Midpeninsula Regional
Open Space District

R-16-24
Meeting 16-06
March 9, 2016

AGENDA ITEM 3

AGENDA ITEM

Certification for the Monte Bello Open Space Preserve Bridge Projects in Monte Bello Open Space Preserve in accordance with the California Environmental Quality Act (CEQA).

GENERAL MANAGER'S RECOMMENDATION

Adopt a Resolution approving the Initial Study/Mitigated Negative Declaration and Mitigation Monitoring Program for the Monte Bello Open Space Preserve Bridge Projects, in accordance with CEQA.

SUMMARY

The proposed Monte Bello Open Space Preserve Bridge Projects ("Project") involves the replacement of an existing 24-foot trail bridge that is in poor condition with a 48-foot trail bridge and the construction of a new 48 to 50-foot trail bridge over an existing hiking-only wet ford stream crossing along the Stevens Creek Nature Trail at Monte Bello Open Space Preserve. An Initial Study and Mitigated Negative Declaration (collectively, MND) was prepared and circulated for 30 days pursuant to CEQA. No comments were received during the public comment period. The MND concluded that the proposed project, with mitigations, would not result in significant impacts on the environment.

MEASURE AA

A 5-year Measure AA Project List was approved by the Board at their October 29, 2014 meeting and includes Project #17-4 (Stevens Creek Nature Trail – Existing Bridge Replacement & New Bridge).

DISCUSSION

The project site is located within Monte Bello Open Space Preserve (the Preserve). The Preserve is at the head of the Stevens Creek watershed above the City of Palo Alto. Within the Preserve, the project area includes two trail bridge crossing locations in need of retrofitting along the Stevens Creek Nature Trail. One location (Site #1) has a 24-foot long wooden beam bridge crossing over an unnamed tributary that flows slightly upstream of its confluence with the main stem of Stevens Creek. Channel incision and bank erosion underneath the bridge threaten its integrity, making it vulnerable to damage and/or failure during large storm events. This trail bridge would be replaced with a new 45 to 50-foot long steel bridge located away from the actively eroding creek banks. The second trail bridge location (Site #2) is upstream of the first crossing at an existing at-grade wet ford across the main stem of Stevens Creek and would be upgraded with a new 45 to 50-foot long steel bridge to improve safety and avoid sensitive creek

and riparian habitats. Approximately 100 feet of the Stevens Creek Nature Trail would be rerouted to accommodate the new bridges.

This project was last reviewed by the Board of Directors on December 17, 2014, at which time the Board approved a contract with Environmental Science Associates for an amount not-to-exceed $125,631 to provide design and environmental analysis (CEQA services) for the project. Since that time, the environmental analysis, bridge conceptual design, and 90% construction documents have been developed. Permit applications with the City of Palo Alto (City limits extend up Page Mill and over much on Monte Bello OSP) and the California Department of Fish Wildlife (CDFW) are ready for submittal pending Board CEQA Certification. The project is scheduled for construction by the Midpeninsula Regional Open Space District (District) staff in the fall of 2016. Temporary trail closures are anticipated during construction for an estimated six-week period.

The potential environmental impacts of the Project were analyzed in an Initial Study and Mitigated Negative Declaration (MND). Conclusions of the MND, including mitigation measures, are discussed in the CEQA Compliance section of this report.

FISCAL IMPACT

The proposed FY2016-17 budget proposes $102,800 for the purchase of bridge materials, construction oversight, and biological monitoring for the project. Total project costs are estimated at $218,000, not including staff project management or labor. These costs are capital expenses and eligible for Measure AA reimbursement.

BOARD COMMITTEE REVIEW

This project and the consultant contract were reviewed by the Planning and Natural Resources (PNR) Committee on December 2, 2014, where the PNR recommended forwarding the consultant contract for Board approval.

PUBLIC NOTICE

A Notice of Intent to Adopt a Mitigated Negative Declaration was submitted to the State Clearinghouse of the Governor's Office of Planning and Research on January 27, 2016, stating that the public review period would start on January 27, 2016, and end on February 27, 2016. On January 27, 2016, the Notice of Intent was submitted to the County of Santa Clara, County Clerk for posting as well as mailed to interested parties and property owners of land located adjacent to or within 300 feet of the Preserve boundary closest to the project. The Notice of Intent, Mitigated Negative Declaration, and Initial Study were made available for public review at the District's Administrative Office and on the District's website. Notices were also posted at the proposed project site, and the primary preserve parking lot. All legal notice requirements of CEQA have been met.

Public notice of this Agenda Item was provided per the Brown Act, which included a mailing to property owners of land located adjacent to or within 300 feet of the Preserve and interested parties.

CEQA COMPLIANCE

Project Description

The proposed project includes bridge construction activities at two different, but nearby sites. Work at Site #1 would replace the existing 24-foot long wooden beam bridge across a tributary to Stevens Creek with a new 45 to 50-foot long steel bridge that is located away from the actively eroding creek banks. Work at Site #2 would replace an existing at-grade wet ford crossing of the Stevens Creek main stem with a new 45 to 50-foot long steel bridge to improve safety and avoid sensitive creek and riparian habitats.

The proposed project includes a re-route of the Stevens Creek Nature Trail, signage encouraging visitors to use the new trail alignment, site clean-up, and restoration actions. The MND contains a more detailed Project Description in Chapter 1, Section 1.3.

Initial Study/Mitigated Negative Declaration Preparation

In 2014, the District retained the independent consulting firm of Environmental Science Associates to prepare an Initial Study/Mitigated Negative Declaration (collectively, MND) for the Project, pursuant to the requirements of the California Environmental Quality Act (CEQA, Public Resources Code sections 21000 et seq.) and the CEQA Guidelines (14 Cal. Code Regulations sections 15000 et seq.). The MND, dated January 2016 (Attachment 2), identified potentially significant adverse effects on the environment from the proposed Project, and found that mitigation measures for the proposed Project would avoid the effects or mitigate the effects to below a level of significance.

A Notice of Intent (NOI) to adopt the MND (Attachment 3) was released by the District on January 27, 2016, notifying the public that the MND would be circulated for public review for a period of 30 days, beginning on January 27, 2016 and ending on February 27, 2016.

CEQA Determination

The District concludes that the Project, with mitigation measures, will not have a significant effect on the environment. All potentially significant impacts and mitigation measures are summarized in the Notice of Intent (Attachment 3). Mitigation measures incorporated into the proposed project reduce potential effects to air quality, biological resources, cultural resources, geology, soils and seismicity, hazards and hazardous materials and hydrology and water resources to less-than-significant levels.

Comments Received

The District did not receive any comments on the environmental effects of the proposed project.

Mitigation Monitoring Program

In accordance with CEQA, the District has prepared a Mitigation Monitoring Program (MMP), which describes project-specific mitigation measures and the monitoring process (Attachment 4). The MMP ensures that all adopted measures intended to mitigate potentially significant environmental impacts will be implemented during construction and monitored afterwards (erosion control and replanting specifically). The proposed Project incorporates all of these mitigation measures.

CEQA Findings

The Board Findings required by CEQA to adopt the MND and the MMP are set out in the attached Resolution (Attachment 4). The General Manager recommends that the Board find that the environmental review for the Stevens Creek Natural Trail Bridges Project is adequate.

NEXT STEPS

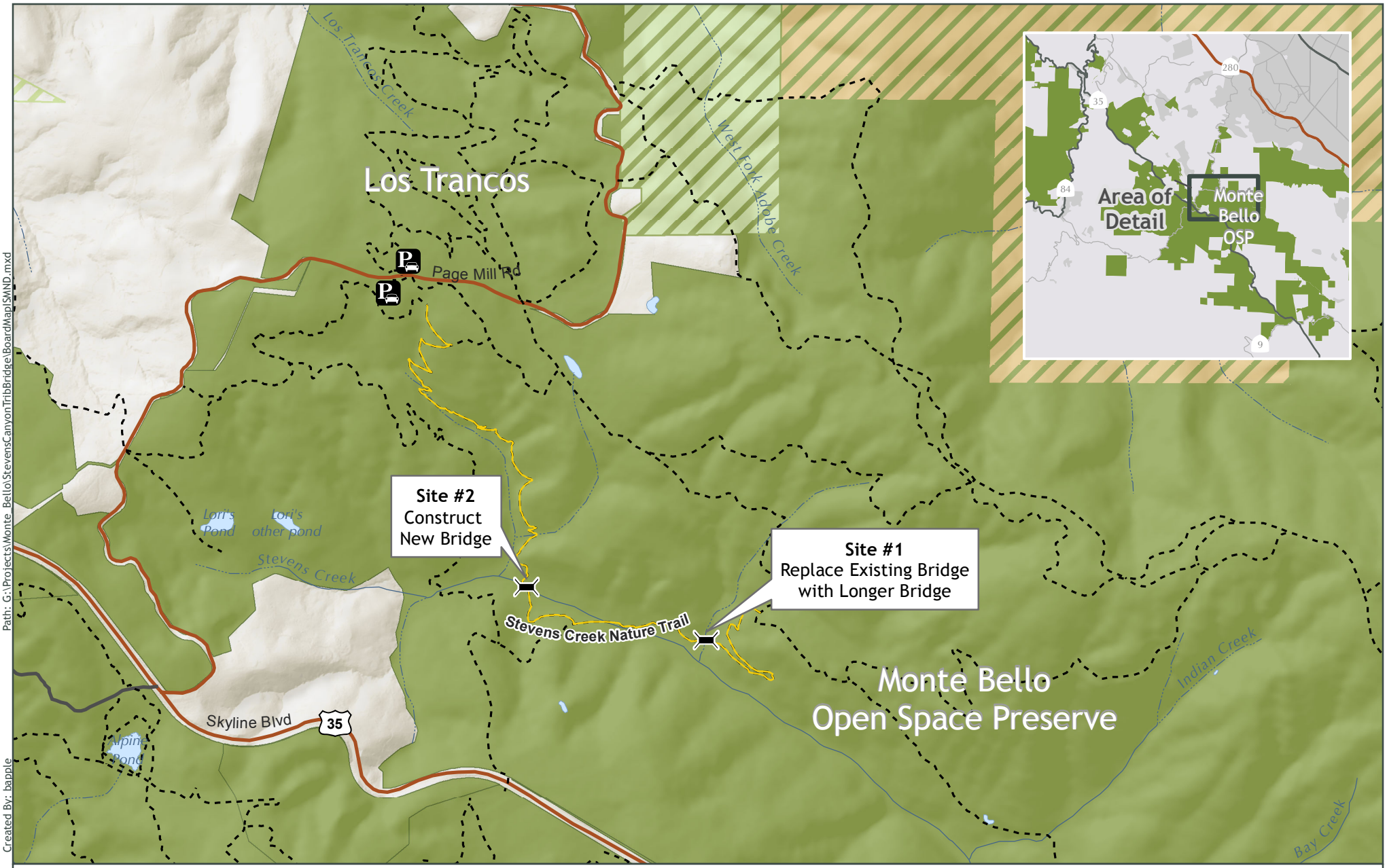
If the Board approves the General Manager's recommendations, staff will file a Notice of Determination with the County of Santa Clara, County Clerk. Permits from the City of Palo Alto and CDFW are required prior to construction. Implementation of bridge projects would begin in the late summer/fall of Fiscal Year 2016-17.

Attachments

1. Project Map
2. Initial Study/Mitigated Negative Declaration
3. Notice of Intent to Adopt a Mitigated Negative Declaration
4. Resolution Adopting the Mitigated Negative Declaration, the Mitigation Monitoring Program, and the Findings in Connection with the Proposed Monte Bello Open Space Preserve Bridges Project

Responsible Department Head:
Jane Mark, Planning Manager, AICP

Prepared by:
Bryan Apple, Planner II, Planning



Attachment 1: Monte Bello Bridge Projects Location

- MROSD Preserves
- Other Protected Open Space or Park Lands
- Land Trust
- Watershed Land
- Private Property
- Stevens Creek Nature Trail
- Proposed Bridge

Midpeninsula Regional Open Space District *(MROSD)*

February, 2016

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While the District strives to use the best available digital data, this data does not represent a legal survey and is merely a graphic illustration of geographic features.

MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Draft Initial Study / Mitigated Negative Declaration

Prepared for
Midpeninsula Regional Open Space District

January 2016

MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Draft Initial Study / Mitigated Negative Declaration

Prepared for
Midpeninsula Regional Open Space District

January 2016

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CHAPTER 1
Project Description

1.1 Introduction

The Midpeninsula Regional Open Space District (MROSD, or "District") proposes to implement the Monte Bello Open Space Preserve Bridge Projects (the proposed project). This document is an Initial Study/Mitigated Negative Declaration (IS/MND) that analyzes the potential environmental impacts from implementation of the proposed project.

This IS/MND is prepared in compliance with Public Resources Code Section 21000 et seq., California Environmental Quality Act (CEQA) of 1970 (as amended), and Title 14, Chapter 3 of the California Administrative Code. In accordance with the CEQA Guidelines, California Code of Regulations Title 14, Chapter 3, Section 15070, a Mitigated Negative Declaration shall be prepared if the following criteria are met:

- There is no substantial evidence that the project will have a significant effect; or
- Where there may be a potentially significant effect, revisions to the project would avoid or mitigate the effects to a point where clearly no significant effects would occur.

In accordance with Section 15073 of the CEQA Guidelines, this document is being circulated to local, state and federal agencies and to interested organizations and individuals who may wish to review and comment on the document. Written comments may be mailed to:

Bryan Apple
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022-1404

Comments may also be electronically mailed to: bapple@openspace.org

1.2 Project Background and Need

The Midpeninsula Regional Open Space District preserves nearly 62,000 acres of open space within 550 square miles of San Mateo, Santa Clara, and Santa Cruz Counties. This open space forms a regional greenbelt that traverses the spine of the San Francisco peninsula south from Half Moon Bay to the Santa Cruz Mountains east of Silicon Valley. The District operates 26 open space preserves, 24 of which are open to the public. Monte Bello Open Space Preserve (Monte Bello OSP or "the Preserve") is one of the District's larger holdings, and protects 3,346 acres of

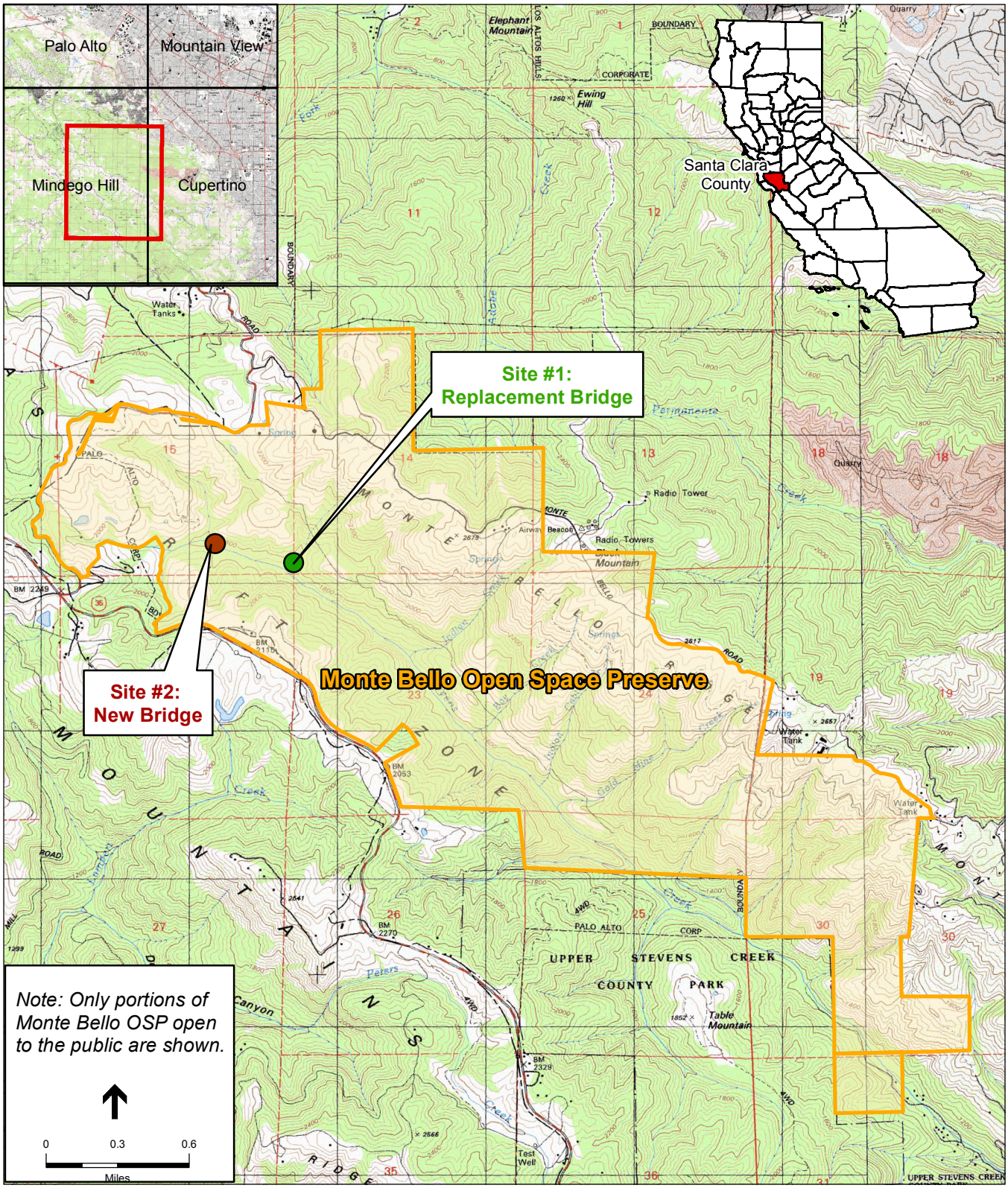
rolling grasslands and riparian forests at the head of the Stevens Creek watershed above Palo Alto (**Figure 1-1**).

The Stevens Creek Nature Trail in Monte Bello OSP is a popular trail that connects the main parking area/trailhead off of Page Mill Road with Canyon Trail and Skid Road Trail (**Figure 1-2**). The trail closely follows the riparian canyon of upper Stevens Creek, and features interpretive signage for visitors. The portion of the trail between Canyon and Skid Road Trails is open to pedestrians, cyclists, and equestrians, while the portion between the trailhead and Skid Road Trail is only open to pedestrians.

The District has identified two creek crossing locations along the Stevens Creek Nature Trail alignment in need of retrofitting. Site #1 is the location of an existing 24-ft-long wooden beam bridge over an unnamed tributary (for purposes of this document, "Tributary Creek") to Stevens Creek, slightly upstream of its confluence with the mainstem of Stevens Creek. The trail in this area is multi-use, but can be closed to cyclists and equestrians in the winter during muddy conditions. Channel incision and bank erosion underneath the bridge threaten its integrity, making it vulnerable to damage and/or failure during large storm events. The District therefore plans to replace the existing bridge with a longer, higher bridge that is farther upstream from the actively eroding creek banks.

Site #2 is an existing at-grade wet ford across the mainstem of Stevens Creek, upstream of the general vicinity of Site #1. Stevens Creek Nature Trail in this location is currently open only to pedestrians. The crossing is immediately downstream of where the creek makes a roughly 270-degree horseshoe turn, near an apparent bedrock constriction. The District plans to construct a new bridge in this location to improve safety and avoid sensitive creek and riparian habitats.

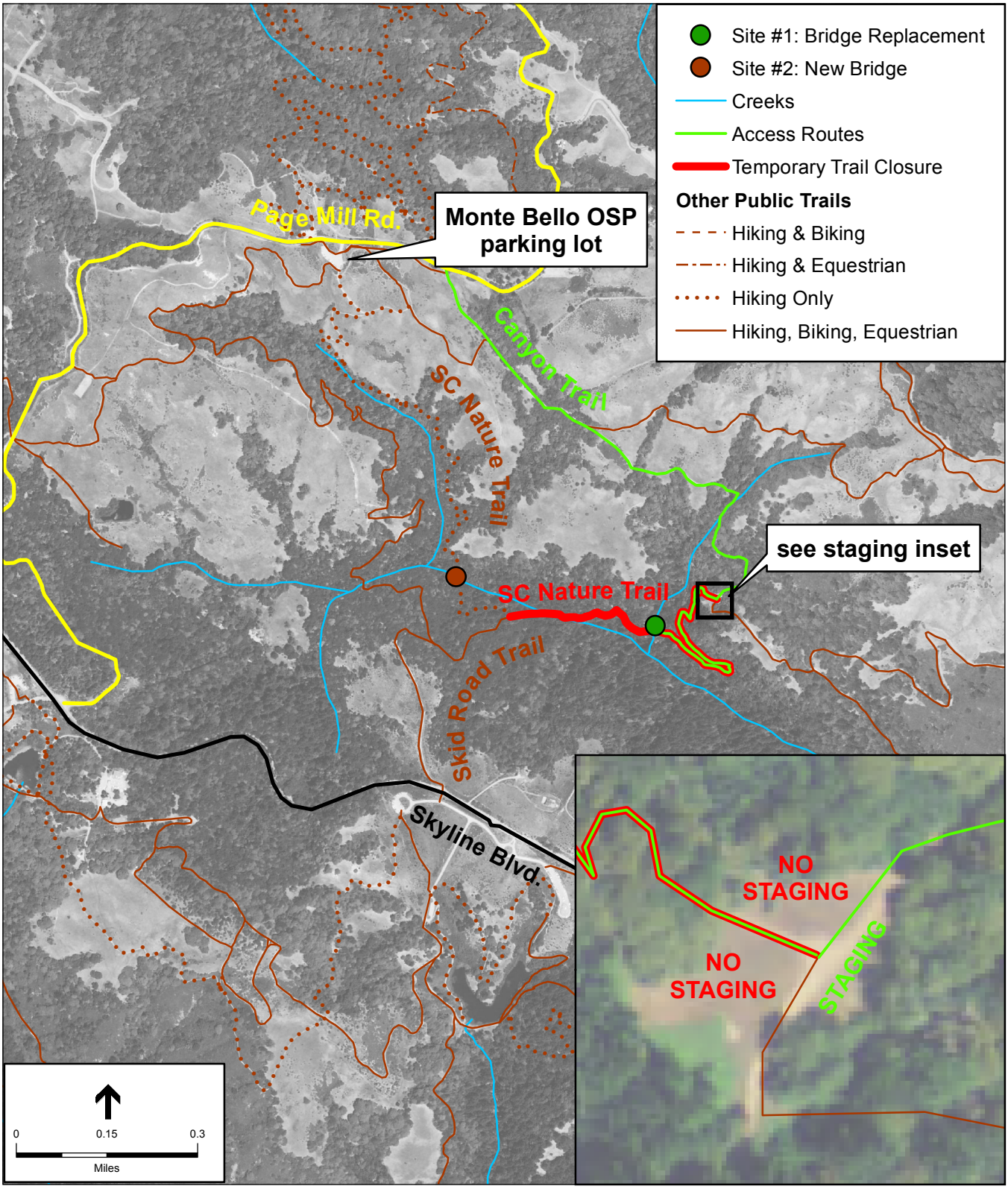
Like most locations within the upper Santa Cruz Mountains, the project sites are generally characterized by geologically unstable conditions with steep slopes and abundant landslides. Most of the watershed is in various stages of recovery from historic logging operations that further destabilized local soils. The orientation of the Santa Cruz Mountains can drive the development of major winter storm events that are capable of dropping over half a foot of rain (and frequently more) in less than a day; as a result, flows through the project sites can vary dramatically in response to rainfall. The creek at both sites can go completely dry during the summer-fall dry season under drought conditions, as observed in early fall 2014. The flashy nature of site hydrology and unstable nature of the watershed can lead to channel erosion and incision, as well as the development of flood events that can carry significant quantities of sediment, fallen trees and limbs, and related debris through the creek corridor. As a result of this dynamic environment, infrastructure elements such as trail (non-vehicular) bridges in the area are generally developed to withstand less than 50-yr storm events, though this can vary depending on the project setting. When coupled with the sensitive nature of local riparian habitats and the difficult nature of site accessibility, bridge design and construction at both sites must balance minimal environmental disturbance with the practical persistence of the element being designed. In other words, the overarching design goal for the bridges is to provide safe access with limited impacts to Upper Stevens Creek.



SOURCE: USGS Mindego Hill, Calif. 7.5-minute topographic quadrangle

Monte Bello Open Space Preserve Bridge Projects . 130573.02

Figure 1-1
Project Location



SOURCE: USGS Mindego Hill, Calif. 7.5-minute topographic quadrangle

Monte Bello Open Space Preserve Bridge Projects . 130573.02

Figure 1-2

Site #1 Staging and Access

1.3 Proposed Project

Site #1

Site Setting

The existing bridge at Site #1 is a 24-foot-long wooden beam bridge constructed in the 1980s prior to the Loma Prieta earthquake. The bridge abutments appear to be sited on older debris flow deposits from the Tributary Creek canyon. The creek underneath the bridge is deeply incised more than 10 feet through these deposits resulting in steep, near vertical and unstable channel banks. Active stream bank erosion is undermining the existing bridge abutments. There is a small, 2-foot high retaining wall below the left channel bank, presumably installed to minimize stream bank erosion below the bridge abutment. This wall is degraded and only marginally effective.

Stevens Creek Nature Trail in this location is open to pedestrians, cyclists, and equestrians. The east approach ("near side" from Canyon Trail) descends at a steep (20%) gradient into the crossing making a sharp turn around a large tree before reaching the bridge. A portion of the trail at this location is supported on 3 feet of fill retained by a 3 foot high retaining wall. The tight turn likely acts to constrain access onto the bridge, particularly for equestrians. To the west of the bridge (the "far side" approach), the trail descends at a steep 15% to 20% grade into a low spot on a fluvial terrace along Stevens Creek.

Proposed Project

The proposed project at Site #1 would replace the existing 24-ft-long wooden beam bridge with a 45 to 50-foot-long, over five feet wide bridge built of Corten steel beams (**Figure 1-3**). The bridge surface would be constructed of redwood decking similar to other District trail bridges, with 54 inch high handrails for safety. Bridge abutments would be poured-in-place spread footings or piers. A roughly 120 foot long segment of existing trail would be rerouted upslope to reduce trail grade. Existing bridge, footings and low retaining walls will be removed offsite. Disturbed soils will be stabilized as judged necessary at time of construction.

Construction Staging & Access

During construction at Site #1, Stevens Creek Nature Trail would be closed between Canyon Trail and the junction with Skid Road Trail. Construction materials for Site #1 would be staged at the junction of Canyon Trail and Stevens Creek Nature Trail, slightly less than a mile from the District gate at the head of Canyon Trail off Page Mill Road (Figure 1-2). Only flat areas to the east of Canyon Trail at the intersection would be used for materials staging, avoiding grassland habitats to the north and south of Stevens Creek Nature Trail. Vehicles would access this staging area from Page Mill Road via Canyon Trail. Construction personnel and materials such as bridge components, lumber, bags of concrete, tools, and water barrels would be transported from the staging area to Site #1 along Stevens Creek Nature Trail using ATVs, small Bobcat-sized tractors, motorized wheelbarrows, and similarly-sized equipment capable of navigating the narrow trail bench. In order for equipment to safely access Site #1, a small portion (approximately 60 feet) of

Stevens Creek Nature Trail east of Site #1 would be widened by approximately 2-3 feet to gain a maximum 5-foot wide trail width. The bench cut would be widened through excavation upslope into the hillside; excavated soils would be re-used and stabilized locally.

Work will require two truck trips per day from the field office to the staging areas and two ATV trips per day to the site (approximately 20 to 30 days). Additionally, two truckloads of concrete, two truckloads of beams, and two truckloads of decking and railing will be required for Site #1.

The bridge would be assembled adjacent to the existing trail on the west side of the existing bridge. The bridge assembly area would be approximately 800 square feet and is shown on the inset diagram Figure 1-3. No vegetation removal is anticipated in this area. Coir mat, or other similar material, will be placed temporarily on the ground in the assembly area and the bridge components will be assembled on top of this material.

Construction Phasing

Replacement of the bridge at Site 1 is anticipated to take 20 to 30 days to complete with three workers at the site each day. Construction equipment that will be used on-site includes a small excavator, small Bobcat-sized tractors, generators, concrete mixers, chainsaws, and impact drivers.

The proposed project would be constructed in the following phases:

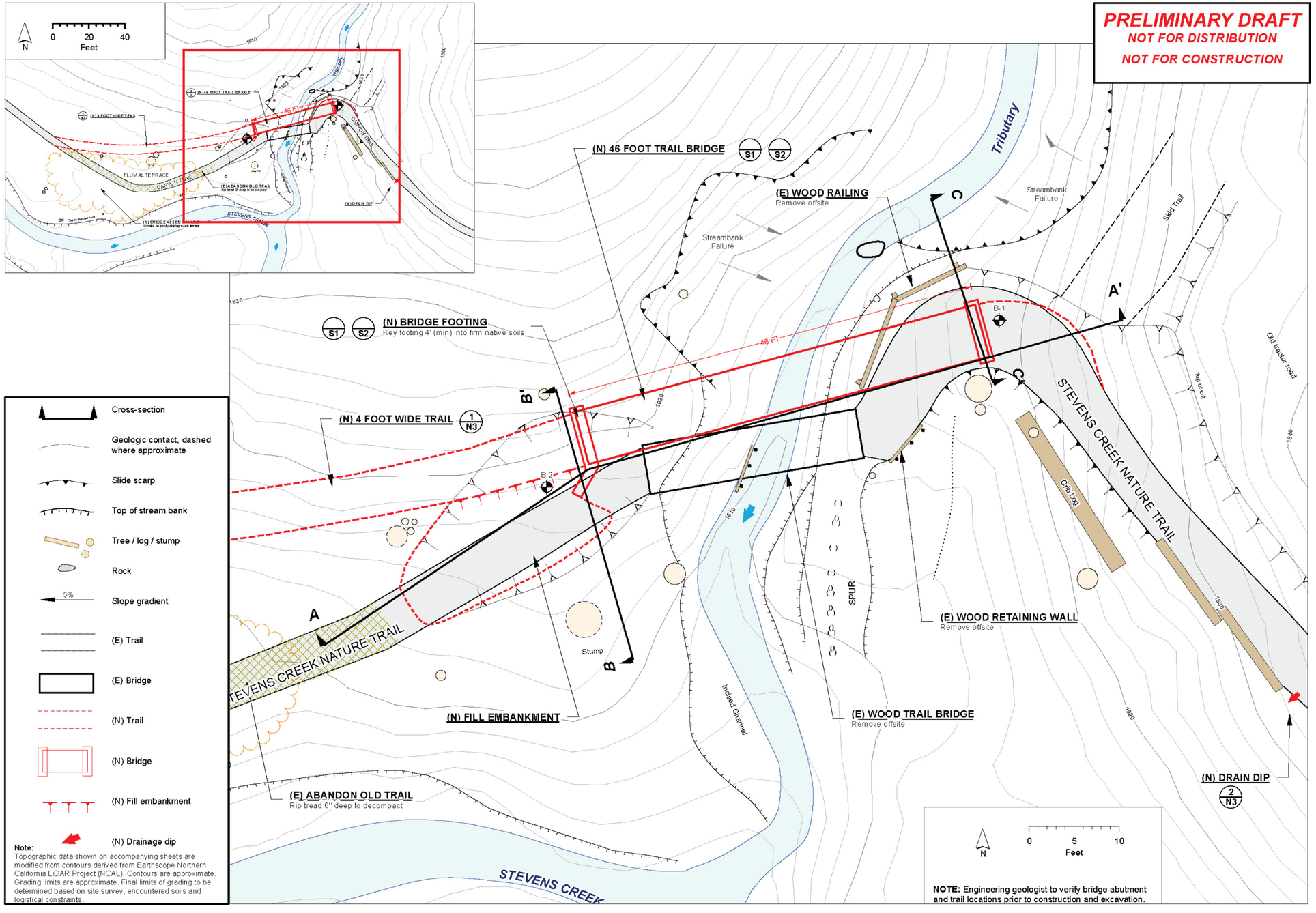
1. **Biological surveys, education, and monitoring.** Pre-construction surveys for rare plants, reptiles & amphibians, nesting birds, and special-status species would be implemented, and construction workers would be educated on proper procedures to protect sensitive habitats and wildlife.

2. **Signage of temporary trail closures.** Stevens Creek Nature Trail in between Canyon Trail and Skid Road Trail would be closed to all users for the duration of construction and signed appropriately. Signage describing the closures would also be placed at the Monte Bello OSP parking lot off of Page Mill Road, and other major local trailheads.

3. **Project site mobilization:** Equipment and materials would be transported to the site via the methods described under “Construction Staging & Access”, above.

4. **Widening of Stevens Creek Nature Trail to accommodate equipment.** Approximately 60 ft of failing sections of Stevens Creek Nature Trail east of Site #1 would be widened to meet District trail standards and safely accommodate equipment such as ATVs, motorized wheelbarrows, SWECOs, and similar small construction vehicles. This would result in the excavation of approximately 9 cubic yd of soil. This soil would be stabilized on site and/or re-used where appropriate to re-route Stevens Creek Nature Trail near Site #1. Additionally, minor trail widening would occur along the Stevens Creek Natural Trail between Site #1 and Site #2.

5. **Site preparation:** Site preparation would include removal of vegetative debris and clearing of the bridge abutment areas and alignment. This would include removal of one 15 inch diameter at breast height (dbh) tree within the proposed bridge alignment. Invasive species in seed have the potential to spread due to construction and would be treated in compliance with the District’s Integrated Pest Management plan (IPM) and IPM Environmental Impact Report



SOURCE: Tim Best, CEG

Figure 1-3
Site #1 Design Map

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6. **Bridge removal and fill excavation.** The existing wooden footbridge would be disassembled in pieces and removed from the site. Where feasible, bridge materials in acceptable condition could be re-used to improve other areas of Stevens Creek Nature Trail, or as construction materials for the trail re-route west of the bridge. Removal of the existing bridge may occur after construction of the new bridge, to facilitate access during construction.

7. **Bridge foundation construction.** The bridge foundations would be excavated by hand or using a small excavator. Concrete would be mixed on site. Forming materials would be removed following construction.

8. **Assemble and install bridge.** The new bridge would be installed per the manufacturer's guidelines. Temporary scaffolding may be required to support bridge elements during construction. District crew may also "highline" bridge pieces into place using rope rigging temporarily attached to nearby trees.

9. **Construct trail reroutes.** Approximately 120 ft of Stevens Creek Nature Trail on the far (west) side of the bridge would be rerouted upslope to match grade with the new bridge. As part of this work, the former trail bed immediately west and downslope of the bridge would be decommissioned through the placement of fill obtained from excavation of the bridge footings and the construction of the upslope trail. Dead branches, logs, and other local forest materials would be placed on the old alignment to prevent access while the site is restored.

10. **Install erosion control and native plants.** All areas of disturbed soil would be stabilized with erosion control measures approved by the California Department of Fish and Wildlife (CDFW) and the Regional Water Quality Control Board (RWQCB). See "Site Restoration" below for more details.

11. **Site cleanup and demobilization.** Equipment and materials would be removed from the site via Stevens Creek Nature Trail to the staging area near the intersection with Canyon Trail, and subsequently transported off the Monte Bello OSP property via Canyon Trail through the gate at Page Mill Road.

12. **Trail re-opening.** Stevens Creek Nature Trail between Canyon Trail and Skid Road Trail would be re-opened to multi-use trail uses.

Site #2

Site Setting

Site #2 is an existing wet ford crossing with limited infrastructure (old steps and portions of retaining walls along the creek banks) associated with Stevens Creek Nature Trail. None of the existing features are proposed to be removed from the site; rather, construction activities would focus on the installation of a new bridge.

Proposed Project

The proposed project at Site #2 would replace the existing wet ford crossing with a 45- to 50-foot-long, over five-ft-wide bridge built of Corten steel beams (**Figure 1-4**). The bridge surface would be constructed of redwood decking similar to other District trail bridges, with 48-inch-high handrails for safety. Bridge abutments would be poured in place spread footings.

Approximately 20 feet of existing trail on the east side of the bridge and 60 feet of existing trail on the west side of the bridge would be slightly re-routed to match the grade of the new bridge.

Construction Staging & Access

During construction at Site #2, Stevens Creek Nature Trail would be closed between its northern fork near the Monte Bello OSP parking lot and Skid Road Trail (**Figure 1-5**). Construction materials for Site #2 would be staged along the Skid Road Trail near the trail's intersection with Skyline Blvd. Additionally, a small parking and staging area will be located near the intersection of the Stevens Creek Nature Trail and the Skid Road Trail. Some deep ruts along the Skid Road Trail between the staging area near Skyline Blvd. and the trail's intersection with the Stevens Creek Nature Trail will be graded for vehicle access. Construction personnel and materials such as bridge components, bags of concrete, tools, and water barrels would be transported to Site #2 along the Skid Road Trail and Stevens Creek Natural Trail from the staging area near Skyline Blvd. using trucks, ATVs, small Bobcat-sized tractors, motorized wheelbarrows, and similarly-sized equipment capable of navigating the narrow trail bench. Signage would be placed at the Skid Road Trail trailhead to warn users of the potential to encounter construction equipment and materials along the portion of the trail in between Skyline Blvd. and Stevens Creek Nature Trail.

The bridge would be assembled adjacent to the existing trail on the east side of the proposed bridge, south of the trail. The bridge assembly area would be approximately 800 square feet and is shown in Figure 1-4. No vegetation removal is anticipated in this area. Coir mat, or other similar material, will be placed temporarily on the ground in the assembly area and the bridge components will be assembled on top of this material.

Work will require two truck trips per day from the field office to the staging areas and two ATV trips per day to the site (approximately 20 to 30 days). Additionally, two truckloads of concrete, two truckloads of beams, and two truckloads of decking and railing will be required for Site #2.

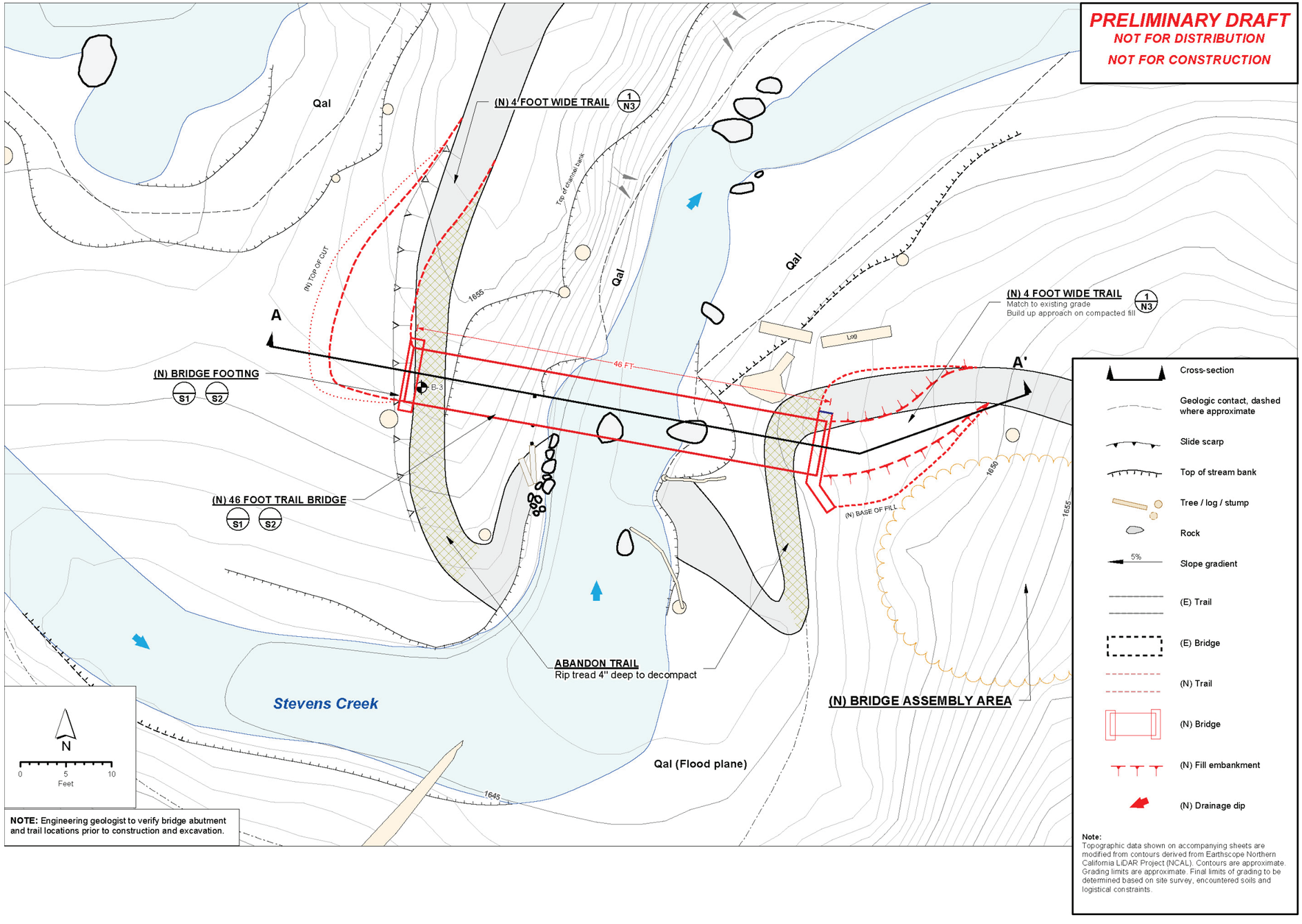
Construction Phasing

Construction of the bridge at Site 2 is expected to take 20 to 30 days to complete with three workers at the site each day. Construction equipment that will be used on-site includes a small excavator, small Bobcat-sized tractors, generators, concrete mixers, chainsaws, and impact drivers.

