



PUBLIC DRAFT ENVIRONMENTAL IMPACT REPORT – APPENDICES

SFPUC Southern Skyline Boulevard Ridge Trail Extension Project

PLANNING DEPARTMENT
CASE NO. 2016-016100ENV

STATE CLEARINGHOUSE NO. 1998082030

	Draft EIR Publication Date:	June 24, 2020
	Draft EIR Public Hearing Date:	July 23, 2020
	Draft EIR Public Comment Period:	June 25, 2020 to August 10, 2020



SAN FRANCISCO
PLANNING
DEPARTMENT

Written comments should be sent to:

Timothy Johnston, Senior Environmental Planner | 1650 Mission Street, Suite 400 |
San Francisco, CA 94103 (or by email to timothy.johnston@sfgov.org)

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SAN FRANCISCO
PLANNING
DEPARTMENT

APPENDIX A

Notice of Preparation and Scoping Summary

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memorandum

date: March 6, 2017

to: Chelsea Fordham (SF Planning Department); Yin Lan Zhang (SFPUC)

from: Elijah Davidian & Hilary Finck

subject: Southern Skyline Boulevard Ridge Trail Project CEQA Scoping Summary

The San Francisco Public Utilities Commission (SFPUC) proposes the Southern Skyline Boulevard Ridge Trail Extension Project (Project), a component of the SFPUC's *Peninsula Watershed Management Plan (Plan)*. The Project involves construction of a 0.5-mile accessible loop trail along the Fifield/Cahill Ridge Trail and a 6-mile southern extension of the Bay Area Ridge Trail from the State Route 92/Skyline Boulevard intersection to a Golden Gate National Recreation Area (GGNRA) Phleger Estate trail connection. Proposed trail support facilities and components include new vault toilets, retaining structures, security mechanisms, two new trailhead parking areas, and acquisition of a permanent trail easement in the vicinity of Skylawn Cemetery. In addition, the SFPUC is considering two options for a trail access management program; one would allow access via a docent program, the other would allow unsupervised access.

In accordance with the California Environmental Quality Act (CEQA) the San Francisco Planning Department is preparing a Draft Project Environmental Impact Report (EIR) to evaluate the physical effects of the Project on the environment. As the Lead Agency for CEQA, the San Francisco Planning Department determined that a Project EIR is required for the Project, which tiers off the 2001 Program EIR for the *Plan*. The Planning Department initiated an outreach process, generally referred to as scoping, to notify the public of the Project and to determine the appropriate scope of the environmental review. The scoping period ran for 45 days, from December 21, 2016 to February 3, 2017. This memo provides an overview of the SFPUC's scoping process. Scoping documents and comments received during the scoping process are included as attachments to this memo.

Notice of Preparation

The Planning Department prepared a Notice of Preparation (NOP) of an EIR to initiate the scoping process. The NOP was circulated for public review on December 21, 2016 (**Attachment A**).

Public Notice of the EIR Scoping Process

The Planning Department and SFPUC provided notice of the scoping process, including the date, times, and location of the scoping meeting through direct mail, email, website posting, and a legal notice, as follows (**Attachment B**):

- Direct mail and email of NOP (68 direct/71 emailed)
- Posting of NOP on SF Planning Department website on December 21, 2016
- Posting of NOP on SFPUC website on December 21, 2016
- Publishing legal notice in a local newspaper

Public Meeting

The SFPUC hosted one scoping meeting on January 18, 2017 from 6:30 p.m. to 8:00 p.m. The meeting began with an introduction to the format of the meeting, with a brief presentation by Planning Department staff. Comments were accepted in writing and orally via court reporter. The meeting was attended by 6 members of the public. Meeting materials (i.e. sign-in sheet, agenda, and presentation) are presented in **Attachment C**.

Scoping Period Comments

The Planning Department received 56 pieces of scoping period correspondence (e.g., letters, emails, oral comments). Among the correspondence received, 43 was from individuals, 4 from public agencies, and 8 from community organizations. Correspondence contained comments that were relevant to the CEQA process (e.g., whether the project would have a physical effect on the environment), and some correspondence addressed topics beyond the scope of CEQA analysis (e.g. support for the project and social benefits of recreation). A summary of comments received during the scoping period and the text of the correspondence is presented in **Attachment D**.

ATTACHMENT A

Notice of Preparation

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SAN FRANCISCO PLANNING DEPARTMENT

Notice of Preparation of an Environmental Impact Report

Date: December 21, 2016
Case No.: 2016-016100ENV
Project Title: **Southern Skyline Boulevard Ridge Trail Extension**
Zoning: Resource Management District and Residential Estates District
Project Sponsor: San Francisco Public Utilities Commission
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PROJECT SUMMARY

The San Francisco Public Utilities Commission (SFPUC) is proposing the Southern Skyline Boulevard Ridge Trail Extension Project (Project), a component of the SFPUC's *Peninsula Watershed Management Plan (Plan)*. The *Plan* includes goals, policies, and actions that are designed to guide SFPUC management of resources, infrastructure, facilities, and public access within the agency's roughly 23,000-acre San Francisco Peninsula Watershed lands. In 2001, the Planning Commission certified a Program Environmental Impact Report (Program EIR) analyzing the physical environmental effects of the *Plan's* implementation¹. The SFPUC subsequently approved the *Plan* and implemented the Fifiel/Cahill Ridge Trail. The Project is among the actions identified in the *Plan* and evaluated in the Program EIR. Since certification of the Program EIR, SFPUC has advanced the Project's design, and additional details regarding Project location, construction, and operation are now available. SFPUC is also considering modifications to elements of its public access management program, which would apply to existing and proposed facilities. The Planning Department has determined that the Project, as currently proposed, warrants further consideration under CEQA, and that a Project EIR which tiers off the 2001 Program EIR would be the appropriate type of CEQA document. This Notice of Preparation initiates the CEQA process for the Project EIR.

The Project would involve extending the Bay Area Ridge Trail, modifying access management programs over existing and proposed trail segments, and conveying a permanent easement over an existing trail segment. Trail improvements would include a new multi-use trail segment extending approximately 6 miles south from the southern terminus of the Fifiel/Cahill Ridge Trail (near the State Route 35/92 intersection) to a Golden Gate National Recreation Area (GGNRA) Phleger Estate trail connection (see **Figure 1**). Trail support facilities under consideration include new vault toilets, drainage facilities, retaining structures, and security mechanisms (such as fences and gates). In addition, SFPUC would construct two new trailhead parking areas: one just south of the State Route 35/92 intersection

¹ The San Francisco Planning Commission certified the *Peninsula Watershed Management Plan – Environmental Impact Report* (File No.: 96.22E; State Clearinghouse No. 98082030) on January 11, 2001. While prepared as a Program EIR, the document examines one element of the *Plan*, the Fifiel-Cahill Ridge Trail Project, at a project level. Other *Plan* elements were evaluated at a program level, including a proposed southern extension of the Bay Area Ridge Trail, denoted Management Action tra2 or Southern Skyline Boulevard Trail. The SFPUC approved the *Plan* pursuant to SFPUC Resolution 02-0265.

(approximately 10 vehicles) and a second larger area (approximately 50 vehicles) to the north of Skylawn Cemetery. SFPUC would also construct a new, approximately 0.5-mile accessible loop trail along the existing Fifield/Cahill Trail and acquire a permanent trail easement (currently held by the Bay Area Ridge Trail Council) in the vicinity of Skylawn Cemetery, north of State Route 92.

