No additional surveys or mitigation measures are recommended.
chaparral ragwort *Senecio aphanactis*	List 2	Cismontane woodland, coastal scrub. Drying alkaline flats. 20-575m. Blooms January-April.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
most beautiful jewel-flower *Streptanthus albidus* ssp. *peramoenus*	List 1B	Chaparral, cismontane woodland, valley and foothill grassland/ serpentine. 120-1000m. Blooms April-June.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Serpentine soils are not present.	No additional surveys or mitigation measures are recommended.
slender-leaved pondweed *Stuckenia filiformis*	List 2	Marshes and swamps (assorted shallow freshwater). 300 - 2150 meters. Blooms May-July.	**Not Present.** Suitable habitat is not present for this species.	
California seablite *Suaeda californica*	FE, List 1B	Coastal salt marshes and swamps. 0- 15 m. Blooms July- October.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
Suisun Marsh aster *Symphyotrichum lentum*	List 1B	Brackish and freshwater marshes and swamps. 0- 3 m. Blooms May- November.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
two-fork clover *Trifolium amoenum*	FE, List 1B	Valley and foothill grassland (sometimes on serpentine soils) and coastal bluff scrub. 5-415 m. Blooms April- June.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.
saline clover *Trifolium hydrophilum*	List 1B	Typically found in valley and foothill grassland or vernal pools in mesic, alkaline soils. Occasionally in marshes and swamps. 0-300m. Blooms April-June.	**Not Present.** The small amount of grassland that will be impacted is heavily disturbed and dominated by non-native species. Alkali soils are not present.	No additional surveys or mitigation measures are recommended.

oval-leaved viburnum *Viburnum ellipticum*	List 2	Chaparral, cismontane woodland, lower montane coniferous forest. 215-1400m. Blooms May-June.	**Not Present.** Suitable habitat is not present for this species.	No additional surveys or mitigation measures are recommended.

*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
BCC	U.S. Fish & Wildlife Service (USFWS) Birds of Conservation Concern
SE	State Endangered
ST	State Threatened
SR	State Rare
SSC	California Department of Fish and Game (CDFG) Species of Special Concern
CFP	CDFG Fully Protected Animal
SSI	CDFG Special Status Invertebrates
WBWG	Western Bat Working Group Priority Species
List 1B	California Native Plant Society (CNPS) List 1B: Plants rare, threatened or endangered in California and elsewhere
List 2	CNPS List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
List 3	CNPS List 3: Plants about which CNPS needs more information (a review list - *not special status*)

Potential species occurrence definitions:

- Present. Species was observed on the site during site visits or has been recorded (i.e. CNDDB, other reports) on the site recently.
- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species has a low probability of being found on the site.
- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Exhibit 4: CEQA Documents