The proposed project would be constructed in the following phases:

1. **Biological surveys, education, and monitoring.** Pre-construction surveys for rare plants, invasive species, reptiles & amphibians, nesting birds, and special-status species would be implemented, and construction workers would be educated on proper procedures to protect sensitive habitats and wildlife.

2. **Signage of temporary trail closures.** Stevens Creek Nature Trail in between the northern fork near the Monte Bello OSP parking lot and Skid Road Trail would be closed to all users for the duration of construction and signed appropriately. Signage describing the closures would also be placed at the Monte Bello OSP parking lot off of Page Mill Road, and other major local trailheads.



SOURCE: Tim Best, CEG

Figure 1-4
Site #2 Design Map

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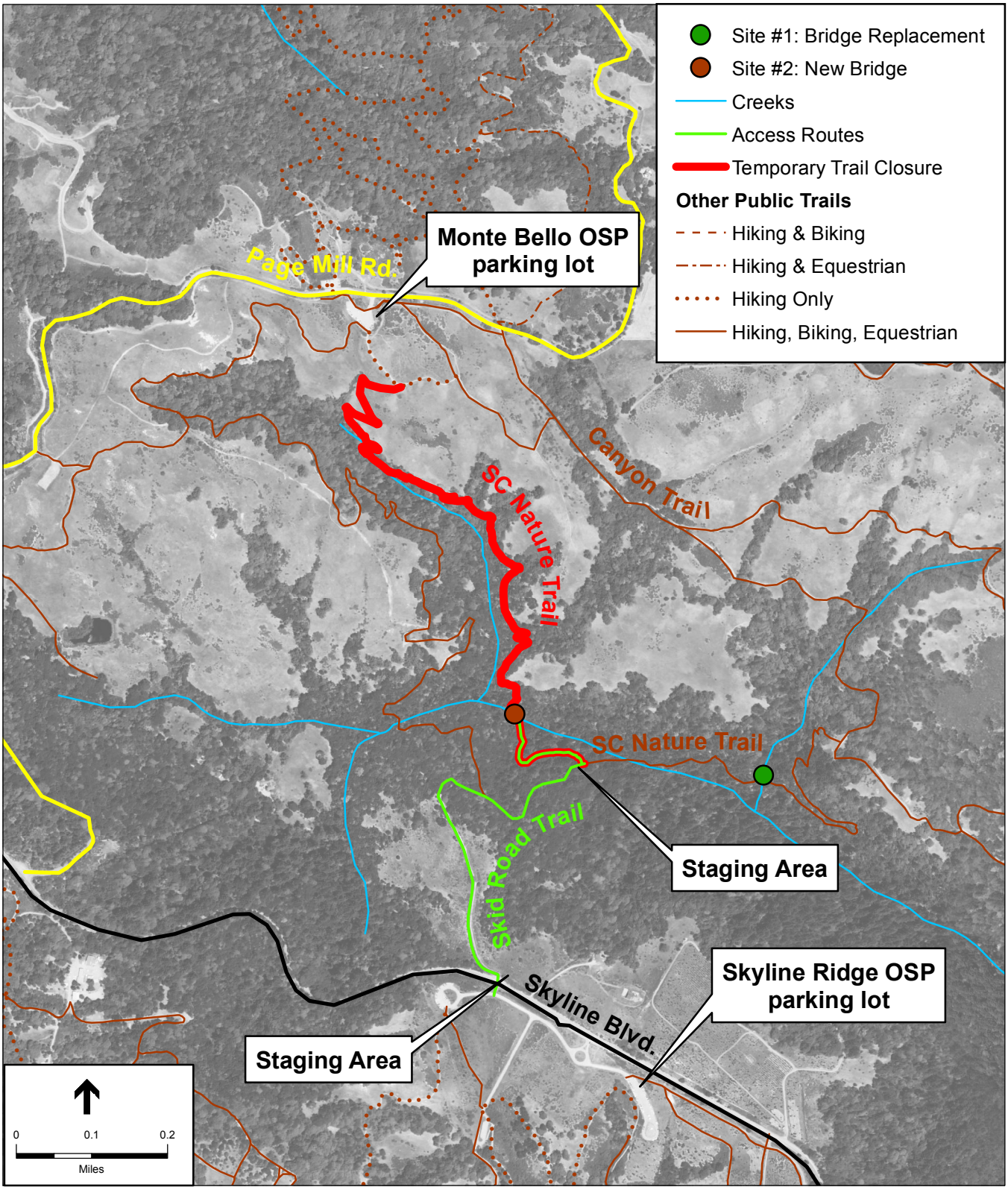

SOURCE: USGS Mindego Hill, Calif. 7.5-minute topographic quadrangle

Monte Bello Open Space Preserve Bridge Projects . 130573.02

Figure 1-5

Site #2 Staging and Access

3. **Project site mobilization:** Equipment and materials would be transported to the site via the methods described under "Construction Staging & Access", above.

4. **Site preparation:** Site preparation would include removal of vegetative debris and clearing of the bridge abutment areas and alignment. This would include removal of seven trees (one tree is six inches diameter at breast height [dbh], while the remaining six trees are less than six inches dbh) within the proposed bridge alignment. Invasive species in seed have the potential to spread due to construction and would be treated in compliance with the District's IPM and IPM Environmental Impact Report.

5. **Bridge foundation construction.** The bridge foundations would be excavated by hand or using a small excavator. Concrete would be mixed on site. Forming materials would be removed following construction.

6. **Assemble and install bridge.** The new bridge would be installed per the manufacturer's guidelines. Temporary scaffolding may be required to support bridge elements during construction. District crew may also "highline" bridge pieces into place using rope rigging temporarily attached to nearby trees.

7. **Construct trail reroutes.** Approximately 20 feet of the Stevens Nature Trail on the east side of the bridge and 60 feet of trail on the west side of the bridge would be slightly re-routed to match grade with the new bridge. As part of this work, the former trail bed on both sides of the wet ford crossing would be passively decommissioned through the placement of dead branches, logs, and other local forest materials, as well as signage encouraging visitors to utilize the new trail alignment.

8. **Install erosion control and native plants.** All areas of disturbed soil would be stabilized with erosion control measures approved by CDFW and the RWQCB. See "Site Restoration" below for more details.

9. **Site cleanup and demobilization.** Equipment and materials would be removed from the site via Stevens Creek Nature Trail and Skid Road Trail to the staging area near the intersection of Skid Road Trail and Skyline Blvd. All equipment will be inspected for invasive species and cleaned when leaving the site.

10. **Trail re-opening.** Stevens Creek Nature Trail between the northern fork near the parking lot and Skid Road Trail would be re-opened to pedestrian traffic.

Site Restoration

Grading and other earth-disturbing activities associated with the proposed project would be limited to the dry season (generally between April 15 and October 15). Assembly and installation of the bridges may occur after October 15. Construction would be supervised by experienced District staff and engineering consultants, and would incorporate erosion control techniques from the District's Details and Specifications Guidelines. Best Management Practices (BMPs) approved by CDFW and RWQCB (and currently in use by the District) for the proper design and use of silt fencing would be implemented during project construction to minimize erosion at the project sites as necessary. Approaches that integrate completely biodegradable products such as fiber blankets, bio-blocks, and coir products would be used to stabilize disturbed soils as necessary, but most erosion control work will use native materials available at the site, such as slash from site preparation. The biodegradable products would provide temporary erosion protection during the 3 to 5 years it would take for passively recruited vegetative cover to

establish. The District may elect to supplement active recruitment of vegetation with direct seeding of native plants, particularly if volunteer assistance is available.

1.4 Approvals or Permits for the Project

The anticipated approvals or permits for the proposed project are:

- MROSD Board approval **(for construction and related contracts)**;
- Section 1602 Lake and Streambed Alteration Agreement by California Department of Fish and Wildlife;
- City of Palo Alto Design Review permit; and
- Report of Waste Discharge from the San Francisco Bay Regional Water Quality Control Board **(potentially required)**.

1.5 Report Organization

This report is organized as follows:

Chapter 1, Project Description, provides an introduction to the project with project background, needs and objectives, and discusses the proposed facilities.

Chapter 2, Environmental Checklist Form, presents the CEQA Initial Study Environmental Checklist, analyzes environmental impacts resulting from the project, and describes the mitigation measures that would be incorporated into the project to avoid or reduce impacts to less-than-significant levels.

1.6 Agency Use of this Document

MROSD, as the lead agency, will use this IS/MND along with the responsible agencies to evaluate environmental impacts of the proposed project and make a decision of adopting the IS/MND and approving the proposed project. Upon adoption of the IS/MND and the mitigation measures described herein, MROSD will use this document to make written findings, consider project approval, file a Notice of Determination (NOD), and use the completed CEQA documentation for securing environmental permits prior to project implementation.

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CHAPTER 2
Environmental Checklist

1. **Project Title:** Monte Bello Open Space Preserve Bridge Projects

2. **Lead Agency Name and Address:** Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022-1404

3. **Contact Person and Phone Number:** Bryan Apple
650-691-1200

4. **Project Location:** Upper Stevens Creek watershed, City of Palo Alto, Santa Clara County

5. **Project Sponsor's Name and Address:** Same as Lead Agency

6. **General Plan Designation(s):** Other Public Open Lands

7. **Zoning Designation(s):** Publicly Owned Conservation Land

8. **Description of Project:** The proposed project includes bridge construction activities at two creek crossings along the Stevens Creek Nature Trail. Work at Site #1 will replace an existing 24-ft-long wooden beam bridge across an unnamed tributary of Stevens Creek with a new 45- to 50-ft-long steel bridge. Work at Site #2 will replace an existing at-grade wet ford crossing of the Stevens Creek mainstem with a new 45- to 50-ft-long steel bridge. Refer to **Chapter 1**, **Project Description**, for further details.

9. **Surrounding Land Uses and Setting.** The project sites are located within the Upper Stevens Creek watershed on lands managed by MROSD within the Monte Bello Open Space Preserve. Both sites are located within riparian corridors surrounded by mixed hardwood-conifer forests. Stevens Creek Nature Trail at Site #1 is open to pedestrians, cyclists, and equestrians; the trail at Site #2 is open only to pedestrians.

10. **Other public agencies whose approval is required:** California Department of Fish and Wildlife, the San Francisco Bay Regional Water Quality Control Board (potentially required), and the City of Palo Alto.

2.1 Environmental Factors Potentially Affected

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

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

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial study:

☐ 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, no further environmental documentation is required.

Signature	Date
Jane Mark	Midpeninsula Regional Open Space District
Printed Name	For

2.2 Environmental Checklist

Aesthetics

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

Discussion

a) **Less than Significant Impact.** The project sites are along the Stevens Creek Nature Trail, a popular trail that includes scenic views of the Stevens Creek riparian corridor (see Figures 1-2and 1-5 in Chapter 1, Project Description). Along its length the trail offers users views of mixed hardwood-conifer forest and Stevens Creek, with occasional views of forested hillslopes and grassy ridgetops. The dense canopy cover largely limits the growth of densely-growing riparian trees such as willow and alder, allowing relatively unobstructed views of the creek. See **Figure AES-1** and **Figure AES-2** for photographs of the project site.

The project would have short-term effects on scenic vistas during construction activities. Project construction activities along with construction vehicles and equipment would be visible during construction; however, because the trail would remain closed to recreational users during construction, there would be no recreational users who experience these temporary effects. Construction would be short-term and temporary (over approximately 20-30 days at each site) and would occur in areas not readily visible to distant users. As described in Chapter 1, Project Description, the project would involve the removal of seven trees at site #2 (one tree is 6 inches diameter at breast height [dbh] and the remaining six trees are less than 6 inches dbh), and one 15 inch dbh tree at Site #1 and other vegetation for bridge installation. Following construction, erosion control measures at the project sites (see **Mitigation Measure HYD-1**) would include the stabilization of exposed soils). In the long term, there are no new operational activities proposed under the project and therefore, there would be no long-term effect on a scenic vista. The project impact would be less than significant.

b) **No Impact.** The proposed project is not located within a state scenic highway (Caltrans, 2013). There would be no impact of this kind.

PHOTO 1. Photo facing east from the western end of the existing bridge at Site 1.

PHOTO 2. Photo facing east showing the existing Stevens Creek Nature Trail located on the downslope ("far-side") approach of the bridge at Site 1.

SOURCE: ESA, 2015

Monte Bello Open Space Preserve Bridge Projects . 130573

Figure AES-1
Site #1 Photographs

PHOTO 3. Photo facing east from the western end of the proposed bridge site at Site 2.

PHOTO 4. Photo facing west from the eastern end of the proposed bridge site at Site 2.

SOURCE: ESA, 2015

Monte Bello Open Space Preserve Bridge Projects . 130573

Figure AES-2
Site #2 Photographs

c) **Less than Significant Impact.** The proposed new bridges would alter the scenic character of the two sites. The existing Site #1 bridge is a wooden beam bridge, about 24 feet long (**Figure AES-3**). Currently there is no bridge at Site #2. The new bridges would be substantially larger than the existing Site #1 bridge, and would be constructed of Corten steel beams with redwood wooden decking. An example of an installation of a similar bridge, of the same type and from the same manufacturer as the proposed new bridges, is shown in **Figure AES-4**. While the new bridges would introduce a new, man-made visual element to Site #2, and an altered visual character to Site #1, the new bridges would be in keeping with the open space, undeveloped, park character and use of the area. Therefore, while the new bridges would alter the visual character of the project sites, they would not degrade the existing visual character or quality of the sites.

Following construction, construction crews will install erosion control structures, if necessary revegetate disturbed areas, and generally clean-up the construction sites. However, it is likely that staging and assembly areas, new trail sections, and abandoned trail sections will have a disturbed, "raw" look immediately following completion of construction. This will be a temporary condition, and the project sites should naturalize after short time, as vegetation reestablishes and duff accumulates on the forest floor and covers bare ground. Thus, while disturbance from project construction will degrade the visual character of the project sites, this effect will be of short duration and limited extent, and is therefore not considered substantial. The impact is therefore less than significant.

d) **No Impact.** The proposed project would not involve any new structures or sources of illumination that would contribute any new source of light or glare. Since project construction activities would occur during the daytime, there would be no new temporary source of substantial light or glare during nighttime hours. No new lighting would be installed as part of the proposed project. There would be no impact.

References

California Department of Transportation (Caltrans), Officially Designated State Scenic Highways, available online: http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm, accessed on April 8, 2015.

SOURCE: ESA, 2015

Monte Bello Open Space Preserve Bridge Projects . 130573

Figure AES-3

Existing Bridge at Site #1

SOURCE: MROSD

Monte Bello Open Space Preserve Bridge Projects. 130573

Figure AES-4

Example of Bridge to be Constructed

Agricultural and Forest Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
2. AGRICULTURAL AND FOREST RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project 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:**				
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?	☐	☐	☐	☒

Discussion

a, b) **No Impact.** The California Department of Conservation's Important Farmland Maps for Santa Clara County indicate that the project site lies in an area identified as Other Lands not included in any other mapping category (CDC, 2015a). The project site is not located on land zoned for agricultural uses or on land covered by a Williamson Act contract (CDC, 2015b). The project site lies within the Monte Bello OSP and is used for nature preservation and recreational activities. The proposed project would replace an existing bridge at Site #1, and construct a new bridge over an existing wet ford at Site #2. Neither activity would encourage or influence the conversion of agricultural lands to non-agricultural. Therefore, the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, nor would it conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract. There would be no impact.

c, d, e) **No Impact.** See a) and b) above. The project site is located in an area zoned by the County of Santa Clara for Other Public Open Lands (Santa Clara County 1994), and is designated as Publicly Owned Conservation Lands in the Palo Alto Comprehensive Plan (City of Palo Alto 2011). The project site does not lie immediately adjacent to lands that

are zoned for forest land as defined by Public Resources Code Section 12220(g), for timberland as defined by Public Resources Code Section 4526, or for timberland production as defined by Government Code Section 51104(g). The proposed project would not conflict with existing zoning or cause rezoning of forest land, or result in the loss of forest land to non-forest use. There would be no change in the existing environment that would result in conversion of farmland to non-agricultural use. There would be no impact.

References

California Department of Conservation (CDC), Division of Land Resource Protection, 2015a. California Important Farmland Finder, available online: http://maps.conservation.ca.gov/ciff/ciff.html. Accessed on March 20, 2015.

California Department of Conservation (CDC), Division of Land Resource Protection, 2015b. Santa Clara County Williamson Act Lands 2013/2014, available online: ftp://ftp.consrv.ca.gov/pub/dlrp/WA/SantaClara_13_14_WA.pdf. Accessed on March 20, 2015.

City of Palo Alto, 2011. Comprehensive Plan Land Use Designation Map. Available online: http://www.cityofpaloalto.org/civicax/filebank/documents/8188

Santa Clara County General Plan, 1995-2010. Adopted December 20, 1994. Available online: http://www.sccgov.org/sites/planning/PlansPrograms/GeneralPlan/Pages/GP.aspx

Air Quality

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

Discussion

a) **Less than Significant Impact.** Regulation of air pollution is achieved through both national and State ambient air quality standards and emission limits for individual sources of air pollutants. As required by the federal Clean Air Act, the U.S. Environmental Protection Agency (USEPA) has identified criteria pollutants and has established the National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for the following pollutants: ozone (O_3); carbon monoxide (CO); nitrogen dioxide (NO_2); sulfur dioxide (SO_2); particulate matter less than 10 microns in diameter (PM_{10}); particulate matter 2.5 microns or less in diameter ($PM_{2.5}$); and lead (Pb). These pollutants are called "criteria" air pollutants because standards have been established for each of them to meet specific public health and welfare criteria. The State of California has also established its own more stringent set of air quality standards commonly referred to as the California Ambient Air Quality Standards (CAAQS). In addition to the criteria pollutants identified above, CAAQS have been established for sulfates, hydrogen sulfide, and vinyl chloride.

The project site is located within the San Francisco Bay Area Air Basin, which is designated as a nonattainment area for state and national ozone standards and for the state particulate matter (PM_{10} and $PM_{2.5}$) standards. The Bay Area Air Quality Management District (BAAQMD)'s Final Bay Area 2010 Clean Air Plan outlines control strategies to reduce emissions of ozone and ozone precursors to help the Bay Area achieve attainment for the State 1-hour ozone standard.

Since air pollutant emissions are a function of population and human activity, emission reduction strategies set forth in the Bay Area 2010 Clean Air Plan were developed based on regional population, employment, and housing projections. The proposed project would not increase population in the air basin nor would it generate housing or employment opportunities leading to increased population or vehicle miles travelled. As such, the proposed project would be consistent with the assumptions contained within the Bay Area 2010 Clean Air Plan and would result in a less than significant impact.

b) **Less than Significant with Mitigation.** Based on the following analysis, construction and operation of the proposed project would not result in a violation of an air quality standard or contribute significantly to an existing or projected air quality violation.

Construction

Construction of the proposed project would consist of replacing an existing bridge located at Site #1 and assemble/install a new bridge at Site #2. The locations of Sites #1 and #2 can be found in Figures 1-2 and 1-5. Construction activities at Site #1 would include project site mobilization, widening of failing sections of Stevens Creek Natural Trail to meet District trail standards, existing bridge removal and fill excavation, bridge foundation construction, bridge assembly and placement, and construct trail reroutes. The construction activities at Site #2 would be similar to Site #1, but there is currently no bridge at Site #2, so construction at this site would not include bridge removal. Off-road construction equipment used during construction at both sites would include all-terrain vehicles (ATVs), small bobcat tractors, motorized wheelbarrows, graders, and excavators. Construction materials and equipment would be transported by motorized wheelbarrow to the sites from the staging area shown in Figure 1-5. Replacement of the bridge at Site #1 and construction of the new bridge at Site #2 is anticipated to take 20 to 30 days to complete, respectively. Bridge components for each bridge would be transported by ATV's to each of the sites. These activities would have the potential to affect air quality through the use of construction equipment and vehicles used by workers to travel to and from the construction sites. In addition to exhaust emissions caused by the use of mobile equipment, trenching and earthmoving activities would result in emissions of fugitive dust including PM_{10} and $PM_{2.5}$, which could be potentially significant.

BAAQMD's approach to CEQA analysis of construction emissions, especially for fugitive dust, emphasizes the implementation of control measures rather than emissions quantification. BAAQMD recommends a set of feasible fugitive PM_{10} control measures for construction projects of all sizes. According to BAAQMD, fugitive dust impacts from construction would be considered less than significant if all applicable recommended measures are applied (BAAQMD, 2012). Inclusion of these measures as part of **Mitigation Measure AIR-1 (**below) would reduce construction impacts from fugitive dust emissions to less-than-significant levels.

Project construction would involve use of equipment exhaust that would generate ozone precursor emissions (ROG and NO_x), PM_{10}, and $PM_{2.5}$. Construction activities would also

emit criteria pollutants from worker vehicle trips. Emission levels for construction activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers. Emissions of ROG and NO_x from these sources would incrementally add to the regional atmospheric loading of ozone precursors during project construction. There would be no change in the operations at the sites; hence the project would result in no operational emissions.

The BAAQMD' Revised Draft Justification Report on CEQA Thresholds of Significance identifies significance thresholds for criteria pollutant emissions: a threshold of 54 pounds per day for ROG, oxides of nitrogen (NO_x) and $PM_{2.5}$ and 82 pounds per day for PM_{10} (construction equipment emissions only, exclusive of fugitive dust). These thresholds are based on the trigger levels for the federal New Source Review Program and BAAQMD's Regulation 2, Rule 2 for new or modified sources. Exceeding the thresholds represents a significant project specific impact and a cumulatively considerable contribution to air quality.

Project emissions were analyzed for the proposed construction activities using California Emissions Estimator Model (CalEEMod) version 2013.2.2. As summarized in **Table 2-1**, the results of the analysis indicate that maximum daily construction emissions would remain below the significance thresholds, and therefore the impact would be less than significant.

TABLE 2-1
UNMITIGATED MAXIMUM EMISSIONS FROM CONSTRUCTION (lbs per day)[a]

Project Component	ROG	NO_x	PM_{10}	$PM_{2.5}$
2015				
Off-Road Emissions	**5.8**	**41.2**	**3.2**	**3.0**
Thresholds of Significance	**54**	**54**	**82**	**54**
Significant (Yes or No)?	**No**	**No**	**No**	**No**

[a] Project construction emissions estimates were made using CalEEMod, version 2013.2.2. See Appendix A.

SOURCE: ESA, 2015

Mitigation Measure AIR-1: During construction activities, the Applicant shall require staff and/or the construction contractor(s) to implement a dust abatement program that includes, but is not necessarily limited to, the following BAAQMD-recommended measures as needed, to control dust:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

c) **Less than Significant Impact.** According to the BAAQMD CEQA Guidelines, for a project to have a less-than-significant cumulative impact on air quality it must not have an individually significant operational air quality impact and it must be consistent with the local general plan as well as the regional air quality plan (BAAQMD, 2012). As demonstrated in a) and b) above, the proposed project would be consistent with the adopted Bay Area 2010 Clean Air Plan and would not result in a significant construction-related air quality impact. The proposed project would be consistent with the air quality policies in the Palo Alto Comprehensive Plan (City of Palo Alto, 2007) and the Santa Clara County General Plan (County of Santa Clara, 1994). Emissions from the proposed construction activities would be below the levels considered by BAAQMD to represent a cumulatively considerable increase. As such, the proposed project would not conflict with an applicable local or regional air quality plan, and the cumulative impacts would be less than significant.

d) **Less than Significant Impact.** Construction activities associated with the proposed project would result in short-term emissions of diesel PM, which is a toxic air contaminant (TAC). Diesel PM poses a carcinogenic health risk that is measured using an exposure period of 30 years. The exhaust of off-road heavy-duty diesel equipment would emit diesel PM during construction.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., the potential exposure to be compared to applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHH, 2015), carcinogenic health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period or duration of activities associated with proposed site construction.

The approximately 10 to 12 week construction period for the proposed project would be much less than the 30-year period used for risk determination. Because off-road diesel equipment would be used only for short time periods, and because there are no sensitive receptors, such as residents, in close proximity to the construction sites, construction activities would not expose sensitive receptors to substantial emissions of TACs. This impact would be less than significant.

e) **Less than Significant Impact.** Diesel equipment used during project construction may emit objectionable odors associated with combustion of diesel fuel. However, these emissions would be temporary and intermittent in nature. Furthermore, there are no sensitive receptors, such as residents, in close proximity to the construction sites. The closest residential receptor is located 0.3 mile from the project site. Therefore, odor impacts associated with diesel combustion during construction activities would be less than significant.

References

Bay Area Air Quality Management District (BAAQMD), 2010. *Bay Area 2010 Clean Air Plan*, September 2010.

Bay Area Air Quality Management District (BAAQMD), 2012. *BAAQMD CEQA Guidelines*, May 2012.

City of Palo Alto, 2007. Comprehensive Plan. Available online at http://www.cityofpaloalto.org/gov/topics/projects/landuse/compplan.asp.

Office of Environmental Health Hazards Assessment (OEHHA), 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines*, February 2015.

Santa Clara County General Plan, 1995-2005. Adopted December 20, 1994. Available online: http://www.sccgov.org/sites/planning/PlansPrograms/GeneralPlan/Pages/GP.aspx.

Biological Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
4.	**BIOLOGICAL RESOURCES — Would the project:**				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on federally protected wetlands as defined 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?	☐	☐	☐	☒

Discussion

Reconnaissance Survey

Biological resources within the project site were verified by ESA biologists during a field reconnaissance conducted on March 18, 2015. Prior to the reconnaissance survey, databases were reviewed for the project sites and regional vicinity (CDFW, 2015c; CNPS, 2015; USFWS, 2015; i.e., the Mindego Hill, Cupertino, La Honda, Franklin Point, Big Basin, Castle Rock Ridge, Woodside, Palo Alto, and Mountain View U.S. Geographical Survey (USGS) 7.5-minute topographic quadrangles). The field reconnaissance consisted of a pedestrian survey within each project site boundary (Site 1 and Site 2), associated staging areas and access roads, and observations of the adjacent environments. The field surveys were focused on identifying habitat for special-status[1] plant and animal species. General habitat conditions were noted and incidental species

[1] The term "special-status" species includes those species that are listed and receive specific protection defined in federal or state endangered species legislation, as well as species not formally listed as Threatened or Endangered, but designated as "Rare" or "Sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations, or local agencies such as counties, cities, and special districts. A principle source for this designation is the California "Special Animals List" (CDFW, 2015a).

observations were recorded. The findings of the reconnaissance survey, the literature review, and the database queries were used to compile the list of special-status species that may occur at the project study area, defined as relevant areas of similar habitat composition surrounding the project sites, and to characterize the local project setting, described below. The list of special-status plant and animal species that may occur in the project study area is included in **Table 1** in **Appendix B**.

Vegetation Communities and Wildlife Habitat

Mixed woodland

Mixed woodland occurs at both Sites 1 and 2 and along the access trails leading to these sites. Within the study area, mixed woodland is dominated by a relatively dense overstory comprised of Douglas fir (*Pseudotsuga menziesii* var. *menziesii*), coast live oak (*Quercus agrifolia*), tanoak (*Notholithocarpus densiflorus*), big leaf maple (*Acer macrophyllum*), California bay (*Umbellularia californica*), madrone (*Arbutus menziesii*), and interior live oak (*Quercus wislizeni*). The understory, although less dense than the tree canopy, contains many native shrubs and vines such as red flowering currant (*Ribes sanguineum*), poison oak (*Toxicodendron diversilobum*), canyon gooseberry (*Ribes menziesii*), snowberry (*Symphoricarpos albus*), California blackberry (*Rubus ursinus*), and twinberry (*Lonicera involucrata*) and forbs such as pacific pea (*Lathyrus vestitus*), trail plant (*Adenocaulon bicolor*), and milkmaids (*Cardamine californica*). Ferns such as western sword fern (*Polystichum munitum*), western chain fern (*Woodwardia fimbriata*), California maidenhair (*Adiantum jordanii*) and five-finger fern (*Adiantum aleuticum*) were concentrated in the creek corridors and cooler portions of the woodland.

Black phoebe (*Sayornis nigricans*), Cooper's hawk (*Accipiter cooperii*), Steller's jay (*Cyanocitta stelleri*), warbling vireo (*Vireo gilvus*), Bewick's wren (*Thryomanes bewickii*), Pacific-slope flycatcher (*Empidonax difficilis*), olive-sided flycatcher (*Contopus cooperi*), oat titmouse (*Baeolophus inornatus*), Acorn woodpecker (*Melanerpes formicivorus*), northern flicker (*Colaptes auratus*), orange-crowned warbler (*Oreothlypis celata*), western screech owl (*Megascops kennicottii*), and northern saw-whet owl (*Aegolius acadicus*) are common to such a woodland community with streams. Common and special-status bats may also roost in tree cavities or beneath the bark of the mature trees and terrestrial mammals, such as deer mouse (*Peromyscus* sp.) and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), will forage and create nests in the woodland understory. Amphibians that use the many creek corridors of the study area include California red-legged frog (*Rana draytonii*), California newt (*Taricha torosa*), rough-skinned newt (*Taricha granulosa*), and red-bellied newt (*Taricha rivularis*).

Non-Native Grassland

The non-native grassland community is located at the intersection of Canyon Trail and Stevens Creek Nature Trail where a staging area for Site 1 is proposed. It is also located at the proposed Site 2 staging area, near the Skid Road Trailhead off Skyline Boulevard, in an open, flat area surrounded by coyote bush (*Baccharis pilularis*) immediately north of the trailhead and parallel to the trail as it heads west. Vegetation typical of this community is dominated by non-native grasses such as soft chess (*Bromus hordeaceus*), foxtail barley (*Hordeum murinum*), velvet grass (*Holcus lanatus*), and slender wild oat (*Avena barbata*) with non-native filarees. Native species observed at

the proposed Site 1 staging area included soap plant (*Chlorogalum pomeridianum*), white nemophila (*Nemophila heterophylla*), sedge (*Carex* sp.), and buttercup (*Ranunculus* sp.).

This vegetation community can provide cover, foraging, and nesting habitat for a variety of bird species as well as reptiles and small mammals. Reptiles inhabiting this community may include western fence lizard (*Sceloporus occidentalis*), California alligator lizard (*Elgaria multicarinata multicarinata*) and Pacific gopher snake (*Pituophis catenifer catenifer*). Birds commonly found in such areas include American robin (*Turdus migratorius*), house finch (*Haemorhous mexicanus*), and western scrub jay (*Aphelocoma californica*). Mammals common to annual grasslands include California ground squirrel (*Otospermophilus beecheyi*), black-tailed jack rabbit (*Lepus californicus*), and Botta's pocket gopher (*Thomomys bottae*) though no mammal burrows were observed at the proposed Site 1 staging area.

Ruderal/Developed

Both access points for Site 1 and Site 2 are located in existing informal parking areas at the respective trailheads that will be used for site access and crew vehicle parking. The Site 1 access point is off Page Mill Road at Canyon Trail (GPS coordinates: 37°19'30.54"N, 122°10'31.64"W) and consists of a paved apron transitioning into gravel and compacted soil where the Canyon Trail begins. The Site 2 access point is located at a paved pull-out on the Skyline Boulevard shoulder (GPS coordinates: 37°18'46.11"N, 122°10'32.53"W) with a short gravel connection to the beginning of Skid Road Trail. Non-native grassland boarders each of these access points with a similar composition of non-native and native species already described as well as coyote bush. Canyon Trail, Skid Road Trail, and the Stevens Creek Nature Trail that will be used for project access consist of compacted soil paths between two and four feet in width with non-native grassland along trail fringes and an over story of mixed woodland. At few points along these trail segments, seasonal drainages cross these existing paths. Similar wildlife using non-native grassland habitat would be expected along the fringes of this community.

Wetlands and Other Waters

Wetlands are ecologically complex habitats that support a variety of both plant and animal life. The federal government defines and regulates other waters, including wetlands, in Section 404 of the Clean Water Act (CWA). Wetlands are "areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support (and do support, under normal circumstances) a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[b] and 40 CFR 230.3). The Corps has primary federal responsibility for administering regulations that concern waters of the U.S. and requires a permit under CWA Section 404 if a project proposes the discharge of fill and/or the placement of structures within waters of the U.S.

Under normal circumstances, the federal definition of wetlands requires the presence of three identification parameters: wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands include freshwater marsh, seasonal wetlands, and vernal pool complexes that have a hydrologic link to Traditional Navigable Waters (TNWs). Other waters of the U.S. include unvegetated waters of streams, lakes, and ponds that are connected to TNWs.

The RWQCB also regulates waters of the State under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act; Section 13260 of the California Water Code). The Porter-Cologne Act requires "any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." Under the Porter-Cologne Act definition, the term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Although all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—in California, waters of the United States represent a subset of waters of the state. Additionally, under CWA Section 401, the RWQCB must certify that actions receiving authorization by the Corps under CWA Section 404 also meet State water quality standards.

Intermittent stream (Stevens Creek and Tributary Creek)

Tributary Creek at Site 1 is a relatively steep and incised channel with a substrate consisting of cobbles and large rocks and little to no active floodplain. A variety of ferns with gooseberry and poison oak lined the channel banks and low-flow water was present in the channel during ESA's reconnaissance survey. A large, rock-lined pool with a water depth of approximately three feet at the deepest part is located downstream of the project segment of Tributary Creek. Numerous California newts and rough-skinned newts were seen traversing the pool floor. Stevens Creek at Site 2 is a low-flowing at-grade ford just downstream of a bend, with substrate consisting of cobbles, large rocks, and silty mud. The stream segment here can go completely dry during the summer-fall dry season under drought conditions. The stream channel is largely unvegetated except for a few isolated individual leaves of Colt's Foot (*Petasites frigidus* var. *palmatus*). California newts were also seen at Site 2 in the stream bend where water collected in a shallow, narrow pool. Some woody debris was observed at low-flow points at each site, though in-stream and bank vegetation was minimal.

Tributary Creek and Stevens Creek ultimately flow into San Francisco Bay, a TNW under the jurisdiction of the Corps and would be considered waters of the United States. The creeks would also be considered waters of the State as regulated by the RWQCB. In addition, the bed, bank, and extent of the riparian corridor of these waterways are under the jurisdiction of the CDFW. ESA biologists conducted the formal delineation of waters of the U.S. within the project study area on March 18, 2015, concurrently with the reconnaissance survey, and documented the characteristics and extent of all potentially jurisdictional wetlands and other waters of the U.S. No jurisdictional wetlands occur within the study area. The preliminary delineation revealed a total of 0.071 acre (170 linear feet) of potentially jurisdictional stream "other waters of the U.S." occurs within the project study area (ESA, 2015). For the purposes of this analysis, we assume that the extent of waters of the State is equal to the extent of waters of the U.S. However, these findings are preliminary and the extent of waters of the U.S. and waters of the State are determined by the Corps and RWQCB, respectively, and the RWQCB may assume jurisdiction beyond waters of the U.S. New bridges, staging areas, and access for Site 1 and Site 2 under the project is designed to avoid impacts to waters of the U.S. Should the RWQCB determine the extent of waters of the state exceed waters of the U.S., some of the project components may occur within waters of the State.

Special-Status Species

Special-status species lists were derived from the California Natural Diversity Database (CNDDB) (CDFW, 2015c), U.S. Fish and Wildlife Service (USFWS) (USFWS, 2015), and California Native Plant Society (CNPS) (CNPS, 2015) for the regional project vicinity (i.e., the Mindego Hill, Cupertino, La Honda, Franklin Point, Big Basin, Castle Rock Ridge, Woodside, Palo Alto, and Mountain View USGS 7.5-minute topographic quadrangles). The potential for the project site to support special-status plant or wildlife species was assessed using database results, previous studies of biological resources in the regional vicinity, and the March 18, 2015 reconnaissance survey. Table 1 in Appendix B identifies regionally-occurring special-status plant and animals, their preferred habitats and plant blooming periods, and their potential to occur in the study area. The project study area is defined as relevant areas of similar habitat composition surrounding the project site. It was then determined whether there is a low, moderate, or high potential for species occurrence in the study area of project site based on previous special-status species record locations, known range, and current site conditions. Only species with a moderate or high potential for occurrence are discussed further in this section. Several of these species which require specialized habitat not found within the project site but in the larger regional vicinity, including large areas of annual grassland or coastal scrubland, coastal salt marsh, tidal flats or tidal wetlands, beaches, or species associated with the San Francisco Bay, were eliminated from further discussion.

Special-Status Plants

The following special-status plants were determined to have at least a moderate potential to occur within or adjacent to the project site:

- San Mateo woolly sunflower
- Anderson's manzanita
- Santa Clara red-ribbons
- Western leatherwood
- Minute pocket moss
- Arcuate bush-mallow
- Woodland woolythreads
- Dudley's lousewort
- White-flowered rein orchid
- Choris' popcornflower

San Mateo woolly sunflower (*Eriophyllum latilobum*). San Mateo woolly sunflower is a federal and State-listed endangered perennial herb that occurs in foothill woodlands, often found in serpentine soils and on road cuts. The California Native Plant Society (CNPS) considers the plant of California Rare Plant Rank (CRPR) 1B.1 rarity. The California endemic has an extremely limited known distribution where it is presumed extant in suitable habitat; one of these locations is the San Mateo USGS 7.5 minute quadrangle that contains the project study area. The mixed woodlands and riparian areas of the Monte Bello Open Space Reserve are relatively undisturbed and provides suitable habitat for this plant. The nearest occurrence of San Mateo woolly sunflower is located within three miles northwest of the project along Highway 35 (CDFW, 2014c). San Mateo woolly sunflower flowers between May and June.

Anderson's manzanita (*Arctostaphylos andersonii*). Anderson's manzanita is a CRPR 1B.1 shrub that occurs in openings and along edges of chaparral communities, mixed evergreen forest, and redwood forests. Suitable habitat for Anderson's manzanita is present within the project study area and this species has been documented several times in open space preserves of the region and within 10 miles of the project. The nearest occurrence of Anderson's manzanita is located seven miles south of the project in the San Lorenzo River watershed (CDFW, 2015c). Anderson's manzanita flowers between November and March.

Santa Clara red-ribbons (*Clarkia concinna* ssp. *automixa*). Santa Clara red-ribbons is a CRPR 4.3 annual herb that occurs on slopes and near drainages in cismontane woodlands and chaparral communities. Suitable habitat for Santa Clara red-ribbons is present within the project study area and this species has been documented within a mile of the project sites at the headwaters of Stevens Creek growing along an ephemeral stream (CDFW, 2015c) and is presumed extant in the area. Santa Clara red-ribbons flowers between May and June.

Western leatherwood (*Dirca occidentalis*). Western leatherwood is a CRPR 1B.2 perennial deciduous shrub that occurs in chaparral, foothill woodland, mixed evergreen forest, broadleaved upland forest, closed-cone pine forest, north coastal coniferous forest, and wetland-riparian areas. Suitable habitat for western leatherwood is present in the project study area and this species has been documented numerous times within one mile of the study area and nearest occurrences are within Los Trancos Open Space and Coal Creek Open Space, both within the MROSD lands (CDFW, 2015c). Western leatherwood flowers between January and April.

Minute pocket moss (*Fissidens pauperculus*). Minute pocket moss is a CRPR 1B.2 moss that occurs on in damp coastal soil in North Coast coniferous forest. Suitable habitat for minute pocket moss is present in the project study area and this species has been documented around Portola Redwoods State Park in hard moist earth under redwoods (CDFW, 2015c).

Woodland woolythreads (*Monolopia gracilens*). Woodland woolythreads is a CRPR 1B.2 annual herb that occurs in mixed evergreen forest, broadleaved upland forest, redwood forest, and chaparral, and valley and foothill grasslands, often in serpentine soils. Suitable habitat for woodland woolythreads is present in the project study area and this species has been documented within one mile of the project sites at Black Mountain on the Monte Bellow Ridge; numerous other occurrences are documented within five miles of the study area (CDFW, 2015c). Woodland woolythreads flower between February and July.

Dudley's lousewort (*Pedicularis dudleyi*). Dudley's lousewort is a CRPR 1B.1 perennial herb that occurs in maritime chaparral, cismontane woodland, North Coast coniferous forests, redwood forests, and valley and foothill grasslands. Suitable habitat for Dudley's lousewort is present in the project study area and this species has been documented within six miles of the project sites in Portola Redwoods State Park along Peters Creek where 13 colonies were documented in 1994 (CDFW, 2015c). Dudley's lousewort flowers between April and June.

White-flowered rein orchid (*Piperia candida*). White-flowered rein orchid is a CRPR 1B.2 perennial herb that occurs in Yellow pine forest, North Coast coniferous forest, and broadleaved upland forest, often in serpentine soils. Suitable habitat for white-flowered rein orchid is present in the project study area and this species has been documented within one and a half miles of the project sites along Lost Creek Trail in the Los Trancos Open Space Preserve (CDFW, 2015c). It is difficult to determine rarity as populations are generally small and rarely flower. White-flowered rein orchid flowers between March and September.

Choris' popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*). Choris' popcornflower is a CRPR 1B.2 annual herb that occurs in mesic sites in chaparral, coastal prairie, and coastal scrub communities. Suitable habitat for Choris' popcorn flower is present in the project study area and this species has been documented within half a mile of the Page Mill Road helicopter staging area near El Corte Madera Creek (historical occurrence), more recently within one mile of the project sites on Russian Ridge in Russian Ridge Open Space, and is presumed extant in the area (CDFW, 2015c). Choris' popcornflower flowers between March and June.

Arcuate bush-mallow (*Malacothamnus arcuatus*). Arcuate bush-mallow is a CRPR 1B.2 perennial evergreen shrub that occurs in gravelly alluvium soils in chaparral and cismontane woodland. Suitable habitat for arcuate bush-mallow is present in the project study area and this species has been documented within a mile of the project sites on Borel Hill of Russian Ridge. Several other occurrences are documented within the regional project study area (CDFW, 2015c). Arcuate bush-mallow flowers between April and September.