The proposed trail segments would be operated in coordination with the Fifield/Cahill Ridge Trail, which currently is operated by the SFPUC under a docent-led-only access program three days a week. The SFPUC is considering and will analyze a range of access procedures for the Southern Skyline Boulevard Ridge Trail Extension (SSBRTE) and the Fifield/Cahill Ridge Trail. The range will include unrestricted access for the entire length of the Bay Area Ridge Trail (Ridge Trail) on the SFPUC Peninsula Watershed (approximately 16 miles), implementing an annual permit program (seven days a week), and expanding the existing docent program to the entire length of the Ridge Trail on the SFPUC Peninsula Watershed. Access procedures could also be implemented consistently along the entire 16 mile alignment or in hybrid combinations north and south of the Highway 92/35 intersection (e.g., the existing docent program could continue on Fifield/Cahill Ridge, with unrestricted access or an annual permit program for the proposed SSBRTE south of the SR 92/35 intersection).

An overview of individual Project components under consideration for the Southern Skyline Boulevard Ridge Trail Extension and the Skylawn Cemetery Access and Trail Improvements is provided in the following subsections.

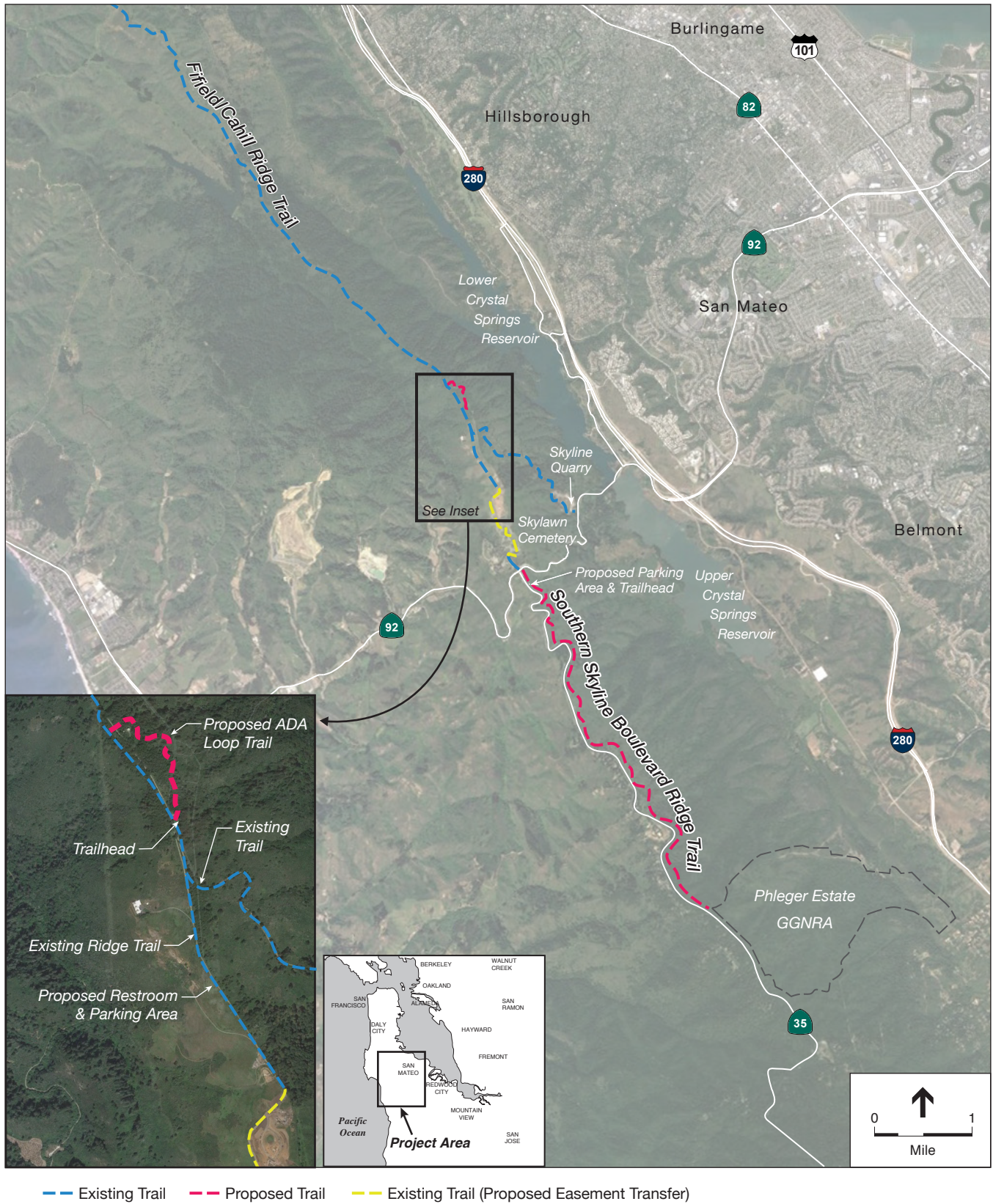
PROJECT DESCRIPTION

Southern Skyline Boulevard Ridge Trail Extension

The Project's main component, the Southern Skyline Boulevard Ridge Trail Extension (SSBRTE), would be located at the top of the ridge, 1 to 1.75 miles upslope of Upper Crystal Springs Reservoir, extending south and generally following Skyline Boulevard from State Route 92 to the southern boundary of SFPUC property at the Phleger Estate property. The trail would generally be 8 feet in width. Depending upon topography, geology, and vegetation, the trail may be narrower or wider (up to 12 feet in width). The proposed alignment was identified based on the trail design requirement to maintain a maximum 10 percent slope along the length of the trail and follow the existing grades and ground topography to minimize construction impacts where feasible. The proposed alignment was delineated to follow the existing ridgeline. The trail would consist of three main segments, as described below.

Northern Segment (Segment 1)

The approximately 12-foot-wide 1.9-mile northern segment would start near the existing California Department of Transportation (Caltrans) parking area at the intersection of State Route 92 and Upper Skyline Boulevard (State Route 35). The proposed design includes a new trailhead parking lot, information kiosk, and pedestrian gate to access the northern entrance to this section of the SSBRTE. The northern section of the proposed trail would traverse steep slopes with dense vegetation along the top of the ridge. A portion of the trail would follow a currently closed SFPUC roadbed. Potential drainage and slope stability issues along portions of this segment would be addressed with approximately 2,500 linear feet of retaining wall (up to 8 feet in height) and minor features (i.e., rocked regions and/or drainage pipes). The retaining walls are conceptually designed as soldier pile walls with wood or concrete lagging.



SOURCE: ESA+Orion; Google Earth

Southern Skyline Boulevard Ridge Trail Extension

Figure 1
Project Location

Middle Segment (Segment 2)

The 1.7-mile middle segment is proposed to follow the existing fuel break along an area that is primarily a flat bench, surrounded by brush. The topography for this segment has gentle slopes throughout, with a large portion accessible by vehicle through various gates along State Route 35. A pit toilet would be constructed, with a service road from Skyline Boulevard providing access for construction and routine maintenance. There is moderate vegetation along this segment, which includes a vegetated fuel break. The proposed trail could be as wide as 12 feet in this segment.

Southern Segment (Segment 3)

The 2.3-mile southern segment is proposed to pass through a forested area with features similar to the middle segment. The forested area contains a significant number of mature trees, including Douglas fir and coast redwood. The trail width along portions of this segment may be limited by the topography and vegetation. This alignment is the farthest segment from Skyline Boulevard, but access from the roadway would still be feasible at certain locations. A pit toilet would also be constructed in this segment with a service road from Skyline Boulevard for routine maintenance and to provide temporary construction access for the Project. An additional service road from Skyline Boulevard would be constructed in this segment to provide access for construction and routine maintenance and patrol. This segment would end at the southern boundary of SFPUC property, and connect with a trail on the GGNRA Phleger Estate.