Special-Status Fish

No special-status fish species are expected to occur within the project site. Under existing conditions, Central California coastal steelhead (*Oncorhynchus mykiss*), and other common species such as Pacific lamprey (*Entosphenus tridentatus*) that hatch and spawn in freshwater creeks but live as adults in the Pacific Ocean, cannot reach Stevens Creek upstream of the Stevens Creek Dam and Reservoir. Only freshwater resident species such as resident rainbow trout (*Oncorhynchus mykiss*), California roach (*Hesperoleucus symmetricus*), three-spined stickleback (*Gasterosteus aculeatus*) that do not migrate to the ocean as part of their lifecycle would be expected to occur within the creeks of the project sites (SCVURPPP, 2015). None of these species are identified as candidate, sensitive, or special status in local or regional plans or regulations by the CDFW, USFWS, or NMFS.

Special-Status Animals

The following special-status animals were determined to have at least a moderate potential to occur within or adjacent to the project site:

- California red-legged frog
- San Francisco garter snake
- Foothill yellow-legged frog
- Special-status and Migratory Birds
- Special-status bats
- San Francisco dusky-footed woodrat

California red-legged frog (*Rana draytonii*). The California red-legged frog (CRLF) is federally listed as a threatened species throughout its range in California and is a CDFW Species of Special Concern (SSC). This frog historically occurred over much of the state from the Sierra Nevada foothills to the coast and from Mendocino County to the Mexican border. CRLF typically inhabit ponds, slow-moving creeks, and streams with deep pools that are lined with dense emergent marsh or shrubby riparian vegetation. Submerged root masses and undercut banks are important habitat features for this species. However, this species is capable of inhabiting a wide variety of perennial aquatic habitats as long as there is sufficient cover and bullfrogs or non-native predatory fish are not present. CRLF is known to survive in ephemeral streams, although only if deep pools with vegetative cover persist through the dry season. Factors that have contributed to the decline of CRLF include destruction of riparian habitat from development, agriculture, flood control practices, or the introduction of exotic predators such as American bullfrog (*Rana catesbeiana*), crayfish, and a variety of non-native fish. Between 1997 and 2010, CRLF have been documented repeatedly within Stevens Creek and tributaries near the project sites where suitable dispersal and refugia habitat is present (MROSD, 2015). The closest CRLF observation is from Stevens Creek, approximately 600 feet upstream of Site 2. Deeper ponds with marginally suitable habitat for breeding occur within the larger study area (that would not be directly affected by the proposed project) though emergent vegetation is generally sparse. The project area is located within a half mile of USFWS Critical Habitat Unit SNM-2 of this species.

San Francisco garter snake (*Thamnophis sirtalis tetrataenia*). The San Francisco garter snake (SFGS) is federally and State-listed as an endangered species and is a CDFW "fully protected" species. This snake historically occurred in wetland areas on the San Francisco Peninsula from approximately the San Francisco County line south along the eastern and western bases of the Santa Cruz Mountains at least to the Upper Crystal Springs Reservoir, and along the coast south to Año Nuevo Point, San Mateo County, and Waddell Creek, Santa Cruz County, California (Barry, 1994; USFWS, 1985). Currently, the species has been reduced to only six significant populations in San Mateo County and northern Santa Cruz County, which were described in the USFWS *San Francisco Garter Snake 5-year Review Summary and Evaluation* (USFWS, 2006). The preferred habitat for San Francisco garter snake is a densely vegetated pond that hosts their prey base of CRLF, American bullfrog, and Sierran treefrog (*Pseudacris sierra*) near an open hillside with access to sun and rodent burrows for cover. Temporary ponds and other seasonal freshwater bodies are also used. Emergent bankside vegetation such as cattails (*Typha* spp.), bulrushes (*Schoenoplectus* spp.), and spike rushes (*Juncus* spp.) are preferred and used for cover. Adult garter snakes sometimes aestivate in rodent burrows during summer months when the ponds are dry. On the coast, the snakes hibernate during the winter, but further inland, if the weather is suitable, garter snakes may be active year-round (McGinnis et al., 1987; McGinnis 1989; USFWS, 2006). Exact locations of SFGS occurrences are considered sensitive by CDFW. Documented occurrences in the regional project vicinity (Mindego Hill USGS quadrangle) as recently as 2012 presumes this species is extant within their understood range where suitable habitat is present (CDFW, 2015c). The project study area lacks dense bankside vegetation and emergent vegetation in creek runs and deeper ponds that is preferred by San Francisco garter

snake. Prey species are present in the creeks and SFGS may occur in the project study area on a transient basis though ideal habitat conditions are not found at the project sites.

Foothill yellow-legged frog (*Rana boylii*). The foothill yellow-legged frog is considered a SSC by CDFW. It is found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types. Unlike most other ranid, or "true", frogs in California, this species is rarely encountered (even on rainy nights) far from permanent water (CDFG, 2000). Foothill yellow-legged frogs hunt aquatic, terrestrial, and flying invertebrates, spiders, snails, and grasshoppers, and seek refuge in between rocks or leaf litter at the bottom of stream or creek bed when threatened (Nafis, 2015). Breeding and egg laying usually await the end of spring flooding and may commence any time from mid-March to May, depending on local water conditions (CDFG, 2000). Female frogs use the downstream side of rocks as protection for egg masses that are attached to pebbles, rocks, or submerged vegetation (Nafis, 2015). The foothill yellow-legged frog's historic range is in the Coast Ranges from the Oregon border south to the Transverse Mountains in Los Angeles County, in most of northern California west of the Cascade crest, and along the western flank of the Sierra south to Kern County. It is no longer found on the coast south of Monterey County (Nafis, 2015). The nearest foothill yellow-legged frog occurrence is located 7.8 miles southwest of the project sites in Pescadero Creek though presumed extant where suitable habitat occurs. Suitable habitat for this species occurs in both Stevens Creek and Tributary Creek while water is flowing and breeding may occur before the low or no-flow periods within the project sites.

Red-bellied newt (*Taricha rivularis*). The red-bellied newt is considered locally significant within the Stevens Creek watershed as the population represents a significant southerly range extension by approximately 81 miles from the formerly understood boundary of Sonoma County. The Stevens Creek watershed population is not genetically divergent from northern populations and it is undetermined if the population is naturally occurring or introduced. This population is considered to be of conservation significance and warrant management protection due to the overall limited geographic range of the species, lack of genetic diversity, and high levels of habitat disturbance, until more is understood about the origin of the Stevens Creek population (Reilly, et al., 2014). The red-bellied newt is a stream or river-dwelling newt of coastal woodlands that breed from late February to May in flowing water of rocky rivers and creeks (Stebbins, 2003). Eggs are laid in donut-like clusters on the underside of rocks or branches in the fast-moving sections of streams. Once eggs are laid, newts retreat from the water to the banks and upland areas (Roessler, 2015). Several successful surveys for red-bellied newt have been conducted in the Stevens Creek watershed and egg masses were found in both Stevens Creek and smaller tributaries concentrated along the Grizzly Flat Trail that connects to Canyon Trail, south of the project sites. Suitable upland and in-stream breeding habitat is present at the both Stevens Creek and Tributary Creek project work areas, staging areas, and bordering project access roads.

Special-status birds. Several special-status birds are likely to nest within the mixed woodland forest or along the fringes of the non-native grassland of the study area. Cooper's hawk (*Accipiter cooperii*) and sharp-shinned hawk (*Accipiter striatus*) are considered a "watch list" species by

CDFW that could nest and forage within the bridge project sites. White-tailed kite (*Elanus leucurus*) is also considered a "watch list" species by CDFW that could nest in edge habitat along access trails and parking areas. Grasshopper sparrow (*Ammodramus savannarum*) is considered a SSC by CDFW that could nest in annual grasslands bordering access trails and staging areas. Long-eared owl (*Asio otus*) is considered a SSC by CDFW, and has successfully nested in the Stevens Creek Canyon at the creek headwaters (CDFW, 2015c). Olive-sided flycatcher (*Contopus cooperii*) is considered a SSC and a "Bird of Conservation Concern" by the USFWS. Oak titmouse (*Baeolophus inornatus*), Nuttall's woodpecker (*Picoides nuttallii*), and Allen's hummingbird (*Selasphorus sasin*) are each considered a Bird of Conservation Concern and a Special Animal by CDFW. Suitable nesting habitat is present within the project sites and surrounding vicinity for each of these species.

Special-status bats. Western red bat (*Lasiurus blossevillii*) is considered a SSC by CDFW and hoary bat (*Lasiurus cinereus*) and Yuma myotis (*Myotis yumanensis*) are considered Special Animals by CDFW. Western red bat occurs from mid-state in California southward, roosts in dense foliage, and feeds primarily on moths. Hoary bat is the most widespread North American bat and may be found throughout the state in California where dense conifers offer roosting habitat. The medium to large trees in the creek corridors and within the project sites provide suitable roost habitat for this species that may forage over the low-flowing water or areas of annual grassland within the study area. Yuma myotis is a crevice dweller found throughout the state in California and feeds on aerial insects over water. This species could roost under tree bark or the existing bridge structure and forage within the study area. Bats and other non-game mammals are protected under the California Fish and Game Code.

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). The San Francisco dusky-footed woodrat is a CDFW SSC. Woodrats often occupy habitats with both woodland and scrub components that provide cover and food sources, such as live oak, coffeeberry (*Frangula (=Rhamnus) californica*), blackberry (*Rubus* spp.), gooseberry (*Ribes* spp.), poison oak, and honeysuckle (*Lonicera* spp.) (Linsdale, 1951). Nests or "middens" are typically over 3 feet in diameter and are constructed out of piled sticks, leaves and grasses. Middens were not observed in the study area during the reconnaissance survey but this species is fairly common in the region and suitable habitat exists in the trees, shrubs, and rock crevices within woodland community and stream corridors of the project sites.

Other Breeding and Migratory birds. The mixed woodland community and stream corridors of the project sites provide nesting and foraging habitat for a variety of resident and migratory birds in mature trees, dense shrubs or foliage. Raptor species which may nest in the project site could include red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), western screech owl (*Megascops kennicottii*), great horned owl (*Bubo virginianus*), northern pygmy owl (*Glaucidium gnoma*) and northern saw-whet owl (*Aegolius acadicus*). Passerine species which could nest in the area include but are not limited to Anna's hummingbird (*Calypte anna*), Bewick's wren, American robin (*Turdus migratorius*), American crow (*Corvus brachyrhynchos*), California towhee (*Melozone crissalis*) among many others. The federal Migratory Bird Treaty Act (MBTA)

and California Fish and Game Code protect raptors, most native migratory birds, and breeding birds that would occur at the project site and/or nest in the surrounding vicinity.

Special-Status Natural Communities

The CDFW's Natural Heritage Division identifies special-status natural communities, which are those that are naturally rare and those whose extent has been greatly diminished through changes in land use. The CNDDB tracks 135 such natural communities in the same way that it tracks occurrences of special-status species: Information is maintained on each site for the natural community's location, extent, habitat quality, level of disturbance, and current protection measures. The CDFW is mandated to seek the long-term perpetuation of the areas in which these communities occur. While there is no statewide law that requires protection of all special-status natural communities, CEQA requires consideration of the potential impacts of a project on biological resources of statewide or regional significance. Several special-status natural communities occur within the regional project vicinity; however none occur within the immediate project study area or at either project sites.

Critical Habitat

The USFWS can designate critical habitat for species that have listed as threatened or endangered. "Critical habitat" is defined in Section 3(5)(A) of the federal Endangered Species Act as those lands (or waters) within a listed species' current range that contain the physical or biological features that are considered essential to its conservation. The project is located north of critical habitat for California red-legged frog (within a half mile) and marbled murrelet (within 4.5 miles).

a) **Less than Significant with Mitigation.**

Special Status Plants

The proposed project could have a substantial adverse effect either directly or indirectly through habitat modifications, on special-status plants that are known to occur or have a moderate or high potential to occur in the project study area. Vegetation communities within or nearby the two project sites, staging areas, and access roads, contain suitable habitat that may support special-status plants including San Mateo woolly sunflower, Anderson's manzanita, Santa Clara red-ribbons, western leatherwood, minute pocket moss, arcuate bush-mallow, woodland woolythreads, Dudley's lousewort, white-flowered rein orchid, and Choris' popcornflower. Project implementation could have an adverse effect on these special-status species and supportive vegetation communities during project construction primarily through direct effects such as vegetation removal, ground disturbance, or trampling. Construction activities that could cause direct impacts on special-status plants include grading or ground disturbance to establish project staging or work areas, vegetation removal, tree trimming, tree removal, grading in support of trail relocation, removal of the existing bridge at Site 1, transportation or staging of materials and equipment between staging areas and work sites, and new bridge installation.

Implementing **Mitigation Measure BIO-1a**, **Avoidance and Minimization for Impacts to Special-Status Plants,** would reduce potential impacts on special-status plants to a

less-than-significant level by requiring pre-construction protocol-level surveys, implementing avoidance measures, and relocating extant populations.

Mitigation Measure BIO-1a: Avoidance and Minimization for Impacts to Special-Status Plants. A qualified botanist shall conduct appropriately timed surveys for special-status plant species with a moderate or high potential to occur in the study area in all suitable habitat that would be potentially disturbed by the project. Surveys shall be conducted following the current CDFW protocol (CDFG, 2009). If no special-status plants are found during focused surveys, the botanist shall document the findings of found species in a letter to CDFW, and no further mitigation will be required.

If special-status plants are found during focused surveys, the following measures shall be implemented:

1. Information regarding the special-status plant populations shall be reported to the CNDDB, mapped, and documented in a technical memorandum provided to MROSD.

2. If federally or state listed species are present, MRSOD shall comply with the federal and State Endangered Species Acts through consultation with USFWS and CDFW, respectively.

3. If any population can be avoided during project implementation, it shall be clearly marked in the field by a qualified botanist and avoided during construction activities. Before ground clearing or ground disturbance, all on-site construction personnel shall be instructed as to the species' presence and the importance of avoiding impacts to this species and its habitat though the Worker Environmental Awareness Program training (see Mitigation Measure BIO-1b).

4. If special-status plant populations cannot be avoided, MROSD shall consult with CDFW to coordinate relocation of special-status plants. To the extent feasible, special-status plants that would be impacted by the project shall be relocated within local suitable habitat. This can be done either through salvage and transplanting or by collection and propagation of seeds or other vegetative material. Any plant relocation would be done under the supervision of a qualified biologist.

5. If more than two years elapses between the focused floristic surveys and commencement of ground disturbance activities, or if project construction spans multiple years, a final set of appropriately timed focused botanical surveys shall be conducted and populations mapped. The results of these final surveys shall be combined with previous survey results to produce habitat maps showing habitat where the special-status plants have been observed during either of the focused floristic surveys conducted for the project.

Special Status Wildlife

The proposed project could have a substantial adverse effect either directly or indirectly through habitat modifications on special-status wildlife that are known to occur or have a moderate or high potential to occur in the project study area. Areas within or nearby the

two project sites, staging areas, and access roads, contain suitable habitat that may support special-status animals including California red-legged frog, San Francisco garter snake, foothill yellow-legged frog, red-bellied newt, special-status and migratory birds, special-status bats, and San Francisco dusky-footed woodrat. Project implementation could have an adverse effect on these special-status species during project construction. The effects could be direct (e.g., harassment or take of an individual) or indirect (e.g., modifying existing habitat, disrupting foraging and nesting efforts, or interfering with movement).

Construction activities that could cause direct impacts on special-status animals include grading or ground disturbance to establish project staging or work areas and relocate trail connections, vegetation removal, tree trimming or removal, removal of the existing bridge at Site 1, site restoration and re-vegetation, transportation of materials and equipment along trails to work sites, staging of materials and equipment at work sites, and installation of the new bridges.

Ground disturbing activities and installation of bridge abutments would occur during the dry season (April 15 – October 15) when stream flow at the project sites are low and potential impacts would be minimized through the implementation of the mitigation measures described below. Bridge installation may occur outside of the dry season once bridge abutments are installed. Potential indirect effects on these special-status animals would be limited to the duration of project construction as disturbed areas would be restored following construction, and the new bridges would not substantially alter existing habitat conditions or result in long-term adverse effects on special-status wildlife. Installation of the new bridge at Site 2 is likely to improve habitat conditions at this location by relocating pedestrian foot traffic from the creek bed to the bridge. Potential indirect impacts on special-status wildlife during construction would be minimized as discussed in mitigation measures presented below.

Implementation of the following mitigation measures would reduce construction impacts on special-status animal species to a less-than-significant level by avoiding and reducing habitat disturbance where feasible, excluding wildlife from entering project areas during construction, conducting surveys for listed or sensitive species prior to construction, avoiding disturbance to nesting birds and roosting bats through seasonal work limits or buffers around active nests or roosts, and requiring monitoring of construction activities by a qualified biologist. **Mitigation Measure BIO-1b, Worker Environmental Awareness Program Training** and **BIO-1c, General Mitigation Measures during Construction** provide broad protection measures for sensitive resources within and nearby the project sites and the following subsections provide more detailed information on potential project impacts on special-status wildlife and their associated habitats.

> **Mitigation Measure BIO-1b: Worker Environmental Awareness Program Training.** A project-specific Worker Environmental Awareness Program (WEAP) training shall be developed and implemented by a qualified biologist for the project and attended by all construction personnel prior to beginning work onsite. The training could consist of a recorded presentation that could be reused for new

personnel. The WEAP training shall generally include but not be limited to the following:

1. Applicable State and federal laws, environmental regulations, project permit conditions, and penalties for non-compliance;

2. Special-status plant and animal species with potential to occur at or in the vicinity of the project site (i.e. California red-legged frog, San Francisco garter snake, foothill yellow-legged frog, red-bellied newt, special-status and migratory birds, special-status bats, and San Francisco dusky-footed woodrat), their habitat, the importance of these species and their habitat, the general measures that are being implemented to conserve these species as they relate to the project, and the boundaries within which the project construction shall occur, avoidance measures, and a protocol for encountering such species including a communication chain;

3. Pre-construction surveys and biological monitoring requirements associated with each phase of work and at each project site;

4. Known sensitive resource areas in the project vicinity that are to be avoided and/or protected as well as approved project work areas; and

5. Best management practices (BMPs) and their location on the project site for erosion control and/or species exclusion.

Mitigation Measure BIO-1c: General Mitigation Measures during Construction. MROSD shall ensure that the following general measures are implemented by the contractor while working in the project site during construction to prevent and minimize impacts on special-status species and sensitive biological resources:

1. Project-related vehicles shall observe a 15 mile-per-hour speed limit on unpaved roads in the project site.

2. No firearms or pets shall be allowed in the project site.

3. The contractor shall provide closed garbage containers for the disposal of all food-related trash items. All garbage shall be collected daily from the project site and placed in a closed container from which garbage shall be removed weekly. Construction personnel shall not feed or otherwise attract fish or wildlife to the project site.

4. As necessary, erosion control measures shall be implemented to prevent any soil or other materials from entering any nearby aquatic habitat. Erosion control measures shall be installed adjacent to aquatic habitat to prevent soil from eroding or falling into the area.

5. Erosion control measures shall be implemented as described in Mitigation Measure HYD-1. Sediment control measures shall be furnished, constructed, maintained, and later removed. Plastic monofilament of any kind (including those labeled as biodegradable, photodegradable, or UV-degradable) shall not be used. Only natural burlap, coir, or jute wrapped fiber rolls shall be used.

6. If vehicle or equipment maintenance is necessary, it shall be performed in designated upland staging areas (not at either creek work site), and spill kits containing cleanup materials shall be available onsite. Maintenance activity and fueling must occur away at least 100 feet from waters of the United States.

7. No equipment used in support of project implementation (e.g. small bobcat or motorized wheelbarrow) shall enter or cross creeks while water is flowing.

8. Project personnel shall be required to report immediately any harm, injury, or mortality of a listed species (federal or State) during construction, including entrapment, to the construction foreman, qualified biologist, or MROSD staff. MROSD staff or their consultant shall provide verbal notification to the USFWS Endangered Species Office in Sacramento, California, and/or to the local CDFW warden or biologist (as applicable) within 1 working day of the incident. MROSD or their consultant shall follow up with written notification to the appropriate agencies within 5 working days of the incident. All special-status species observations shall be recorded on California Natural Diversity Data Base (CNDDB) field sheets and sent to the CDFW by the MROSD staff or their consultant.

9. The spread of invasive non-native plant species and plant pathogens shall be avoided or minimized by implementing the following measures:

    a. Construction equipment shall arrive at the project clean and free of soil, seed, and plant parts to reduce the likelihood of introducing new weed species.

    b. Any imported fill material, soil amendments, gravel, or other materials required for construction and/or restoration activities that will be placed within the upper 12 inches of the ground surface shall be free of vegetation and plant material.

    c. Certified weed-free imported erosion control materials (or rice straw in upland areas) shall be used exclusively, if possible.

    d. To reduce the movement of invasive weeds into uninfested areas, the contractor shall stockpile topsoil removed during excavation (e.g., during excavation of bridge supports) and shall subsequently reuse the stockpiled soil for re-establishment of disturbed project areas.

Amphibians and Reptiles. Suitable aquatic habitat and foraging habitat for California red-legged frog, foothill yellow-legged frog, San Francisco garter snake, and red-bellied newt occurs within the project site. No work would occur within aquatic habitat under the proposed project. However, proposed construction activities, described above, implemented in upland areas, particularly ground disturbance at the project sites, while temporary and limited in their areal extent, could have a substantial adverse effect on these species directly or through habitat modification.

Implementation of **Mitigation Measures BIO-1b**, **BIO-1c**, and **Mitigation Measure BIO-1d, Avoidance, Minimization, Protection Measures and Habitat Restoration for**

Sensitive Amphibians and Reptiles, would avoid take of listed species and minimize impacts on each of these sensitive species to a less-than-significant level through a mandatory training of construction crews to identify sensitive environmental resources in the project vicinity (e.g., special-status wildlife with potential to occur onsite and adjacent sensitive habitat areas and vegetation communities), along with implementation of specific protection and avoidance measures such as erecting exclusionary fencing around work areas, conducting pre-construction surveys and biological monitoring during construction, and requiring additional protection measures during project implementation.

Mitigation Measure BIO-1d: Avoidance, Minimization, Protection Measures and Habitat Restoration for Sensitive Amphibians and Reptiles. The following conservation measures shall be implemented to minimize or eliminate potential adverse impacts on California red-legged frog, San Francisco garter snake, foothill yellow-legged frog, and red-bellied newt during project-related activities:

1. MROSD staff or their consultant shall submit the name and credentials of biologists qualified to act as the biological monitor to CDFW for approval at least 15 days before construction work begins. General minimum qualifications are a 4-year degree in biological sciences or other appropriate training and/or experience in surveying, identifying, and handling California red-legged frogs (CRLF), San Francisco garter snake (SFGS), and foothill yellow-legged frog (FYLF).

   A "take" permit from USFWS will not be pursued for the project, therefore CRLF and SFGS would not be relocated if encountered in project areas but allowed to disperse of their own volition while all work is halted within 50 feet of individuals. If a CRLF is not dispersing on its own volition, the on-site biologist shall monitor the frog while work continues, as long as the on-site biologist can ensure the safety of the frog. A take permit is not required for foothill yellow-legged frog as the species is not federally-listed threatened or endangered; however, CDFW may condition qualified biologists to relocate FYLF under the project's 1602 lake and streambed alteration agreement.

2. A CDFW-approved biologist shall survey the work sites 2 weeks before the onset of construction for CRLF, SFGS, FYLF, and red-bellied newt to determine presence (and life stage) of these species within the project sites. Additionally, a CDFW-approved biologist shall conduct a pre-construction survey of the project work areas for CRLF, SFGS, FYLF, and red-bellied newt immediately prior to the start of construction activities. The surveys will consist of walking the project limits and within the project sites to ascertain presence of these species.

   If CRLF or SFGS are found, individuals shall not be disturbed but allowed to disperse on their own volition. Should CRLF egg masses, metamorphs, or tadpoles be found, a 100-foot no-disturbance buffer shall be established around the location(s) until juveniles disperse from the breeding sites. If a CRLF is not dispersing on its own volition, the on-site biologist shall monitor the frog while work continues, as long as the on-site biologist can ensure the safety of the frog. The CDFW-approved biologist shall immediately inform the construction manager that work should be halted or modified (in the case

of a buffer or non-dispersing individual), if necessary, to avert avoidable take of listed species.

If adult FYLF or red-bellied newts are found during surveys, they will be relocated outside of the work area by a CDFW-approved biologist. Should egg masses, metamorphs, or tadpoles of these species be found, a 100-foot no-disturbance buffer shall be established around the location(s) until juveniles disperse from the breeding site, as determined by a qualified biologist, or in coordination with CDFW.

The specific methods for handling amphibians and decontamination shall follow USFWS (2005) and USGS (2015) protocols, respectively. These protocols describe field equipment maintenance, disinfection, and field hygiene procedures designed to minimize potential spread of pathogens when handling amphibians.

3. Project work areas will be monitored by a CDFW-approved biologist (qualified biological monitor) during fence installation and ground disturbing activities to identify, capture, and relocate non-listed sensitive amphibians (FYLF and red-bellied newt) if found, and halt or observe work in the vicinity of CRLF and SFGS if encountered onsite. The biologist shall have the authority to stop construction activities and develop alternative work practices, in consultation with construction personnel and resource agencies (as appropriate), if construction activities are likely to affect special-status species or other sensitive biological resources.

4. To the extent feasible, MROSD and its contractors shall initiate work within Stevens Creek and Tributary Creek banks between May 1 and November 1 (i.e., generally identified as the nonbreeding season). Installation of the bridge components that would not disturb the creek channels or banks (i.e. placement of the wooden platform and railings) is not restricted to this time period.

5. MROSD or its contractors shall install temporary exclusion fencing around key project boundaries, including all project staging areas, bridge installation work areas, and the trail realignment work areas at the Tributary Creek and Stevens Creek work sites.

    - Fencing shall be installed immediately prior to the start of construction activities under the supervision of a qualified biologist.

    - The MROSD shall ensure that the temporary exclusion fencing is continuously maintained until all construction activities are completed.

    - MROSD shall ensure daily visual inspections of the fence for any amphibians or reptiles that may get stuck by the fence, including weekends. These daily checks shall be conducted by the qualified biological monitor for the first week of construction. If no species are observed, the qualified biological monitor may train the contractor to conduct daily inspections and call the biologist if any species are encountered.

    - The fence shall be CDFW-approved species exclusion fencing, with a minimum height of 3 feet above ground surface, with an additional 4 to

6 inches of fence material buried such that species cannot crawl under the fence, and shall include escape funnels to allow species to exit the work areas.

- The exclusion fence shall not cross Stevens Creek or Tributary Creek to allow wildlife movement to continue through the creek corridors when work is not occurring.

6. All excavations of a depth of 8 inches or greater shall be covered at the end of each workday, or escape ramps shall be installed at a 3:1 grade to allow wildlife that fall in a means to escape.

7. Vehicles or equipment parked overnight at the project staging areas or creek sites shall be inspected for harboring species each morning by the qualified biological monitor before vehicles or equipment are moved.

8. Project areas disturbed by vegetation removal, grading of temporary staging areas, excavation to accommodate bridge removal at Site 1 or bridge installation, and abandoned trail alignments shall be restored and monitored for success according to methods described in **Mitigation Measure BIO-2**, below.

Special-Status and Migratory Birds. Construction activities associated with bridge removal and replacement at Site 1 and the installation of a new bridge at Site 2, including ground disturbance, tree trimming and removal, ground vegetation removal, and a general increase in noise and visual disturbance in undeveloped open space may adversely affect nesting birds species within ¼ mile of the individual project sites during the nesting season (February 1 – August 30). Suitable foraging and nesting habitat is present in the project vicinity for long-eared owl (California SSC), Cooper's hawk and sharp-shinned hawk (California watch list species), grasshopper sparrow (California SSC), Olive-sided flycatcher (California SSC), and several species designated a Birds of Conservation Concern by USFWS or a Special Animal by CDFW. Other migratory and resident raptor and passerine species forage and/or nest in the mature canyon oak, big leaf maple, and bay laurel riparian forest and understory within and surrounding the project sites.

Removal of vegetation and trimming or removal of trees at the project sites to accommodate the new bridge installation could destroy active bird nests. In addition, adverse effects, such as an increase in noise and visual disturbance associated with construction, could disrupt nesting efforts in the habitat surrounding the project sites. The loss of an active nest would be considered a significant impact under CEQA, if that nest were occupied by a special-status bird species. Moreover, disruption of nesting migratory or native birds is not permitted under the federal MBTA or the California Fish and Game Code, as it could constitute unauthorized take. Thus, the loss of any active nest by, for example, trimming a tree or removing a shrub containing a nest, must be avoided under federal and California law. Although compliance with existing State and federal regulations would prevent impacts on nesting birds, implementation of **Mitigation Measures BIO-1b** and **BIO-1c** (described above) and **Mitigation Measure BIO-1e, Nesting Bird Protection Measures** would further ensure that the project would not have

a significant impact on nesting birds by limiting removal of vegetation to periods outside of the bird nesting season, to the extent feasible, and establishing no work buffer zones around active nests on or near the project site.

Mitigation Measure BIO-1e: Nesting Bird Protection Measures. Nesting birds and their nests shall be protected during construction by use of the following measures:

1. Vegetation removal, tree trimming, and removal shall occur outside the bird nesting season (nesting season is defined as February 1 to August 30), to the extent feasible.

2. If vegetation removal, tree trimming, and removal during bird nesting season cannot be fully avoided, a qualified wildlife biologist shall conduct pre-construction nesting surveys within 7 days prior to the start of such activities or after any construction breaks of 14 days or more. Surveys shall be performed for the individual project sites, vehicle and equipment staging areas, and suitable habitat within 250 feet in order to locate any active passerine (perching bird) nests and within 500 feet of these individual sites to locate any active raptor (birds of prey) nests.

3. If active nests are located during the pre-construction nesting bird surveys, the wildlife biologist shall evaluate if the schedule of construction activities could affect the active nests and the following measures shall be implemented based on their determination:

    a. If construction is not likely to affect the active nest, it may proceed without restriction; however, a biologist shall regularly monitor the nest to confirm there is no adverse effect and may revise their determination at any time during the nesting season. In this case, the following measure would apply:

        i. If construction may affect the active nest, the biologist shall establish a no disturbance buffer. Typically, these buffer distances are between 25 feet and 250 feet for passerines and between 300 feet and 500 feet for raptors. These distances may be adjusted depending on the level of surrounding ambient activity (i.e., if the project site is adjacent to a road or active trail) and if an obstruction, such as a large rock formation, is within line-of-sight between the nest and construction. For bird species that are federally and/or State-listed sensitive species (i.e., fully protected, endangered, threatened, species of special concern), an MROSD representative, supported by the wildlife biologist, shall consult with r CDFW regarding modifying nest buffers, prohibiting construction within the buffer, modifying construction, and removing or relocating active nests that are found on the site.

4. Any birds that begin nesting within the project site and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should birds nesting nearby begin to show disturbance associated with construction

activities, no-disturbance buffers shall be established as determined by the qualified wildlife biologist.

Special-Status Bats. Project activities including tree trimming, tree removal, and bridge removal at Site 1, tree trimming or removal at Site 2, or site restoration could result in disturbance to special-status bats roosting nearby. Western red bat (SSC), hoary bat and yuma myotis (both California Special Animals) could roost in rock crevices or outcrops within the creek channels, or in mature trees within and surrounding the project sites. Maternity roosts are those that are occupied by pregnant females or females with non-flying young. Non-breeding roosts are day roosts without pregnant females or non-flying young. Destruction of an occupied, non-breeding bat roost, resulting in the death of bats; disturbance that causes the loss of a maternity colony of bats (resulting in the death of young); or destruction of hibernacula[2] are prohibited under the California Fish and Game Code and would be considered a significant impact (although hibernacula are generally not formed by bat species in the Bay Area due to sufficiently high temperatures year round). This may occur due to direct or indirect disturbances. Direct disturbance could include removal of the existing bridge, tree trimming or removal, site restoration or roost destruction by any other means. Indirect disturbance to bat species could result in behavioral alterations due to construction-associated noise or vibration, or increased human activity in area.

Direct mortality of an individual or disturbance to maternity colonies of special-status bats would be a significant impact. Implementing **Mitigation Measures BIO-1b** and **BIO-1c** (described above) and **Mitigation Measure BIO-1f, Avoidance and Minimization Measures for Special-Status Bats** would reduce potential impacts on special-status bats to a less-than-significant level by increasing worker education regarding the potential presence and sensitivities of these species, requiring pre-construction surveys, and implementing avoidance measures if potential roosting habitat or active roosts are located.

Mitigation Measure BIO-1f: Avoidance and Minimization Measures for Special-Status Bats. In coordination with the MROSD, a pre-construction survey for special-status bats shall be conducted by a qualified wildlife biologist in advance of tree trimming or removal at both Site 1 and Site 2 and prior to disturbance to the existing bridge at Site 1, to characterize potential bat habitat and identify active roost sites. Should potential roosting habitat or active bat roosts be found in trees, existing structures, and/or rock crevices or outcrops to be disturbed under the project, the following measures shall be implemented:

1. Trimming or removal of trees, disturbance to existing structures and rock crevices or outcrops shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15; outside of bat maternity roosting season (approximately April 15 to August 15) and outside of months of winter torpor (approximately October 15 to February 28), to the extent feasible.

[2] Hibernaculum refers to the winter quarters of a hibernating animal.

2. If trimming or removal of trees, disturbance to existing structures and rock crevices or outcrops during the periods when bats are active is not feasible and bat roosts being used for maternity or hibernation purposes are found on or in the immediate vicinity of the project site where these activities are planned, a no-disturbance buffer of 100 feet shall be established around these roost sites until they are determined inactive by a qualified wildlife biologist. A 100-foot no disturbance buffer is a typical protective buffer distance however may be modified by the qualified wildlife biologist depending on existing screening around the roost site (such as dense vegetation or a large rock formation) as well as the type of construction activity which would occur around the roost site.

   For bat species that are considered State sensitive species (i.e. any of the species of special concern with potential to occur on the project site), an MROSD representative, supported by the qualified wildlife biologist, shall consult with CDFW regarding modifying roosts buffers, prohibiting construction within the buffer, and modifying construction around maternity and hibernation roosts.

3. The qualified wildlife biologist shall be present during tree trimming and disturbance to rock crevices or outcrops if bat roosting habitat or active non-maternity or hibernation bat roosts are present (e.g. daytime bachelor roosts). Trees, existing structures, and rock crevices with roosts shall be disturbed only when no rain is occurring or is forecast to occur for 3 days and when daytime temperatures are at least 50 degrees Fahrenheit (°F).

4. Trimming or removal of trees, containing or suspected to contain non-maternity or hibernation bat roost sites shall be done under supervision of the qualified biologist and follow a two-step removal process.

   a. On the first day of tree trimming or removal and under supervision of the qualified wildlife biologist, branches and limbs not containing cavities or fissures in which bats could roost, shall be cut only using chainsaws.

   b. On the following day and under the supervision of the qualified wildlife biologist, the remainder of the tree or structure may be removed, either using chainsaws or other equipment (e.g. excavator or backhoe).

5. Existing structures, rock crevices or outcrops containing or suspected to contain non-maternity or hibernation bat roosts within the project site shall be disturbed or dismantled under the supervision of the qualified wildlife biologist in the evening and after bats have emerged from the roost to forage. These areas shall be modified to significantly change the roost conditions, causing bats to abandon and not return to the roost.

San Francisco Dusky-Footed Woodrat. San Francisco dusky-footed woodrat (a California SSC) has the potential to occur in woodland habitat within and in the vicinity of the project sites. Proposed construction activities, such as tree trimming or removal, vegetation removal, preparation of staging areas and transportation or staging of materials and equipment, could have a substantial adverse effect on this species should active

middens (nests) be present in areas where project activities are planned. Implementing **Mitigation Measures BIO-1b** and **BIO-1c** (described above) and **Mitigation Measure BIO-1g, Avoidance and Minimization Measures for San Francisco Dusky-Footed Woodrat** would reduce potential impacts on this species to a less-than-significant level by increasing worker education regarding the potential presence and sensitivity of these species, conducting pre-construction surveys and biological monitoring during construction, and requiring additional protection measures during project implementation.

> **Mitigation Measure BIO-1g: Avoidance and Minimization Measures for San Francisco Dusky-Footed Woodrat.** In coordination with the MROSD, a pre-construction survey for San Francisco dusky-footed woodrat middens shall be conducted by a qualified wildlife biologist prior to the start of construction in suitable habitat within and surrounding the project sites, staging areas, and access roads. Active middens identified during surveys within the project sites, staging areas, or along access roads shall be flagged as a sensitive resource and avoided during construction, if feasible.
>
> Should avoidance of active woodrat middens within the project site not be feasible, an MROSD representative, supported by the wildlife biologist, shall consult with CDFW regarding dismantling the middens by hand for relocation outside of the project areas, and shall dismantle the middens under the supervision of a qualified wildlife biologist. If young are encountered during dismantling of the nest, material shall be replaced and a 50-foot no-disturbance buffer shall be established around the active midden. The buffer shall remain in place until young have matured enough to disperse on their own accord and the midden is no longer active. Nesting substrate shall then be collected and relocated to suitable woodland habitat outside of the project area of disturbance. Appropriate safety gear (e.g., respirator, gloves, and tyvek suit) shall be used by the qualified wildlife biologist while relocating woodrat nests.

b) **Less than Significant with Mitigation.** The mixed woodland surrounding Tributary Creek at Site 1 and Stevens Creek at Site 2 is considered riparian habitat in that it occurs along stream corridors, but it does not support traditional riparian corridor vegetation such as dense, willow thickets that drastically contrast with surrounding upland communities. The tree canopy at each site along the creek channels is dense and contiguous with the surrounding upland areas. Ground vegetation is relatively sparse at Site 1 and Site 2 and not much variation occurs between annual herb and perennial fern species growing on the creek banks and adjacent uplands, with the exception of few additional shrub species.

As described in the *Project Description*, seven trees consisting of native California bay (*Umbellularia* californica) and tan oak (*Notholithocarpus densiflorus*) trees would be removed to accommodate bridge installation at Site 2. One native Pacific madrone (*Arbutus menziesii*) would be removed at Site 1 to accommodate bridge installation at Site 1. With the exception of one California bay tree that is six inches in diameter at breast height (DBH) at Site 2, and the Pacific madrone that is 15 inches dbh at Site 1, all

other trees to be removed are immature saplings less than six inches DBH. Removal of other additional trees at Site 1 and Site 2 may be necessary to accommodate these same activities; however, no additional trees greater than six inches DBH are expected to be removed from either site. Ground vegetation at Site 1 and Site 2 work areas along the creek channels, staging areas, and trail realignment footprints would also be either removed or disturbed in support of the proposed project. While the removal of few immature trees and disturbance to ground vegetation at Site 1 and Site 2 would be relatively minimal and within a limited footprint, disturbance to any amount of riparian habitat without restoration would be considered a substantial adverse effect and therefore potentially significant. Implementation of **Mitigation Measure BIO-2: Restoration of Riparian Habitat** would reduce project-effects in riparian habitat to a less-than-significant level.

Mitigation Measure BIO-2: Restoration of Riparian Habitat

1. MROSD or its contractor shall restore riparian habitat disturbed during project construction at Site 1 along Tributary Creek and Site 2 along Stevens Creek, at adjacent access areas along the creek corridors, and the trail realignment footprints to pre-project conditions following project completion, as described below.

2. During special-status plant surveys described in BIO-1a, botanists shall document baseline conditions of areas to be disturbed under the Project such as species composition and percent cover. This information shall be used to determine success of 1) restored areas following construction completion, and 2) areas left to revegetate through self-recruitment.

3. All areas of grassland disturbed during vegetation removal and ground disturbance shall be seeded with a regionally-appropriate native grass seed mix following construction. Restored areas shall be monitored at least once a year for at least 3 years or longer, as determined in consultation with CDFW and/or as needed, to verify whether the vegetation is fully established and self-sustaining. By Year 3, percent cover and vegetation composition shall meet baseline cover and composition conditions determined through baseline surveys.

4. Herbaceous ground vegetation at bridge assembly areas at Site 1 and Site 2 shall not be removed but covered with a tight weave coir mat prior to use in order to preserve topsoil and any dormant seeds within the soil of temporary use areas. Once construction is complete, the coir mat shall be removed and the areas shall be allowed to revegetate through natural recruitment. Monitoring of these disturbed areas will occur annually for 3 years or as specified in consultation with CDFW and/or RWQCB. If in Year 1, groundcover is not progressing towards baseline conditions (at least 30% of baseline conditions) MROSD shall apply a native seed mix and/or plantings to these areas.

5. Decommissioned trail segments shall be covered in slash or logs to discourage use and act as natural erosion control.

6. Native trees (e.g. Bay laurel, tan oak, and madrone) and non-native trees measuring six inches in diameter or more that are removed from riparian habitat in support of the project shall be replaced onsite or in the immediate vicinity of the disturbed areas at a 1:1 ratio with native species that occur within the surrounding mixed woodland. Tree replacement ratios consider the relatively dense canopy of the mixed woodland at each location and overall area of disturbance available for new trees to be planted and succeed.

7. Trees planted in riparian areas shall be monitored for at least three years concurrently with restored undergrowth. The site shall achieve at least 80% tree survival by Year 3.

c) **Less than Significant with Mitigation.** The project site supports the intermittent aquatic community associated with Tributary Creek and Stevens Creek, which is federally protected by the Corps as waters of the United States, subject to regulation under the Clean Water Act (CWA) Section 404, and State-protected by the Regional Water Quality Control Board (RWQCB) as waters of the State, subject to regulation under the CWA Section 401 and the Porter-Cologne Act. A preliminary delineation of waters of the U.S. revealed a total of 0.071 acre (170 linear feet) of potentially jurisdictional stream "other waters of the U.S." occur within the project study area. Site 1, Tributary Creek study area, contains 0.0074 acre (60 linier feet) and Site 2, Stevens Creek study area, contains 0.064 acre (110 linear feet) of "other waters". For the purpose of this analysis, we assume that the extent of waters of the State is equal to the extent of waters of the U.S. However, the extent of waters of the U.S. and waters of the State are determined by the Corps and RWQCB, respectively, and waters of the State may be determined to exceed beyond the Corps jurisdictional boundary.

The new bridges, staging areas, and temporary construction materials (e.g., concrete forms, equipment, and bridge materials in staging areas) would be placed above areas defined as waters of the U.S./waters of the State as regulated under CWA Section 404 and 401 to avoid temporary and/or permanent fill within waters of the U.S. and/or waters of the State. As the project is designed and would be implemented to avoid temporary or permanent impacts to waters of the U.S./waters of the State, a CWA Section 404/401 authorization will not be pursued for the project. Depending on the extent of waters of the State as determined by RWQCB, Waste Discharge Requirements may be required from the RWQCB should the jurisdictional boundary be determined to extend beyond waters of the U.S and into the project work area. In this case temporary construction impacts to waters of the State could occur under the project. A Fish and Game Code Section 1602 lake and streambed authorization agreement (SAA) would also be required by CDFW for construction activities at both Sites 1 and 2.

Ground disturbing activities would occur during the dry season, between April 15 and October 15, when creek water levels are low. As both Tributary Creek and Stevens Creek within the project sites are intermittent, project reaches may be completely dry during project construction under current drought conditions; however, creek flow could be present during construction. Potential temporary impacts on water quality during

construction could result from the release of hazardous construction-related materials (e.g., gasoline, oils, grease, lubricants, or other petroleum-based products) into Tributary Creek or Stevens Creek. As discussed in the *Hazardous Materials* and *Hydrology and Water Quality* sections and **Mitigation Measures HAZ-1 and HYD-1,** construction contractors would implement BMPs to minimize contamination from petroleum products and reduce erosion to reduce the project's potential impact on aquatic communities. Additionally, implementation of **Mitigation Measures BIO-1b**, **BIO-1c**, and **BIO-1d** would reduce impacts to a less-than-significant level through worker environmental awareness training, the presence of an onsite biological monitor during construction, installation of exclusion fencing, and implementation of general construction measures.

If the RWQCB determines that the extent of waters of the State extends beyond the limits of waters of the U.S. and into the project work area, the project may result in temporary construction impacts to waters of the State, which would be a potentially significant impact. Implementation of **Mitigation Measure BIO-3, Minimization of Disturbance to Waters of the State**, would reduce impacts to less-than-significant by minimizing the disturbance area and restoring temporary use areas to pre-project conditions.

> **Mitigation Measure BIO-3: Minimization of Disturbance to Waters of the State.** MROSD and its contractors shall minimize impacts on waters of the state by implementing the following measures:
>
> 1. Access roads, work areas, staging areas and infrastructure shall be sited to avoid and minimize direct and indirect impacts to jurisdictional waters.
> 2. Avoid construction activities in saturated or ponded streams (typically during the spring and winter).
> 3. Stabilize exposed slopes and streambanks immediately upon completion of construction activities (e.g., removal of the existing bridge at Site 1 and following new bridge installation).
> 4. During construction, implement measures to catch trimmed tree limbs, shrubs, debris, soils, and other construction materials created by or used in vegetation removal before such materials can enter the waterway. Such materials shall be placed in project staging areas until the materials can be properly disposed of.
> 5. Restoration to pre-project conditions (typically including contours, topsoil, and vegetation) shall be conducted, as described in Mitigation Measure BIO-2 and as required by regulatory permits (e.g., those issued by the RWQCB and CDFW).

d) **Less than Significant with Mitigation.** The proposed project is designed to avoid direct impacts to waters of the U.S. and associated aquatic habitat within the Stevens Creek and Tributary Creek channels that could support California red-legged frog, San Francisco garter snake, foothill yellow-legged frog, and red-bellied newt. Project work is restricted to the upland banks of the creek corridors allowing these species, and other native migratory fish and wildlife, to move within the creek channels of the project work areas

unimpeded. While temporary impacts to these species movement through upland areas could result from construction associated with removal of the existing bridge at Site 1 and installation of the new bridges at Site 1 and Site 2 and general use of the work areas during project construction, implementing **Mitigation Measures BIO-1b** through **BIO-1d,** described above, would minimize adverse impacts to wildlife movement throughout the duration of the project to a less-than-significant level. Following construction, all areas of temporary disturbance would be restored to pre-project conditions.

e) **Less than Significant.** The proposed project would remove seven native (California bay and tan oak) trees from Site 2; one California bay tree with a diameter at breast height (DBH) of six inches and at least six other trees with a (DBH) of less than six inches to accommodate use of staging areas, bridge installation, and trail realignment. At Site 1, one Pacific madrone with a dbh of 15 inches would be removed. Removal of other additional trees at Site 1 and Site 2 (not exceeding six inches DBH) is not planned but may be necessary to accommodate project activities. The City of Palo Alto Municipal Code with partial jurisdiction over the project area designates "Protected Trees" as any coast live oak or valley oak of 11.5 inches DBH, any redwood tree of 16 inches DBH, and any "Heritage Trees" designated by the City Council. The Santa Clara County General Plan includes policies and goals related to protecting biological resources. In addition, the Santa Clara County Tree Preservation and Removal Ordinance (County Code, Sections C16.1 to C16.17) serves to protect trees measuring 12 inches diameter at breast height within parcels zoned "Hillsides" (three acres or less); parcels within a "-d" (Design Review) combining zoning district; and parcels within the Los Gatos Hillside Specific Plan Area. The project sites are not within any of these parcels. The project would not remove any trees qualifying as protected trees or designated as heritage trees under either the City of Palo Alto Municipal Code or the Santa Clara County Tree Preservation and Removal Ordinance and therefore the project does not conflict with applicable tree protection policies and the impact is considered less than significant and no mitigation is required.

f) **No Impact.** The proposed project is not located within the Santa Clara Valley Habitat Plan (which is an adopted Habitat Conservation Plan and Natural Community Conservation Plan) and is not subject to other approved local, regional, or state habitat conservation plans; therefore no impact would occur.

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Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
5. CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion

a) **No Impact.** The proposed project would result in a significant impact if the project activities cause a substantial adverse change to a historical resource, herein referring to historic-era architectural resources of the built environment, including buildings, structures, and objects. A substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource.

ESA completed a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System at Sonoma State University on March 5, 2015 (File No. 14-1164); including a review of previous surveys, studies, and records for the project site and a half-mile radius. ESA also reviewed records in the Historic Property Data File for Santa Clara County, which contains information on sites of recognized historical significance including those evaluated for listing in the National Register of Historic Places, the California Register of Historical Resources, the California Inventory of Historical Resources, California Historical Landmarks, and California Points of Historical Interest.

Records at the NWIC and the Historic Property Data File for Santa Clara County indicate that no historic-era architectural resources have been previously recorded in the records search radius. In addition, ESA staff conducted a site visit on March 18, 2015 and no historic-era architectural resources that could be considered historical resources were observed at the project site (Koenig, 2015). As there are no historical resources at the project site, the proposed project would have no impact on historical resources.

b) **Less than Significant with Mitigation.** A significant impact would occur if the proposed project would cause a substantial adverse change to an archaeological resource, including those that qualify as historical resources, through physical demolition, destruction, relocation, or alteration of the resource.

Based on a compilation of ethnographic, historic, and archaeological data, Milliken (1995) describes a group known as the Ohlone, who once occupied the general vicinity of

the project. Levy (1978) describes the language group spoken by the Ohlone, known as "Costanoan." This term is originally derived from a Spanish word designating the coastal peoples of Central California. Today, Costanoan is used as a linguistic term that references to a larger language family spoken by distinct sociopolitical groups that spoke at least eight languages (as different as Spanish is from French) of the same Penutian language group. The Ohlone once occupied a large territory from San Francisco Bay in the north to the Big Sur and Salinas Rivers in the south. The Santa Cruz Mountains were home to the group known as the *Olpen* – the only tribe on the San Francisco Peninsula that did not occupy coastal or bayshore lands. *Olpen* territory appears to have been in the interior hill and valley lands of La Honda Creek on the coast side, as well as the Corte de la Madera Creek portion of the upper San Francisquito Creek watershed (Milliken et al., 2009). After European contact, Ohlone society was severely disrupted by missionization, disease, and displacement. Today, the Ohlone still have a strong presence in the San Francisco Bay Area, and are highly interested in their historic and prehistoric past.

Results of the background research indicate that two previous cultural resources studies have been completed within a ½-mile radius of the projects. No previously recorded cultural resources are in the vicinity of the bridge construction areas or access routes. One area of lithic debitage was previously identified by a District planner in the general vicinity; this area will be avoided during construction activities and no staging areas will occur at the location.

During a survey of the bridge construction areas and access routes on March 18, 2015 (Koenig, 2015), no archaeological resources were identified. No evidence suggesting the presence of archaeological resources or other evidence of past human use and occupation was observed along the trails or adjacent slopes.

Based on the analysis, the proposed project would have a low potential to affect archaeological resources; however the discovery of archaeological resources cannot be entirely discounted. In the unlikely event that archaeological resources are uncovered during project implementation, any damage to the resources could be a significant impact. Implementation of **Mitigation Measure CUL-1** would reduce the impact to a less-than-significant level.

Mitigation Measure CUL-1: MROSD shall implement the following measure:

> ***Inadvertent Discovery of Archaeological Resources.*** If prehistoric or historic-period archaeological resources are encountered, all construction activities within 100 feet shall halt and MROSD shall be notified. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include deposits of metal,

glass, and/or ceramic refuse. A Secretary of the Interior-qualified archaeologist shall inspect the findings within 24 hours of discovery. If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan in consultation with MROSD and, for prehistoric resources, the appropriate Native American representative. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.

c) **Less than Significant with Mitigation.** A potentially significant impact would occur if the proposed project would destroy a unique paleontological resource or site, or a unique geologic feature. Paleontological resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide and the enormous number of organisms that have lived through time, preservation of plant or animal remains as fossils is an extremely rare occurrence. Therefore, fossils—particularly vertebrate fossils—are considered to be nonrenewable resources. Because of their rarity and the scientific information they can provide, fossils provide a significant record of ancient life.

Rock formations that are considered of paleontological sensitivity are those rock units that have yielded significant vertebrate or invertebrate fossil remains. This includes, but is not limited to, sedimentary rock units that contain significant paleontological resources anywhere within its geographic extent. The project sites are underlain by Franciscan Complex from the Late Jurassic through Cretaceous era. According to the Society of Vertebrate Paleontology (SVP) standard assessment, this geologic unit has a high potential to contain significant paleontological resources. According to the University of California Museum of Paleontology (UCMP) online database, however, there have been no significant paleontological discoveries within this geologic formation in Santa Clara County (UCMP, 2015).

Ground disturbance associated with the proposed project would include grading and excavation into paleontologically sensitive geologic formations. While damage or

destruction of unique paleontological resources for the project is unlikely, the possibility cannot be entirely dismissed. Thus, the potential impact to paleontological resources is considered potentially significant. Implementation of **Mitigation Measure CUL-2** would reduce the impact to a less-than-significant level.

Mitigation Measure CUL-2: MROSD shall implement the following measure:

***Inadvertent Discovery of Paleontological Resources*.** If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, all ground disturbing activities within 100 feet of the find shall be halted until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate salvage measures in conformance with Society of Vertebrate Paleontology Guidelines (SVP, 1996; SVP, 2010).

d) **Less than Significant with Mitigation.** A potentially significant impact would occur if the proposed project would disturb human remains, including those interred outside of formal cemeteries. There is no indication that the project site has been used for human burial purposes in the recent or distant past. It is unlikely that human remains would be encountered at the project site; yet in the event of the discovery of any human remains during project implementation, any impact to the remains would result in a significant impact. Implementation of **Mitigation Measure CUL-3** would reduce the impact to a less-than-significant level.

Mitigation Measure CUL-3: MROSD shall implement the following measure:

***Inadvertent Discovery of Human Remains*.** In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find shall cease until the Santa Clara County Coroner has been contacted to determine that no investigation of the cause of death is required. The NAHC will be contacted within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to MROSD for the appropriate means of treating the human remains and any grave goods.

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Geology, Soils, and Seismicity

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

Discussion

a.i) **Less than Significant with Mitigation.** The San Francisco Bay Area generally experiences a high level of seismic activity due to its tectonic setting. Surface rupture occurs when the ground surface is broken due to fault movement during earthquakes. Such hazards are generally assumed to occur in the vicinity of an active fault trace. Active fault lines in Santa Clara County include the San Andreas fault and the various faults that branch from it.

The State Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) prohibits the development of structures for human occupancy across active fault traces. Under the Alquist-Priolo Act, the California Geological Survey (CGS, formerly the California Division of Mines and Geology) has established zones on either side of the active fault that

delimits areas susceptible to surface fault rupture.[3] These zones are referred to as fault rupture hazard zones and are shown on official maps published by the CGS (**Figure GEO-1**). Site #1 falls within the rupture hazard zone of the San Andreas Fault, and is located less than 500 ft from an active fault trace known as the Pilarcitos fault (CGS, 1974). Site #2 is located approximately a quarter-mile from this same trace, but outside the designated Alquist-Priolo fault zone. Therefore, the possibility of surface fault rupture is high near Site #1, but low near Site #2.

These seismically vulnerable conditions are typical for the open spaces that traverse the spine of the San Francisco Peninsula, particularly those such as Monte Bello OSP which fall primarily within the San Andreas Rift Zone. The project sites are located in a remote area that only experiences recreational use; the projects do not include construction of habitable spaces. Human "occupancy" such as camping is not allowed at or near either bridge site, and people would generally be on the bridges for short periods of time, so the likelihood of exposure to potential adverse effects such as injury or death from fault rupture is low.

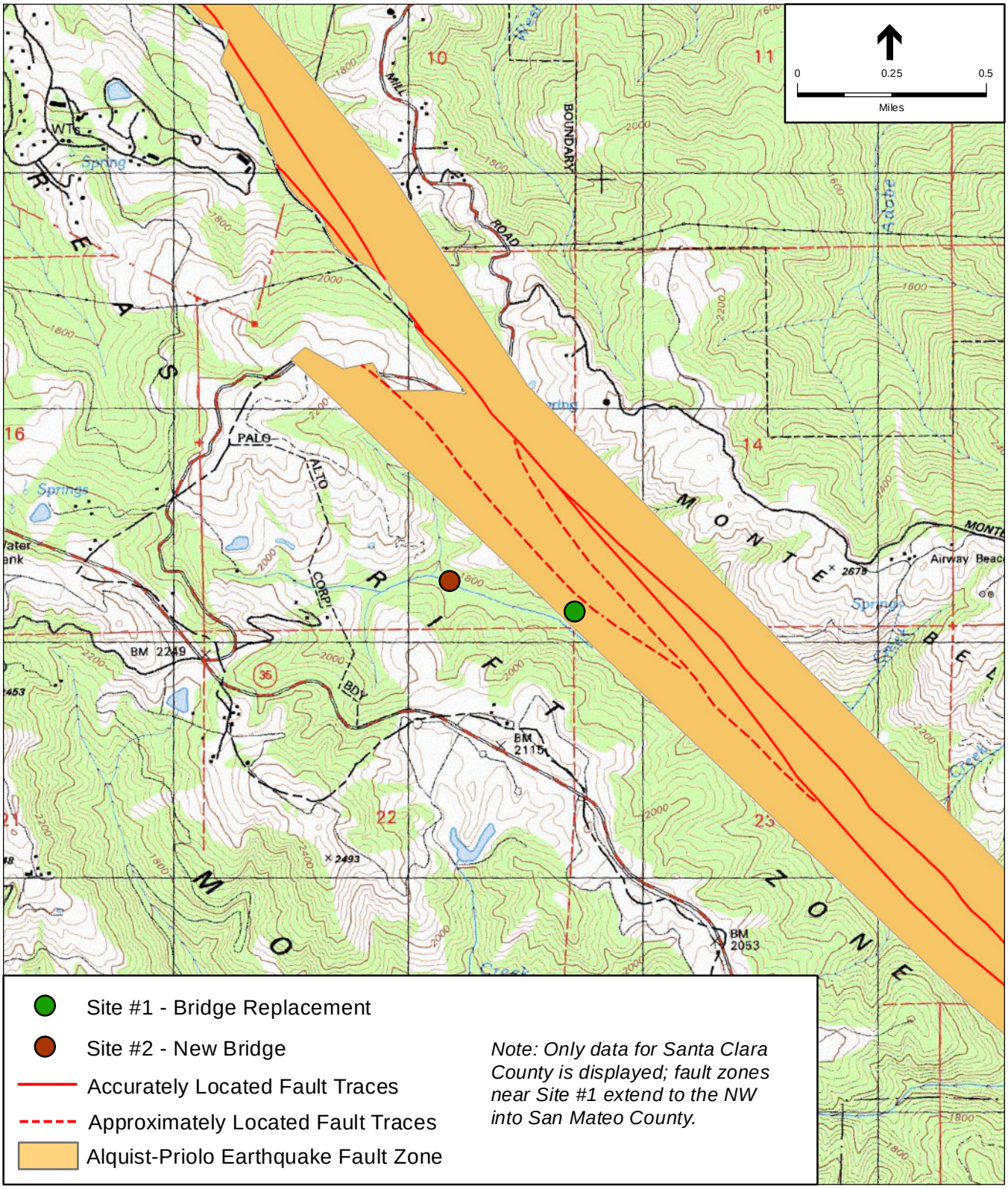
As applicable, the new bridges would comply with the seismic design requirements set forth in the California Code of Regulations (CCR) Title 24, the California Building Code (CBC). Compliance with the CBC would insure that the structures would resist collapse from ground shaking expected in the project area during a major earthquake. In addition to compliance with the required seismic standards, incorporation of **Mitigation Measure GEO-1** would further minimize the impact from fault rupture to less than significant.

Mitigation Measure GEO-1: MROSD will implement the following measure:

- MROSD shall develop project design specifications consistent with and/or incorporating the site preparation and grading, seismic design, foundation design, and bridge design recommendations presented in the project-specific engineering geology investigation.

a.ii) **Less than Significant with Mitigation.** Seismic activity in the region is dominated by the San Andreas Fault system. According to the U.S. Geologic Survey's third Uniform California Earthquake Rupture Forecast, there is a less than 1% chance that an earthquake of magnitude 6.7 or higher will occur along the Pilarcitos Fault near Sites #1 and #2 between 2015 and 2045, but an almost 7% chance of the same magnitude quake in that same period along the main trace of the San Andreas Fault, less than a quarter-mile east

[3] CGS designates zones that are most likely to experience fault rupture, although surface fault rupture is not necessarily restricted to those specifically zoned areas. An active fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 11,000 years). A potentially active fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not mean that faults lacking evidence of surface displacement are necessarily inactive. A fault can be considered sufficiently active if there is some evidence that Holocene displacement occurred on one or more of its segments or branches. A structure for human occupancy is one that is intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person hours per year (Hart, 1997).



SOURCE: USGS Mindego Hill, Calif. 7.5-minute topographic quadrangle; Santa Clara County 2012 (AP zones) based on CGS 1974

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Figure GEO-1

Alquist-Priolo Earthquake Fault Zones

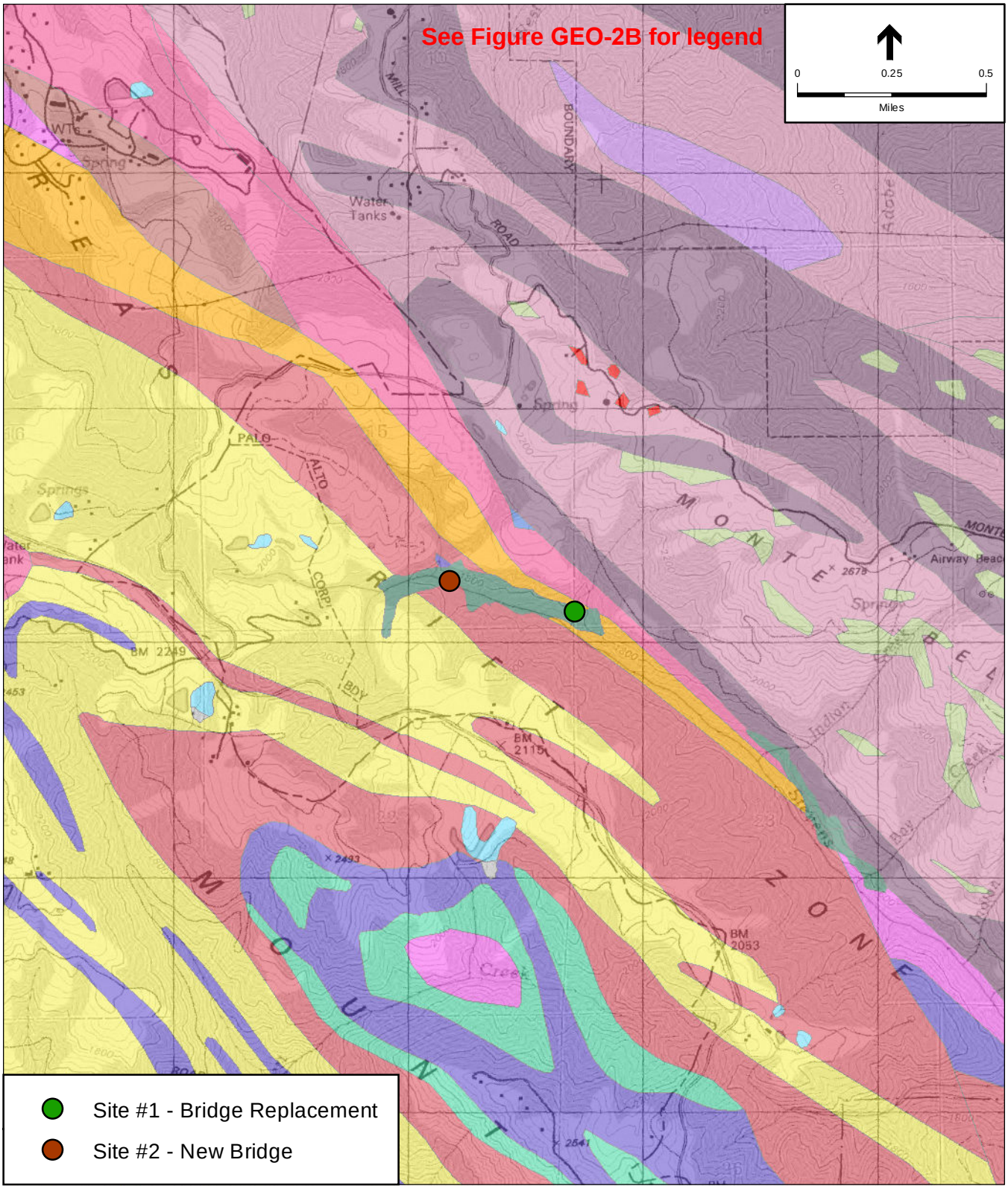
of the Pilarcitos Fault (Field et al., 2013). Accordingly, earthquake hazard maps from the Association of Bay Area Governments (ABAG), which predict the potential for ground shaking during major earthquakes on active faults in the San Francisco Bay Area, map both Sites #1 and #2 as having high earthquake shaking potential (ABAG, 2013). It is likely that in the event of an earthquake within the San Andreas Fault Zone both sites would experience seismic shaking (Best, 2015).

Predicting seismic events is not possible, nor is providing mitigation that can entirely reduce the potential for injury and damage that can occur during a seismic event. Some structural damage is typically not avoidable during an earthquake. However, as discussed under (i) above, the project sites are located in remote areas that are only utilized for recreation; neither project involves the construction of habitable structures. Since people would generally use the bridges for short periods of time, the likelihood of exposure to potential adverse effects such as injury or death from seismic ground shaking rupture is low. The incorporation of **Mitigation Measure GEO-1**, above, would reduce this impact to less than significant.

a.iii) **Less than Significant Impact.** Seismic shaking can trigger secondary ground failures caused by liquefaction. Liquefaction is a phenomenon where saturated subsurface soils lose strength because of increased pore pressure and exhibit properties of a liquid rather than those of a solid. The soils most susceptible to liquefaction are clean, loose, uniformly graded, saturated, and fine-grained and occur close to the ground surface, usually at depths of less than 50 feet. Data from the California Geological Survey indicate that both sites are outside liquefaction hazard zones (CGS, 2005a); mapping from the Association of Bay Area Governments (ABAG) also maps both project sites in an area with very low risk of liquefaction (ABAG, 2013). Potential project-related impacts due to liquefaction are therefore considered less than significant.

a.iv); c) **Less than Significant with Mitigation.** Landslides generally are any type of ground movement that occurs primarily due to gravity acting on relatively weak soils and bedrock on an over-steepened slope. Slope instability is often initiated or accelerated from soil saturation and groundwater pressure, though may also be aggravated by grading activity, such as removal of toe support by excavation or addition of new loads, such as fill placement. Areas that are more prone to landslides include old landslides, the bases or tops of steep or filled slopes, and drainage hollows.

The project site is located in steep, unstable terrain prone to land sliding. **Figures GEO-2A** and **GEO-2B** display geologic units in the vicinity of the project site, and **Figure GEO-3** displays landslide hazard areas as mapped by CGS (2005b). Site #1 is located on soils that were likely partially deposited by a historic landslide/debris flow down the Tributary Creek canyon (Best, 2015). The steep banks along the Tributary Creek channel are susceptible to failure during periods of high storm flow, and especially during a large magnitude earthquake (Best, 2015). Therefore, the risk of damage due to slope instability is moderate.



SOURCE: USGS Mindego Hill, Calif. 7.5-minute topographic quadrangle; USGS 2000 (geology)

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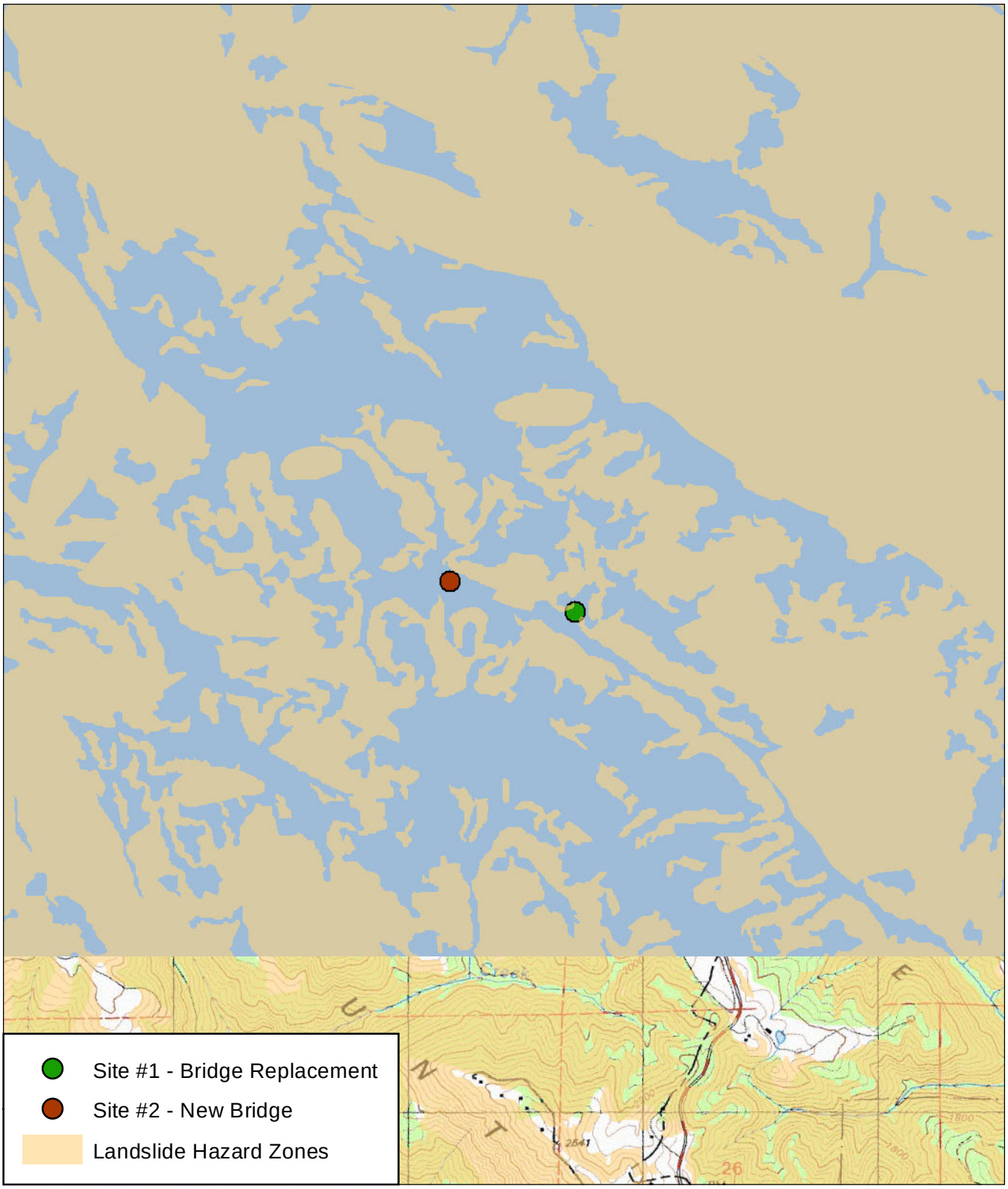
Figure GEO-2A
Regional Geology

SOURCE: USGS Mindego Hill, Calif. 7.5-minute topographic quadrangle; USGS 2000 (geology)

Monte Bello Open Space Preserve Bridge Projects . 130573.02

Figure GEO-2B

Regional Geology - Legend



SOURCE: USGS Mindego Hill, Calif. 7.5-minute topographic quadrangle; Santa Clara County 2012 (landslide hazard zones) based on CGS 2005

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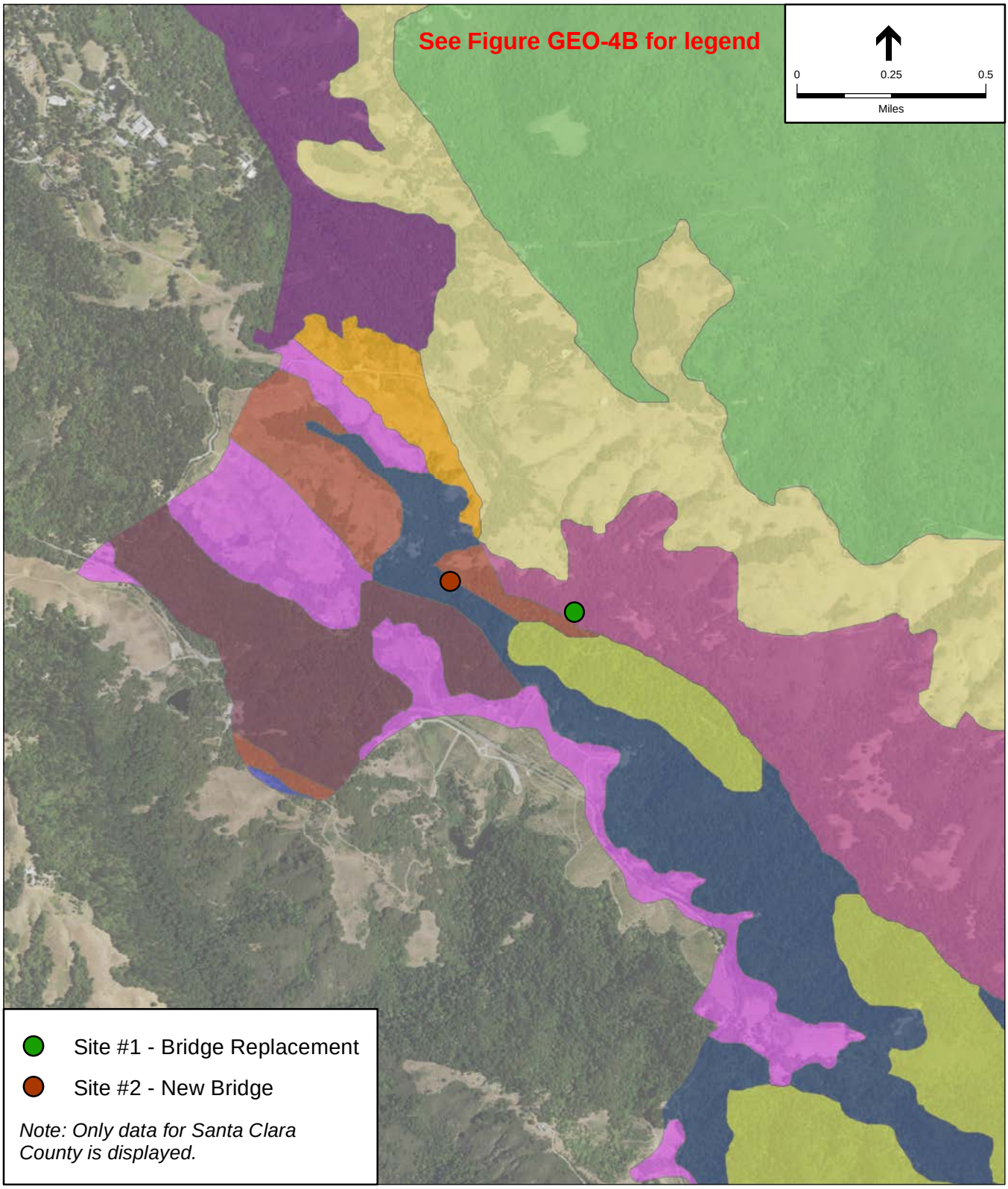
Figure GEO-3
Landslide Hazard Zones

The issue of slope stability has been addressed in the engineering geology study prepared by Timothy Best, CEG (2015), which includes specific design and engineering recommendations. The proposed projects would not destabilize the existing geologic substrate by the replacement of the existing underground structures at Sites #1 and #2 and restoration of the associated Stevens Creek Nature Trail segments (see Chapter 1, Project Description, for details), and would maintain the existing slopes and site conditions. Geological concerns that could lead to destabilization of the newly installed structures, primarily the settlement of placed fills, are addressed in the engineering geology study with recommendations on engineering remedies. Standard construction procedures include compaction of backfill materials to minimize the potential damage to the structures. With incorporation of **Mitigation Measure GEO-1** (i.e., implementing the engineering geology recommendations) the potential hazard from unstable slopes would be minimized. Therefore, the project would not increase the potential exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death at the project site due to landslides and slope instability.

b) **Less than Significant with Mitigation.** Construction activities associated with the proposed project would require land disturbing activities such as grading and excavation that could increase the susceptibility of soils to erosion by wind and/or water, and subsequently result in significant soil loss or erosion. Slopes adjacent to the project sites vary from moderate to relatively steep (e.g., up to 75%, see **Figures GEO-4A** and **GEO-4B**), though slopes along the active trail beds are much more gradual (between 15-30%). Clayey soils on steep slopes are susceptible to erosion when exposed to concentrated surface water flow, and the potential for erosion is increased when established vegetation is disturbed or removed. Established vegetation will only be removed within re-routed alignments of the Stevens Creek Nature Trail at Sites #1 and #2. If uncontrolled or not managed, soil erosion resulting from project construction would be a potentially significant impact. Implementation of construction and erosion-control best management practices (BMPs) would control and reduce the potential risk of increased soil erosion. BMPs are individual or combined measures that can be implemented in a practical and effective manner on the project site which, when applied, would prevent or minimize the potential erosion and displacement of soil. Incorporation of **Mitigation Measure HYD-1** in the *Hydrology and Water Quality* section below would reduce this potential impact to a less-than-significant level.

d) **No Impact.** Depending on the clay and silt content, some soils can expand or shrink with changes in the water content. In general, the effects of expansive soils can damage foundations, concrete slabs, and aboveground structures over long periods of time. No issues pertaining to expansive soils were identified in the engineering geology report by Timothy Best, CEG (2015). Further, the bridges would be backfilled with engineered material having specific qualities that conform to common engineering and building practices, and not any material having notable or uniquely hazardous expansive properties. Therefore, the proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), and thus there would be no potential impact.



SOURCE: USGS Mindego Hill, Calif. 7.5-minute topographic quadrangle; NRCS 2014 (soils)

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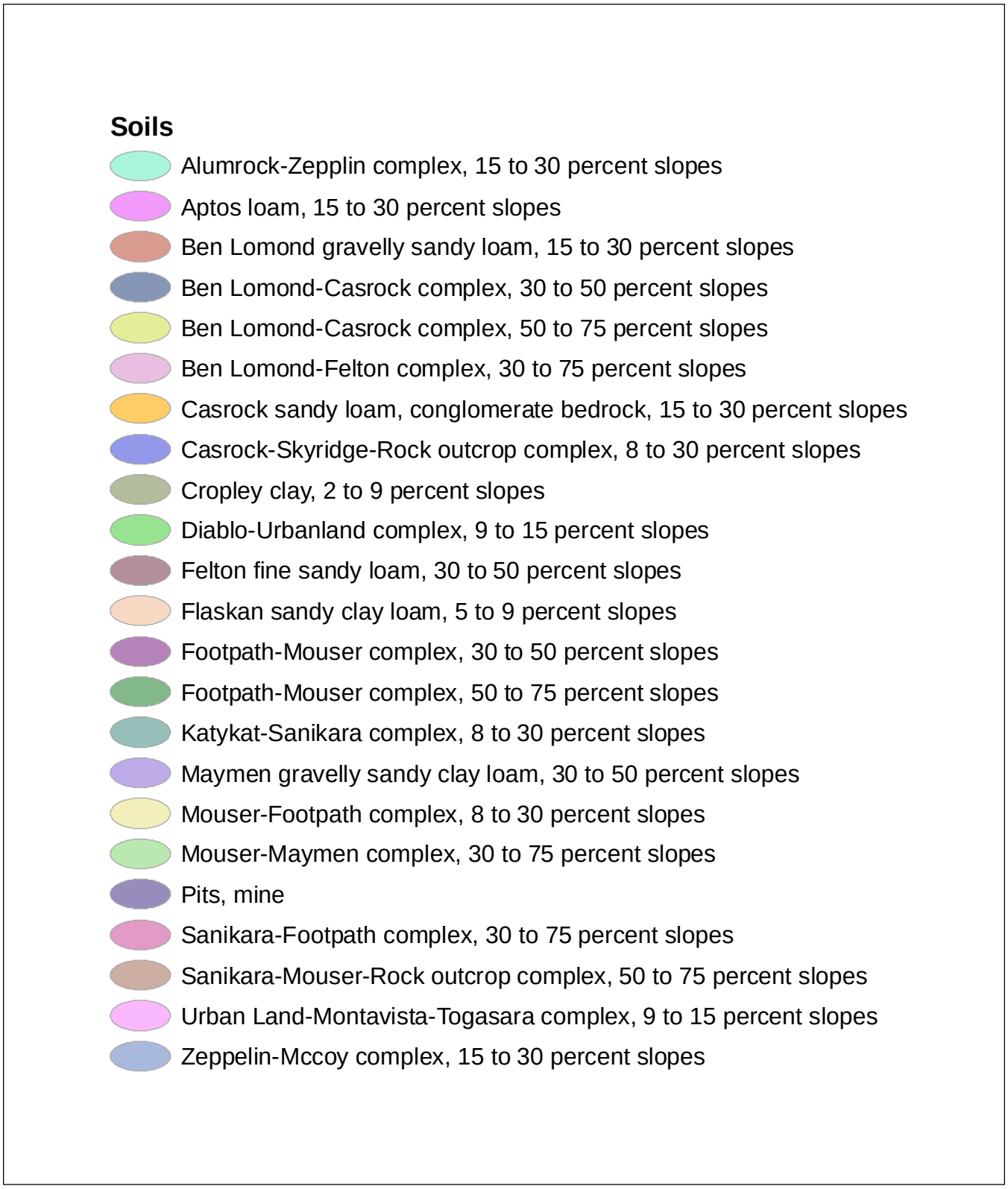
Figure GEO-4A
Regional Soils



SOURCE: USGS Mindego Hill, Calif. 7.5-minute topographic quadrangle; NRCS 2014 (soils)

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Figure GEO-4B

Regional Soils - Legend

e) **No Impact.** The proposed project would not include any elements that would require a septic or other alternative wastewater system. Thus, there would be no impact.

References

Association of Bay Area Governments (ABAG), 2013. San Mateo County Earthquake Hazard Map. Available online: http://resilience.abag.ca.gov/earthquakes/sanmateo/

Best, Timothy C., CEG, 2015. *Draft Engineering Geologic Review: Stevens Creek Nature Trail Bridge Upgrade Project.* Midpeninsula Regional Open Space District, Monte Bello Open Space Preserve, Santa Clara County, CA, prepared for Midpeninsula Regional Open Space District, November 19, 2015.

California Geological Survey. 2005a. Seismic Hazard Zones Report for the Mindego Hill 7.5-Minute Quadrangle, Santa Clara and San Mateo Counties, California. Available online: http://gmw.consrv.ca.gov/shmp/download/evalrpt/mindh_eval.pdf

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_____. 1974. State of California Special Study Zones: Mindego Hill Quadrangle. Available online: http://gmw.consrv.ca.gov/shmp/download/quad/MINDEGO_HILL/maps/MINDEGO_HILL.PDF

Field, E.H., Biasi, G.P., Bird, P., Dawson, T.E., Felzer, K.R., Jackson, D.D., Johnson, K.M., Jordan, T.H., Madden, C., Michael, A.J., Milner, K.R., Page, M.T., Parsons, T., Powers, P.M., Shaw, B.E., Thatcher, W.R., Weldon, R.J., II, and Zeng, Y., 2013. Uniform California earthquake rupture forecast, version 3 (UCERF3)—The time-independent model: U.S. Geological Survey Open-File Report 2013–1165, 97 p., California Geological Survey Special Report 228, and Southern California Earthquake Center Publication 1792, http://pubs.usgs.gov/of/2013/1165/.