Drainage

In addition to surface drainage required for the trail, drainage features along the trail alignment would include water bars, swales, drainage pipes or culverts, and/or weep holes in retaining structures. These features would be designed in accordance with local standards, codes, and practices. Drainage would be designed to control runoff using drain inlets, waterbars, swales, vegetation, or riprap to protect against erosion in the project area.

Parking Lot

An approximately 3,000-square-foot paved parking lot accommodating up to 10 cars would be constructed near the intersection of State Route 92 and State Route 35. It would be designed in coordination with Caltrans, and supplemented by the SFPUC Engineering Management Bureau's design guidelines.

Restroom Facilities

Two pre-fabricated restrooms would be installed along the SSB RTE. Installation of these facilities would require excavation to a depth of approximately 5 feet to accommodate the toilet vault, which would be pumped out routinely. Locations for these restrooms would be finalized during the final geotechnical investigation. All of the excavated materials would be used for fill in nearby trail construction.

Retaining Structures

Retaining structures are proposed at multiple locations along the northern segment and one location along the southern segment to stabilize cut and/or fill slopes and establish a terrace for building trail tread on steep, sloped areas of the trail alignment. The retaining systems under consideration include mechanically stabilized earth walls, soil nail walls, or soldier piles with wood or concrete lagging. The proposed retaining structures would total approximately 0.5 mile in length.

Security Features

During the Project design, the SFPUC would coordinate with SFPUC Emergency Planning and Security to ensure that facility security features are included. These features may include, but are not limited to, fences and gates installed along the alignment. In addition, limited SFPUC vehicular access from Skyline Boulevard to the trail would be provided for maintenance, operations, emergency response, and routine patrol. Fencing materials would include chain-link security fencing, barbed-wire or smooth wire fencing, or split-rail fencing. Fencing types and locations will be determined as the trail design is finalized.

Skylawn Cemetery Access and Trailhead Improvements

Trail Easement

The Ridge Trail Council has acquired a trail easement from Skylawn Cemetery. The easement contains approximately 1 mile of the Ridge Trail alignment through the cemetery from Highway 92 to Cemetery Gate. The SFPUC would accept and record this perpetual easement from the Ridge Trail Council as part of the Project, to facilitate consistent and efficient management of the entire Ridge Trail on the SFPUC Peninsula Watershed.

Trail Parking and Entrance

New trailhead improvements are proposed on SFPUC lands in the vicinity of Skylawn Cemetery along the existing service road to support trail users, enhance educational opportunities, and ensure watershed protection. The proposed trailhead improvements include developing a 40,000 square-foot, 50-car parking lot along the western side of the existing service road and repurposing the existing access road north of the parking lot as a trail corridor to provide connectivity to the existing Fifield/Cahill Ridge Trail. These improvements involve grading and surfacing approximately one acre of land that is outside of the hydrologic boundary of the watershed. A kiosk and trail signs would direct trail users, and a permanent pit toilet would be installed. Road bar-gates and bollards would limit vehicles to the access road and parking area only. Fencing may be installed as needed around the perimeter of the parking lot and along the SFPUC property line.

Americans with Disabilities Act (ADA) Compliant Trail Loop

A 0.5 mile ADA-compliant trail loop would be built for interpretive opportunities designed for disabled individuals. This trail would begin at the Cemetery Gate kiosk, and wind its way on a very gentle grade in a northeasterly direction through the Douglas fir forest. The tread of the trail would be specially constructed to provide surfaces that allow for easy access with minimal grades, consistent with ADA specifications.

Construction and Schedule

Construction activities would generally include clearing, grubbing, grading, excavation, and compaction, and limited paving or other surfacing, among other activities. Construction activity would generally be limited to within 50 feet of the trail centerline (up to 100-foot-wide construction area), with reduced areas where limited by terrain or vegetation.

Equipment and vehicles may include small bulldozers, excavators, drill rigs, water trucks, concrete trucks, trail machines, pickup trucks, dump trucks, 4x4 utility vehicles and other assorted small equipment, such as compressors, pumps, trailers, compactors, and chippers. Project construction

equipment and materials would be staged in designated locations, within or immediately adjacent to sites proposed for Project components. Substantial site preparation is not anticipated for staging areas.

Construction of the Project is expected to begin in January 2018 and end in December 2018. Earthwork would be limited to the fair-weather season, while other types of construction (e.g., fencing, vegetation cutting, signage installation, etc.) may be performed as conditions allow. It is estimated that construction crew size would vary from 5 to 20 persons.

SFPUC Ridge Trail Operations

Access Management Program

The proposed trail would be operated in coordination with the Fifield/Cahill Ridge Trail, which currently is operated by the SFPUC three days a week, under a docent-led access program. The docent program is limited to three trips per day, and includes hiking, running, mountain bikes, and equestrian uses. The SFPUC is considering and will analyze a range of access procedures for the SSB RTE and the Fifield/Cahill Ridge Trail. The range will include unrestricted access for the entire length of the Ridge Trail on the SFPUC Peninsula Watershed (approximately 16 miles), implementing a seven-days-a-week annual permit program, and expanding the existing docent program to the entire length of the Ridge Trail on the SFPUC Peninsula Watershed. Access procedures could also be implemented consistently along the entire 16-mile alignment or in hybrid combinations north and south of the Highway 92/35 intersection (e.g., the existing docent program could continue on the Fifield/Cahill Ridge, with unrestricted access or an annual permit program for the proposed SSB RTE south of the Highway 92/35 intersection).

Skyline Quarry Special Use Site

The existing Skyline Quarry trailhead would continue to be available as the staging area for equestrians and other trail users but on a pre-arranged (non-drop-in) basis. It is expected that most equestrians would bring their stock to the trail in trailers. Staging equestrians at Skyline Quarry would potentially reduce conflicts among trail users, and allow for increased staging opportunities for all users of the Ridge Trail. In addition, staging at the Skyline Quarry would facilitate access to both the Lower Crystal Springs Dam Overlook, the east-facing slopes of Cahill Ridge, and vistas to the east that are not available on Cahill Ridge. This staging option would allow the SFPUC to provide additional educational and recreational opportunities.

APPROVALS REQUIRED

The Project could be required to obtain permits and approvals described below for project construction and operation.

Federal

No federal permits or approvals appear to be applicable to the proposed project.

State

The project would be required to obtain an Encroachment Permit from Caltrans for construction-related activity.

Local

- San Francisco Planning Commission certification of the Final EIR and determination of consistency with the San Francisco General Plan.
- SFPUC construction contracts and other project implementation actions.
- San Francisco Board of Supervisors consideration of any appeals of the Planning Commission's certification of the Final EIR and appropriation of project funding.

SUMMARY OF POTENTIAL ENVIRONMENTAL ISSUES

The Project could result in potentially significant environmental effects. The Planning Department will prepare a Project EIR which tiers off the *Peninsula Watershed Management Plan EIR*, in accordance with CEQA Guidelines (14 CCR § 15168). Tiering will ensure that the Project EIR builds upon all previous work prepared for and incorporated in the *Peninsula Watershed Management Plan EIR*.

The Project EIR will describe site-specific environmental impacts and identify existing *Peninsula Watershed Management Plan* policies, actions, and mitigation, and/or new mitigation measures to address those impacts. Based upon this analysis, the Planning Department will determine whether potentially significant adverse effects would be avoided or mitigated to a less-than-significant level through the application of such policies, actions, or mitigation measures. The Project EIR also will evaluate a No Project Alternative which will assume no change to existing project site conditions and operations, as well as additional project alternatives that could potentially reduce or avoid any significant environmental impacts associated with the Project.