U.S. Geological Survey (USGS), 2008. Forecasting California's Earthquakes – What Can We Expect in the Next 30 Years? USGS Fact Sheet 2008-3027.

Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
7. GREENHOUSE GAS EMISSIONS — Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

a) **Less than Significant Impact.** The proposed project would generate greenhouse gas (GHG) emissions from temporary construction activities, including from combustion of fossil fuels used in mobile equipment and power tools used for site preparation, excavation, backfilling, and site restoration. BAAQMD has not adopted a GHG emissions threshold with respect to construction-related GHGs. In lieu of specific guidance from BAAQMD regarding significance thresholds for construction-related GHG emissions, significance is assessed by a consideration of the scope and duration of construction-related emissions. Given that the project activities would be temporary in nature and would occur over the brief construction timeframe described in the Project Description, the proposed project is not expected to result in an ongoing burden to regional or global GHG inventories. The California Emissions Estimator Model (CalEEMod) indicates that project construction would result in an estimated 85.12 metric tons of carbon dioxide equivalents in 2015. Details of the GHG modeling can be found in **Appendix A**. These emissions would be below any quantitative threshold considered by BAAQMD for GHG emissions (BAAQMD, 2009). There would be no operational emissions after construction. The impact is considered less than significant.

b) **Less than Significant Impact.** California has passed several bills and the governor has signed at least three executive orders regarding GHGs. Assembly Bill (AB) 32 (the Global Warming Solutions Act) was passed by the California legislature on August 31, 2006. It requires the state's GHG emissions to be reduced to 1990 levels by 2020.

The Palo Alto Climate Protection Plan, adopted by the City in 2007, presents a comprehensive inventory of municipal (City government-generated) and community-generated emissions, proposes reduction targets, and suggests practical steps to reach those targets. These practical steps include measures addressing utility programs, purchasing, transportation, land use, green building, zero waste, and education.

The purpose of the proposed projects is to improve the environmental and recreational value of the Stevens Creek Nature Trail by replacing a vulnerable bridge at Site #1, and placing a new bridge at Site #2. The projects would not conflict with any existing GHG

laws, plans, policies, or regulations adopted by the California legislature or CARB and would be consistent with policies in the Palo Alto Climate Protection Plan. Therefore, this impact would be less than significant.

References

Bay Area Air Quality Management District (BAAQMD), 2009. *Revised Draft Options and Justification Report: CEQA Thresholds of Significance.* October, 2009.

City of Palo Alto, 2007. *Palo Alto Climate Protection Plan.* December 3. Available online: http://www.cityofpaloalto.org/civicax/filebank/documents/9986

Hazards and Hazardous Materials

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

Discussion

a) **No Impact.** This project will not result in the routine transport, use, or disposal of hazardous materials. The District does not currently routinely transport, use, or dispose of hazardous materials at the Preserve, and District Ordinance 93-1, Section 409.2 prohibits persons from possessing or using harmful substances on District lands. Potential risks associated with releases during the construction process are discussed in section (b), below.

b) **Less than Significant with Mitigation.** Project construction would include excavation of subsurface soils and the possible interception of shallow groundwater. Such activity could result in the release of hazardous materials, if the excavated soil or shallow groundwater that is intercepted is contaminated. This could expose construction workers and the public to hazardous materials during construction activities and could result in a

release of hazardous materials into the environment, such as Tributary Creek or Stevens Creek. However, shallow groundwater conditions were not documented during the engineering geology investigation (Best, 2015). Further, the potential to encounter hazardous materials in soil and groundwater was evaluated utilizing database searches of the State Water Resources Control Board (SWRCB) GeoTracker (SWRCB, 2015) and the California Environmental Protection Agency (Cal-EPA) Department of Toxic Substances Control (DTSC) EnviroStor databases (DTSC, 2015).[4] These databases were reviewed to identify known environmental cases listed within a half-mile of the project site. Review of the databases did not identify any known environmental cases in the vicinity of the proposed project (i.e., within approximately one-half mile). Thus, it is unlikely that project construction would intercept shallow groundwater and this is not considered a potential source of hazardous materials exposure for the proposed project.

Project construction could potentially require the use of certain hazardous materials such as fuels and oils. Inadvertent release of these materials into the environment could adversely impact soil, surface waters, or groundwater quality. This could be a significant impact. MROSD is a government agency and is subject to the strict safety practices developed and enforced by the Occupational Safety and Health Administration (OSHA). Furthermore, MROSD has a Safety Officer and safety training program and its contracting procedures require that any contractor hired to carry out, or help in carrying out a project, must also comply with the relevant OSHA regulations. Implementation of **Mitigation Measure HAZ-1**, along with MROSD's existing practices and OSHA's existing regulations, would reduce any risk associated with hazardous materials used during construction to less-than-significant levels.

> **Mitigation Measure HAZ-1:** MROSD and/or its contractor(s) shall use BMPs based on the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual* to reduce the potential for release of construction-related fuels and other hazardous materials into the environment, as follows in **Table 2-2**:

[4] The GeoTracker website includes the following types of environmental cases: leaking underground storage tank (LUST) sites; land disposal sites; military sites; other cleanup sites; permitted underground storage tank (UST) facilities; and permitted hazardous waste generators. The EnviroStor database identifies the following: Federal Superfund (National Priorities List) sites; state response sites; voluntary cleanup sites; school cleanup sites; corrective action sites; tiered permit sites; and hazardous waste facilities.

TABLE 2-2
CONSTRUCTION-RELATED BMPS TO PROTECT SOIL, SURFACE WATER, AND GROUNDWATER QUALITY

BMP Category	BMP Description	Timing	Inspection & Maintenance
Solid Waste Management	Remove all trash and construction-related waste to a secure, covered location at the end of each working day to maintain a clean work site. Dispose of hazardous materials according to all specific regulations.	Implement during construction.	Inspect for trash on a daily basis
Materials Storage	Store chemicals in non-reactive container. Store bagged, dry-reactive materials in a secondary container. Protect all material storage areas rom vandalism	Implement during construction.	Inspect storage areas daily to ensure no leaks or spills have occurred
Spill Prevention and Control	Good housekeeping practices shall be followed to minimize storm water contamination from any petroleum products or other chemicals. Maintain spill cleanup materials where readily accessible during use	Implement during construction	Clean up leaks and spills immediately using absorbent materials and as little water as possible
Vehicle and Equipment Maintenance & Fueling	Conduct proper and timely maintenance of vehicles and equipment. Cleaning or equipment maintenance shall be prohibited except in areas located near the entrance to the Preserve. If fueling must occur on-site, use designated areas located away from drainage courses and a drip pan to catch spills. Place drip pans under heavy equipment stored onsite overnight.	Implement during construction	Inspect on-site vehicles and equipment for leaks on a routine basis; periodically check incoming vehicles for leaking oil and fluids while on paved roads near the entrance to the Preserve
Training	All personnel shall be instructed regarding the correct procedure for spill prevention and control, waste disposal, use of chemicals, and storage materials.	Implement during construction	None.

c) **No Impact.** There are no schools located within one-quarter mile of the project site. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) **No Impact.** The project site is not included on any of the environmental databases maintained by the SWRCB (2013) or the DTSC (2013). Therefore, the proposed project would not cause a significant hazard to the public or the environment related to a known release of hazardous materials and no impact would occur.

e, f) **No Impact.** Because there are no public airports or private airstrips within two miles of the project area, no impact would occur.

g) **Less than Significant Impact.** Project construction would be short-term and maintenance activities associated with the project facilities would be minimal. During construction of the proposed project, it is expected that a small amount of project-related construction traffic may occur along Page Mill Road and Skyline Blvd. However, the proposed project would not include any work within public roadways, and access for emergency vehicles would not be obstructed. As described in the *Transportation and*

Traffic section below, vehicle access to and from the project site would occur along Canyon Trail from Page Mill Road (Site #1) and Skid Road Trail from Skyline Blvd. (Site #2), and the project would not affect traffic flow for emergency service providers. Therefore, the proposed project would have a less-than-significant effect on emergency access. Impacts related to impairment of or interference with an adopted emergency response plan or evacuation plan would be less than significant.

h) **Less than Significant with Mitigation.** District Ordinance 93-1 Section 404 prohibits fires and smoking on District lands. In addition, District Rangers, who are trained in fire-fighting techniques and carry fire suppression equipment, regularly patrol the Preserve. District staff members generally serve as first responders to fire emergencies within the preserves, with the primary fire protection responsibility falling to CAL FIRE, County Fire Departments, and municipal fire protection agencies. The District's radio and repeater system combined with ranger patrols and staff members on call 24 hours per day enable prompt and effective communication with emergency service providers in the event of a wildland fire or an emergency response call.

Construction of the proposed project would occur within forested areas of Santa Clara County. The project setting amid mature trees, bushes, and grasslands provides a setting conducive to the ignition and spread of a wildland fire if appropriate measures are not taken during construction activities. The project area is mapped outside a Very High Fire Hazard Severity Zone by CAL FIRE (2008); nevertheless, a wildland fire could expose people or structures to a significant risk of loss, injury or death. Implementation of **Mitigation Measure HAZ-2** would reduce the impact to less than significant.

> **Mitigation Measure HAZ-2:** MROSD and/or its contractor shall implement the following fire safety construction practices:
>
> - Grass and other fuels should be cut or otherwise reduced around construction sites where vehicles are allowed to park.
> - Flammable materials shall be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame.
> - The use of mechanical construction equipment shall be minimized during hot, dry, windy weather.
> - Water shall be provided to suppress potential fires caused by construction work.
> - Workers shall be reminded that smoking is prohibited at the work site and on any District land per contract conditions and the District Ordinance.
> - Workers shall maintain working ABC fire extinguishers on all vehicles in the work area.
> - All equipment to be used during construction must have an approved spark arrestor.

- Construction personnel shall be trained in fire safe work practices, use of fire suppression equipment, and procedures to follow in the event of a fire.
- Construction personnel shall stop all work if the site is greater than 80 degrees F, less than 30% humidity, and wind-speeds greater than 10MPH.
- Workers shall contact the Palo Alto Dispatch at 650-470-1258 and the CALFIRE – Skylonda Dispatch at 650-851-1860 for emergency response in the event of a fire (note that these numbers are for emergencies only).

References

Best, Timothy C., CEG, 2015. *Draft Engineering Geologic Review: Stevens Creek Nature Trail Bridge Upgrade Project.* Midpeninsula Regional Open Space District, Monte Bello Open Space Preserve, Santa Clara County, CA, prepared for Midpeninsula Regional Open Space District, November 19, 2015.

California Department of Toxic Substances Control (DTSC), 2015. EnviroStor database. Available online: http://www.envirostor.dtsc.ca.gov/public/

CALFIRE, 2008. Santa Clara County Hire Hazard Severity Map: Local Responsibility Area. Available online: http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.php

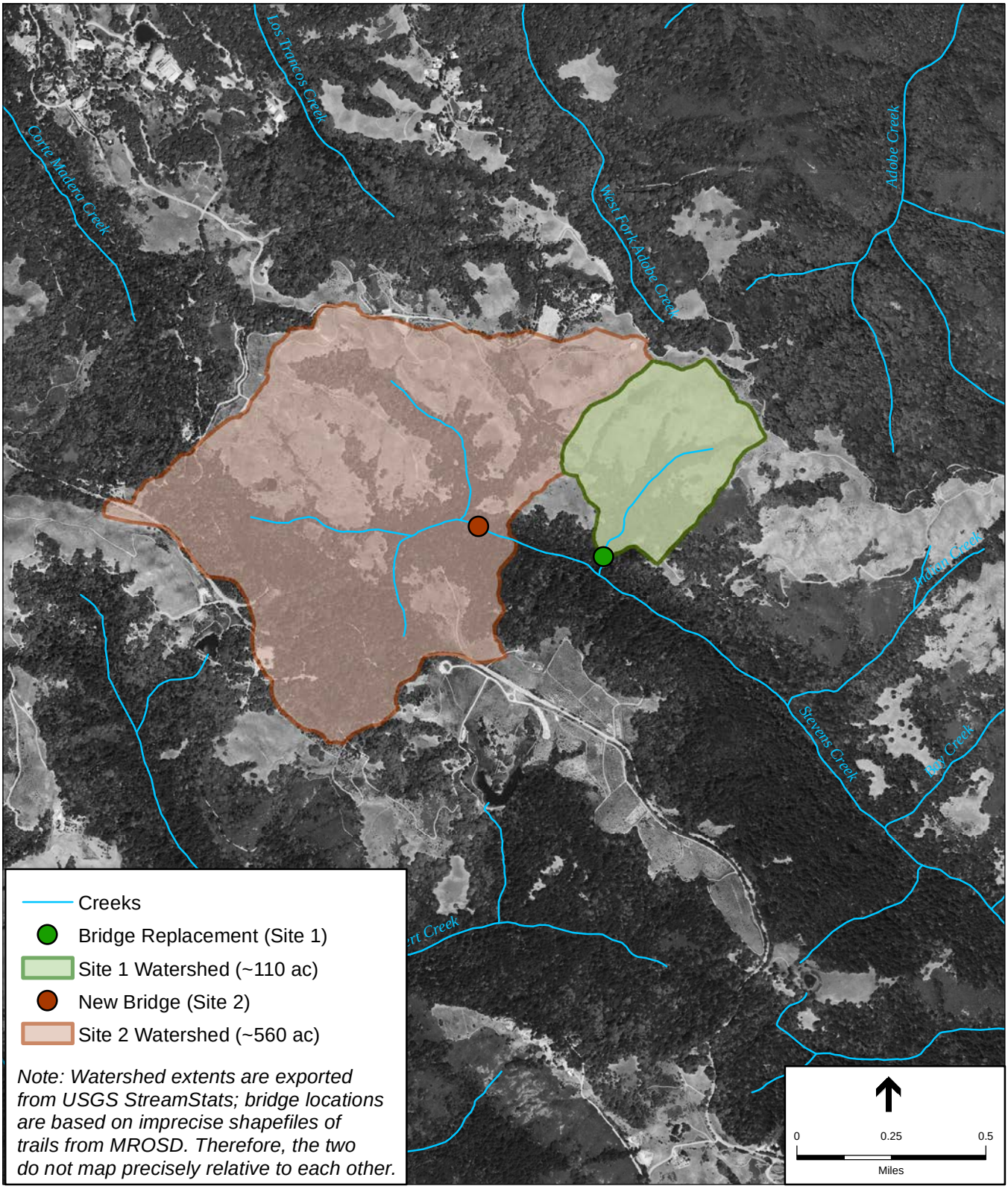
State Water Resources Control Board (SWRCB), 2015. GeoTracker database. Available online: http://geotracker.waterboards.ca.gov/

Hydrology and Water Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
9. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion

a, f) **Less than Significant with Mitigation.** Tributary Creek is a small, relatively steep, intermittent tributary to Stevens Creek with a watershed of approximately 110 acres (this serves as the watershed for Site #1). For most of its length, and particularly near Site #1, Tributary Creek is highly incised with little to no active floodplain. Stevens Creek is a much larger drainage that serves as one of the primary freshwater inflows to South San Francisco Bay. The Stevens Creek watershed upstream of Site #2 is approximately 560 ac (**Figure HYD-1**). Upper Stevens Creek is characterized by a gravel- and cobble-bed



SOURCE: NAIP 2012 (air photo), USDA-NRCS, USGS, & EPA 2015 (hydro), USGS StreamStates (watersheds)

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Figure HYD-1
Site Watersheds

channel confined within a relatively narrow valley; adjacent slopes tend to be steep, limiting the extent and distribution of floodplain habitat. Most floodplain habitat occurs on narrow gravel/sand terraces adjacent to the active low-flow channel.

Both of the proposed new bridges will be sited above the modeled 100-year flood elevation to minimize the likelihood that they will constrain the passage of flood flows and drive bed scour immediately downstream. The Site #2 bridge will eliminate the existing ford crossing, enabling trail users to stay out of the floodplain and creek. Over the long-term, therefore, project implementation would likely have a beneficial impact with respect to water quality. The potential adverse impacts of the proposed projects would be short-term and related to the temporary construction activities required to construct the bridges and re-route associated portions of the Stevens Creek Nature Trail.

Construction activities associated with the proposed project would require land disturbing activities such as grading, earthmoving, backfilling, and compaction. Additionally, project construction would involve the use of chemicals and solvents such as fuel and lubricating grease for motorized equipment. Construction and ground disturbance activities associated with the proposed project would occur in close proximity to Tributary and Stevens Creeks, and such activities could cause dislodging of soil and erosion or inadvertent spills of construction related chemicals, resulting in potentially adverse water quality impacts related to sedimentation, turbidity, and/or fuels and oils. Implementation of **Mitigation Measure HAZ-1** would reduce the potential water quality impacts related to fuels and oils and inadvertent spills to a less-than-significant level.

The proposed land disturbing activities would occur over an area of less than one acre, and thus the proposed project would not be subject to a Construction General Permit under the National Pollutant Discharge Elimination System (NPDES) permit program. Therefore, the proposed project would not be required to implement a Storm Water Pollution Prevention Plan (SWPPP). However, construction of the bridges could result in the discharge of sediment or pollutants from the construction sites, which could result in a violation of water quality standards. To control and minimize the impact, project activities within the creek would be conducted during the dry season as feasible (i.e., May - October), or during periods of no stream flow, and this would largely minimize the potential for the proposed projects to significantly impact water quality and/or aquatic habitat. However, to ensure the erosion potential is minimized, **Mitigation Measure HYD-1** would be necessary to reduce the water quality impacts of project construction to a less-than-significant level. After construction is completed, disturbed areas would be restored to minimize the potential for future erosion. Operation and maintenance activities would be similar to those under existing conditions, including continued use of the trail and monitoring of vegetation. Such activities would not involve soil disturbance and are not expected to result in a discharge of pollutants or violation of water quality standards or waste discharge requirements.

> **Mitigation Measure HYD-1: Stormwater and Erosion BMPs.** MROSD or its contractor(s) shall implement erosion-control measures consistent with the

District's BMPs for road/trail work near streams (MROSD, 2013).[5] These BMPs are based on the most recent versions of the *Erosion and Sediment Control Field Manual* (RWQCB, 2002) and the *Construction Best Management Practices (BMP) Handbook* (CASQA, 2009), and have been approved by CDFW and the RWQCB. Stormwater and erosion control measures shall include, but not be limited to, the following:

- Temporary erosion control measures shall be employed for disturbed areas (no disturbed surfaces shall be left without erosion control measures in place):
  - Place fiber rolls along the perimeter of the sites to reduce runoff flow velocities and prevent sediment from leaving the sites or entering Tributary or Stevens Creeks;
  - Place silt fences down-gradient of disturbed areas to slow runoff and retain sediment;
  - Revegetate all disturbed soil per a Habitat Restoration and Monitoring Plan, or otherwise protect soil from erosion with mulch, coir mats, or related materials following the end of construction activities.
- Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and during storm events. To the extent feasible, grading activities shall be limited to the immediate area required for construction;
- As necessary (i.e., during storms that may occur within the construction window), surface runoff, including ponded water, shall be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to Tributary or Stevens Creek. Normal flow pathways must be restored upon completion of work at that location;
- If and when conditions are too extreme for treatment by surface protection and/or measures described above, sediment entrained by runoff shall be temporarily contained on site. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. Construction materials, including topsoil and fuels, shall be stored, covered, and isolated so as to prevent runoff losses and potential surface water contamination.

b) **No Impact.** The proposed projects would not require long-term withdrawal of groundwater and would not introduce any impervious surfaces that might affect groundwater recharge. Further, project construction activities are unlikely to require any notable amount of dewatering, as groundwater was not encountered during the engineering geology investigation (Best, 2015), and shallow groundwater would only be likely during the winter or late spring months, which would be outside of the construction

[5] The District selects appropriate BMPs for erosion control based on multiple factors, including the expertise of project engineers/planners, permit conditions from regulatory agencies, existing agreements with regulatory agencies, and other factors. The document cited here does not instruct the user which BMPs are appropriate to install given the location and situation; it describes what the BMP technique should look like if selected.

period window. There would be no permanent, adverse impacts to groundwater supplies or aquifers as a result of the projects.

c) **Less Than Significant Impact.** The proposed projects would not substantially alter the drainage pattern of either project site. Following construction, the drainage patterns would be similar to those under current conditions. At Site #1, the new bridge at Tributary Creek would be wider and higher than the existing bridge, and would be located above the 100-year flood elevation, therefore would not change the existing bed or bank. Further, the larger bridge would also reduce the magnitude of flow expansion and contraction at the channel/bridge transition, improving the continuity of sediment transport under the bridge. At Site #2, the new bridge would be located well above the 100-year flood elevation, facilitating the downstream passage of water and sediment similar to existing conditions. Thus, this potential impact would be less than significant.

d) **No Impact.** As described above, the proposed project would not substantially alter the drainage pattern of the project site, and following construction the drainage pattern would be similar to that under current conditions. The project would not substantially increase or otherwise impact the volume of runoff generated from the project site. Thus, there would be no impact with respect to on- or off-site flooding.

e) **No Impact.** As described above, there would be no substantial change in the drainage pattern of or runoff volume from the project site. The proposed project would not increase the amount of impervious surface or otherwise contribute substantially to increased runoff or pollutants within runoff (other than those already described and assessed above in *a)*). Thus, there would be no impact with respect to the creation or contribution of runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or with respect to additional sources of polluted runoff.

g, h, i) **No Impact.** According to FEMA (2009), neither project site lies within the100-year flood hazard area for Tributary or Stevens Creek. Further, the proposed projects do not involve construction of any habitable structures, or any structure for that matter that would potentially impede or redirect flood flows or expose people or structures to significant risk of flooding. In addition, there are no dams upstream of either Site #1 or Site #2. Therefore, the projects would have no impact related to 100-year flood hazard areas or flooding resulting from dam failure.

j) **No Impact.** The proposed project would not be subject to seiches, which form in enclosed bodies of water, such as lakes or reservoirs, when exposed to significant ground shaking. The project sites are over 12 miles from the Pacific Ocean and at an elevation of approximately 1800 ft, and therefore not be susceptible to a tsunami, which is a large wave or series of waves usually generated by an earthquake, volcanic eruption, or coastal landslide.

Mudflows consist of rapid landslides with high volumes of water that can be associated with rare events such as torrential storms or volcanic eruptions. The project site is located in an area that is generally susceptible to landslide (see "Geology & Soils", above). However, implementation of the project would not alter the likelihood of mudflows occurring, or the degree or nature of risk to which people or structures would be exposed in the event of a mudflow. Therefore, the project would have no impact related to seiches, tsunamis, or mudflows.

References

Best, Timothy C., CEG, 2015. *Draft Engineering Geologic Review: Stevens Creek Nature Trail Bridge Upgrade Project.* Midpeninsula Regional Open Space District, Monte Bello Open Space Preserve, Santa Clara County, CA, prepared for Midpeninsula Regional Open Space District, November 19, 2015.

California Stormwater Quality Association (CASQA), 2009. Construction BMP Handbook.

Federal Emergency Management Agency, 2009. Flood Insurance Rate Map No. 06085C0185H. Effective Date May 18, 2009.

Midpeninsula Regional Open Space District, 2013. Best Management Practices for Routine Maintenance Activities in Water Courses. Based on approved BMPs from the California Salmonid Stream Habitat Restoration Manual, Tim Best, CEG, the BMP Appendix to the District's 5-Year agreement with CDFW for streambed alteration (Section 1600 permits), and other sources.

San Francisco Bay Regional Water Quality Control Board (RWQCB), 2002. Erosion and Sediment Control Field Manual, Fourth Edition. August, 2002.

Land Use and Land Use Planning

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

Discussion

a) **No Impact.** The proposed projects involve replacement of an existing trail bridge, construction of a new trail bridge, minor re-routes of portions of the Stevens Creek Nature Trail, and site restoration. There are no established communities in the project area. Therefore, the proposed project would not physically divide an established community.

b) **Less than Significant Impact.** The project site is located in an area zoned by Santa Clara County for Other Public Open Lands (Santa Clara County 1994), and is designated as Publicly Owned Conservation Lands in the Palo Alto Comprehensive Plan (City of Palo Alto 2011). The purposes of the proposed projects are to replace an existing bridge that is vulnerable to erosion (Site #1) and install a new bridge that will eliminate trampling of creek habitats (Site #2). Therefore, the proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed 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. Project construction activities could cause temporary, short-term impacts as discussed in other sections of this chapter and any potentially significant impacts would be minimized to less than significant through mitigation as discussed in the *Air Quality, Geology and Soils, Hazards and Hazardous Material, and Hydrology and Water Quality* sections. The project impact would be less than significant.

c) **No Impact.** The project site does not lie within the jurisdiction of a Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, the proposed project would not conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan. There would be no impact.

References

City of Palo Alto. 2007. Comprehensive Plan. Available online: http://www.cityofpaloalto.org/gov/topics/projects/landuse/compplan.asp.

Santa Clara County, 1994. General Plan: 1995 – 2010. Adopted December 20, 1994. Available online: http://www.sccgov.org/sites/planning/PlansPrograms/GeneralPlan/Pages/GP.aspx

Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
11. MINERAL RESOURCES — Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion

a, b) **No Impact.** The project would not result in the loss of availability of a known or locally important mineral resource. The site has not been classified as a Mineral Resource Zone (CMDG, 1987). Field observations by District staff have revealed no evidence of the presence of mineral resources in the project area. In addition, there are no mines, mineral plants, oil, gas, or geothermal wells located at the project site (USGS, 2003; CDC, 2015). The local land use plans do not indicate presence of locally important mineral resources at the project site. There would be no impact.

References

California Department of Conservation, Division of Mines and Geology (CDMG), 1987. *Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area,* Special Report 145146, Part III.

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (CDC), 2015. DOGGR Online Mapping System: http://maps.conservation.ca.gov/doggr/index.html#close. Accessed April 8, 2015.

U.S. Geological Survey (USGS), 2003. Active Mines and Mineral Plants in the U.S. Available online at http://mrdata.usgs.gov/mineral-resources/active-mines.html. accessed April 8, 2015.

Noise

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
12.	**NOISE — Would the project:**				
a)	Result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b)	Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d)	Result in 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 area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☒
f)	For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

a) **Less than Significant Impact.** Noise impacts are considered significant based on their levels and proximity to sensitive receptors, including schools, hospitals, religious facilities, and parks. Monte Bello Open Space Preserve is an undeveloped open space area with low levels of ambient noise. The nearest developed neighborhood is over a mile from the project sites; low-density rural ranches are located outside the Preserve's borders along Skyline Blvd. (Highway 35) and Page Mill Road, over a third of a mile from the project sites.

The standard unit of measurement for sound is the decibel (dB). Sounds can range from 0 decibels (threshold of hearing) to 160 dB (instant perforation of eardrum). Normal conversation at three feet is roughly 60 dB, busy street traffic is 70 dB, and the threshold of pain is 130 dB.

Construction of the proposed project would consist of replacing an existing bridge located at Site #1 and assemble/install a new bridge at Site #2. The locations of Sites #1 and #2 can be found in Figures 1-2 and 1-5. Construction activities at Site #1 would include project site mobilization, widening of Stevens Creek Natural Trail, existing bridge removal and fill excavation, bridge foundation construction, bridge assembly and placement, and construct trail reroutes. The construction activities at Site #2 would be similar to Site #1, but there is currently no bridge at Site #2, so construction at this site

would not include bridge removal. Off-road construction equipment used during construction at both sites would include all-terrain vehicles (ATVs), small bobcat tractors, motorized wheelbarrows, graders, and excavators. Construction materials and equipment would be transported by motorized wheelbarrow to the sites from the staging area shown in Figure 1-5. Replacement of the bridge at Site #1 and construction of the new bridge at Site #2 is anticipated to take 20 to 30 days to complete, respectively. Bridge components for each bridge would be transported by ATV's to each of the sites. According to the City of Palo Alto Municipal Code 9.10.060, construction, alteration and repair activities on non-residential property which are authorized by a valid City building permit are prohibited on Sundays and holidays and are also prohibited except between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday, 9:00 a.m. and 6:00 p.m. on Saturday provided that the construction, demolition or repair activities during those hours meet the following standards:

1) No individual piece of equipment shall produce a noise level exceeding 110 dBA at a distance of 25 feet. If the device is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close to 25 feet from the equipment as possible.

2) The noise level at any point outside of the property line of the project shall not exceed 110 dBA.

3) The holder of a valid construction permit for a construction project in a non-residential zone shall post a sign at all entrances to the construction site upon commencement of construction, for the purpose of informing all contractors and subcontractors, their employees, agents, material men and all other persons at the construction site, of the basic requirements described in City of Palo Alto Municipal Code 9.10.060.

    A) Said sign(s) shall be posted at least five feet above ground level, and shall be of a white background, with black lettering, which lettering shall be a minimum of one and one-half inches in height.

    B) Said sign shall read as follows: Construction hours for non-residential property; (Includes Any and All Deliveries); Monday - Friday 8:00 a.m. to 6:00 p.m.; Saturday 9:00 a.m. to 6:00 p.m., Sunday/holidays Construction prohibited. Violation of this Ordinance is a misdemeanor punishable by a maximum of six months in jail, $1,000 fine, or both; Violators will be prosecuted.

The proposed project would be implemented in compliance with these restrictions. Following construction, the proposed project would not involve any new source or activity that would generate noise in the long term. Maintenance activities such as periodic inspection of the bridges following construction would be consistent with current routine operations. Thus, the proposed project would not change the existing noise level in the long term. Therefore, operation of the proposed project would not result in noise exposure in excess of standards. This impact would be considered less-than-significant.

b) **Less than Significant Impact.** Vibration impacts from construction activities primarily occur as a result of large or impact equipment. Such equipment includes pile drivers, bulldozers and caisson drills (FTA, 2006), none of which will be used to construct project elements. The project would use excavators, bulldozers and pneumatic tools during construction. There is a residential receptor located 0.3 miles from the project site. According to the FTA Transit Noise and Vibration Assessment Manual (FTA, 2006), a large bulldozer could generate vibration levels of approximately 87 VdB from a distance of 25 feet. Based on this reference vibration level, the residential receptor located approximately 0.3 miles from the project site could be exposed to a vibration level of approximately 33 VdB. According to the FTA Transit Noise and Vibration Assessment Manual (FTA, 2006), the average human's perceptibility of vibration is about 65 VdB and human response to vibration is not usually significant unless the vibration exceeds 70 VdB. The residential receptor located 0.3 miles from the project site would be exposed to vibration levels below the FTA human perception threshold during onsite construction. Therefore the project impact related to vibration impacts would be less than significant.

c) **No Impact.** The proposed project would not create any new permanent noise sources or levels that would exceed established standards. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity. There would be no impact.

d) **Less than Significant Impact.** The project sites are located in wooded areas where the noise environment is influenced primarily by sounds in a natural habitat setting and occasional recreational visitors. The proposed project would primarily involve short-term construction activities at the site described in Chapter 1, Project Description. Project construction would result in short-term increases in noise levels in the project area. Noise from construction would be generated by gasoline- and diesel-powered equipment such as mini-excavators and ATVs. **Table 2-3** presents the noise levels generated by off-road construction equipment representative of the proposed project.

TABLE 2-3
TYPICAL NOISE LEVELS FROM CONSTRUCTION ACTIVITIES AND CONSTRUCTION EQUIPMENT

Type of Equipment	L_{max}, dBA	Hourly L_{eq}, dBA/% Use[1]
ATV[2]	84	80/40
Excavator	85	81/40
Bobcats[2]	84	80/40
Motorized Wheelbarrows[2]	84	80/40
Pneumatic Tools	85	82/50

NOTES:
1 % used during the given time period (usually an hour – Hourly L_{eq}) were obtained from the FHWA Roadway Construction Noise Model User's Guide, (FHWA, 2006).
2 ATV's, Bobcats and motorized wheelbarrows are assumed to have the same noise level as a tractor.

SOURCE: Federal Transit Administration, 2006.

The operation of off-road construction equipment at the project sites could result in short-term and sporadic increases in noise levels surrounding the project area. The nearest sensitive uses to any of the construction areas would be recreational uses in the park, although access to Stevens Creek Trail would be restricted during construction. There are no permanent residences located in Monte Bello OSP, and the nearest residential receptors are located approximately 0.3 miles from the project sites. The duration of exposure to construction noise for trail users would be variable, but in any instance, relatively brief (less than an hour). Therefore, the construction of the proposed project would not result in a substantial noise increase and result in a less than significant impact.

e) **No Impact.** The project site is not located within an airport land use plan or within two miles of a public use airport. Also refer to d) above. The proposed project would not involve any new permanent employees or residents following construction. There would be no impact.

f) **No Impact.** The proposed project would not be located within the vicinity of a private airstrip. Therefore there would be no project-related impact with regard to exposure of people residing or working to excessive noise levels from a private airstrip.

References

Federal Highway Administration (FHWA), 2006. Roadway Construction Noise Model User Guide, January 2006.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment*, May 2006.

Population and Housing

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
13.	**POPULATION AND HOUSING — Would the project:**				
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

a) **No Impact.** The proposed project involves replacing an existing bridge at Site #1 and constructing a new bridge at Site #2. The project would involve a limited construction work force and it is expected that regional labor could meet the construction workforce requirements. The proposed project would not construct new homes or businesses in the area or extend new roads or other infrastructure into undeveloped areas. Therefore, the proposed project would not result in a substantial increase in the local population or induce growth directly or indirectly; there would be no impact.

b, c) **No Impact.** See a) above. There is no housing associated with the proposed project. The proposed project would not displace people or existing housing units or necessitate construction of replacement housing. There would be no impact.

Public Services

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
14. PUBLIC SERVICES — Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, 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 objectives for any of the following public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☒	☐

Discussion

a.i, ii) **Less than Significant Impact.** The District's Operations Department already provides ranger patrol in the Preserve and maintenance staff to care for trails, bridges and parking areas. The District coordinates with other local agencies via mutual aid arrangements in providing public services, including police and fire protection. District rangers (headquartered immediately south of Monte Bello OSP across Skyline Blvd.) are responsible for enforcing District regulations and certain selected sections of California code pertaining to vandalism, bicycle helmets, and parking. The City of Palo Alto Police Department and Santa Clara County Sheriff's Office are involved in enforcement of all other code sections.

District staff serve as the most likely first responder for fire emergencies, particularly given the proximity of the Skyline Field Office to Monte Bello OSP. Since the Preserve is within the incorporated boundaries of the City of Palo Alto, it is outside the State Responsibility Area, and the Palo Alto Fire Department is technically responsible for local fire protection. The City of Palo Alto operates seven full time stations, and one summer station (Station 8 – Foothills Park, 8.3 miles from Monte Bello OSP) (WRM 2009). The City also participates in an "auto-aid" agreement with CAL FIRE. Such agreements allow for the nearest fire suppression resource to respond to a wildland fire (CAL FIRE, 2011). It is likely that in the event of a wildland fire at Monte Bello OSP, resources from both the City fire station at Foothill Park (when operational) and the CAL FIRE Skylonda Station 58 (9 miles north on Skyline Blvd.) would be utilized.

Because the construction activities would be short-term and would involve a limited workforce, project construction would not significantly increase demand for fire and

police protection services and would not change any uses on the site. The proposed project would not be expected to significantly affect CAL FIRE's or the District's ability to maintain service ratios, response times, other performance objectives, and new or physically altered facilities would not be required. Therefore, the project impact with respect to the provision of fire and police protection facilities would be less than significant.

a.iii) **Less than Significant Impact.** The proposed projects would only result in a temporary increase of construction worker employees in the project area, there would be no substantial adverse impacts to schools and no new or physically altered facilities would be required. The impact would be less than significant.

a.iv) **Less than Significant Impact.** The project site is located on District land within Monte Bello OSP which offers a network of hiking, biking, and equestrian trails. The proposed project would only temporarily employ construction workers at the project site and would not result in an increase in the use of existing park and recreation facilities in the area. Furthermore, the proposed project would restore improve the sustainability of Stevens Creek Nature Trail by moving a portion of it out of Stevens Creek. The impact would be less than significant.

a.v) **Less than Significant Impact.** The proposed project would not involve new permanent employees and therefore is not expected to increase the use of other public facilities such as libraries or hospitals. This impact would be less than significant.

References

CAL FIRE. 2011. Unit Strategic Fire Plan: Santa Clara Unit. June 15. Available online: http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf1073.pdf.

Wildland Resource Management, Inc. (WRM), 2009. Palo Alto Foothills Fire Management Plan Update. January 15. Available online: http://www.cityofpaloalto.org/civicax/filebank/documents/39197.

Recreation

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
15. RECREATION — Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

Discussion

a,b) **Less than Significant Impact.** The proposed project involves replacement of an existing bridge and construction of a new bridge along Stevens Creek Nature Trail. The trail is variously used by hikers, bicyclists, and equestrians. Segments of the trail near the project sites would be temporarily closed for public use during construction (see Project Description in Chapter 1). Because the expected closure of the Stevens Creek Nature Trail would be brief, there would be no long-term impact on other recreational facilities.

Use of the other nearby trails could increase during the project construction period; however the increase would not be permanent and would not result in substantial physical deterioration of the trails. In addition, the proposed project does not involve residential facilities and would not cause a permanent increase in the use of existing recreational facilities. This impact would be less than significant.

Transportation and Traffic

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

Discussion

a) **Less than Significant Impact.** As discussed below, the project would not significantly conflict with applicable transportation plans or measures and roadways.

Key Access Roadways

Regional access for the project site would be provided by Interstate 280, and local access would be provided by Page Mill Road and Skyline Boulevard (Highway 35). Access for construction- related activities would be through access roads within Monte Bello OSP (Canyon Trail and Skid Road Trail).

Page Mill Road is an arterial road that runs roughly N-S from the urban core of Palo Alto to the rural foothill communities. It serves as a primary route between the communities of Palo Alto and Los Gatos and the unincorporated portions of Santa Clara and San Mateo County. In the vicinity of the Monte Bello OSP, Page Mill Road is a two-lane road.

Skyline Boulevard is an arterial road that runs NW-SE along the spine of the San Francisco Peninsula from San Francisco to Highway 17, and serves as a main route to and from many rural communities within San Mateo, Santa Clara, and Santa Cruz Counties. In the vicinity of the Monte Bello OSP, Skyline Boulevard is a two-lane road.

Canyon Trail is a narrow unpaved fire road within Monte Bello OSP that begins at a gate off Page Mill Road and continues through the preserve as a multi-use trail and road. Vehicular access to this road is closed to the general public; the road is only open to District staff, contractors, and agency partners (e.g., vector control).

Skid Road Trail is a narrow unpaved fire road within Monte Bello OSP that connects a trailhead along Skyline Boulevard with trails and related recreational facilities within the preserve. Similar to Canyon Trail, vehicular access to this road is closed to the general public.

Project Characteristics

There would be no new long-term trips associated with the proposed project, as MROSD would monitor and maintain Stevens Creek Nature Trail as it is currently managed. The replacement of an existing bridge at Site #1 would not increase Preserve visitation. The new bridge at Site #2 will help Preserve visitors cross the creek without entering into the stream channel, but the new bridge is not likely to increase Preserve visitation. Therefore, these new features would not attract more visitors and increase new long-term trips. The duration of potentially significant impacts related to short-term disruption of traffic flow and increased congestion generated by construction vehicles would be limited to the period of time needed to complete construction of the project components. Therefore, the analysis presented herein is focused on the short-term project construction effects.

Traffic-generating construction activities related to the proposed project would consist of the daily arrival and departure of construction workers (which would average three workers per day) and District personnel and trucks hauling equipment and materials. There would be miscellaneous deliveries of other construction components, which would be shipped on demand to the site throughout the construction period.

Construction-generated traffic would be temporary and therefore would not result in any long-term degradation in operating conditions (level of congestion/delay) on any project area roadways. The primary off-site impacts resulting from the movement of construction trucks would include a short-term and intermittent lessening of roadway capacities due to the slower movements and larger turning radii of the trucks compared to passenger vehicles. Therefore, this short-term increase in vehicle trips would have a less-than-significant effect on traffic flow on roadways.

b) **No Impact.** The level of service standards for roadways that are part of the Santa Clara County Congestion Management Program network are intended to regulate long-term traffic increases from operation of new development and do not apply to temporary construction projects (VTA, 2013). There would be no new long-term trips associated with the proposed project, as MROSD would monitor and maintain the bridges and trails as is currently conducted. Further, there would be no increase in long-term trips to the project site once the proposed project is completed and fully operational. As such, the proposed project would not exceed level of service standards established by the Valley

Transportation Authority (the county congestion management agency) for designated Congestion Management Program roadways.

c) **No Impact.** The project site is not located close to any airport, and the proposed project would not intrude into an airport's air space, nor would construction or operation activities affect air traffic patterns; therefore, no impact would occur.

d) **No Impact.** Once complete, the proposed project would re-route short portions of the Stevens Creek Nature Trail within Monte Bello OSP. The re-routes would not introduce or create any new design features (e.g., sharp curves) that would result in safety hazards on the trail. Furthermore, the proposed project would not alter the physical configuration of the existing roadway network serving the area, and would not introduce unsafe design features. The proposed project also would not introduce uses that are incompatible with existing uses already served by the road system that serves the project area. Therefore, the proposed project would have no traffic hazard impact.

e) **Less than Significant Impact.** The proposed project would not include any work within public roadways, and access for emergency vehicles would not be obstructed. Vehicle access to and from the project staging areas would occur along Page Mill Rd. and Skyline Blvd. The number of short-term vehicle trips generated by the proposed project would not affect traffic flow for emergency service providers. Therefore, the proposed project would have a less-than-significant impact on emergency access.

f) **Less than Significant Impact.** Due to the location and short-term nature of construction activities where potential effects could occur, the proposed project would not permanently eliminate alternative transportation corridors or facilities (e.g., bike paths or lanes, turnouts, etc.), either directly or indirectly. In addition, the proposed project would improve segments of an existing trail. Therefore, the proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation. However, the temporary closure of Stevens Creek Nature Trail for the duration of construction would have temporary adverse effects on public use by bicyclists, walkers, and equestrians. The effects would be minimized by implementing measures such as public notification of the time and duration of trail closure, and the use of signs and construction fencing, as appropriate, to provide wayfinding on existing open trails. Provision of such improvement measures would ensure that the proposed project would have a less-than-significant impact on the performance and safety of the trail.

References

Santa Clara Valley Transportation Authority (VTA), 2013. Congestion Management Plan. October. Available online: http://www.vta.org/sfc/servlet.shepherd/version/download/068A0000001Q7pt.

Utilities and Service Systems

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
17. UTILITIES AND SERVICE SYSTEMS — Would the project:				
a) Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider that would 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?	☐	☐	☒	☐

Discussion

a, b) **No Impact.** The proposed project would not produce any wastewater nor would it require the construction of new water or wastewater treatment facilities or expansion of such facilities. Therefore, the proposed project would not conflict with wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board and would not affect capacity of the County's wastewater treatment system; no impact would occur.

c) **Less than Significant Impact.** As described in Chapter 1, Project Description, the purposes of the projects are to replace an existing bridge over Tributary Creek and place a new bridge over Stevens Creek. Construction activities associated with these projects could cause short-term temporary impacts such as air emissions, water quality, and biological resources, which are discussed in this chapter. Any mitigation that may be required is described in the *Air Quality, Geology, Soils, and Seismicity, Hazards and Hazardous Materials, and Hydrology and Water Quality* sections above. The impacts are considered less than significant.

d) **Less than Significant Impact.** The proposed project would not require new water supplies. The proposed project would primarily involve short-term construction related to

the replacement of existing structures. No new water entitlement would be required. The impact would be less than significant.

e) **No Impact.** The proposed project would not require construction of new or expansion of current wastewater facilities. No impact is expected.

f, g) **Less than Significant Impact.** The proposed project would require excavation at the project sites. Excavated spoils would be re-used as backfill and trailbed. Debris from the bridge that would be removed at Site 1 would consist of untreated redwood decking, which will be recycled, and bolts and other fixtures. The proposed project would comply with the applicable local, state, and federal regulations concerning solid waste. Therefore, the impact would be less than significant.

Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
18. MANDATORY FINDINGS OF SIGNIFICANCE — Would the project:				
a) 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) 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) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

a, c) **Less than Significant Impact.** The purposes of the proposed projects are to replace an existing bridge that is vulnerable to erosion (Site #1) and construct a new bridge to eliminate trampling of creek habitats (Site #2). As discussed in the sections above, the proposed project would not permanently degrade the quality of the environment. There could be short-term and temporary effects associated with construction, such as increased dust, noise, and water quality, which would be either minimized by regulatory compliance or through implementation of proposed mitigation measures, as described in the individual resource sections in this chapter. There would be no substantial adverse effects on human beings. The impact would be less than significant.

b) **Less than Significant Impact.** In general, the inherently low intensity uses in the Preserve and dispersed nature of the open space management program minimizes the potential for cumulative impacts, since any less than significant impact would generally be site-specific, localized, and not expected to have the potential for considerable combined cumulative impacts throughout the region. The possibility of cumulatively considerable impacts is minimized by the overall lack of disturbance to the watershed as a whole associated with open space use.

Unlike residential and economic development projects in urban or suburban areas, the District only implements minimal improvements such as parking lots, bridges, unpaved roads, and natural surface trails within its open space lands. The proposed project, along with similar land management actions by the District or other open space and recreation agencies, would tend to support regional resource protection and enhance public recreational opportunities for local and regional residents and as such have a beneficial combined cumulative impact.

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APPENDIX A

Criteria Pollutant and Greenhouse Gas Emission Calculations

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Construction Criteria Pollutant Emissions at sites #1 and 2 A-2

Construction Greenhouse Gas Emissions at sites #1 and 2 A-36

Construction Criteria Pollutant Emissions at sites #1 and 2

Monte Bello Project - Off-Road Emissions

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3,346.00	Acre	3,346.00	145,751,760.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage of the Monte Bello Open Space Preserve

Construction Phase - Assumed construction schedule based on the Project Description

Off-road Equipment - Assumed construction equipment list based on PD

Off-road Equipment - Assumed construction equipment list based on PD

Off-road Equipment - Assumed construction list based on PD

Off-road Equipment - Assumed construction list based on PD

Trips and VMT - Assumed worker trips based on PD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	30.00
tblConstructionPhase	NumDays	155,000.00	30.00
tblConstructionPhase	NumDays	6,000.00	22.00
tblConstructionPhase	NumDays	6,000.00	22.00
tblConstructionPhase	PhaseEndDate	1/22/2016	12/11/2015
tblConstructionPhase	PhaseEndDate	10/30/2015	10/31/2015
tblConstructionPhase	PhaseEndDate	12/1/2015	10/31/2015
tblConstructionPhase	PhaseStartDate	12/12/2015	11/1/2015

tblConstructionPhase	PhaseStartDate	11/1/2015	10/1/2015
tblOffRoadEquipment	HorsePower	162.00	97.00
tblOffRoadEquipment	HorsePower	162.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	23,889.00	0.00
tblTripsAndVMT	VendorTripNumber	23,889.00	0.00

tblTripsAndVMT	WorkerTripNumber	61,216.00	3.00
tblTripsAndVMT	WorkerTripNumber	61,216.00	3.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.8144	41.2271	30.9084	0.0447	0.1886	3.1869	3.2504	0.0500	3.0502	3.0671	0.0000	4,331.0856	4,331.0856	0.8902	0.0000	4,349.7798
Total	**5.8144**	**41.2271**	**30.9084**	**0.0447**	**0.1886**	**3.1869**	**3.2504**	**0.0500**	**3.0502**	**3.0671**	**0.0000**	**4,331.0856**	**4,331.0856**	**0.8902**	**0.0000**	**4,349.7798**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.8144	41.2271	30.9084	0.0447	0.1886	3.1869	3.2504	0.0500	3.0502	3.0671	0.0000	4,331.0856	4,331.0856	0.8902	0.0000	4,349.7798
Total	**5.8144**	**41.2271**	**30.9084**	**0.0447**	**0.1886**	**3.1869**	**3.2504**	**0.0500**	**3.0502**	**3.0671**	**0.0000**	**4,331.0856**	**4,331.0856**	**0.8902**	**0.0000**	**4,349.7798**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3,535.5632	3.3600e-003	0.3504	3.0000e-005		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003		0.7323	0.7323	2.0700e-003		0.7758
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	18.3759	34.5378	167.5325	0.3406	23.9774	0.4650	24.4424	6.3922	0.4274	6.8196		29,647.4938	29,647.4938	1.2266		29,673.2517
Total	**3,553.9391**	**34.5411**	**167.8829**	**0.3407**	**23.9774**	**0.4663**	**24.4437**	**6.3922**	**0.4287**	**6.8209**		**29,648.2261**	**29,648.2261**	**1.2286**	**0.0000**	**29,674.0275**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3,535.5632	3.3600e-003	0.3504	3.0000e-005		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003		0.7323	0.7323	2.0700e-003		0.7758
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	18.3759	34.5378	167.5325	0.3406	23.9774	0.4650	24.4424	6.3922	0.4274	6.8196		29,647.4938	29,647.4938	1.2266		29,673.2517
Total	**3,553.9391**	**34.5411**	**167.8829**	**0.3407**	**23.9774**	**0.4663**	**24.4437**	**6.3922**	**0.4287**	**6.8209**		**29,648.2261**	**29,648.2261**	**1.2286**	**0.0000**	**29,674.0275**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation Site #2	Site Preparation	10/1/2015	10/31/2015	5	22	
2	Site Preparation Site #1	Site Preparation	10/1/2015	10/31/2015	5	22	
3	Bridge Construction/Assembly Site #1	Building Construction	11/1/2015	12/11/2015	5	30	
4	Bridge Cosntruction/Assembly Site #2	Building Construction	11/1/2015	12/11/2015	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation Site #2	Excavators	1	8.00	162	0.38
Site Preparation Site #2	Forklifts	2	8.00	89	0.20
Site Preparation Site #2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation Site #1	Excavators	1	8.00	162	0.38
Site Preparation Site #1	Forklifts	2	8.00	89	0.20
Site Preparation Site #1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Bridge Construction/Assembly Site #1	Cement and Mortar Mixers	1	4.00	9	0.56
Bridge Construction/Assembly Site #1	Concrete/Industrial Saws	1	4.00	81	0.73
Bridge Construction/Assembly Site #1	Excavators	1	8.00	97	0.37
Bridge Construction/Assembly Site #1	Forklifts	2	8.00	89	0.20

Bridge Construction/Assembly Site #1	Generator Sets	1	8.00	84	0.74
Bridge Construction/Assembly Site #1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Bridge Construction/Assembly Site #1	Welders	1	8.00	46	0.45
Bridge Cosntruction/Assembly Site #2	Cement and Mortar Mixers	1	4.00	9	0.56
Bridge Cosntruction/Assembly Site #2	Concrete/Industrial Saws	1	4.00	81	0.73
Bridge Cosntruction/Assembly Site #2	Excavators	1	8.00	97	0.37
Bridge Cosntruction/Assembly Site #2	Forklifts	2	8.00	89	0.20
Bridge Cosntruction/Assembly Site #2	Generator Sets	1	8.00	84	0.74
Bridge Cosntruction/Assembly Site #2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Bridge Cosntruction/Assembly Site #2	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class

Site Preparation Site #2	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation Site #1	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Bridge Construction/Assembly	8	3.00	0.00	6.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Bridge Construction/Assembly	8	3.00	0.00	6.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation Site #2 - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2594	12.4415	8.4162	0.0115		0.8569	0.8569		0.7884	0.7884		1,203.7762	1,203.7762	0.3594		1,211.3231
Total	**1.2594**	**12.4415**	**8.4162**	**0.0115**	**0.0000**	**0.8569**	**0.8569**	**0.0000**	**0.7884**	**0.7884**		**1,203.7762**	**1,203.7762**	**0.3594**		**1,211.3231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0445	0.0521	0.6092	1.1300e-003	0.0943	7.7000e-004	0.0951	0.0250	7.1000e-004	0.0257		98.3977	98.3977	5.1900e-003		98.5067
Total	**0.0445**	**0.0521**	**0.6092**	**1.1300e-003**	**0.0943**	**7.7000e-004**	**0.0951**	**0.0250**	**7.1000e-004**	**0.0257**		**98.3977**	**98.3977**	**5.1900e-003**		**98.5067**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2594	12.4415	8.4162	0.0115		0.8569	0.8569		0.7884	0.7884	0.0000	1,203.7762	1,203.7762	0.3594		1,211.3231
Total	**1.2594**	**12.4415**	**8.4162**	**0.0115**	**0.0000**	**0.8569**	**0.8569**	**0.0000**	**0.7884**	**0.7884**	**0.0000**	**1,203.7762**	**1,203.7762**	**0.3594**		**1,211.3231**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0445	0.0521	0.6092	1.1300e-003	0.0943	7.7000e-004	0.0951	0.0250	7.1000e-004	0.0257		98.3977	98.3977	5.1900e-003		98.5067
Total	**0.0445**	**0.0521**	**0.6092**	**1.1300e-003**	**0.0943**	**7.7000e-004**	**0.0951**	**0.0250**	**7.1000e-004**	**0.0257**		**98.3977**	**98.3977**	**5.1900e-003**		**98.5067**

3.3 Site Preparation Site #1 - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2594	12.4415	8.4162	0.0115		0.8569	0.8569		0.7884	0.7884		1,203.7762	1,203.7762	0.3594		1,211.3231
Total	**1.2594**	**12.4415**	**8.4162**	**0.0115**	**0.0000**	**0.8569**	**0.8569**	**0.0000**	**0.7884**	**0.7884**		**1,203.7762**	**1,203.7762**	**0.3594**		**1,211.3231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0445	0.0521	0.6092	1.1300e-003	0.0943	7.7000e-004	0.0951	0.0250	7.1000e-004	0.0257		98.3977	98.3977	5.1900e-003		98.5067
Total	**0.0445**	**0.0521**	**0.6092**	**1.1300e-003**	**0.0943**	**7.7000e-004**	**0.0951**	**0.0250**	**7.1000e-004**	**0.0257**		**98.3977**	**98.3977**	**5.1900e-003**		**98.5067**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2594	12.4415	8.4162	0.0115		0.8569	0.8569		0.7884	0.7884	0.0000	1,203.7762	1,203.7762	0.3594		1,211.3231
Total	**1.2594**	**12.4415**	**8.4162**	**0.0115**	**0.0000**	**0.8569**	**0.8569**	**0.0000**	**0.7884**	**0.7884**	**0.0000**	**1,203.7762**	**1,203.7762**	**0.3594**		**1,211.3231**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0445	0.0521	0.6092	1.1300e-003	0.0943	7.7000e-004	0.0951	0.0250	7.1000e-004	0.0257		98.3977	98.3977	5.1900e-003		98.5067
Total	**0.0445**	**0.0521**	**0.6092**	**1.1300e-003**	**0.0943**	**7.7000e-004**	**0.0951**	**0.0250**	**7.1000e-004**	**0.0257**		**98.3977**	**98.3977**	**5.1900e-003**		**98.5067**

3.4 Bridge Construction/Assembly Site #1 - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8893	20.5311	15.2285	0.0218		1.5922	1.5922		1.5239	1.5239		2,120.7277	2,120.7277	0.4434		2,130.0394
Total	**2.8893**	**20.5311**	**15.2285**	**0.0218**		**1.5922**	**1.5922**		**1.5239**	**1.5239**		**2,120.7277**	**2,120.7277**	**0.4434**		**2,130.0394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5800e-003	0.0668	0.0430	1.5000e-004	3.4800e-003	1.0300e-003	4.5100e-003	9.5000e-004	9.5000e-004	1.9000e-003		15.2958	15.2958	1.3000e-004		15.2985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0133	0.0156	0.1828	3.4000e-004	0.0283	2.3000e-004	0.0285	7.5000e-003	2.1000e-004	7.7200e-003		29.5193	29.5193	1.5600e-003		29.5520
Total	**0.0179**	**0.0824**	**0.2257**	**4.9000e-004**	**0.0318**	**1.2600e-003**	**0.0330**	**8.4500e-003**	**1.1600e-003**	**9.6200e-003**		**44.8151**	**44.8151**	**1.6900e-003**		**44.8505**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8893	20.5311	15.2285	0.0218		1.5922	1.5922		1.5239	1.5239	0.0000	2,120.7277	2,120.7277	0.4434		2,130.0394
Total	**2.8893**	**20.5311**	**15.2285**	**0.0218**		**1.5922**	**1.5922**		**1.5239**	**1.5239**	**0.0000**	**2,120.7277**	**2,120.7277**	**0.4434**		**2,130.0394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5800e-003	0.0668	0.0430	1.5000e-004	3.4800e-003	1.0300e-003	4.5100e-003	9.5000e-004	9.5000e-004	1.9000e-003		15.2958	15.2958	1.3000e-004		15.2985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0133	0.0156	0.1828	3.4000e-004	0.0283	2.3000e-004	0.0285	7.5000e-003	2.1000e-004	7.7200e-003		29.5193	29.5193	1.5600e-003		29.5520
Total	**0.0179**	**0.0824**	**0.2257**	**4.9000e-004**	**0.0318**	**1.2600e-003**	**0.0330**	**8.4500e-003**	**1.1600e-003**	**9.6200e-003**		**44.8151**	**44.8151**	**1.6900e-003**		**44.8505**

3.5 Bridge Cosntruction/Assembly Site #2 - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8893	20.5311	15.2285	0.0218		1.5922	1.5922		1.5239	1.5239		2,120.7277	2,120.7277	0.4434		2,130.0394
Total	**2.8893**	**20.5311**	**15.2285**	**0.0218**		**1.5922**	**1.5922**		**1.5239**	**1.5239**		**2,120.7277**	**2,120.7277**	**0.4434**		**2,130.0394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5800e-003	0.0668	0.0430	1.5000e-004	3.4800e-003	1.0300e-003	4.5100e-003	9.5000e-004	9.5000e-004	1.9000e-003		15.2958	15.2958	1.3000e-004		15.2985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0133	0.0156	0.1828	3.4000e-004	0.0283	2.3000e-004	0.0285	7.5000e-003	2.1000e-004	7.7200e-003		29.5193	29.5193	1.5600e-003		29.5520
Total	**0.0179**	**0.0824**	**0.2257**	**4.9000e-004**	**0.0318**	**1.2600e-003**	**0.0330**	**8.4500e-003**	**1.1600e-003**	**9.6200e-003**		**44.8151**	**44.8151**	**1.6900e-003**		**44.8505**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8893	20.5311	15.2285	0.0218		1.5922	1.5922		1.5239	1.5239	0.0000	2,120.7277	2,120.7277	0.4434		2,130.0394
Total	**2.8893**	**20.5311**	**15.2285**	**0.0218**		**1.5922**	**1.5922**		**1.5239**	**1.5239**	**0.0000**	**2,120.7277**	**2,120.7277**	**0.4434**		**2,130.0394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5800e-003	0.0668	0.0430	1.5000e-004	3.4800e-003	1.0300e-003	4.5100e-003	9.5000e-004	9.5000e-004	1.9000e-003		15.2958	15.2958	1.3000e-004		15.2985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0133	0.0156	0.1828	3.4000e-004	0.0283	2.3000e-004	0.0285	7.5000e-003	2.1000e-004	7.7200e-003		29.5193	29.5193	1.5600e-003		29.5520
Total	**0.0179**	**0.0824**	**0.2257**	**4.9000e-004**	**0.0318**	**1.2600e-003**	**0.0330**	**8.4500e-003**	**1.1600e-003**	**9.6200e-003**		**44.8151**	**44.8151**	**1.6900e-003**		**44.8505**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.3759	34.5378	167.5325	0.3406	23.9774	0.4650	24.4424	6.3922	0.4274	6.8196		29,647.4938	29,647.4938	1.2266		29,673.2517
Unmitigated	18.3759	34.5378	167.5325	0.3406	23.9774	0.4650	24.4424	6.3922	0.4274	6.8196		29,647.4938	29,647.4938	1.2266		29,673.2517

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	5,320.14	5,320.14	5320.14	11,357,715	11,357,715
Total	5,320.14	5,320.14	5,320.14	11,357,715	11,357,715

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.552322	0.058092	0.185339	0.123855	0.029634	0.004459	0.012625	0.022329	0.001774	0.001272	0.006012	0.000525	0.001763

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3,535.5632	3.3600e-003	0.3504	3.0000e-005		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003		0.7323	0.7323	2.0700e-003		0.7758
Unmitigated	3,535.5632	3.3600e-003	0.3504	3.0000e-005		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003		0.7323	0.7323	2.0700e-003		0.7758

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	416.4414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,119.0877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0342	3.3600e-003	0.3504	3.0000e-005		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003		0.7323	0.7323	2.0700e-003		0.7758
Total	**3,535.5632**	**3.3600e-003**	**0.3504**	**3.0000e-005**		**1.2600e-003**	**1.2600e-003**		**1.2600e-003**	**1.2600e-003**		**0.7323**	**0.7323**	**2.0700e-003**		**0.7758**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	416.4414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,119.0877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0342	3.3600e-003	0.3504	3.0000e-005		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003		0.7323	0.7323	2.0700e-003		0.7758
Total	**3,535.5632**	**3.3600e-003**	**0.3504**	**3.0000e-005**		**1.2600e-003**	**1.2600e-003**		**1.2600e-003**	**1.2600e-003**		**0.7323**	**0.7323**	**2.0700e-003**		**0.7758**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Construction Greenhouse Gas Emissions at sites #1 and 2

Monte Bello Project - Off-Road Emissions

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3,346.00	Acre	3,346.00	145,751,760.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage of the Monte Bello Open Space Preserve

Construction Phase - Assumed construction schedule based on the Project Description

Off-road Equipment - Assumed construction equipment list based on PD

Off-road Equipment - Assumed construction equipment list based on PD

Off-road Equipment - Assumed construction list based on PD

Off-road Equipment - Assumed construction list based on PD

Trips and VMT - Assumed worker trips based on PD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	30.00
tblConstructionPhase	NumDays	155,000.00	30.00
tblConstructionPhase	NumDays	6,000.00	22.00
tblConstructionPhase	NumDays	6,000.00	22.00
tblConstructionPhase	PhaseEndDate	1/22/2016	12/11/2015
tblConstructionPhase	PhaseEndDate	10/30/2015	10/31/2015
tblConstructionPhase	PhaseEndDate	12/1/2015	10/31/2015
tblConstructionPhase	PhaseStartDate	12/12/2015	11/1/2015

tblConstructionPhase	PhaseStartDate	11/1/2015	10/1/2015
tblOffRoadEquipment	HorsePower	162.00	97.00
tblOffRoadEquipment	HorsePower	162.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	23,889.00	0.00
tblTripsAndVMT	VendorTripNumber	23,889.00	0.00

tblTripsAndVMT	WorkerTripNumber	61,216.00	3.00
tblTripsAndVMT	WorkerTripNumber	61,216.00	3.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.1158	0.8935	0.6611	9.4000e-004	2.9200e-003	0.0667	0.0696	7.8000e-004	0.0631	0.0639	0.0000	84.7337	84.7337	0.0194	0.0000	85.1409
Total	**0.1158**	**0.8935**	**0.6611**	**9.4000e-004**	**2.9200e-003**	**0.0667**	**0.0696**	**7.8000e-004**	**0.0631**	**0.0639**	**0.0000**	**84.7337**	**84.7337**	**0.0194**	**0.0000**	**85.1409**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.1158	0.8935	0.6611	9.4000e-004	2.9200e-003	0.0667	0.0696	7.8000e-004	0.0631	0.0639	0.0000	84.7336	84.7336	0.0194	0.0000	85.1408
Total	**0.1158**	**0.8935**	**0.6611**	**9.4000e-004**	**2.9200e-003**	**0.0667**	**0.0696**	**7.8000e-004**	**0.0631**	**0.0639**	**0.0000**	**84.7336**	**84.7336**	**0.0194**	**0.0000**	**85.1408**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	645.2371	3.0000e-004	0.0315	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0598	0.0598	1.7000e-004	0.0000	0.0633
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.2330	6.6922	31.1834	0.0585	4.2148	0.0848	4.2995	1.1268	0.0779	1.2047	0.0000	4,622.5099	4,622.5099	0.2024	0.0000	4,626.7592
Waste						0.0000	0.0000		0.0000	0.0000	58.4127	0.0000	58.4127	3.4521	0.0000	130.9066
Water						0.0000	0.0000		0.0000	0.0000	0.0000	4,059.2151	4,059.2151	0.1836	0.0380	4,074.8419
Total	**648.4702**	**6.6925**	**31.2149**	**0.0585**	**4.2148**	**0.0849**	**4.2996**	**1.1268**	**0.0780**	**1.2048**	**58.4127**	**8,681.7848**	**8,740.1975**	**3.8382**	**0.0380**	**8,832.5710**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	645.2371	3.0000e-004	0.0315	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0598	0.0598	1.7000e-004	0.0000	0.0633
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.2330	6.6922	31.1834	0.0585	4.2148	0.0848	4.2995	1.1268	0.0779	1.2047	0.0000	4,622.5099	4,622.5099	0.2024	0.0000	4,626.7592
Waste						0.0000	0.0000		0.0000	0.0000	58.4127	0.0000	58.4127	3.4521	0.0000	130.9066
Water						0.0000	0.0000		0.0000	0.0000	0.0000	4,059.2151	4,059.2151	0.1836	0.0380	4,074.8419
Total	**648.4702**	**6.6925**	**31.2149**	**0.0585**	**4.2148**	**0.0849**	**4.2996**	**1.1268**	**0.0780**	**1.2048**	**58.4127**	**8,681.7848**	**8,740.1975**	**3.8382**	**0.0380**	**8,832.5710**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation Site #2	Site Preparation	10/1/2015	10/31/2015	5	22	
2	Site Preparation Site #1	Site Preparation	10/1/2015	10/31/2015	5	22	
3	Bridge Construction/Assembly Site #1	Building Construction	11/1/2015	12/11/2015	5	30	
4	Bridge Cosntruction/Assembly Site #2	Building Construction	11/1/2015	12/11/2015	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation Site #2	Excavators	1	8.00	162	0.38
Site Preparation Site #2	Forklifts	2	8.00	89	0.20
Site Preparation Site #2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation Site #1	Excavators	1	8.00	162	0.38
Site Preparation Site #1	Forklifts	2	8.00	89	0.20
Site Preparation Site #1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Bridge Construction/Assembly Site #1	Cement and Mortar Mixers	1	4.00	9	0.56
Bridge Construction/Assembly Site #1	Concrete/Industrial Saws	1	4.00	81	0.73
Bridge Construction/Assembly Site #1	Excavators	1	8.00	97	0.37
Bridge Construction/Assembly Site #1	Forklifts	2	8.00	89	0.20

Bridge Construction/Assembly Site #1	Generator Sets	1	8.00	84	0.74
Bridge Construction/Assembly Site #1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Bridge Construction/Assembly Site #1	Welders	1	8.00	46	0.45
Bridge Cosntruction/Assembly Site #2	Cement and Mortar Mixers	1	4.00	9	0.56
Bridge Cosntruction/Assembly Site #2	Concrete/Industrial Saws	1	4.00	81	0.73
Bridge Cosntruction/Assembly Site #2	Excavators	1	8.00	97	0.37
Bridge Cosntruction/Assembly Site #2	Forklifts	2	8.00	89	0.20
Bridge Cosntruction/Assembly Site #2	Generator Sets	1	8.00	84	0.74
Bridge Cosntruction/Assembly Site #2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Bridge Cosntruction/Assembly Site #2	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class

Site Preparation Site #2	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation Site #1	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Bridge Construction/Assembly	8	3.00	0.00	6.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Bridge Construction/Assembly	8	3.00	0.00	6.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation Site #2 - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0139	0.1369	0.0926	1.3000e-004		9.4300e-003	9.4300e-003		8.6700e-003	8.6700e-003	0.0000	12.0125	12.0125	3.5900e-003	0.0000	12.0878
Total	**0.0139**	**0.1369**	**0.0926**	**1.3000e-004**	**0.0000**	**9.4300e-003**	**9.4300e-003**	**0.0000**	**8.6700e-003**	**8.6700e-003**	**0.0000**	**12.0125**	**12.0125**	**3.5900e-003**	**0.0000**	**12.0878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.4000e-004	6.2500e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.9141	0.9141	5.0000e-005	0.0000	0.9152
Total	**4.6000e-004**	**6.4000e-004**	**6.2500e-003**	**1.0000e-005**	**1.0000e-003**	**1.0000e-005**	**1.0100e-003**	**2.7000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9141**	**0.9141**	**5.0000e-005**	**0.0000**	**0.9152**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0139	0.1369	0.0926	1.3000e-004		9.4300e-003	9.4300e-003		8.6700e-003	8.6700e-003	0.0000	12.0125	12.0125	3.5900e-003	0.0000	12.0878
Total	**0.0139**	**0.1369**	**0.0926**	**1.3000e-004**	**0.0000**	**9.4300e-003**	**9.4300e-003**	**0.0000**	**8.6700e-003**	**8.6700e-003**	**0.0000**	**12.0125**	**12.0125**	**3.5900e-003**	**0.0000**	**12.0878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.4000e-004	6.2500e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.9141	0.9141	5.0000e-005	0.0000	0.9152
Total	**4.6000e-004**	**6.4000e-004**	**6.2500e-003**	**1.0000e-005**	**1.0000e-003**	**1.0000e-005**	**1.0100e-003**	**2.7000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9141**	**0.9141**	**5.0000e-005**	**0.0000**	**0.9152**

3.3 Site Preparation Site #1 - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0139	0.1369	0.0926	1.3000e-004		9.4300e-003	9.4300e-003		8.6700e-003	8.6700e-003	0.0000	12.0125	12.0125	3.5900e-003	0.0000	12.0878
Total	**0.0139**	**0.1369**	**0.0926**	**1.3000e-004**	**0.0000**	**9.4300e-003**	**9.4300e-003**	**0.0000**	**8.6700e-003**	**8.6700e-003**	**0.0000**	**12.0125**	**12.0125**	**3.5900e-003**	**0.0000**	**12.0878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.4000e-004	6.2500e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.9141	0.9141	5.0000e-005	0.0000	0.9152
Total	**4.6000e-004**	**6.4000e-004**	**6.2500e-003**	**1.0000e-005**	**1.0000e-003**	**1.0000e-005**	**1.0100e-003**	**2.7000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9141**	**0.9141**	**5.0000e-005**	**0.0000**	**0.9152**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0139	0.1369	0.0926	1.3000e-004		9.4300e-003	9.4300e-003		8.6700e-003	8.6700e-003	0.0000	12.0125	12.0125	3.5900e-003	0.0000	12.0878
Total	**0.0139**	**0.1369**	**0.0926**	**1.3000e-004**	**0.0000**	**9.4300e-003**	**9.4300e-003**	**0.0000**	**8.6700e-003**	**8.6700e-003**	**0.0000**	**12.0125**	**12.0125**	**3.5900e-003**	**0.0000**	**12.0878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.4000e-004	6.2500e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.9141	0.9141	5.0000e-005	0.0000	0.9152
Total	**4.6000e-004**	**6.4000e-004**	**6.2500e-003**	**1.0000e-005**	**1.0000e-003**	**1.0000e-005**	**1.0100e-003**	**2.7000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9141**	**0.9141**	**5.0000e-005**	**0.0000**	**0.9152**

3.4 Bridge Construction/Assembly Site #1 - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0433	0.3080	0.2284	3.3000e-004		0.0239	0.0239		0.0229	0.0229	0.0000	28.8584	28.8584	6.0300e-003	0.0000	28.9851
Total	**0.0433**	**0.3080**	**0.2284**	**3.3000e-004**		**0.0239**	**0.0239**		**0.0229**	**0.0229**	**0.0000**	**28.8584**	**28.8584**	**6.0300e-003**	**0.0000**	**28.9851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	1.0400e-003	7.5000e-004	0.0000	5.0000e-005	2.0000e-005	7.0000e-005	1.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2079	0.2079	0.0000	0.0000	0.2080
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.6000e-004	2.5600e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3739	0.3739	2.0000e-005	0.0000	0.3744
Total	**2.6000e-004**	**1.3000e-003**	**3.3100e-003**	**0.0000**	**4.6000e-004**	**2.0000e-005**	**4.8000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5819**	**0.5819**	**2.0000e-005**	**0.0000**	**0.5824**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0433	0.3080	0.2284	3.3000e-004		0.0239	0.0239		0.0229	0.0229	0.0000	28.8583	28.8583	6.0300e-003	0.0000	28.9851
Total	**0.0433**	**0.3080**	**0.2284**	**3.3000e-004**		**0.0239**	**0.0239**		**0.0229**	**0.0229**	**0.0000**	**28.8583**	**28.8583**	**6.0300e-003**	**0.0000**	**28.9851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	1.0400e-003	7.5000e-004	0.0000	5.0000e-005	2.0000e-005	7.0000e-005	1.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2079	0.2079	0.0000	0.0000	0.2080
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.6000e-004	2.5600e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3739	0.3739	2.0000e-005	0.0000	0.3744
Total	**2.6000e-004**	**1.3000e-003**	**3.3100e-003**	**0.0000**	**4.6000e-004**	**2.0000e-005**	**4.8000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5819**	**0.5819**	**2.0000e-005**	**0.0000**	**0.5824**

3.5 Bridge Cosntruction/Assembly Site #2 - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0433	0.3080	0.2284	3.3000e-004		0.0239	0.0239		0.0229	0.0229	0.0000	28.8584	28.8584	6.0300e-003	0.0000	28.9851
Total	**0.0433**	**0.3080**	**0.2284**	**3.3000e-004**		**0.0239**	**0.0239**		**0.0229**	**0.0229**	**0.0000**	**28.8584**	**28.8584**	**6.0300e-003**	**0.0000**	**28.9851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	1.0400e-003	7.5000e-004	0.0000	5.0000e-005	2.0000e-005	7.0000e-005	1.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2079	0.2079	0.0000	0.0000	0.2080
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.6000e-004	2.5600e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3739	0.3739	2.0000e-005	0.0000	0.3744
Total	**2.6000e-004**	**1.3000e-003**	**3.3100e-003**	**0.0000**	**4.6000e-004**	**2.0000e-005**	**4.8000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5819**	**0.5819**	**2.0000e-005**	**0.0000**	**0.5824**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0433	0.3080	0.2284	3.3000e-004		0.0239	0.0239		0.0229	0.0229	0.0000	28.8583	28.8583	6.0300e-003	0.0000	28.9851
Total	**0.0433**	**0.3080**	**0.2284**	**3.3000e-004**		**0.0239**	**0.0239**		**0.0229**	**0.0229**	**0.0000**	**28.8583**	**28.8583**	**6.0300e-003**	**0.0000**	**28.9851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	1.0400e-003	7.5000e-004	0.0000	5.0000e-005	2.0000e-005	7.0000e-005	1.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2079	0.2079	0.0000	0.0000	0.2080
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.6000e-004	2.5600e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3739	0.3739	2.0000e-005	0.0000	0.3744
Total	**2.6000e-004**	**1.3000e-003**	**3.3100e-003**	**0.0000**	**4.6000e-004**	**2.0000e-005**	**4.8000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5819**	**0.5819**	**2.0000e-005**	**0.0000**	**0.5824**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Mitigated	3.2330	6.6922	31.1834	0.0585	4.2148	0.0848	4.2995	1.1268	0.0779	1.2047	0.0000	4,622.5099	4,622.5099	0.2024	0.0000	4,626.7592
Unmitigated	3.2330	6.6922	31.1834	0.0585	4.2148	0.0848	4.2995	1.1268	0.0779	1.2047	0.0000	4,622.5099	4,622.5099	0.2024	0.0000	4,626.7592

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	5,320.14	5,320.14	5320.14	11,357,715	11,357,715
Total	5,320.14	5,320.14	5,320.14	11,357,715	11,357,715

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.552322	0.058092	0.185339	0.123855	0.029634	0.004459	0.012625	0.022329	0.001774	0.001272	0.006012	0.000525	0.001763

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	645.2371	3.0000e-004	0.0315	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0598	0.0598	1.7000e-004	0.0000	0.0633

Unmitigated	645.2371	3.0000e-004	0.0315	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0598	0.0598	1.7000e-004	0.0000	0.0633

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	76.0006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	569.2335					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0315	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0598	0.0598	1.7000e-004	0.0000	0.0633
Total	**645.2371**	**3.0000e-004**	**0.0315**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0598**	**0.0598**	**1.7000e-004**	**0.0000**	**0.0633**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	76.0006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	569.2335					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0315	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0598	0.0598	1.7000e-004	0.0000	0.0633
Total	**645.2371**	**3.0000e-004**	**0.0315**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0598**	**0.0598**	**1.7000e-004**	**0.0000**	**0.0633**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e

Category	tons/yr	MT/yr			
Mitigated		4,059.2151	0.1836	0.0380	4,074.8419
Unmitigated		4,059.2151	0.1836	0.0380	4,074.8419

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 3986.7		4,059.2151	0.1836	0.0380	4,074.8419
Total			**4,059.2151**	**0.1836**	**0.0380**	**4,074.8419**

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 3986.7		4,059.2151	0.1836	0.0380	4,074.8419
Total			**4,059.2151**	**0.1836**	**0.0380**	**4,074.8419**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e

	tons/yr	MT/yr			
Mitigated		58.4127	3.4521	0.0000	130.9066
Unmitigated		58.4127	3.4521	0.0000	130.9066

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	287.76		58.4127	3.4521	0.0000	130.9066
Total			**58.4127**	**3.4521**	**0.0000**	**130.9066**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	287.76		58.4127	3.4521	0.0000	130.9066
Total			**58.4127**	**3.4521**	**0.0000**	**130.9066**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