The Project EIR will include a focused, yet detailed, tiered analysis of environmental topics for which a potentially significant impact could result. The Project EIR will also address other topics, albeit in less detail, for which no impact or less-than-significant impacts would be expected. Key environmental topics to be addressed in the Project EIR are described briefly below.

Tribal and Other Cultural Resources

The San Francisco peninsula region is known to have been intensively occupied during prehistoric times. Several archaeological and historical resources have been documented in the vicinity of the SFPUC Peninsula Watershed. Identified resources will be evaluated for their significance according to CEQA, the National Register of Historic Places, and the California Register of Historic Resources. Impacts on these resources will be addressed in the Project EIR. A cultural resources impact could also occur during construction if previously unidentified cultural resources were disturbed.

Natural Resources

The SFPUC Peninsula Watershed has the highest concentration of rare, threatened, and endangered species in the nine-county Bay Area. The watershed possesses important regional habitat for wildlife and fish species, and has been designated as both a fish and a game refuge by the California Department of Fish and Wildlife. Thirty-eight special-status wildlife species are known to occur on the watershed, or have a high or moderate potential to occur based on distance to nearest documented occurrence and habitat. Sixteen different plant communities (types of plants that tend to occur together) are present in the watershed, including a mosaic of grasslands, scrub and chaparral, hardwood and softwood woodlands and

forests, freshwater marshes, and urban and cultivated areas. Of these plant communities, nine are considered endangered, sensitive, or rare under state and/or county regulations because of their limited distribution either locally or regionally. Wetlands habitat has been identified in the immediate vicinity of Project elements. Sudden oak death, a forest disease caused by the plant pathogen *Phytophthora ramorum*, has also been documented in the watershed. The Project EIR will examine potential direct and indirect effects of Project construction and operation on special-status wildlife and plants, sensitive natural communities, including wetlands habitat, and the spread of sudden oak death.

Hydrology and Water Quality

Construction of the Project would require vegetation removal, light grading, and limited areas of excavation which could result in soil erosion during construction. Modifications to existing access management programs would result in new and/or more intensive public use of watershed lands which could result in water quality impacts related to adequacy of sanitation facilities, unauthorized use by domestic animals, increased fire hazard, and increased erosion and sedimentation due to vegetation and soil disturbance. These potential impacts related to hydrology and water quality will be evaluated in the Project EIR.

Fire Management

In the absence of episodic natural fire, and coupled with persistent drought and the large number of trees that have succumbed to sudden oak death, risk of fire hazard is high in the Project area. Construction activities involving use of electrical equipment or combustion engines in the Project area would increase risk of fire hazard. Similarly, the increase in public access and use of the watershed that would result from the Project would also increase risk of wildfire. These potential impacts related to fire management and wildfire risk will be addressed in the Project EIR.

Transportation and Access

Construction activities would generate additional vehicle traffic, including construction vehicles traveling to and from work sites and trucks transporting supplies and equipment. Project construction may require temporary rerouting of traffic lanes on Skyline Boulevard (SR 35) during low-traffic times (e.g., weekends or overnight). Traffic speeds would be reduced during lane closures. Once constructed, the proposed trail extension and facility improvements would be expected to attract new visitors to the Project site. Potential impacts related to traffic and transportation will be evaluated in the Project EIR.

Noise

Part of the Project would be constructed in residential areas where construction noise could disturb residents. Similarly, increased public use of these areas would introduce new sources of noise into these areas. Potential impacts of construction and operational noise will be evaluated in the Project EIR.

Other Environmental Issues

All environmental effects of the Project will be considered in the Project EIR. Additional topics, such as the ones listed below, will be included.

- Aesthetics
- Agricultural and Forestry Resources
- Mineral and Energy Resources
- Population and Housing

- Air Quality & Greenhouse Gas Emissions
- Geology and Soils
- Hazards/Hazardous Materials
- Land Use and Recreation
- Utilities and Public Service Systems
- Wind and Shadow
- Growth-inducing Impacts
- Cumulative Impacts

FINDING

This project may have a significant effect on the environment and an environmental impact report (EIR) is required. This determination is based upon the criteria of the State CEQA Guidelines, Sections 15060 (Preliminary Review), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance). The purpose of the EIR is to provide information about potential significant physical environmental effects of the proposed project, to identify possible ways to minimize the significant effects, and to describe and analyze possible alternatives to the proposed project. Preparation of an NOP or EIR does not indicate a decision by the City to approve or to disapprove the project. However, prior to making any such decision, the decision makers must review and consider the information contained in the EIR.

PUBLIC SCOPING PROCESS

Pursuant to the State of California Public Resources Code Section 21083.9 and California Environmental Quality Act Guidelines Section 15206, a public scoping meeting will be held to receive oral comments concerning the scope of the EIR. The meeting will be held **on January 18th, 2017 from 6:30 p.m. to 8:00 p.m.** at the San Francisco Public Utilities Commission, 525 Golden Gate Avenue, 2nd floor, O'Shaughnessy Conference Room, San Francisco, CA 94102. To request a language interpreter or to accommodate persons with disabilities at the scoping meeting, please contact the staff contact listed above at least 72 hours in advance of the meeting. Written comments will also be accepted at this meeting and until 5:00 p.m. on February 3, 2017. Written comments should be sent to Lisa Gibson, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103.

If you work for a responsible state or trustee agency, we need to know the views of your agency regarding the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. Please include the name of a contact person in your agency.

12/20/16
Date


Lisa Gibson
Acting Environmental Review Officer

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ATTACHMENT B

Public Notice of the EIR Scoping Period

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Commission NOP Distribution List**

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Office of Supervisor Aaron Peskin
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San Francisco Environmental Planning NOP Distribution List

Northwest Information Center
Attn: Bryan Much, Coordinator
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, CA 94928

State Office of Intergovernmental
Management
State Clearinghouse
1400 Tenth Street, Room 121
PO Box 3044
Sacramento, CA 95812-3044

Central Coast Region
California Department of Fish and
Wildlife
Bay Delta Region
7329 Silverado Trail
Napa, CA 94588

California Department of Transportation
Attn: Yatman Kwan
Local Development-Intergovernmental
Review
111 Grand Avenue (MS-10D)
Oakland, CA 94612-3717

California Department of Transportation
Attn: Robert Haus, District Branch Chief
111 Grand Avenue (MS-10D)
Oakland, CA 94612-3717

U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-260
Sacramento, CA 95825-1846

Regional Clearinghouse Coordinator
c/o ABAG
PO Box 2050
Oakland, CA 94604-2050

Association of Bay Area Governments
Attn: Suzan Ryder
PO Box 2050
Oakland, CA 94604-2050

Regional Water Quality Control Board
Attn: Victor Aelion
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Bay Area Air Quality Management
District/Environmental Planner
Attn: Jackie Winkler
375 Beale Street
San Francisco, CA 94105

Chris Lehnertz National Park Service
Fort Mason, Building #201
San Francisco, CA 94123

The Planning Department
Environmental Planning
Attn: VirnaLiza Byrd
1650 Mission Street, Ste. 400
San Francisco, CA 94103

City and County of San Francisco
Planning Department
Attn: PIC Counter
1660 Mission Street, 1st Floor
San Francisco, CA 94103

San Francisco Planning Commission
Attn: Jonas Ionin, Commission
Secretary
1650 Mission Street, Ste. 400
San Francisco, CA 94103

San Francisco Real Estate Department
Attn: John Updike, Director of Real
Estate
City & County of San Francisco
25 Van Ness Avenue, Suite 400
San Francisco, CA 94102