APPENDIX B
Biological Resources – Species List

Based on review of the biological literature of the region, information presented in previous environmental documentation, and an evaluation of the habitat conditions of the project area, a species was designated as "absent" if: (1) the species' specific habitat requirements are not present, or (2) the species is presumed, based on the best scientific information available, to be extirpated from the project area or region. A species was designated as having a "low potential" for occurrence if: (1) its known current distribution or range is outside of the project area or (2) only limited or marginally suitable habitat is present within the project area. A species was designated as having a "moderate potential" for occurrence if: (1) there is low to moderate quality habitat present within the project area or immediately adjacent areas, or (2) the project area is within the known range of the species, even though the species was not observed during reconnaissance surveys. A species was designated as having a "high potential" for occurrence if: (1) moderate to high quality habitat is present within the project area, and (2) the project area is within the known range of the species.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
SPECIES LISTED OR PROPOSED FOR LISTING			
Plants			
San Mateo thorn-mint *Acanthomintha duttonii*	FE/CE/1B.1	Chaparral and valley grassland. Affinity for serpentine soil. 30 – 260m. Blooms April – June	**Low.** Marginal habitat is found in the project study area. Single occurrence documented within 10 miles and no occurrences documented south of Purisima Creek OSP.
Ben Lomond spineflower *Chorizanthe pungens* var. *hartwegiana*	FE/--/1B.1	Yellow pine forest in disturbed areas along the coast. 90 – 350m. Blooms April - July	**Low.** Marginal habitat is found in the project study area. Single occurrence includes a population south of the study area in Big Basin Redwoods State Park.
Crystal Springs fountain thistle *Cirsium fontinale* var. *fontinale*	FE/CE/1B.1	Chaparral, valley grassland, wetland riparian communities and in seeps. Occurs almost always under natural conditions in wetlands. Affinity to serpentine soil. Blooms March – October	**Low.** Marginal habitat is found in the project study area. Single occurrence documented within 10 miles and no occurrences documented south of Crystal Springs Reservoir.
San Mateo woolly sunflower *Eriophyllum latilobum*	FE/CE/1B.1	Foothill woodland. Affinity to serpentine soil. 20 – 630m. Blooms March – June	**Moderate.** Suitable habitat is found in the project study area. Nearest occurrence is within three miles located north of the study area along Highway 35. Presumed extant in the area.
Santa Cruz wallflower *Erysimum teretifolium*	FE/CE/1B.1	Chaparral and yellow pine forest. 60 – 300m. Blooms March – July	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles; populations documented south of the study area from Boulder Creek to Scotts Valley in Santa Cruz County.
Santa Cruz cypress *Hesperocyparis abramsiana* var. *abramsiana*	FE/CE/1B.2	Closed-cone coniferous forest, chaparral, and low montane coniferous forest with sandstone or granite substrate.	**Low.** Project study area is outside of the understood species range. Documented south of the project study area in the Santa Cruz Mountains.
Butano Ridge cypress *Hesperocyparis abramsiana* var. *butanoensis*	FE/CE/1B.2	Closed-cone coniferous forest, chaparral, and low montane coniferous forest with sandstone or granite substrate. Only seven known stands of this cypress variety occur in the Santa Cruz Mountains. 260 – 770m.	**Low.** Project study area is outside of the understood species range. The single occurrence within 10 miles is located southwest of the project study area in the Santa Cruz Mountains and consists of a small grove within a well-developed redwood forest.
Marin western flax *Hesperolinon congestum*	FT/CT/1B.1	Chaparral and valley/foothill grassland; serpentine soils. Blooms April-July	**Low.** Marginal habitat is found in the project study area. Single occurrence documented 10 mile northwest of the project; no documented occurrences south of Purisima Creek OSP.
Point Reyes meadowfoam *Limnanthes douglasii* ssp. *sulphurea*	--/CE/1B.2	Coastal prairie, freshwater wetlands and wetland-riparian areas. 40 – 110m.Blooms March – May	**Low.** Project study area is outside of understood species range concentrated in Point Reyes.
White-rayed pentachaeta *Pentachaeta bellidiflora*	FE/CE/1B.1	Open dry rocky slopes and grassland, often on soils derived from serpentinite. Blooms March-May	**Low.** Suitable habitat not found in the study area. No documented occurrences south of Crystal Springs Reservoir.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
SPECIES LISTED OR PROPOSED FOR LISTING (cont.)			
Plants (cont.)			
San Francisco popcornflower *Plagiobothrys diffusus*	--/CE/1B.1	Coastal prairie and valley grassland. 17 – 260m. Blooms March – June	**Low.** Suitable habitat is not found in the study area. No occurrences documented within 10 miles of the project; populations documented south of the study area along the coast in Santa Cruz County.
California seablite *Suaeda californica*	FE/--/1B.1	Margins of coastal salt marshes and swamps. 0-5 m. Blooms July – October	**Absent.** Suitable habitat not found in the study area.
showy rancheria clover *Trifolium amoenum*	FE/--/1B.1	Valley grassland and wetland-riparian areas. Usually occurs in wetlands, but occasionally not wetlands. 8 – 160m. Blooms April – June	**Low.** Marginal habitat is found in the project study area. Single historical occurrence on SF peninsula is in Colma.
Invertebrates			
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE/--/--	Coastal scrub and bunchgrass grassland habitats, with larval foodplant, *Sedum spathulifolium*; adults nectar on L*omatium utriculatum, Achillea millefolium, Arabis blepharophylla, Erysimum franciscanum, Ranunculus californicus,* and *Fragaria californica* Period of Identification: March-April	**Low.** Suitable habitat and supportive host plants not found in the study area.
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT/*/--	Native grasslands on serpentine soils in San Francisco Bay area. Host plants: foothill plantain (*Plantago erecta)* (primary); denseflower Indian paintbrush (*Castilleja densiflora*) and owl's clover (*C. exserta*). Period of identification: March - May	**Low.** Suitable habitat not found in the project study area and supportive host plants not observed during reconnaissance survey.
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*	FE/*/--	Coastal dune and prairie communities with host plants including *Grindelia hirsutula, Abronia latifolia, Mondardella, Cirsium vulgare, Erigeron glaucus* where found on the San Francisco and Marin peninsulas.	**Low.** Suitable habitat and supportive host plants not found in the study area.
Fish			
tidewater goby *Eucyclogobius newberryi*	FE/CSC/--	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego Co. to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	**Absent.** Suitable habitat not found in the study area.
delta smelt *Hypomesus transpacificus*	FT/CE/--	Endemic to the Sacramento-San Joaquin Delta distributed from Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, and Solano Counties. Spawning occurs in brackish-water river channels and sloughs of the Delta.	**Absent.** The project study area is outside of the species range.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
SPECIES LISTED OR PROPOSED FOR LISTING (cont.)			
Fish (cont.)			
steelhead *Oncorhynchus (=Salmo) mykiss* central California coast DPS	FT/*/--	Spawns and rears in coastal streams between the Russian River in Sonoma County and Soquel Creek in Santa Cruz County, as well as drainages tributary to San Francisco Bay, where gravelly substrate and shaded riparian habitat occurs.	**Absent.** The project study area occurs above the Stevens Creek Dam and reservoir which blocks passage to the San Francisco Bay outlet.
longfin smelt *Spirinchus thaleichthys*	FC/CT/--	Found throughout the nearshore coastal waters and open waters of San Francisco Bay-Delta including the river channels and sloughs of the Delta. Spawns in the Delta.	**Absent.** Suitable habitat not found in the study area. The project study area occurs above the Stevens Creek Dam and reservoir which blocks passage to the San Francisco Bay outlet.
Amphibians			
California tiger salamander *Ambystoma californiense*	FT/CT/--	Vernal or temporary pools in annual grasslands, or open stages of woodlands. Typically adults use mammal burrows.	**Absent.** Species occurrence documented in the regional vicinity though suitable habitat not found in the project study area.
California red-legged frog *Rana draytonii*	FT/CSC/--	Streams, freshwater pools, and ponds with overhanging vegetation. Also found in woods adjacent to streams. Requires permanent or ephemeral water sources such as reservoirs and slow moving streams and needs pools of >0.5 m depth for breeding.	**High.** Suitable habitat is present in the project study area at Stevens Creek. Marginal breeding habitat is present at the project sites in nearby pools that lacked emergent vegetation to deposit egg masses. Critical habitat for this species is designated within half a mile south of the project sites.
Reptiles			
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE/CE, FP/--	Most often observed in the vicinity of standing water; ponds, lakes, marshes, and sloughs. Temporary ponds and seasonal bodies of water are also used. Banks with emergent and bankside vegetation are preferred and used for cover.	**Moderate.** Marginal habitat is present in the project study area; several documented occurrences within the regional vicinity. Prey species California newt and Sierran tree frog observed during reconnaissance survey though Stevens Creek does not support dense, emergent bank vegetation for cover usually present in preferred habitat.
Birds			
marbled murrelet *Brachyramphus marmoratus*	FT/CE/--	Breeds in coniferous forests near the coast and prefers old growth, mature stands. Nests on large horizontal branches high in the trees. Winters at sea.	**Low.** Forest within the study area is largely riparian dominated by deciduous trees with few conifers. Individuals could occur in the study area but are unlikely to nest here. Critical habitat for this species is designated approximately 4.5 miles south of the study area.
Western snowy plover *Charadrius nivosus nivosus*	FT/CSC/--	Nest on coasts and estuaries on dune-backed beaches and salt pans at lagoons/estuaries.	**Absent.** Suitable habitat not found in the study area.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
SPECIES LISTED OR PROPOSED FOR LISTING (cont.)			
Birds (cont.)			
White-tailed kite *Elanus leucurus*	--/FP/--	Foothills and valleys with oaks, rivers, and marshes; open woodland, desert grassland.	**Moderate.** Although the species is present regionally in more open habitats, it is unlikely to nest or forage in the relatively dense, forested study area, but could nest in edge habitat along parking and access trails.
American peregrine falcon *Falco peregrines anatum*	FD, BCC/FP/--	Wetlands, lakes, rivers, or other water bodies. Also utilizes human-made structures.	**Absent.** Suitable habitat not found in the study area.
California black rail *Laterallus jamaicensis coturniculus*	FP/CT, FP/--	Salt and freshwater marshes, grassy wet meadows.	**Absent.** Suitable habitat not found in the study area.
Ridgway's rail *Rallus obsoletus*	FE/CE, FP/--	Salt marsh wetlands along the San Francisco Bay.	**Absent.** Suitable habitat not found in the study area.
California least tern *Sterna antillarum browni*	FE/CE, FP/--	Open beaches free of vegetation along the California coast.	**Absent.** Suitable habitat not found in the study area.
Mammals			
Salt-marsh harvest mouse *Reithrodontomys raviventris*	FE/CE, FP/--	Dense pickleweed vegetation required with other halophytes often present.	**Absent.** Suitable habitat not found in the study area.
Salt-marsh wandering shrew *Sorex vagrans halicoetes*	--/CSC/--	Salt marshes of the south arm of San Francisco Bay. Found at medium to high marsh 6-8 ft above sea level where abundant driftwood is scattered among pickleweed.	**Absent.** Suitable habitat not found in the study area.
OTHER SPECIAL-STATUS SPECIES			
Plants			
Blasdale's bent grass *Agrostis blasdalei*	--/--/1B.2	Coastal strand, coastal prairie, northern coastal scrub and dunes. 5 – 350m. Blooms May - July	**Absent.** Suitable habitat not found in the study area.
Franciscan onion *Allium peninsulare* var. *franciscanum*	--/--/1B.2	Clay, volcanic, or serpentine substrate in valley and foothill grassland and cismontane woodland. Blooms May - June	**Low.** Marginal habitat is found in the study area. Closest populations documented five miles north of the study area in Jasper Ridge Biological Preserve in San Mateo County.
California androsace *Androsace elongata* ssp. *acuta*	--/--/4.2	Slopes in chaparral, foothill woodland, northern costal scrub and coastal sage scrub. Blooms March - June	**Low.** Suitable habitat is found in the project study area. No documented occurrences in the regional study area.
slender silver moss *Anomobryum julaceum*	--/--/4.2	Damp rock and soil outcrops in broadleaf upland forest, lower montane coniferous forest, and North Coast coniferous forest.	**Low.** Suitable habitat is found in the project study area. Single occurrence within 10 miles is located in Big Basin Redwoods State Park south of the project area.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
		OTHER SPECIAL-STATUS SPECIES (cont.)	
Plants (cont.)			
coast rockress *Arabis blepharophylla*	--/--/4.2	Coastal prairie, mixed evergreen forest and northern coastal scrub. 5 – 800m. Blooms February – May	**Low.** Marginal habitat is found in the project study area. No occurrences documented within 10 miles; nearest populations documented north of the study area in Jasper Ridge Biological Preserve in San Mateo County.
Anderson's manzanita *Arctostaphylos andersonii*	--/--/1B.2	Chaparral, mixed evergreen forest, and redwood forests in openings and along edges. 80 – 820m. Blooms November – March	**Moderate.** Suitable habitat is present within the project study area. Several occurrences are documented in similar open space preserves of the region within 10 miles of the project; nearest occurrence is located seven miles south of the project in the San Lorenzo River watershed.
Schreiber's manzanita *Arctostaphylos glutinosa*	--/--/1B.2	Chaparral and closed-cone pine forests. 210 – 770m. Blooms March – April	**Low.** Suitable habitat is present within the project study area. No occurrences documented within 10 miles; nearest populations documented south of the project study area in Big Basin Redwoods State Park.
Ohlone manzanita *Arctostaphylos ohloneana*	--/--/1B.1	Siliceous shale outcrops, chaparral and knobcone-pine woodland. 400 – 500m. Blooms Feb - Mar	**Low.** Marginal habitat is found in the project study area. No occurrences documented within 10 miles; few occurrences in Santa Cruz County.
King's Mountain manzanita *Arctostaphylos regismontana*	--/--/1B.2	Chaparral, mixed evergreen forest, and north coastal coniferous forest. 200 – 660m. Blooms January – April	**Low.** Suitable habitat is present within the project areas; few individuals documented in similar open space preserves of the region within 10 miles.
Boony Doon manzanita *Arctostaphylos silvicola*	--/--/1B.2	Chaparral, yellow pine forest and closed-cone pine forests. 100 – 890m. Blooms February – March	**Low.** Suitable habitat is present within the project study area. Closest populations documented 10 miles south of the project study area in Big Basin Redwoods State Park.
coastal marsh milk-vetch *Astragalus pycnostachyus* var. *pycnostachyus*	--/--/1B.2	Wetlands and riparian areas primarily located in coastal regions Blooms April – October	**Absent.** Suitable habitat not found in the study area.
alkali milk-vetch *Astragalus tener* var. *tener*	--/--/1B.2	Alkali playa and flats, valley, annual, and foothill grassland, vernal pools, low ground, and flooded lands. 1-170 m. Blooms March – June	**Absent.** Suitable habitat not found in the study area.
Brewer's calandrinia *Calandrinia breweri*	--/--/4.2	Chaparral, northern coastal scrub and coastal sage scrub in disturbed habitat. Blooms March - June	**Low.** Suitable habitat is present within the project study area. No occurrences documented within 10 miles of the project; nearest occurrence is located north of the study area in San Mateo County.
round-leaved filaree *California macrophylla*	--/--/1B.1	Valley grassland and foothill woodland. 15 – 1200m. Blooms March – May	**Low.** Marginal habitat is found onsite. No occurrence documented within 10 miles of the project; closest documented occurrence is a historical record in Pescadero.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
Plants (cont.)			
Oakland star-tulip *Calochortus umbellatus*	--/--/4.2	Chaparral, valley grassland, yellow pine forest and mixed evergreen forest. Has an affinity to serpentine soils. Blooms March - May	**Low.** Suitable habitat found in the project study area. No occurrences documented within 10 miles; nearest documented occurrence is a historical record at Kings Mountain north of the study area.
Santa Cruz Mountains pussypaws *Calyptridium parryi* var. *hesseae*	--/--/1B.1	Chaparral and foothill woodlands. Blooms May - August	**Low.** Suitable habitat found in the project study area. No occurrences documented within 10 miles of the project; few occurrences documented near Eagle Rock in the Santa Cruz Mountains.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	--/--/1B.1	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 1-230m. Blooms May – October	**Absent.** Suitable habitat not found in the study area. Nearest occurrence is 10 miles northeast along the San Francisco Bay.
Point Reyes salty bird's-beak *Chloropyron maritimum* ssp. *palustre*	--/--/1B.2	Coastal salt marsh usually with Salicornia, Distichlis, Jaumea, Spartina, etc. 0-15m. Blooms June – October	**Absent.** Suitable habitat not found in the study area. Nearest occurrence is 10 miles northeast along the San Francisco Bay.
Franciscan thistle *Cirsium andrewsii*	--/--/1B.2	Mixed evergreen forest, northern coastal scrub and wetland, riparian areas along the coast. Affinity to serpentine soil. 13 – 1950m. Blooms March – July	**Low.** Suitable habitat is found in the project study area. No occurrences within 10 miles of the project; few occurrences in San Mateo and Santa Cruz Counties.
lost thistle *Cirsium praeteriens*	--/--/1A	Presumed extinct; habitat unknown. Blooms June – July	**Absent.** Species presumed extinct.
Santa Clara red-ribbons *Clarkia concinna* ssp. *automixa*	--/--/4.3	Cismontane woodland, chaparral. Found on slopes and near drainages. 90-1500m. Blooms May – June	**High.** Suitable habitat is found in the project study area. Nearest occurrence documented within a mile of the project sites at the headwaters of Stevens Creek. Presumed extant in the area.
San Francisco collinsia *Collinsia multicolor*	--/--/1B.2	Closed-cone coniferous forests, coastal scrub, sometimes on serpentinite derived soils.10 – 430m. March-May	**Low.** Suitable habitat is found in the project study area. Historical occurrence is documented at Stanford University within 10 miles of the project.
clustered lady's slipper *Cypripedium fasciculatum*	--/--/4.2	Yellow pine forest, redwood forest, Douglas-fir forest, and wetland-riparian areas. Occurs in stream banks and seeps. 640 – 1890m. Blooms March – August	**Low.** Suitable habitat found in the project study area. No occurrences documented within 10 miles of the project.
mountain lady's-slipper *Cypripedium montanum*	--/--/4.2	Yellow pine forest, mixed evergreen forest and wetland, riparian areas. 370 – 1980m. Blooms March – August	**Low.** Suitable habitat found in the project study area. No occurrences documented within 10 miles of the project.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
Plants (cont.)			
western leatherwood *Dirca occidentalis*	--/--/1B.2	Chaparral, foothill woodland, mixed evergreen forest, broadleaved upland forest, closed-cone pine forest, north coastal coniferous forest, and wetland-riparian areas. Equally likely to occur in wetlands and non-wetlands. 12 – 560m. Blooms January – March	**High.** Suitable habitat is found in the project study area. Several occurrences documented in the region; multiple occurrences documented within one mile of project sites. Presumed extant in the area.
California bottle-brush grass *Elymus californicus*	--/--/4.3	Evergreen forests, foothill woodlands and riparian areas. Blooms May – August	**Low.** Suitable habitat is found in the project study area. Several occurrences documented north of the study area near Crystal Springs Reservoir and south of the study area near Capitola.
Ben Lomond buckwheat *Eriogonum nudum* var. *decurrens*	--/--/1B.1	Chaparral, foothill woodland, and yellow pine forest in coastal areas. Occurs almost always under natural conditions in non-wetlands. 80 – 220m. Blooms June – October	**Low.** Suitable habitat is found in the project study area. Several occurrences documented south of the study area in the mountains above Santa Cruz and Capitola.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	--/--/1B.1	Found in alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 3-45m. Blooms in July	**Absent.** Suitable habitat not found in the study area. Historical occurrences documented north of the study area.
sand-loving wallflower *Erysimum ammophilum*	--/--/1B.2	Coastal strand and dunes. 0 – 70m. Blooms February – June	**Absent.** Suitable habitat not found in the study area.
San Francisco wallflower *Erysimum franciscanum*	--/--/4.2	Northern foredune, northern coastal scrub, northern coastal bluff scrub, central dune scrub. March-June	**Absent.** Suitable habitat not found in the study area.
minute pocket moss *Fissidens pauperculus*	--/--/1B.2	North coast coniferous forest with damp coastal soils. 10 – 1024m.	**Moderate.** Suitable habitat is found in the project study area. Nearest documented occurrence is within five miles of the project south of the study area in Portola Redwoods State Park.
stinkbells *Fritillaria agrestis*	--/--/4.2	Chaparral, valley grassland, foothill woodland and wetland, riparian areas. Affinity to serpentine soils. 11 – 1640m. Blooms March – June	**Low.** Suitable habitat is found within the project study area. No occurrences documented within 10 miles of the project; nearest populations documented southwest of the study area in Ano Nuevo State Park.
fragrant fritillary *Fritillaria liliacea*	--/--/1B.2	Coastal bluff scrub, coastal scrub, valley and foothill grassland; clayey soils, often serpentinite. February-April	**Low.** Suitable habitat is found within the project study area. Nearest occurrence documented within seven miles of the project north of the study area near Lake Lagunitas

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
Plants (cont.)			
Toren's grimmia *Grimmia torenii*	--/--/1B.3	Chaparral, cismontane woodland and lower montane coniferous forest in openings of rocky areas, boulders, and on rock walls.	**Low.** Suitable habitat is found within the project study area. Nearest occurrence is located 10 miles southwest of the project in Big Basin Redwoods State Park.
vaginulate grimmia *Grimmia vaginulata*	--/--/1B.1	Chaparral in openings of rocky areas, boulders, and on rock walls.	**Low.** Suitable habitat is found within the project study area. Nearest occurrence is located 10 miles southwest of the project in Big Basin Redwoods State Park.
Short-leaved evax *Hesperevax sparsiflora* var. *brevifolia*	--/--/1B.2	Sandy bluffs and flats in coastal scrub and coastal dunes. March – June	**Absent.** Suitable habitat not found in the study area.
Loma Prieta hoita *Hoita strobilina*	--/--/1B.1	Mixed evergreen forest and chaparral. Affinity for serpentine soil. 90 – 1170m. Blooms May – July	**Low.** Suitable habitat is not found in the project study area. Single occurrence within 10 miles is historical and located 10 miles southeast of the project study area.
coast iris *Iris longipetala*	--/--/4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps, mesic sites. 5 – 430m. Blooms March – May	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles.
legenere *Legenere limosa*	--/--/1B.1	Vernal pools. Found in beds of vernal pools. 1-880m. Blooms April – June	**Low.** Suitable habitat is not found in the project study area. Single occurrence within 10 miles is located three miles north of the project sites.
serpentine leptosiphon *Leptosiphon ambiguus*	--/--/4.2	Valley grassland, foothill woodland, and northern coastal scrub. Has an affinity to serpentine soils. Blooms March – June	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles.
Crystal Springs lessingia *Lessingia arachnoidea*	--/--/1B.2	Valley grassland, foothill woodlands and northern coastal scrub in disturbed areas. Blooms July - October	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles.
wooly-headed lessingia *Lessingia hololeuca*	--/--/3	Valley grassland, yellow pine forest and northern coastal scrub. Has an affinity to serpentine soils. Blooms June - October	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles.
coast lily *Lilium maritimum*	--/--/1B.1	Coastal scrub prairie, mixed evergreen forest, northern coastal scrub, pine and coniferous forests and wetland and riparian areas. Blooms May – August	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles.
San Mateo tree lupine *Lupinus arboreus* var. *eximius*	--/--/3.2	Coastal scrub and dunes. Blooms April - July	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
Plants (cont.)			
arcuate bush-mallow *Malacothamnus arcuatus*	--/--/1B.2	Gravelly alluvium in chaparral and cismontane woodland. April – September	**High.** Suitable habitat is found in the project study area. Nearest occurrence is documented in Skyline Open Space within a mile of project sites. Presumed extant in the area.
Davidson's bush-mallow *Malacothamnus davidsonii*	--/--/1B.2	Chaparral, northern coastal scrub, coastal sage scrub, and riparian areas. Usually occurs in non-wetlands but occasionally found in wetlands. 140 – 1850m. Blooms June – January	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles.
Mt. Diablo cottonweed *Micropus amphibolus*	--/--/3.2	Valley grassland, foothill woodlands and mixed evergreen forest. Has an affinity to serpentine soils. Blooms March - May	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles.
woodland woolythreads *Monolopia gracilens*	--/--/1B.2	Mixed evergreen forest, broadleaved upland forest, redwood forest, and chaparral, and valley and foothill grasslands. Affinity to serpentine soil. 60 – 1360m. Blooms March – July	**High.** Suitable habitat is found in the project study area. Nearest occurrence documented within a mile of project sites; several occurrences within the regional study area.
pincushion navarretia *Navarretia myersii* var. *myersii*	--/--/1B.1	Found in vernal pools; often in acidic soils. 20 – 330m. Blooms April – May	**Absent.** Suitable habitat not found in the study area.
Kellman's bristle moss *Orthotrichum kellmanii*	--/--/1B.2	Chaparral and cismontane woodland with sandstone and carbonate substrate.	**Low.** Suitable habitat is found in the project study area. Nearest occurrences documented 10 miles south of the project study area in Big Basin Redwoods State Park. Presumed extant in the area; however, the populations are not described as widespread throughout the survey area.
Dudley's lousewort *Pedicularis dudleyi*	--/--/1B.1	Chaparral, cismontane woodland, valley grassland, and redwood forest in coastal areas. 8 – 360m. Blooms April – June	**Moderate.** Suitable habitat is found in the project study area. Nearest documented occurrences are south of the project study area in Portola Redwoods State Park.
Santa Cruz Mountains beardtongue *Penstemon rattanii* var. *kleei*	--/--/1B.2	Chaparral, yellow pine forest and northern coastal coniferous forests. 10 – 660m. Blooms May – June	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles of the project study area.
Monterey pine *Pinus radiata*	--/--/1B.1	Closed-cone coniferous forest and cismontane woodland.	**Low.** Native stands are limited to Ano Nuevo, Cambria, and the Monterey Peninsula.
white-flowered rein orchid *Piperia candida*	--/--/1B.2	Yellow pine forest, north coastal coniferous forest, and broadleaved upland forest. Affinity to serpentine soil. 40 – 730m. Blooms May – September	**High.** Suitable habitat is found in the project study area. Occurrence documented within 1.5 miles of project sites; presumed extant in the area.
Choris' popcornflower *Plagiobothrys chorisianus* var. *chorisianus*	--/--/1B.2	Mesic sites in chaparral, coastal scrub, and coastal prairie. 4 – 300m. Blooms March – June	**High.** Suitable habitat is found in the project study area. Several occurrences documented on Skyline Blvd. within one mile of the project sites. Presumed extant in the area.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
Plants (cont.)			
Oregon polemonium *Polemonium carneum*	--/--/2B.2	Northern coastal scrub, coastal prairie and yellow pine forest. Blooms April - September	**Low.** Suitable habitat is found in the study area. No occurrences documented within ten miles.
Lobb's aquatic buttercup *Ranunculus lobbii*	--/--/4.2	Valley grassland, foothill woodland, redwood forest, freshwater wetlands, wetland-riparian areas and vernal pools. Occurs almost always under natural conditions in wetlands. 12 – 810m. Blooms February – May	**Low.** Marginal habitat is found in the study area. No occurrences documented within ten miles.
Hoffmann's sanicle *Sanicula hoffmannii*	--/--/4.3	Chaparral, mixed evergreen forest, northern coastal scrub and coastal sage scrub. Affinity to serpentine soils. 0 – 280m. Blooms March – May	**Low.** Suitable habitat is present in the project study area. Project study area is outside of known species range.
San Francisco campion *Silene verecunda* ssp. *verecunda*	--/--/1B.2	Mudstone, shale, or serpentine substrates in coastal scrub, coastal prairie, chaparral and valley and foothill grassland. March – June	**Low.** Marginal habitat is found in the study area. No occurrences documented within ten miles.
Santa Cruz microseris *Stebbinsoseris decipiens*	--/--/1B.2	Coastal prairie, chaparral, mixed evergreen forest, closed-cone pine forest and northern coastal scrub. 0 – 510m. Blooms April – May	**Low.** Suitable habitat is present in the project study area. Closest documented occurrences located south of Big Basin Redwoods State Park and along the coast near Swanton.
slender-leaved pondweed *Stuckenia filiformis* ssp. *alpina*	--/--/2B.2	Marshes and swamps, in shallow, clear water of lakes and drainage channels. 15-2,310m. Blooms May – July	**Low.** Marginal habitat is found in the project study area. Historical occurrence documented north of the study area near Palo Alto.
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	--/--/1B.1	Valley and foothill grassland. Alkaline clay. 1-455m. Blooms March – April	**Low.** Marginal habitat is found in the study area. No occurrences documented within ten miles.
Methuselah's beard lichen *Usnea longissima*	--/--/4.2	Found on tree branches in old growth hardwood or coniferous forests, broadleaf upland forests, and north coast coniferous forests. 50 – 1460m.	**Low.** Marginal habitat is found in the project area. Documented within 5 miles of the project study area near Castle Rock State Park; considered extirpated.
Invertebrates			
Monarch butterfly *Danaus plexippus* (wintering sites)	--/*/--	Eucalyptus groves (winter sites). Period of identification: Winter	**Low.** Few eucalyptus occur in the project study area though no wintering populations are previously documented.
unsilvered fritillary *Speyeria adiaste*	--/*/--	Openings in redwood and coniferous forests, oak woodlands, and chaparral. Preferred caterpillar hosts is the goosefoot yellow violet (*Viola purpurea* ssp. *quercetorum*). Period of identification: June - July	**Low.** Marginal habitat occurs in the project study area; host plant not observed during reconnaissance survey.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
Amphibians			
foothill yellow-legged frog *Rana boylii*	--/CSC/--	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	**Moderate.** Suitable habitat is present in the project study area.
red-bellied newt *Taricha rivularis*	--/LS/--	Stream and river dweller found in coastal woodlands and redwood forests of northern California. Eggs are laid in fast-moving portions of rocky streams. Adults retreat into vegetation and under stones during the day.	**High.** Isolated population is found within the Stevens Creek watershed. Not observed during the March 2015 reconnaissance survey but likely to occur in the project study area.
Reptiles			
Western pond turtle *Emys marmorata*	--/CSC/--	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	**Low.** Marginal habitat is present in the project study area; Stevens Creek project sites lack deep pools with basking sites.
Birds			
Cooper's hawk *Accipiter cooperii*	--/WL/--	Nests in riparian areas and oak woodlands, and hunts songbirds at woodland edges.	**High.** Suitable nesting habitat is present in the project study area.
sharp-shinned hawk *Accipiter striatus*	--/WL/--	Nests in dense forests and hunts songbirds along edge habitat. May prefer conifer but also occur in mixed woodlands.	**High.** Suitable nesting habitat is present in the project study area.
long-eared owl *Asio otus*	--/CSC/--	Breeds in dense coniferous or mixed woodland or riverine areas.	**High.** Suitable nesting habitat is present in the project study area; successful nesting pair is documented in Stevens Creek Canyon at the creek headwaters.
Western burrowing owl *Athene cunicularia*	BCC/CSC/--	Open grasslands and shrublands where perches and existing rodent burrows are available	**Absent.** Suitable habitat not found in the study area.
oak titmouse *Baeolophus inornatus*	BCC/*/--	Warm, dry oak or oak-pine woodlands.	**High.** Suitable nesting habitat is present in tree cavities within the project study area.
Northern harrier *Circus cyaneus*	--/CSC/--	Nests in salt or freshwater wetlands, forages over wetlands, annual grasslands.	**Absent.** Suitable habitat not found in the study area.
olive-sided flycatcher *Contopus cooperi*	BCC/CSC/--	Nests in open conifer forest and woodland habitats.	**High.** Suitable nesting habitat is present in the project study area.
black swift *Cypseloides niger*	BCC/CSC/--	Breeds in areas with cliff faces, on coasts or inland canyons. Nests are in sheltered crevices or ledges under overhangs near water, such as a seep or waterfall.	**Low.** Project sites offer marginal nesting habitat though other areas of the study area could host nesting pairs or small colonies though none are previously documented in the region. Individuals could forage in the project study area.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
Birds (cont.)			
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	BCC/CSC/--	Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**Low.** Marginal habitat is present in the study area; though could occur during migration.
Alameda song sparrow *Melospiza melodia pusillula*	--/CSC/--	Salt marshes of eastern and south San Francisco Bay.	**Absent.** Suitable nesting habitat is not present; project study area is outside of known species range.
Nuttall's woodpecker *Picoides nuttallii*	BCC/*/--	Oak and riparian woodlands.	**High.** Suitable nesting habitat is present in the project study area.
Allen's hummingbird *Selasphorus sasin*	BCC/*/--	Brush and woodlands.	**High.** Suitable nesting habitat is present in the project study area.
Mammals			
Pallid bat *Antrozous pallidus*	--/CSC/ WBWG High	Most common in open, dry habitats with rocky areas for roosting. Very sensitive to disturbance of roosting sites. Forages primarily on the ground.	**Low.** Marginal roosting and foraging habitat for this species is present in the project study area.
Townsend's big-eared bat *Corynorhinus townsendii*	--/CC, CSC/ WBWG High	Inhabits caves and mines, but may also use bridges, buildings, rock crevices and tree hollows in coastal lowlands, cultivated valleys and nearby hills characterized by mixed vegetation throughout California below 3,300 meters.	**Low.** Marginal roosting and foraging habitat for this species is present in the project study area.
Santa Cruz kangaroo rat *Dipodomys venustus venustus*	--/*/--	Pine forest with chaparral habitat in the low foothills of the Santa Cruz Mountains in areas with sandy or loamy soils.	**Low.** Suitable habitat not found in the study area and the project study area is outside of the species known range.
western red bat *Lasiurus blossevillii*	--/CSC/ WBWG High	Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	**High.** Suitable foraging and roosting habitat is present in the project study area's mature trees and relatively open understory.
Hoary bat *Lasiurus cinereus*	--/*/ WBWG Medium	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for foraging. Roosts in dense foliage of medium to large trees. Feeds primarily on moths; requires water.	**High.** Suitable roosting habitat is present in the project study area's mature trees.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	--/CSC/--	Forests with moderate canopy cover and brushy understory.	**High.** Suitable habitat is found in the project study area.
yuma myotis *Myotis yumanensis*	--/*/ WBWG Low-Medium	Roosts in caves, old buildings and under bark usually near water bodies for foraging. Forms maternity colony in the spring. Period of identification: August – October, January – February	**High.** Suitable roosting habitat is present in the project study area's mature trees and the bridge at site #1. Foraging is likely over Stevens Creek and tributaries.

TABLE B-1
SPECIAL-STATUS SPECIES CONSIDERED IN EVALUATION OF THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/Other**	**Habitat Description / Blooming Period**	**Potential to Occur in the Study Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
Mammals (cont.)			
Salt-marsh wandering shrew *Sorex vagrans halicoetes*	--/CSC/--	Salt marshes of the south arm of San Francisco Bay. Found at medium to high marsh 6-8 ft above sea level where abundant driftwood is scattered among pickleweed.	**Absent.** Suitable habitat not found in the study area.
American badger *Taxidea taxus*	--/CSC/--	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents.	**Absent.** Suitable habitat not found in the study area.

[a] Potential to Occur Categories:
Unlikely = The project site and/or immediate vicinity do not support suitable habitat for a particular species. Project site is outside of the species known range. Species identified as unlikely to occur are not addressed further in the ISMND.
Low Potential = The project site and/or immediate vicinity only provide limited habitat. In addition, the species' known range may be outside of the project site.
Moderate Potential = The project site and/or immediate vicinity provide suitable habitat.
High Potential = The project site and/or immediate vicinity provide ideal habitat conditions.

STATUS CODES:

FEDERAL: (U.S. Fish and Wildlife Service)
FT = Listed as Threatened (likely to become Endangered within the foreseeable future) by the Federal Government.
BCC = Bird of Conservation Concern
FSC = Federal Species of Concern
FC = Candidate for federal listing
FD= Delisted

STATE:
CT = Listed as Threatened by the State of California
CE= Listed as Endangered by the State of California
CC = California Candidate for Listing
CSC = California Species of Special Concern
CFP= California Department of Fish and Wildlife designated "fully protected"

WL = Watch list
§3503.5 = Protection for nesting species of Falconiformes (hawks) and Strigiformes (owls)
* Special animal-listed on CDFW's Special Animal List

OTHER:
California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR):
1A = Presumed extirpated in California; Rare or extinct in other parts of its range.
1B = Rare, threatened, or endangered throughout range; Most species in this rank are endemic to California.
2A = Extirpated in California, but common in other parts of its range.
2B = Rare, threatened, or endangered in California but common in other parts of its range.
3 = Need more information about species to assign it a ranking.
4 = Limited distribution and therefore warrants monitoring of status.
.1 = Seriously endangered in California
.2 = Fairly endangered in California
LS= Locally Significant Species

WBWG = Western Bat Working Group:
Low = Stable population
Medium = Need more information about the species, possible threats, and protective actions to implement.
High= Imperiled or at high risk of imperilment.

Midpeninsula Regional Open Space District

330 Distel Circle Los Altos, CA 94022

Notice of Intent to Adopt a Mitigated Negative Declaration

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et sec.) that the following project will not have a significant effect on the environment.

File Number	TAZ	APN(s)	Date
n/a	n/a	Publicly Owned Conservation Land	January 19, 2015

Project Name	Project Type (Use)
Monte Bello Open Space Preserve Bridge Projects	Bridge replacement and new trail bridge installation with the purpose of providing safe access for trail users.

Owner	Applicant
Midpeninsula Regional Open Space District (MROSD)	MROSD

Project Location

The project site is within Monte Bello Open Space Preserve (the Preserve). The Preserve is at the head of the Stevens Creek watershed above Palo Alto. Within the Preserve, the project area includes two creek crossing locations along the Stevens Creek Nature Trail, one at a crossing on an unnamed creek slightly upstream of its confluence with the mainstem of Stevens Creek, and another upstream of the first crossing at an existing at-grade wet ford across the mainstem of Stevens Creek.

Project Description

The District has identified two creek crossing locations (Sites 1 and 2) along the Stevens Creek Nature Trail alignment in need of retrofitting. Site #1 is the location of an existing 24-ft-long wooden beam bridge over an unnamed tributary ('Tributary Creek') to Stevens Creek. Stevens Creek Nature Trail in this area is multi-use, but can be closed to cyclists and equestrians. Channel incision and bank erosion underneath the bridge threaten its integrity, making it vulnerable to damage and/or failure during large storm events. Site #2 is an existing at-grade wet ford across the mainstem of Stevens Creek, upstream of the general vicinity of Site #1. Stevens Creek Nature Trail in this location is currently open only to pedestrians.

The proposed project includes bridge construction activities at Sites 1 and 2. Work at Site #1 would replace the existing 24-ft-long wooden beam bridge across Tributary Creek with a new 45- to 50-ft-long steel bridge that is farther from the actively eroding creek banks. Work at Site #2 would replace an existing at-grade wet ford crossing of the Stevens Creek mainstem with a new 45- to 50-ft-long steel bridge to improve safety and avoid sensitive creek and riparian habitats.

Please refer to the Project Description, Chapter 1, of the IS/MND for more information about the project.

Purpose of Notice

The purpose of this notice is to inform you that MROSD Staff has recommended that a Mitigated Negative Declaration be approved for this project. MROSD Staff has reviewed the Initial Study for the project, and based upon substantial evidence in the record, finds that the proposed project could not have a significant effect on the environment with implementation of mitigation measures.

Public Review Period:	Begins: 01/27/16	Ends: 02/27/16

Public Comments regarding the correctness, completeness, or adequacy of this mitigated negative declaration are invited and must be received on or before the end of the public review period. Such comments should be based on specific environmental concerns. Written comments should be addressed to the Midpeninsula Regional Open Space District, 330 Distel Circle, Los Altos, CA 94022-1404 or by email at: bapple@openspace.org. For additional information regarding this Mitigated Negative Declaration, please contact Bryan Apple at 650-691-1200.

Public Meeting or Hearing:	Date: 03/09/16	Time: 7:00 PM	Place: MROSD Office (see address below)

Action is scheduled on this proposed Mitigated Negative Declaration by the MROSD Board of Directors on March 9, 2016 beginning at 7:00 pm in the MROSD Administrative Office, located at 330 Distel Circle, Los Altos, CA, 94022. It should be noted that the approval of a Mitigated Negative Declaration does not constitute approval of the project under consideration. The decision to approve or deny the project will be made separately. Meeting information will be posted on the Midpeninsula Regional Open Space District website at http://www.openspace.org/about_us/meetings.asp or you may contact the District Clerk at 650-691-1200.

The Negative Declaration and Initial Study may be viewed at the following locations:

(1) Midpeninsula Regional Open Space District, 330 Distel Circle, Los Altos, CA 94022

(2) The document is also available online during the review period at http://www.openspace.org/about-us/notices

Other Agencies sent a copy of this document:

California Department of Fish and Wildlife
City of Palo Alto
San Francisco Bay Regional Water Quality Control Board

Potentially Significant effects on the environment:

3.b) Exhaust emissions caused by the use of mobile equipment, trenching and earthmoving activities would result in emissions of fugitive dust including PM_{10} and $PM_{2.5}$, which could be a significant impact. Implementation of Mitigation Measure AIR-1 would reduce the project's construction impacts from fugitive dust emissions to a less-than-significant level.

4.a) The proposed project could have a substantial adverse effect on special-status plants including San Mateo woolly sunflower, Anderson's manzanita, Santa Clara red-ribbons, western leatherwood, minute pocket moss, arcuate bush-mallow, woodland woolythreads, Dudley's lousewort, white-flowered rein orchid, and Choris' popcornflower. In addition, the proposed project could have a substantial adverse effect on special-status wildlife including California red-legged frog, San Francisco garter snake, foothill yellow-legged frog, red-bellied newt, special-status and migratory birds, special-status bats, and San Francisco dusky-footed woodrat. Implementation of Mitigation Measures BIO-1a through BIO-1g would reduce potential impacts on special-status plants and wildlife to a less-than-significant level.

4.b) The proposed project would remove eight trees (six are less than six inches diameter at breast height [dbh], one is exactly six inches dbh, and one is 15 inches dbh), and disturb some ground vegetation along the creeks. Disturbance to any amount of riparian habitat without restoration is a substantial adverse effect and therefore significant. Implementation of Mitigation Measure BIO-2 would reduce project-effects on riparian habitat to a less-than-significant level.

4.c) Potential temporary impacts on water quality during construction could result from the release of hazardous construction-related materials into the unnamed tributary creek or Stevens Creek, which could result in a potentially significant impact on aquatic communities. Also, if the Regional Water Quality Control Board determines the extent of the waters of the State extends beyond the limits of the U.S. and into the project work area, the project may result in temporary construction impacts to waters of the State, which would be a significant impact. Implementation of Mitigation Measures HAZ-1, HYD-1, BIO-1b, BIO-1c, BIO-1d, BIO-3 would reduce impacts on jurisdictional waters to a less-than-significant level.

4.d) Construction associated with the removal of the existing bridge at Site 1 and installation of the new bridges at Site 1 and Site 2 and general use of the work areas during project construction could result in potentially significant temporary impacts to native wildlife movement within upland areas adjacent to the creek channels. Implementation of Mitigation Measures BIO-1b through BIO-1d would reduce impacts on wildlife movement to a less-than-significant level.

5.b) Although the potential to affect archaeological resources would be low, the discovery of resources could occur during project implementation and any damage to the resources would be a significant impact. Implementation of Mitigation Measure CUL-1 would reduce the impact to a less-than-significant level.

5.c) While the damage or destruction of unique paleontological resources during project construction from ground disturbances is unlikely, the damage or destruction of unique paleontological resources could occur and would result in a significant impact. Implementation of Mitigation Measure CUL-2 would reduce the impact to a less-than-significant level.

5.d) It is unlikely that human remains would be encountered at the project sites; yet in the event of the discovery of any human remains during project implementation, any impact to the remains would result in a significant impact. Implementation of Mitigation Measure CUL-3 would reduce the impact to a less-than-significant level.

6.a.i) The possibility of a surface fault rupture is high near Site #1, but low near Site #2. However, the project sites are located in remote areas that are only utilized for recreation. The likelihood of exposing people to potential adverse effects

such as injury or death from fault rupture is low because people would generally be on the bridges for short periods of time. Compliance with the California Building Code and implementation of Mitigation Measure GEO-1 would ensure that the impact from fault rupture would be less than significant.

6.a.ii) It is likely that in the event of an earthquake within the San Andreas Fault Zone both project sites would experience seismic shaking. However, the project sites are located in remote areas that are only utilized for recreation. The likelihood of exposing people to potential adverse effects such as injury or death from a seismic ground shaking rupture is low because people would generally be on the bridges for short periods of time. Incorporation of Mitigation Measure GEO-1 would reduce this impact to less than significant.

6.a.iv, c) The risk of damage due to slope instability is moderate at the project sites. However, the issue of slope stability has been addressed in the engineering geology study prepared by Timothy Best, CEG.[1] With incorporation of Mitigation Measure GEO-1 the potential hazard from unstable slopes would be minimized to a less-than-significant level.

6.b) If uncontrolled or not managed, soil erosion resulting from project construction would be a potentially significant impact. Implementation of Mitigation Measure HYD-1 would reduce this potential impact to a less-than-significant level.

8.b) Project construction could potentially require the use of certain hazardous materials such as fuels and oils. Inadvertent release of these materials into the environment could adversely impact soil, surface waters, or groundwater quality, which could be a significant impact. Implementation of Mitigation Measure HAZ-1, along with MRSOD's existing practices and OSHA's existing regulations, would reduce any risk associated with hazardous materials used during construction to less-than-significant levels.

8.h) Although the project area is mapped outside a Very High Fire Hazard Severity Zone,[2] the project setting amid mature trees, bushes, and grasslands provides a setting conducive to the ignition and spread of a wildland fire if appropriate measures are not taken during construction activities. Implementation of Mitigation Measure HAZ-2 would reduce the impact to less than significant.

9.a, f) Construction and ground disturbance activities associated with the proposed project would occur in close proximity to Tributary and Stevens Creeks, and such activities could cause dislodging of soil and erosion or inadvertent spills of construction related chemicals, resulting in potentially adverse water quality impacts related to sedimentation, turbidity, and/or fuels and oils. Implementation of Mitigation Measure HAZ-1 and HYD-1 would reduce the potential water quality impacts to a less-than-significant level.

Mitigation Measures included in the project to reduce potentially significant impacts to a less than significant level:

Mitigation Measure AIR-1 would reduce construction impacts from fugitive dust emissions to less-than-significant levels by requiring staff and/or the construction contractor(s) to implement a dust abatement program that includes, but is not necessarily limited to Bay Area Air Quality Management District recommended measures to control dust.

Mitigation Measure BIO-1a would reduce potentially significant impacts on special-status plants by requiring pre-construction protocol-level surveys, implementing avoidance measures, and relocating extant populations if present.