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SF Documents Librarian
Government Information Center
San Francisco Public Library
100 Larkin Street
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San Francisco, CA 94104

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San Francisco, CA 94105-2482

Goldfarb & Lipman
Attn: Richard A. Judd
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City Center Plaza
Oakland, CA 94612-1455

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San Francisco, CA 94126-2824

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San Francisco, CA 94104

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David P. Rhoades & Associates
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San Francisco, CA 94104-2805

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Yerba Buena Chapter
California Native Plant Society
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Cahill Construction Services
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San Francisco, CA 94124-1414

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Jackson Pacific Ventures
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San Francisco, CA 94109

KPOO – FM
1329 Divisadero
San Francisco, CA 94115

San Francisco Business Times
275 Battery Street, Suite 940
San Francisco, CA 94111

City Hall Bureau
San Francisco Chronicle
901 Mission Street
San Francisco, CA 94103

The Sun Reporter
1791 Bancroft Avenue
San Francisco, CA 94124-2644

Michael Howerton
San Francisco Examiner
835 Market Street, Suite 550
San Francisco, CA 94103

Government Information Services
San Francisco Main Library, Civic Center
100 Larkin Street
San Francisco, CA 94102

Stanford University Libraries
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Documents
State & Local Documents Division
Stanford, CA 94305

Government Publications Department
San Francisco State University Library
1630 Holloway Avenue
San Francisco, CA 94132

Hastings College of the Law – Library
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University of California
Berkeley, CA 94720

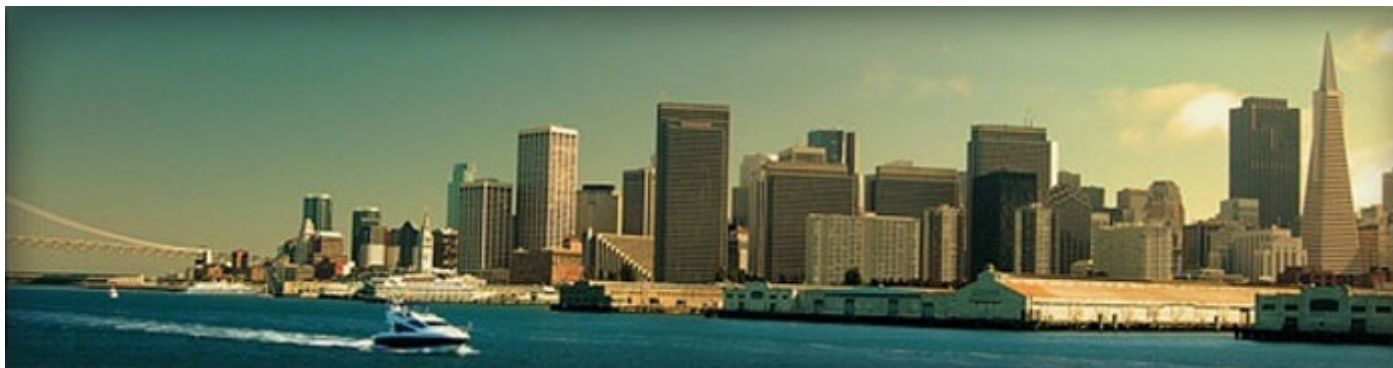
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San Francisco Chronicle
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San Francisco, CA 94103

Planning Department

SFPUC Negative Declarations & EIRs

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Below are recent CEQA documents and notices for San Francisco Public Utilities Commission projects, the date of the most recent publication, and the Environmental Planning contact person assigned to the project. Documents are in PDF format.

We welcome your feedback on this web page. Please email your comments to: [Monica Huggins](#), Administrative Assistant, *Environmental Planning Webmaster*.

Case #

Project Name and Document

A-24

Latest Update

Staff Contact

2015-006224ENV

Southeast Plant Headworks Replacement Project

- ▶ [Notice of Availability of a Mitigated Negative Declaration](#)
 - ▶ [Preliminary Mitigated Negative Declaration](#)
 - ▶ [Final Mitigated Negative Declaration](#)
-

12/19/16

Timothy Johnston
415-575-9035

2016-016100ENV

Southern Skyline Boulevard Ridge Trail Extension

- ▶ [Notice of Preparation of an Environmental Impact Report](#)
-

12/21/16

Justin Horner
415-575-9023

2015-004827ENV

A-25

SFPUC Bay Area Ridge Trail Extension

New Trail Extension Plans Under Way



The future extension adds approximately six miles to the Ridge Trail.

A proposed new extension of the Fifield-Cahill Ridge Trail featuring an enhanced ADA trailhead and a new surfaced ADA trail loop is moving forward. The approximately six-mile SFPUC Bay Area Ridge Trail Extension would link the existing Fifield-Cahill Ridge Trail with the Golden Gate National Recreation Area (GGNRA) Phleger Estate. The extension would parallel upper Highway 35 from the Highway 92 intersection south to the Phleger Estate. The southern extension, combined with a new 2 mile connector from Highway 92 north through Skylawn Cemetery to the existing Fifield-Cahill Ridge trail at Cemetery Gate on Cahill Ridge, would provide a continuous 16.5 mile trail across the 23,000 acre SFPUC Peninsula Watershed.

The goal is to create additional educational and recreational opportunities within the watershed that are compatible with the need to protect drinking water quality and fragile ecosystems that support a broad array of native plant and wildlife species—including many that are threatened or endangered and protected by federal and state laws.

Updates on the status of the project were provided at the last community meeting on July 14, 2016. Notes on the SFPUC staff presentation and subsequent discussion are posted here.

A-26

Currently the 10-mile Fifiield-Cahill Ridge Trail extends from Skyline Quarry at Highway 92 to the north watershed boundary where it connects with the Golden Gate National Recreational Area (GGRNA) trail system and Sweeney Ridge. Since its 2003 opening, access has been through a docent-led program, which offers guided hiking, running, cycling and equestrian events three days a week.

Environmental Review Begins

Environmental review is under way, and a public scoping meeting to receive oral comments on the scope of the Environmental Impact Report will be held on January 18, 2017, 6:30 p.m. to 8:00 p.m. at 525 Golden Gate Ave., 2nd Floor, San Francisco. For further information, go **here**, and click on the project titled "Southern Skyline Boulevard Ridge Trail Extension."

SHARE THIS PAGE

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ATTACHMENT C

Public Meeting Materials

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EIR Public Scoping Meeting Sign-In Sheet

Southern Skyline Boulevard Ridge Trail Extension January 18th, 2017

PRINT NAME	ADDRESS	TELEPHONE
1. Bryan Dessauve	SFPUC - C25 GG	415-551-4619
2. CHRIS Brousson		
3. Sam Hamman	HERMANSE@7PGMAIL.COM	
4. Charlie Knapp	CHARLES.KNAPP@SBCGLOBAL.NET	650 291 9100
5. Matthew Blain	matthew@sturbayriders.org	
6. Bern Smith	bernsmith@ridgetrail.org	
7. Mike Toranzo		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		



SAN FRANCISCO PLANNING DEPARTMENT

Agenda **Southern Skyline Boulevard Ridge Trail Extension Environmental** **Impact Report** **Public Scoping Meeting**

San Francisco Public Utilities Commission
525 Golden Gate Avenue, 2nd Floor, O'Shaughnessy Conference Room
January 18th, 2017 6:30 p.m. to 8:00 p.m.

I. Introduction

- Introductions to EIR Preparers and Project Sponsor
 - Chelsea Fordham – SF Planning Department (EIR Coordinator)
 - Chris Kern - SF Planning Department (Senior Environmental Planner)
 - Tim Ramirez - – SFPUC (Project Sponsor)
 - Yin Lan Zhang – SFPUC (Project Sponsor)
 - Eli Davidian – Environmental Science Associates (EIR Consultant)
- Purpose of meeting
- Meeting format

II. Summary of California Environmental Quality Act (CEQA) Process

- Notice of Preparation/IS (30-day public review period)
- Scoping Meeting
- Draft EIR (45-day public review period, Planning Commission hearing)
- Comments and Responses Document (approx. 14-day review)
- Final EIR Certification (Planning Commission hearing)

III. Brief Overview of Proposed Project

IV. Public Comment

- Comments on environmental review issues from speakers who fill out a speaker card
- Three minutes per speaker

V. Final Reminders

- Submit written comments to **Environmental Review Officer, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103**, by 5:00 p.m., **February 3, 2017**.
- If you have questions or comments regarding the proposed project and the environmental process, please contact **Chelsea Fordham** at (415) 575-9071.

**San Francisco Planning Department
EIR Public Scoping Meeting Written Comment Form**

**Southern Skyline Boulevard Ridge Trail Extension Project
Case # 2016-016100ENV**

If you wish to submit written comments on the above project, you may do so on this sheet (although use of this form is not required). Please submit written comments in person to Chelsea Fordham at today's public scoping meeting, or by mail to Lisa Gibson, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103. **All comments must be submitted no later than 5 P.M., February 3rd, 2017.**

Write your comments regarding the environmental review for the project here. Use the back of the sheet or additional pages if necessary.

Name: _____

Organization (if any): _____

Address: _____

Public Scoping Meeting Presentation Southern Skyline Boulevard Ridge Trail Extension Project

January 18, 2017

Introduction

Good evening and welcome to tonight's public scoping meeting for the Southern Skyline Boulevard Ridge Trail Extension Project. The format of tonight's meeting will be the following:

- Introductions
- Environmental Review Process Overview (Planning)
- Proposed Project Overview (SFPUC)
- Public Comments
- Closing Remarks

My name is Chelsea Fordham – I work for the Environmental Planning Division of the San Francisco Planning Department – and I'm responsible for coordinating the Department's preparation of the environmental impact report, or EIR, for the proposed project.

With me this evening is Chris Kern, also from the Environmental Planning Division of the Planning Department. Members of the San Francisco Public Utilities Commission or SFPUC, who are the project sponsors for this project, are also present including Tim Ramirez, Manager of Natural Resources and Lands Management Division and Yin Lan Zhang, Environmental Project Manager. Lastly, we are also joined by Eli Davidian from ESA Associates, the CEQA consultants for the project.

A couple of housekeeping items before I get started. As you came in, hopefully you signed in on our sign-in sheet and picked up a copy of the meeting agenda at the table near the door. If you haven't done so yet,

please make sure to sign before you leave. Restrooms are located . Also, we request that you kindly turn off the ringers on your cell phones, and that you step outside the room if you need to talk on your cell phone.

If you'd like to speak during the public comment portion of this meeting, please complete a speaker card, which we'll be collecting from you. Speaker cards are located at the front desk. [HOLD UP CARD.] Later during the public comment portion of the meeting we will call your name when it's time for you to come up to speak.

Another item that you may wish to pick up is a comment form, on which you can write comments regardless of whether or not you are speaking. You may place your written comments in the box before your departure this evening.

Tonight's meeting will be composed of two portions: An overview of the EIR process and description of the proposed project; and a public comment portion.

The EIR process, as required by the California Environmental Quality Act, or CEQA, is a public one. The main reason for this scoping meeting tonight is to solicit your comments or suggestions concerning the scope and content of the EIR. This is your opportunity to assist the Planning Department by sharing any information you may have that will be useful in preparation of the EIR. Your comments could help to identify significant environmental issues; determine the depth of analysis appropriate to each issue; or identify reasonable project alternatives.

This is not a meeting about the merits of the proposed project or about project approvals. Nor is it a question and answer session, although questions may be asked for points of clarification. This is an opportunity for us to collect information for use by the EIR team that will develop the CEQA documents. I am always happy to respond to questions via

email or phone, or in person by appointment at our Planning Department offices at 1650 Mission Street, Suite 400.

CEQA Process

Now I'd like to briefly explain to you the process we'll be following for preparation of the EIR.

The basic purpose of CEQA is to provide for informed decision making about the environmental consequences of a project. The first step of the EIR process was the issuance of a Notice of Preparation of an Environmental Impact Report and Notice of a Public Scoping Meeting on December 21, 2016 to solicit participation in determining the scope of the EIR from agencies and the public. It included a brief description of the proposed project and indicated how to provide comments on the scope of the EIR. The notice indicated that written comments may be submitted until Friday, February 3rd by 5pm.

Over the next several months, the Planning Department will prepare the Draft EIR and Initial Study (i.e. DEIR and IS), which will be published and distributed for public review for a period of about 45 days. Comments on the DEIR and IS will be accepted in writing and orally at a San Francisco Planning Commission public hearing, which will be held about a month after publication of the Draft EIR. At this time, we anticipate publishing the Draft EIR in Summer, 2017.

Following the close of the Draft EIR comment period, the Planning Department will prepare a Response to Comments document. This document will contain written responses to all substantive comments received during the Draft EIR review period. It will also identify any changes to the Draft EIR as necessary to fully respond to comments received. The Response to Comments document will be distributed to those who commented on the Draft EIR, various agencies, and other interested parties. About two weeks after the publication of the Response to Comments document, the Planning Commission will hold a hearing

where it will be asked to certify the Final EIR, which will consist of the Draft EIR together with the Responses to Comments document.

Certification of the EIR would not mean the project is approved or disapproved. Rather, it would only satisfy the CEQA environmental review requirements for the proposed project. Project approval or disapproval is a separate consideration from certification of the EIR.

This DEIR and IS and will cover the following CEQA environmental topics, including: Land Use Cultural Resources, Transportation and Circulation Noise; Air Quality; Greenhouse Gas Emission; Recreation; Utilities and Public Services, Biological Resources, Geology and Soils; Hydrology and Water Quality; Mineral and Energy Resources, Hazard and Hazardous Materials, and Agricultural and Forestry Resources.

The EIR will identify feasible measures to avoid or substantially reduce the project's significant environmental effects. These are called mitigation measures.

The EIR will also consider whether there are alternatives that would avoid or substantially lessen any of the significant environmental impacts of the project while still generally attaining the objectives of the proposed project.

_____ Now I'm going to turn the presentation over to Tim Ramirez, from the SFPUC to provide with you an overview of the proposed project.

TIM RAMIREZ TO GIVE PROJECT DESCRIPTION
PRESENTATION - 5- 8 MINUTES.

Invitation for Public Comment

At this point we are ready to open the meeting up for public comment. This is an evening in which a number of contrasting viewpoints and values may be shared. Therefore, I would like to ask your consideration for each speaker and for the audience to refrain from any interruptions.

Speakers will be limited to **TWO or THREE minutes (Depending on if there are more than 20 speakers)**. Some of you may have significantly more information to share than three minutes will allow. So, please consider your verbal comments as a summary of your principle points of view, and if you wish, you may supplement those statements with written comments. Please submit them to us by 5:00 p.m., February 3 to the address listed on the agenda.

We have a court reporter here who will prepare a transcript of tonight's proceedings. When you come to the microphone, please state your name and address and remember to speak slowly and clearly so the court reporter can make an accurate transcript. If you are representing an organization, please indicate the group and your official capacity. You may be asked to spell your name for the benefit of our court reporter.