Mitigation Measure BIO-1b would reduce potentially significant impacts on special-status plants, wildlife, wetlands, and wildlife movement by requiring a project-specific Worker Environmental Awareness Program (WEAP) training be implemented by a qualified biologist and attended by all construction personnel prior to beginning work onsite. The WEAP training would include information that would increase worker education regarding the potential presence and sensitivity of relevant biological resources.

Mitigation Measure BIO-1c would minimize impacts on special-status species and sensitive biological resources by requiring the contractor to implement various general construction measures. Precautions that would be taken in the project site include setting a speed limit of project-related vehicles on unpaved roads, prohibiting firearms and pets, restricting wildlife access to garbage and food waste, and establishing reporting protocols for personnel to report harm, injury, or mortality to special-status species.

Mitigation Measure BIO-1d would reduce potentially significant impacts on the California red-legged frog, San Francisco garter snake, foothill yellow-legged frog, and red-bellied newt during project-related activities by implementing specific

[1] Best, Timothy C., CEG, 2015. *Draft Engineering Geologic Review: Stevens Creek Nature Trail Bridge Upgrade Project.* Midpeninsula Regional Open Space District, Monte Bello Open Space Preserve, Santa Clara County, CA, prepared for Midpeninsula Regional Open Space District, November 19, 2015.

[2] CALFIRE, 2008. Santa Clara County Hire Hazard Severity Map: Local Responsibility Area. Available online: http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.php

protection and avoidance measures such as erecting exclusionary fencing around key project boundaries (i.e. all staging areas, bridge installation work areas, and the trail realignment work areas at the Tributary Creek and Stevens Creek work sites), conducting pre-construction surveys and biological monitoring during construction, and requiring additional protection measures during project construction.

Mitigation Measure BIO-1e would reduce potentially significant impacts on nesting birds by limiting removal of vegetation to periods outside of the bird nesting season, to the extent feasible, and establishing no work buffer zones around active nests on or near the project site.

Mitigation Measure BIO-1f would reduce potentially significant impacts on special-status bat by limiting removal of vegetation to periods outside of the roosting season, to the extent feasible, and by implementing avoidance measures if potential roosting habitat or active roosts are present.

Mitigation Measure BIO-1g would reduce potentially significant impacts on the special-status San Francisco dusky-footed woodrat by requiring a pre-construction survey for active middens in suitable habitat within and surrounding the project area, staging areas, or along access roads. The measure would require avoidance, to the extent feasible, or relocation in consultation with the CDFW if active middens area identified.

Mitigation Measure BIO-2 would reduce project-effects on riparian habitats to a less-than-significant level by requiring MROSD or its contractors to restore riparian habitat disturbed during project construction at Site 1 along Tributary Creek and Site 2 along Stevens Creek, at adjacent access areas along the creek corridors, and the trail realignment footprints to pre-project conditions following project completion.

Mitigation Measure BIO-3 would reduce potentially significant impacts on jurisdictional waters by requiring MROSD and its contractors to minimize the disturbance area and restoring temporary use areas to pre-project conditions.

Mitigation Measure CUL-1 would reduce potential significant impacts on archaeological resources to a less-than-significant level by requiring the implementation of avoidance measures if archeological resources are encountered, additional measures if the project could damage an identified historical resource or unique archaeological resource, and, if avoidance is not feasible, the preparation of a detailed treatment plan.

Mitigation Measure CUL-2 would reduce potential significant impacts on unique paleontological resources to a less-than-significant level by requiring the implementation of avoidance measures and appropriate salvage measures if paleontological resources are identified.

Mitigation Measure CUL-3 would reduce potential significant impacts on human remains to a less-than-significant level by requiring avoidance and appropriate treatment measures including consultation with the County Coroner and/or Native American Heritage Commission if human remains or grave goods are found.

Mitigation Measure GEO-1 would reduce potentially significant impacts from fault rupture, seismic ground shaking rupture, and unstable slopes by requiring MROSD to develop project design specifications consistent with and/or incorporating various recommendations in the specific engineering geology investigation.

Mitigation Measures HAZ-1 would reduce potentially significant impacts from the potential release of construction-related fuels and other hazardous materials into the environment by implementing Best Management Practices (BMPs) based on the Regional Water Quality Control Board's Erosion and Sediment Control Field Manual.

Mitigation Measure HAZ-2 would reduce potential significant impacts from wildland fires to a less-than-significant level by requiring MROSD and/or its contractors to implement various fire safety construction practices including restricting mechanical construction equipment use, providing water to suppress potential fires, and halting work under certain conditions.

Mitigation Measure HYD-1 would reduce potentially significant impacts on wetlands, on water quality, and from soil erosion with the implementation of erosion-control measures consistent with the MROSD's BMP's for road/trail work near streams.[3]

[3] Midpeninsula Regional Open Space District, 2013. Best Management Practices for Routine Maintenance Activities in Water Courses. Based on approved BMPs from the California Salmonid Stream Habitat Restoration Manual, Tim Best, CEG, the BMP Appendix to the District's 5-Year agreement with CDFW for streambed alteration (Section 1600 permits), and other sources.

A reporting or monitoring program must be adopted for measures to mitigate significant impacts at the time the Negative Declaration is approved, in accord with the requirements of section 21081.6 of the Public Resources Code.

Prepared by:

[print name] Aaron Hébert — **Signature** — 1/21/16 **Date**

Approved by:

[print name] JANE MARK — **Signature** — 1/21/16 **Date**

RESOLUTION NO. 16-____

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MIDPENINSULA REGIONAL OPEN SPACE DISTRICT ADOPTING A MITIGATED NEGATIVE DECLARATION INCLUDING A MITIGATION MONITORING PROGRAM IN CONNECTION WITH THE MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS

I. The Midpeninsula Regional Open Space District ("MROSD") is a lead agency, as provided for under section 21067 of the California Environmental Quality Act (CEQA, Public Resources Code sections 21000 et seq.).

II. An Initial Study and Mitigated Negative Declaration (collectively referred to as the MND), attached to the MROSD Board Report, dated March 9, 2016, and incorporated into this Resolution as if fully set forth herein; was prepared for the Monte Bello Open Space Preserve Bridge Projects ("Project") pursuant to the requirements of the California Environmental Quality Act (CEQA, Public Resources Code sections 21000 et seq.) and the CEQA Guidelines (14 Cal. Code. Regulations sections 15000 et seq.).

III. A Notice of Intent (NOI) to adopt a MND was distributed to the California Office of Planning and Research's State Clearinghouse, interested agencies, individuals, adjacent property owners, and nearby residents, and posted in a general circulation newspaper, at the County of Santa Clara Clerk Recorder's Office, and on the MROSD website, notifying all interested parties of the availability and 30-day public review period of the MND from January 27, 2016 to February 27, 2016. Copies of the full MND were available on the MROSD website, at the MROSD Administrative Office at 330 Distel Circle, Los Altos, CA 94022, and printed copies were available upon request.

IV. The MND identified potentially significant adverse impacts on the environment, including specific impacts to Air Quality, Biological Resources, Cultural Resources, Geology, Soils, and Seismicity, Hazards and Hazardous Materials, and Hydrology and Water Quality and found that mitigation for the proposed Project would avoid or mitigate these impacts to below a level of significance by adoption and implementation of the proposed mitigation measures as part of the Project and through implementation of the Mitigation Monitoring Program (MMP).

V. A Mitigation Monitoring Program (Exhibit A) was prepared to ensure compliance with the MND's mitigation measures and attached to the MROSD Board Report, dated March 9, 2016, and incorporated into this Resolution as if fully set forth herein.

VI. On March 9, 2016, the Board of Directors of MROSD conducted a duly noticed public meeting whereby all oral and written comments received during the public review period and a staff recommendation for approval of the MND were presented to the Board of Directors of MROSD. The Board of Directors of MROSD reviewed and considered the information in the MND, administrative record, and Staff Reports for completeness and compliance with CEQA and the CEQA Guidelines.

NOW, THEREFORE, BE IT RESOLVED that, based upon the Initial Study, Mitigated Negative Declaration, Mitigation Monitoring Program, all comments received, and all substantial evidence in light of the whole record presented, the MROSD Board of Directors finds that:

1. The MND and NOI were prepared and publicly noticed in accordance with all legal requirements pursuant to the California Environmental Quality Act (CEQA, Public Resources Code sections 21000 et seq.) and the CEQA Guidelines (14 Cal. Code. Regulations sections 15000 et seq.).

2. All interested parties desiring to comment on the MND were given the opportunity to submit oral and written comments on the adequacy of the MND prior to this action by the MROSD Board of Directors and all comments raised during the public comment period and at the public meeting on the MND were responded to adequately.

3. Prior to approving the Project, the MROSD Board has considered the MND, along with all comments received during the public review process.

4. The MND identified all potentially significant impacts to the environment and finds potentially significant impacts will be mitigated to less than significant or avoided by adoption of the mitigation measures as described in the MND as part of the Project and through implementation of the MMP.

5. The MROSD Board finds that, on the basis of the whole record before it, including the MND and all comments received, there is no substantial evidence that the Project will have a significant effect on the environment in that, although the Project could have a significant effect on the environment, there will not be a significant effect since Mitigation Measures have been made a part of the Project to avoid such effects.

6. The MROSD Board determines that the MND reflects MROSD's independent judgment and analysis and adopts the MND.

7. The MROSD Board adopts the MMP and finds that these mitigation measures are fully enforceable conditions on the Project and shall be implemented as part of the Project.

8. The location and custodian of the documents or other material which constitute the record of proceedings upon which this decision is based are located at the offices of the General Manager of the Midpeninsula Regional Open Space District, 330 Distel Circle, Los Altos, California 94022.

* *

PASSED AND ADOPTED by the Board of Directors of the Midpeninsula Regional Open Space District on ____, 2016, at a Regular Meeting thereof, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

ATTEST:

Secretary
Board of Directors

APPROVED:

President
Board of Directors

APPROVED AS TO FORM:

General Counsel

I, the District Clerk of the Midpeninsula Regional Open Space District, hereby certify that the above is a true and correct copy of a resolution duly adopted by the Board of Directors of the Midpeninsula Regional Open Space District by the above vote at a meeting thereof duly held and called on the above day.

District Clerk

EXHIBIT A

MITIGATION MONITORING PROGRAM

Monte Bello Open Space Preserve Bridge Projects
Monte Bello Open Space Preserve

State Clearinghouse Number: 2016012050

Santa Clara County, CA

January 19, 2016

Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022-1404

MONTE BELLO OPEN SPACE PRESERVE
MONTE BELLO OPEN SPACE PRESERVE BRIDGE PROJECTS
MITIGATION MONITORING PROGRAM

This mitigation monitoring program (MMP) includes a brief discussion of the legal basis and purpose of the program, a key to understanding the monitoring matrix, discussion and direction regarding noncompliance complaints, and the mitigation monitoring matrix itself.

LEGAL BASIS AND PURPOSE OF THE MITGATION MONITORING PROGRAM

Public Resources Code (PRC) 21081.6 requires public agencies to adopt mitigation monitoring or reporting programs whenever certifying and environmental impact report or mitigated negative declaration. This requirement facilitates implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process.

MONITORING MATRIX

The following pages provide a series of tables identifying the mitigations incorporated into the Monte Bello Open Space Preserve Bridge Projects at Monte Bello Open Space Preserve (the project). These mitigations are reproduced from the Mitigated Negative Declaration for the project. The columns within the tables have the following meanings:

Number:	The number in this column refers to the Initial Study section where the mitigation is discussed.
Mitigation:	This column lists the specific mitigation identified within the Mitigated Negative Declaration.
Timing:	This column identifies at what point in time, review process, or phase the mitigation will be completed. The mitigations are organized by order in which they appear in the Mitigated Negative Declaration.
Who will verify?	This column references the District staff that will ensure implementation of the mitigation.
Agency / Department Consultation:	This column references any public agency or District Department with which coordination is required to ensure implementation of the mitigation. California Department of Fish and Wildlife is listed as CDFW. The United States Fish and Wildlife Service is listed as USFWS.
Verification:	This column will be initialed and dated by the individual designated to confirm implementation.

NONCOMPLIANCE COMPLAINTS

Any person or agency may file a complaint asserting noncompliance with the mitigation measure associated with the project. The complaint shall be directed to the District's General Manager in written form, providing specific information on the asserted violation. The General Manager shall cause an investigation and determine the validity of the complaint; if noncompliance with the mitigation has occurred, the General Manager shall cause appropriate actions to remedy any violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance.

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
Mitigation in Section 3.b	**(AIR-1) :** During construction activities, the Applicant shall require staff and/or the construction contractor(s) to implement a dust abatement program that includes, but is not necessarily limited to, the following BAAQMD-recommended measures as needed, to control dust: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.	During construction	District Project Manager or their designee	N/A	
Mitigation in Section 4.a	**(BIO-1a)** A qualified botanist shall conduct appropriately timed surveys for special-status plant species with a moderate or high potential to occur in the study area in all suitable habitat that would be potentially disturbed by the project. Surveys shall be conducted following the current CDFW protocol (CDFG, 2009). If no special-status plants are found during focused surveys, the botanist shall document the findings of found species in a letter to CDFW, and no further mitigation will be required. If special-status plants are found during focused surveys, the following measures shall be implemented: 1. Information regarding the special-status plant populations shall be reported to the CNDDB, mapped, and documented in a technical memorandum provided to MROSD. 2. If federally or state listed species are present, MRSOD shall comply with the federal and State Endangered Species Acts through consultation with USFWS and CDFW,	Prior to construction	District Natural Resource Staff or Qualified Botanist	Botanist, CDFW, USFWS	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	respectively. 3. If any population can be avoided during project implementation, it shall be clearly marked in the field by a qualified botanist and avoided during construction activities. Before ground clearing or ground disturbance, all on-site construction personnel shall be instructed as to the species' presence and the importance of avoiding impacts to this species and its habitat though the Worker Environmental Awareness Program training (see Mitigation Measure BIO-1b). 4. If special-status plant populations cannot be avoided, MROSD shall consult with CDFW to coordinate relocation of special-status plants. To the extent feasible, special-status plants that would be impacted by the project shall be relocated within local suitable habitat. This can be done either through salvage and transplanting or by collection and propagation of seeds or other vegetative material. Any plant relocation would be done under the supervision of a qualified biologist. 5. If more than two years elapses between the focused floristic surveys and commencement of ground disturbance activities, or if project construction spans multiple years, a final set of appropriately timed focused botanical surveys shall be conducted and populations mapped. The results of these final surveys shall be combined with previous survey results to produce habitat maps showing habitat where the special-status plants have been observed during either of the focused floristic surveys conducted for the project.				
Mitigation in Section 4.a, 4.c, 4.d	**(BIO-1b)** A project-specific Worker Environmental Awareness Program (WEAP) training shall be developed and implemented by a qualified biologist for the project and attended by all construction personnel prior to beginning work onsite. The training could consist of a recorded presentation that could be reused for new personnel. The WEAP training shall generally include but not be limited to the following: 1. Applicable State and federal laws, environmental regulations, project permit conditions, and penalties for non-compliance; 2. Special-status plant and animal species with potential to occur at or in the vicinity of the project site (i.e. California red-legged frog, San Francisco garter snake, foothill yellow-legged frog, red-bellied newt, special-status and migratory birds, special-status bats, and San Francisco dusky-footed woodrat), their habitat, the importance of these species and their habitat, the general measures that are being implemented to conserve these species as they relate to the project, and the boundaries within which the project	Prior to construction	District Natural Resource Staff or Qualified Biologist	Biologist	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	construction shall occur, avoidance measures, and a protocol for encountering such species including a communication chain; 3. Pre-construction surveys and biological monitoring requirements associated with each phase of work and at each project site; 4. Known sensitive resource areas in the project vicinity that are to be avoided and/or protected as well as approved project work areas; and 5. Best management practices (BMPs) and their location on the project site for erosion control and/or species exclusion.				
Mitigation in Section 4.a, 4.c, 4.d	**(BIO-1c)** MROSD shall ensure that the following general measures are implemented by the contractor while working in the project site during construction to prevent and minimize impacts on special-status species and sensitive biological resources: 1. Project-related vehicles shall observe a 15 mile-per-hour speed limit on unpaved roads in the project site. 2. No firearms or pets shall be allowed in the project site. 3. The contractor shall provide closed garbage containers for the disposal of all food-related trash items. All garbage shall be collected daily from the project site and placed in a closed container from which garbage shall be removed weekly. Construction personnel shall not feed or otherwise attract fish or wildlife to the project site. 4. As necessary, erosion control measures shall be implemented to prevent any soil or other materials from entering any nearby aquatic habitat. Erosion control measures shall be installed adjacent to aquatic habitat to prevent soil from eroding or falling into the area. 5. Erosion control measures shall be implemented as described in Mitigation Measure HYD-1. Sediment control measures shall be furnished, constructed, maintained, and later removed. Plastic monofilament of any kind (including those labeled as biodegradable, photodegradable, or UV-degradable) shall not be used. Only natural burlap, coir, or jute wrapped fiber rolls shall be used. 6. If vehicle or equipment maintenance is necessary, it shall be performed in designated upland staging areas (not at either creek work site), and spill kits containing cleanup materials shall be available onsite. Maintenance activity and fueling must occur away	During construction	District Project Manager or their designee	CDFW, USFWS	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	at least 100 feet from waters of the United States. 7. No equipment used in support of project implementation (e.g. small bobcat or motorized wheelbarrow) shall enter or cross creeks while water is flowing. 8. Project personnel shall be required to report immediately any harm, injury, or mortality of a listed species (federal or State) during construction, including entrapment, to the construction foreman, qualified biologist, or MROSD staff. MROSD staff or their consultant shall provide verbal notification to the USFWS Endangered Species Office in Sacramento, California, and/or to the local CDFW warden or biologist (as applicable) within 1 working day of the incident. MROSD or their consultant shall follow up with written notification to the appropriate agencies within 5 working days of the incident. All special-status species observations shall be recorded on California Natural Diversity Data Base (CNDDB) field sheets and sent to the CDFW by the MROSD staff or their consultant. 9. The spread of invasive non-native plant species and plant pathogens shall be avoided or minimized by implementing the following measures: a. Construction equipment shall arrive at the project clean and free of soil, seed, and plant parts to reduce the likelihood of introducing new weed species. b. Any imported fill material, soil amendments, gravel, or other materials required for construction and/or restoration activities that will be placed within the upper 12 inches of the ground surface shall be free of vegetation and plant material. c. Certified weed-free imported erosion control materials (or rice straw in upland areas) shall be used exclusively, if possible. d. To reduce the movement of invasive weeds into uninfested areas, the contractor shall stockpile topsoil removed during excavation (e.g., during excavation of bridge supports) and shall subsequently reuse the stockpiled soil for re-establishment of disturbed project areas.				
Mitigation in Section 4.a, 4.c, 4.d	**(BIO-1d)** The following conservation measures shall be implemented to minimize or eliminate potential adverse impacts on California red-legged frog, San Francisco garter snake, foothill yellow-legged frog, and red-bellied newt during project-related activities: 1. MROSD staff or their consultant shall submit the name and credentials of biologists qualified to act as the biological monitor to CDFW for approval at least 15 days before	Prior to and during construction	District Natural Resource Staff or their designee	Biologist, CDFW	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	construction work begins. General minimum qualifications are a 4-year degree in biological sciences or other appropriate training and/or experience in surveying, identifying, and handling California red-legged frogs (CRLF), San Francisco garter snake (SFGS), and foothill yellow-legged frog (FYLF). A "take" permit from USFWS will not be pursued for the project, therefore CRLF and SFGS would not be relocated if encountered in project areas but allowed to disperse of their own volition while all work is halted within 50 feet of individuals. If a CRLF is not dispersing on its own volition, the on-site biologist shall monitor the frog while work continues, as long as the on-site biologist can ensure the safety of the frog. A take permit is not required for foothill yellow-legged frog as the species is not federally-listed threatened or endangered; however, CDFW may condition qualified biologists to relocate FYLF under the project's 1602 lake and streambed alteration agreement. 2. A CDFW-approved biologist shall survey the work sites 2 weeks before the onset of construction for CRLF, SFGS, FYLF, and red-bellied newt to determine presence (and life stage) of these species within the project sites. Additionally, a CDFW-approved biologist shall conduct a pre-construction survey of the project work areas for CRLF, SFGS, FYLF, and red-bellied newt immediately prior to the start of construction activities. The surveys will consist of walking the project limits and within the project sites to ascertain presence of these species. If CRLF or SFGS are found, individuals shall not be disturbed but allowed to disperse on their own volition. Should CRLF egg masses, metamorphs, or tadpoles be found, a 100-foot no-disturbance buffer shall be established around the location(s) until juveniles disperse from the breeding sites. If a CRLF is not dispersing on its own volition, the on-site biologist shall monitor the frog while work continues, as long as the on-site biologist can ensure the safety of the frog. The CDFW-approved biologist shall immediately inform the construction manager that work should be halted or modified (in the case of a buffer or non-dispersing individual), if necessary, to avert avoidable take of listed species. If adult FYLF or red-bellied newts are found during surveys, they will be relocated outside of the work area by a CDFW-approved biologist. Should egg masses, metamorphs, or tadpoles of these species be found, a 100-foot no-disturbance buffer shall be established around the location(s) until juveniles disperse from the breeding site, as determined by a qualified biologist, or in coordination with CDFW.				

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	The specific methods for handling amphibians and decontamination shall follow USFWS (2005) and USGS (2015) protocols, respectively. These protocols describe field equipment maintenance, disinfection, and field hygiene procedures designed to minimize potential spread of pathogens when handling amphibians. 3. Project work areas will be monitored by a CDFW-approved biologist (qualified biological monitor) during fence installation and ground disturbing activities to identify, capture, and relocate non-listed sensitive amphibians (FYLF and red-bellied newt) if found, and halt or observe work in the vicinity of CRLF and SFGS if encountered onsite. The biologist shall have the authority to stop construction activities and develop alternative work practices, in consultation with construction personnel and resource agencies (as appropriate), if construction activities are likely to affect special-status species or other sensitive biological resources. 4. To the extent feasible, MROSD and its contractors shall initiate work within Stevens Creek and Tributary Creek banks between May 1 and November 1 (i.e., generally identified as the nonbreeding season). Installation of the bridge components that would not disturb the creek channels or banks (i.e. placement of the wooden platform and railings) is not restricted to this time period. 5. MROSD or its contractors shall install temporary exclusion fencing around key project boundaries, including all project staging areas, bridge installation work areas, and the trail realignment work areas at the Tributary Creek and Stevens Creek work sites. o Fencing shall be installed immediately prior to the start of construction activities under the supervision of a qualified biologist. o The MROSD shall ensure that the temporary exclusion fencing is continuously maintained until all construction activities are completed. o MROSD shall ensure daily visual inspections of the fence for any amphibians or reptiles that may get stuck by the fence, including weekends. These daily checks shall be conducted by the qualified biological monitor for the first week of construction. If no species are observed, the qualified biological monitor may train the contractor to conduct daily inspections and call the biologist if any species are encountered. o The fence shall be CDFW-approved species exclusion fencing, with a minimum height of 3 feet above ground surface, with an additional 4 to 6 inches of fence				

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	material buried such that species cannot crawl under the fence, and shall include escape funnels to allow species to exit the work areas. o The exclusion fence shall not cross Stevens Creek or Tributary Creek to allow wildlife movement to continue through the creek corridors when work is not occurring. 6. All excavations of a depth of 8 inches or greater shall be covered at the end of each workday, or escape ramps shall be installed at a 3:1 grade to allow wildlife that fall in a means to escape. 7. Vehicles or equipment parked overnight at the project staging areas or creek sites shall be inspected for harboring species each morning by the qualified biological monitor before vehicles or equipment are moved. 8. Project areas disturbed by vegetation removal, grading of temporary staging areas, excavation to accommodate bridge removal at Site 1 or bridge installation, and abandoned trail alignments shall be restored and monitored for success according to methods described in **Mitigation Measure BIO-2**, below.				
Mitigation in Section 4.a	**(BIO-1e)** Nesting birds and their nests shall be protected during construction by use of the following measures: 1. Vegetation removal, tree trimming, and removal shall occur outside the bird nesting season (nesting season is defined as February 1 to August 30), to the extent feasible. 2. If vegetation removal, tree trimming, and removal during bird nesting season cannot be fully avoided, a qualified wildlife biologist shall conduct pre-construction nesting surveys within 7 days prior to the start of such activities or after any construction breaks of 14 days or more. Surveys shall be performed for the individual project sites, vehicle and equipment staging areas, and suitable habitat within 250 feet in order to locate any active passerine (perching bird) nests and within 500 feet of these individual sites to locate any active raptor (birds of prey) nests. 3. If active nests are located during the pre-construction nesting bird surveys, the wildlife biologist shall evaluate if the schedule of construction activities could affect the active nests and the following measures shall be implemented based on their determination: a. If construction is not likely to affect the active nest, it may proceed without restriction; however, a biologist shall regularly monitor the nest to confirm there	Prior to and during construction	District Natural Resource Staff or Qualified Biologist	Wildlife biologist, CDFW	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	is no adverse effect and may revise their determination at any time during the nesting season. In this case, the following measure would apply: i. If construction may affect the active nest, the biologist shall establish a no disturbance buffer. Typically, these buffer distances are between 25 feet and 250 feet for passerines and between 300 feet and 500 feet for raptors. These distances may be adjusted depending on the level of surrounding ambient activity (i.e., if the project site is adjacent to a road or active trail) and if an obstruction, such as a large rock formation, is within line-of-sight between the nest and construction. For bird species that are federally and/or State-listed sensitive species (i.e., fully protected, endangered, threatened, species of special concern), an MROSD representative, supported by the wildlife biologist, shall consult with r CDFW regarding modifying nest buffers, prohibiting construction within the buffer, modifying construction, and removing or relocating active nests that are found on the site. 4. Any birds that begin nesting within the project site and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should birds nesting nearby begin to show disturbance associated with construction activities, no-disturbance buffers shall be established as determined by the qualified wildlife biologist.				
Mitigation in Section 4.a	**(BIO-1f)** In coordination with the MROSD, a pre-construction survey for special-status bats shall be conducted by a qualified wildlife biologist in advance of tree trimming or removal at both Site 1 and Site 2 and prior to disturbance to the existing bridge at Site 1, to characterize potential bat habitat and identify active roost sites. Should potential roosting habitat or active bat roosts be found in trees, existing structures, and/or rock crevices or outcrops to be disturbed under the project, the following measures shall be implemented: 1. Trimming or removal of trees, disturbance to existing structures and rock crevices or outcrops shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15; outside of bat maternity roosting season (approximately April 15 to August 15) and outside of months of winter torpor (approximately October 15 to February 28), to the extent feasible. 2. If trimming or removal of trees, disturbance to existing structures and rock crevices or	Prior to and during construction	District Natural Resource Staff or Qualified Biologist	Wildlife biologist, CDFW	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	outcrops during the periods when bats are active is not feasible and bat roosts being used for maternity or hibernation purposes are found on or in the immediate vicinity of the project site where these activities are planned, a no-disturbance buffer of 100 feet shall be established around these roost sites until they are determined inactive by a qualified wildlife biologist. A 100-foot no disturbance buffer is a typical protective buffer distance however may be modified by the qualified wildlife biologist depending on existing screening around the roost site (such as dense vegetation or a large rock formation) as well as the type of construction activity which would occur around the roost site. For bat species that are considered State sensitive species (i.e. any of the species of special concern with potential to occur on the project site), an MROSD representative, supported by the qualified wildlife biologist, shall consult with CDFW regarding modifying roosts buffers, prohibiting construction within the buffer, and modifying construction around maternity and hibernation roosts. 3. The qualified wildlife biologist shall be present during tree trimming and disturbance to rock crevices or outcrops if bat roosting habitat or active non-maternity or hibernation bat roosts are present (e.g. daytime bachelor roosts). Trees, existing structures, and rock crevices with roosts shall be disturbed only when no rain is occurring or is forecast to occur for 3 days and when daytime temperatures are at least 50 degrees Fahrenheit (°F). 4. Trimming or removal of trees, containing or suspected to contain non-maternity or hibernation bat roost sites shall be done under supervision of the qualified biologist and follow a two-step removal process. a. On the first day of tree trimming or removal and under supervision of the qualified wildlife biologist, branches and limbs not containing cavities or fissures in which bats could roost, shall be cut only using chainsaws. b. On the following day and under the supervision of the qualified wildlife biologist, the remainder of the tree or structure may be removed, either using chainsaws or other equipment (e.g. excavator or backhoe). 5. Existing structures, rock crevices or outcrops containing or suspected to contain non-maternity or hibernation bat roosts within the project site shall be disturbed or dismantled under the supervision of the qualified wildlife biologist in the evening and				

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	after bats have emerged from the roost to forage. These areas shall be modified to significantly change the roost conditions, causing bats to abandon and not return to the roost.				
Mitigation in Section 4.a	**(BIO-1g)** In coordination with the MROSD, a pre-construction survey for San Francisco dusky-footed woodrat middens shall be conducted by a qualified wildlife biologist prior to the start of construction in suitable habitat within and surrounding the project sites, staging areas, and access roads. Active middens identified during surveys within the project sites, staging areas, or along access roads shall be flagged as a sensitive resource and avoided during construction, if feasible. Should avoidance of active woodrat middens within the project site not be feasible, an MROSD representative, supported by the wildlife biologist, shall consult with CDFW regarding dismantling the middens by hand for relocation outside of the project areas, and shall dismantle the middens under the supervision of a qualified wildlife biologist. If young are encountered during dismantling of the nest, material shall be replaced and a 50-foot no-disturbance buffer shall be established around the active midden. The buffer shall remain in place until young have matured enough to disperse on their own accord and the midden is no longer active. Nesting substrate shall then be collected and relocated to suitable woodland habitat outside of the project area of disturbance. Appropriate safety gear (e.g., respirator, gloves, and tyvek suit) shall be used by the qualified wildlife biologist while relocating woodrat nests.	Prior to and during construction	District Natural Resource Staff or Qualified Biologist	Wildlife biologist, CDFW	
Mitigation in Section 4.b	**(BIO-2)** 1. MROSD or its contractor shall restore riparian habitat disturbed during project construction at Site 1 along Tributary Creek and Site 2 along Stevens Creek, at adjacent access areas along the creek corridors, and the trail realignment footprints to pre-project conditions following project completion, as described below. 2. During special-status plant surveys described in BIO-1a, botanists shall document baseline conditions of areas to be disturbed under the Project such as species composition and percent cover. This information shall be used to determine success of 1) restored areas following construction completion, and 2) areas left to revegetate through self-recruitment. 3. All areas of grassland disturbed during vegetation removal and ground disturbance	Prior to and following project construction	District Natural Resource Staff or their designee	Botanist, CDFW	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	shall be seeded with a regionally-appropriate native grass seed mix following construction. Restored areas shall be monitored at least once a year for at least 3 years or longer, as determined in consultation with CDFW and/or as needed, to verify whether the vegetation is fully established and self-sustaining. By Year 3, percent cover and vegetation composition shall meet baseline cover and composition conditions determined through baseline surveys. 4. Herbaceous ground vegetation at bridge assembly areas at Site 1 and Site 2 shall not be removed but covered with a tight weave coir mat prior to use in order to preserve topsoil and any dormant seeds within the soil of temporary use areas. Once construction is complete, the coir mat shall be removed and the areas shall be allowed to revegetate through natural recruitment. Monitoring of these disturbed areas will occur annually for 3 years or as specified in consultation with CDFW and/or RWQCB. If in Year 1, groundcover is not progressing towards baseline conditions (at least 30% of baseline conditions) MROSD shall apply a native seed mix and/or plantings to these areas. 5. Decommissioned trail segments shall be covered in slash or logs to discourage use and act as natural erosion control. 6. Native trees (e.g. Bay laurel, tan oak, and madrone) and non-native trees measuring six inches in diameter or more that are removed from riparian habitat in support of the project shall be replaced onsite or in the immediate vicinity of the disturbed areas at a 1:1 ratio with native species that occur within the surrounding mixed woodland. Tree replacement ratios consider the relatively dense canopy of the mixed woodland at each location and overall area of disturbance available for new trees to be planted and succeed. 7. Trees planted in riparian areas shall be monitored for at least three years concurrently with restored undergrowth. The site shall achieve at least 80% tree survival by Year 3.				
Mitigation in Section 4.c	**(BIO-3)** MROSD and its contractors shall minimize impacts on waters of the state by implementing the following measures: 1. Access roads, work areas, staging areas and infrastructure shall be sited to avoid and minimize direct and indirect impacts to jurisdictional waters. 2. Avoid construction activities in saturated or ponded streams (typically during the	Prior, during and following construction	District Project Manager or their designee	N/A	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	spring and winter). 3. Stabilize exposed slopes and streambanks immediately upon completion of construction activities (e.g., removal of the existing bridge at Site 1 and following new bridge installation). 4. During construction, implement measures to catch trimmed tree limbs, shrubs, debris, soils, and other construction materials created by or used in vegetation removal before such materials can enter the waterway. Such materials shall be placed in project staging areas until the materials can be properly disposed of. 5. Restoration to pre-project conditions (typically including contours, topsoil, and vegetation) shall be conducted, as described in Mitigation Measure BIO-2 and as required by regulatory permits (e.g., those issued by the RWQCB and CDFW).				
Mitigation in Section 5.b	**(CUL-1)** If prehistoric or historic-period archaeological resources are encountered, all construction activities within 100 feet shall halt and MROSD shall be notified. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include deposits of metal, glass, and/or ceramic refuse. A Secretary of the Interior-qualified archaeologist shall inspect the findings within 24 hours of discovery. If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan in consultation with MROSD and, for prehistoric resources, the appropriate Native American representative. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant	During construction	District Natural Resource Staff or their designee	Archaeologist, Native American representative	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.				
Mitigation in Section 5.c	**(CUL-2)** MROSD shall implement the following measure: **Inadvertent Discovery of Paleontological Resources.** If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, all ground disturbing activities within 100 feet of the find shall be halted until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate salvage measures in conformance with Society of Vertebrate Paleontology Guidelines (SVP, 1996; SVP, 2010).	During construction	District Natural Resource Staff or their designee	Paleontologist	
Mitigation in Section 5.d	**(CUL-3)** MROSD shall implement the following measure: **Inadvertent Discovery of Human Remains.** In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find shall cease until the Santa Clara County Coroner has been contacted to determine that no investigation of the cause of death is required. The NAHC will be contacted within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to MROSD for the appropriate means of treating the human remains and any grave goods.	During construction	District Natural Resource Staff or their designee	Santa Clara County Coroner, NAHC	
Mitigation in Section 6.a.i, 6.a.ii, 6.a.iv, 6.c	**(GEO-1)** MROSD will implement the following measure: MROSD shall develop project design specifications consistent with and/or incorporating the site preparation and grading, seismic design, foundation design, and bridge design recommendations presented in the project-specific engineering geology investigation.	Throughout project implementation	District Project Manager or their designee	N/A	
Mitigation in Section 4.c, 8.b, 9.a, 9.f	**(HAZ-1):** MROSD and/or its contractor(s) shall use BMPs based on the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual* to reduce the potential for release of construction-related fuels and other hazardous materials into the environment, as follows in the table below: **CONSTRUCTION-RELATED BMPS TO PROTECT SOIL,**	During construction	District Project Manager or their designee	N/A	

<table>
<tr><th>Number</th><th>Mitigation</th><th>Timing</th><th>Who will verify?</th><th>Department or Agency Consultation</th><th>Verification (Date & Initials)</th></tr>
<tr><td></td><td>
SURFACE WATER, AND GROUNDWATER QUALITY
<table>
<tr><th>BMP Category</th><th>BMP Description</th><th>Timing</th><th>Inspection & Maintenance</th></tr>
<tr><td>Solid Waste Management</td><td>Remove all trash and construction-related waste to a secure, covered location at the end of each working day to maintain a clean work site. Dispose of hazardous materials according to all specific regulations.</td><td>Implement during construction .</td><td>Inspect for trash on a daily basis</td></tr>
<tr><td>Materials Storage</td><td>Store chemicals in non-reactive container. Store bagged, dry-reactive materials in a secondary container. Protect all material storage areas rom vandalism</td><td>Implement during construction .</td><td>Inspect storage areas daily to ensure no leaks or spills have occurred</td></tr>
<tr><td>Spill Prevention and Control</td><td>Good housekeeping practices shall be followed to minimize storm water contamination from any petroleum products or other chemicals. Maintain spill cleanup materials where readily accessible during use</td><td>Implement during construction</td><td>Clean up leaks and spills immediately using absorbent materials and as little water as possible</td></tr>
<tr><td>Vehicle and Equipment Maintenance & Fueling</td><td>Conduct proper and timely maintenance of vehicles and equipment. Cleaning or equipment maintenance shall be prohibited except in areas located near the entrance to the Preserve. If fueling must occur on-site, use designated areas located away from drainage courses and a drip pan to catch spills. Place drip pans under heavy equipment stored onsite overnight.</td><td>Implement during construction</td><td>Inspect on-site vehicles and equipment for leaks on a routine basis; periodically check incoming vehicles for leaking oil and fluids while on paved roads near the entrance to the Preserve</td></tr>
<tr><td>Training</td><td>All personnel shall be instructed regarding the correct procedure for spill prevention and control, waste disposal, use of chemicals, and storage materials.</td><td>Implement during construction</td><td>None.</td></tr>
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Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
Mitigation in Section 8.h	**(HAZ-2)** MROSD and/or its contractor shall implement the following fire safety construction practices: • Grass and other fuels should be cut or otherwise reduced around construction sites where vehicles are allowed to park. • Flammable materials shall be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame. • The use of mechanical construction equipment shall be minimized during hot, dry, windy weather. • Water shall be provided to suppress potential fires caused by construction work. • Workers shall be reminded that smoking is prohibited at the work site and on any District land per contract conditions and the District Ordinance. • Workers shall maintain working ABC fire extinguishers on all vehicles in the work area. • All equipment to be used during construction must have an approved spark arrestor. • Construction personnel shall be trained in fire safe work practices, use of fire suppression equipment, and procedures to follow in the event of a fire. • Construction personnel shall stop all work if the site is greater than 80 degrees F, less than 30% humidity, and wind-speeds greater than 10MPH. • Workers shall contact the Palo Alto Dispatch at 650-470-1258 and the CALFIRE – Skylonda Dispatch at 650-851-1860 for emergency response in the event of a fire (note that these numbers are for emergencies only).	Prior to and during construction	District Project Manager or their designee	Palo Alto Dispatch, CALFIRE	

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
Mitigation in Section 4.c, 6.b, 9.a, 9.f	**(HYD-1)** MROSD or its contractor(s) shall implement erosion-control measures consistent with the District's BMPs for road/trail work near streams (MROSD, 2013).[1] These BMPs are based on the most recent versions of the *Erosion and Sediment Control Field Manual* (RWQCB, 2002) and the *Construction Best Management Practices (BMP) Handbook* (CASQA, 2009), and have been approved by CDFW and the RWQCB. Stormwater and erosion control measures shall include, but not be limited to, the following: • Temporary erosion control measures shall be employed for disturbed areas (no disturbed surfaces shall be left without erosion control measures in place): - Place fiber rolls along the perimeter of the sites to reduce runoff flow velocities and prevent sediment from leaving the sites or entering Tributary or Stevens Creeks; - Place silt fences down-gradient of disturbed areas to slow runoff and retain sediment; - Revegetate all disturbed soil per a Habitat Restoration and Monitoring Plan, or otherwise protect soil from erosion with mulch, coir mats, or related materials following the end of construction activities. • Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and during storm events. To the extent feasible, grading activities shall be limited to the immediate area required for construction; • As necessary (i.e., during storms that may occur within the construction window), surface runoff, including ponded water, shall be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to Tributary or Stevens Creek. Normal flow pathways must be restored upon completion of work at that location;	Prior to, during, and following construction	District Project Manager or their designee	N/A	
	• If and when conditions are too extreme for treatment by surface protection and/or measures described above, sediment entrained by runoff shall be temporarily contained on site. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water				

[1] The District selects appropriate BMPs for erosion control based on multiple factors, including the expertise of project engineers/planners, permit conditions from regulatory agencies, existing agreements with regulatory agencies, and other factors. The document cited here does not instruct the user which BMPs are appropriate to install given the location and situation; it describes what the BMP technique should look like if selected.

Number	*Mitigation*	*Timing*	*Who will verify?*	*Department or Agency Consultation*	*Verification (Date & Initials)*
	long enough for sediment particles to settle out. Construction materials, including topsoil and fuels, shall be stored, covered, and isolated so as to prevent runoff losses and potential surface water contamination.				

References:

California Department of Fish and Game (CDFG), 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. November 24, 2009.

California Stormwater Quality Association (CASQA), 2009. Construction BMP Handbook.

Midpeninsula Regional Open Space District, 2013. Best Management Practices for Routine Maintenance Activities in Water Courses. Based on approved BMPs from the California Salmonid Stream Habitat Restoration Manual, Tim Best, CEG, the BMP Appendix to the District's 5-Year agreement with CDFW for streambed alteration (Section 1600 permits), and other sources.

San Francisco Bay Regional Water Quality Control Board (RWQCB), 2002. Erosion and Sediment Control Field Manual, Fourth Edition. August, 2002.

Society of Vertebrate Paleontology (SVP). Conditions of Receivership for Paleontologic Salvage Collections, *Society of Vertebrate Paleontology News Bulletin,* Vol. 166, p. 31-323. February 1996.

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United States Fish and Wildlife Service (USFWS), 2005. Revised Guidance on Site Assessment and Field Surveys for California Red-legged Frogs. Sacramento, California, August.[http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/crf_survey_guidance_aug2005.pdf] Accessed July 21, 2015.

United States. Geological Survey (USGS), 2015. Biosecurity and Disease. [http://fl.biology.usgs.gov/c1258_Dodd/html/biosecurity_and_disease.html] Accessed July 23, 2015.