I'd like to emphasize again that the purpose of this process is to gather information to help inform our analysis of the project's environmental impacts. It is not to discuss the merits of the proposed project. As such, I'm going to ask you to direct your remarks to the scope of the EIR.

It's now time to hear from our first speaker.

[SPEAKERS.]

Wrap-Up

Thanks to everyone who spoke. That ends the public comment portion of the meeting.

Before we end, a few key points I would to remind you of:

- Your comments tonight and ones we receive in writing will be carefully reviewed and reflected in the Draft EIR as applicable.
- You will have several opportunities for additional input, including providing written comments on scoping, comments on the Draft EIR, and at Planning Commission hearings on the Draft EIR and Final EIR certification.
- If you wish to further supplement tonight's comments, please submit written comments to me by 5 p.m., Friday, February 3rd. You should submit comments to me at the address indicated on the agenda.
- If you have questions or comments concerning the environmental review process for the project, please contact me, Chelsea Fordham, at the Planning Dept. at 575-9071 or check the Environmental Planning pages on our website.

That wraps things up. Thank you everyone for coming, and have a good night.

ATTACHMENT D

Scoping Period Comments

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**SOUTHERN SKYLINE BOULEVARD RIDGE TRAIL PROJECT EIR
SUMMARY OF WRITTEN AND PUBLIC SCOPING COMMENTS BY COMMENTER**

Commenter		Summary of Comment	CEQA Subject Area(s)
<i>Federal Agencies</i>			
F1	National Park Service (Craig Kenkel)	Describes the Scenic Easement in the Peninsula Watershed granted to the US Department of the Interior, with approval authority to national Park Service (NPS)/Golden Gate National Recreation Area (GGNRA), by the City and County of San Francisco (CCSF).	<ul style="list-style-type: none"> • Beyond EIR scope
F1	National Park Service (Craig Kenkel)	States that the proposed project is in the Scenic Easement and describes the restrictions for NPS approval for uses and actions in the Watershed.	<ul style="list-style-type: none"> • Beyond EIR scope
F1	National Park Service (Craig Kenkel)	Requests coordination between CCSF and GGNRA to seek concurrence regarding the proposed project being a federal action.	<ul style="list-style-type: none"> • Beyond EIR scope
F1	National Park Service (Craig Kenkel)	States that the SSB RTE could be in compliance with easement requirements for water-related rights with appropriate mitigation.	<ul style="list-style-type: none"> • Beyond EIR scope
F1	National Park Service (Craig Kenkel)	States that the GGNRA 2014 General Management Plan supports the connection of the SSB RTE to the Phleger Estate and requests coordination between SFPUC and GGNRA on this topic.	<ul style="list-style-type: none"> • Project Description
F1	National Park Service (Craig Kenkel)	Requests analysis of different access procedures on visitor use, experience, and connectivity with adjacent lands and trails, including the Phleger Estate.	<ul style="list-style-type: none"> • Project Description • Recreation
F1	National Park Service (Craig Kenkel)	Requests analysis of consistency of proposed range of uses with adjacent lands and trails, including the Phleger Estate.	<ul style="list-style-type: none"> • Land Use • Recreation
F1	National Park Service (Craig Kenkel)	Requests that the DEIR evaluate potential visual impacts on the Scenic Easement and include the development of appropriate mitigation measures.	<ul style="list-style-type: none"> • Aesthetics
<i>State Agencies</i>			
S1	Caltrans (Patricia Maurice)	Requests a figure with the trail segment improvements numbered as listed in the Project Description of the NOP with Caltrans Right-of-Way (ROW) and access points to the State ROW clearly mapped.	<ul style="list-style-type: none"> • Project Description
S1	Caltrans (Patricia Maurice)	Requests that the current number of trail users and the expected number of visitors be included in the DEIR.	<ul style="list-style-type: none"> • Transportation and Circulation
S1	Caltrans (Patricia Maurice)	States that CCSF is responsible for all implementation, scheduling, and financing of mitigation and needed improvements to the State Transportation Network.	<ul style="list-style-type: none"> • Beyond EIR scope
S1	Caltrans (Patricia Maurice)	Any required improvements should be completed prior to issuance of the Building Permit.	<ul style="list-style-type: none"> • Beyond EIR scope

Commenter		Summary of Comment	CEQA Subject Area(s)
S1	Caltrans (Patricia Maurice)	Recommends early coordination between Caltrans and CCSF to address site access issues prior to submittal of an Encroachment Permit application.	<ul style="list-style-type: none"> Beyond EIR scope
S1	Caltrans (Patricia Maurice)	Requests identification of the project-generated truck trips during construction along SR-92 and SR-35 between 9:30 AM and 2:30 PM.	<ul style="list-style-type: none"> Project Description Transportation and Circulation
S1	Caltrans (Patricia Maurice)	Requests identification of the expected number of daily worker-vehicle-trips and daily truck-trips that will use SR-92 and SR-35 during construction.	<ul style="list-style-type: none"> Project Description Transportation and Circulation
S1	Caltrans (Patricia Maurice)	Requests the exact locations of construction activities requiring the closure of SR-35, including the hours and types of closures (mainline or shoulder).	<ul style="list-style-type: none"> Project Description Transportation and Circulation
S1	Caltrans (Patricia Maurice)	Requests identification of the proposed detour route during construction.	<ul style="list-style-type: none"> Transportation and Circulation
S1	Caltrans (Patricia Maurice)	Describes Transportation Demand Management (TDM) elements and measures that should be included in project design.	<ul style="list-style-type: none"> Project Description
S1	Caltrans (Patricia Maurice)	A Caltrans-approved Transportation Management Plan (TMP) is required for incidents where vehicle, bicycle, and pedestrian traffic may be impacted during construction.	<ul style="list-style-type: none"> Transportation and Circulation
S1	Caltrans (Patricia Maurice)	Pedestrian and bicycle access through construction zone must be maintained at all times to comply with American Disabilities Act (ADA) regulations.	<ul style="list-style-type: none"> Transportation and Circulation
S1	Caltrans (Patricia Maurice)	All curb ramps and pedestrian facilities located within project limits are required to be brought up to current ADA standards.	<ul style="list-style-type: none"> Project Description
S1	Caltrans (Patricia Maurice)	The TMP must comply with the requirements of the corresponding jurisdictions.	<ul style="list-style-type: none"> Project Description Transportation and Circulation
S1	Caltrans (Patricia Maurice)	The CCSF should conduct a cultural resource technical study that includes a record search from the Northwest Information Center of the California Historical Resources Information System and a field survey conducted by a qualified archaeologist and architectural historian.	<ul style="list-style-type: none"> Cultural Resources
S1	Caltrans (Patricia Maurice)	The CCSF is required to conduct Native American consultation with tribes, groups, and individuals who are interested and may have knowledge of the project area.	<ul style="list-style-type: none"> Cultural Resources
S1	Caltrans (Patricia Maurice)	The Natural Trust for Historic Preservation, the owners of the Filoli Estate, should be consulted since it is a Historic Landmark listed on the National Register of Historic Places.	<ul style="list-style-type: none"> Cultural Resources
S1	Caltrans (Patricia Maurice)	A Transportation Permit issued by Caltrans is required for project work that requires movement of oversized or excessive load vehicles on State roadways.	<ul style="list-style-type: none"> Project Description

Commenter		Summary of Comment	CEQA Subject Area(s)
S1	Caltrans (Patricia Maurice)	Any work or traffic control that encroaches onto the State ROW requires an Encroachment Permit issued by Caltrans.	<ul style="list-style-type: none"> Project Description
S1	Caltrans (Patricia Maurice)	Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process.	<ul style="list-style-type: none"> Beyond EIR scope
S1	Caltrans (Patricia Maurice)	CCSF should coordinate early with Caltrans on new site access from SR-35.	<ul style="list-style-type: none"> Beyond EIR scope
S2	Department of Forestry and Fire Protection/Cal Fire (Richard Sampson)	States that the land proposed for the project is classified as “Timberland” under Public Resource Code Sec. 4526 and that a timberland conversion permit or conversion permit is required prior to cutting any trees.	<ul style="list-style-type: none"> Project Description Agricultural and Forestry Resources
S2	Department of Forestry and Fire Protection/Cal Fire (Richard Sampson)	States that the project is in wildlands and that compliance with applicable Fire Codes will be required and mitigation and protection measures to comply with such rules must be part of the building permit.	<ul style="list-style-type: none"> Project Description Fire Management
S3	Department of Fish and Wildlife (Scott Wilson)	Recommends that the EIR provide baseline habitat assessments from a range of sources for special-status species located or potentially located within the Project area and surroundings lands.	<ul style="list-style-type: none"> Biological Resources
S3	Department of Fish and Wildlife (Scott Wilson)	Recommends that surveys for special-status species occur prior to project implementation.	<ul style="list-style-type: none"> Biological Resources
S3	Department of Fish and Wildlife (Scott Wilson)	Notes that EIR must discuss all direct and indirect impacts, and cumulative impacts that may occur with implementation of the Project, including impacts to wildlife and habitat.	<ul style="list-style-type: none"> Biological Resources Cumulative Scenario
S3	Department of Fish and Wildlife (Scott Wilson)	Recommends that mitigation measures designed to avoid taking and to minimize impacts to special-status species should be developed in consultation with US Fish and Wildlife Services, the National Marine Fisheries Service, and CDFW.	<ul style="list-style-type: none"> Biological Resources
S3	Department of Fish and Wildlife (Scott Wilson)	States that fully protected species may not be taken or possessed at any time and mitigation measures must ensure complete take avoidance of such species.	<ul style="list-style-type: none"> Biological Resources
S3	Department of Fish and Wildlife (Scott Wilson)	States that a California Endangered Species Act (CESA) permit must be obtained if the project could result in the “take” of species listed under CESA.	<ul style="list-style-type: none"> Permits and Approvals Biological Resources

Commenter		Summary of Comment	CEQA Subject Area(s)
S3	Department of Fish and Wildlife (Scott Wilson)	States that the CEQA Lead Agency's Findings of Overriding Consideration do not eliminate obligations to comply with Fish and Game Code Sec. 2080.	<ul style="list-style-type: none"> • Comment Noted
S3	Department of Fish and Wildlife (Scott Wilson)	Describes Lake and Streambed Alteration Agreement requirements.	<ul style="list-style-type: none"> • Project Description
Local/Regional Agencies/Organizations			
L1	Bay Area Ridge Trail Council (Bern Smith)	Describes the successful SFPUC Ridge Trail access program which included trailhead and restroom construction, and a docent program.	<ul style="list-style-type: none"> • Project Description
L1	Bay Area Ridge Trail Council (Bern Smith)	States that the docent program should no longer be required for the Ridge Trail and expressed support for a permit program.	<ul style="list-style-type: none"> • Project Description
L1	Bay Area Ridge Trail Council (Bern Smith)	Describes the benefits of narrow trails over wide trails.	<ul style="list-style-type: none"> • Project Description
L1	Bay Area Ridge Trail Council (Bern Smith)	Describes the impacts of heavy construction equipment to air quality, soils, and water quality.	<ul style="list-style-type: none"> • Project Description • Air Quality • Geology and Soils • Hydrology and Water Quality
L1	Bay Area Ridge Trail Council (Bern Smith)	Requests a study to examine safe crossing for trail users at SR-92 and SR-35.	<ul style="list-style-type: none"> • Transportation and Circulation
L2	Audubon Society, et al.	Requests that the EIR address how climate change, the intensity of droughts, extreme weather, and wildfire can impact water quality and wildlife.	<ul style="list-style-type: none"> • Hydrology and Water Quality • Fire Management • Biological Resources
L2	Audubon Society, et al.	Expresses concern that the Watershed Fire Management Plan is outdated.	<ul style="list-style-type: none"> • Fire Management
L2	Audubon Society, et al.	Requests that the EIR determine the consistency of unrestricted access with the 1969 Scenic Easement held by the Federal Government.	<ul style="list-style-type: none"> • Aesthetics
L2	Audubon Society, et al.	Requests that the EIR explore how unrestricted access can impact water quality and hydrology, soils, wildlife, the spread of invasive species, and the spread of sudden oak death.	<ul style="list-style-type: none"> • Hydrology and Water Quality • Geology and Soils • Biological Resources • Fire Management
L2	Audubon Society, et al.	Requests that the EIR consider impacts that retaining walls, fences, and other structures have on wildlife.	<ul style="list-style-type: none"> • Biological Resources

Commenter		Summary of Comment	CEQA Subject Area(s)
L2	Audubon Society, et al.	Describes the effectiveness of the docent program, expresses support for its expansion, and notes that it is consistent with the Scenic Easement.	<ul style="list-style-type: none"> • Project Description
L2	Audubon Society, et al.	Requests that baseline analysis include the docent program.	<ul style="list-style-type: none"> • Project Description • Environmental Setting and Impacts
L2	Audubon Society, et al.	Describes how unrestricted access to the Watershed is incompatible with a docent program.	<ul style="list-style-type: none"> • Beyond EIR scope
L2	Audubon Society, et al.	Requests assessment of the level of park personnel necessary to enforce regulations and ensure visitor safety for an unrestricted access management program.	<ul style="list-style-type: none"> • Project Description
L3	SF Urban Riders (Matthew Blain)	Requests that the EIR focus on potential conflicts among different types of trail users and off-trail use into habitat areas.	<ul style="list-style-type: none"> • Project Description • Recreation • Biological Resources • Transportation and Circulation
L3	SF Urban Riders (Matthew Blain)	Describes how design features such as trail width, materials, and routing can affect user experience.	<ul style="list-style-type: none"> • Project Description
L3	SF Urban Riders (Matthew Blain)	Requests that the EIR consider how a limited access program impacts those who do not have flexible schedules.	<ul style="list-style-type: none"> • Beyond Scope of EIR
L3	SF Urban Riders (Matthew Blain)	Requests that the EIR consider how the trail system will tie into the existing public transportation and consider access to the Quarry entrance as an alternative route from the Canada/Skyline connection.	<ul style="list-style-type: none"> • Project Description • Transportation and Circulation
L3	SF Urban Riders (Matthew Blain)	Requests that the EIR be used as a basis for other trail projects in the watershed.	<ul style="list-style-type: none"> • Beyond Scope of EIR
L4	Sierra Club – Loma Prieta and San Francisco Bay Chapters (Mike Ferreira)	Expresses support for the docent program.	<ul style="list-style-type: none"> • Beyond Scope of EIR
L4	Sierra Club – Loma Prieta and San Francisco Bay Chapters (Mike Ferreira)	Requests that the EIR thoroughly assesses impacts to natural resources.	<ul style="list-style-type: none"> • Biological Resources
L4	Sierra Club – Loma Prieta and San Francisco Bay Chapters (Mike Ferreira)	Requests that the EIR include a No Project alternative.	<ul style="list-style-type: none"> • Alternatives

Commenter		Summary of Comment	CEQA Subject Area(s)
L5	Bay Area Ridge Trail Council (Bern Smith)	Describes benefits of constructing a narrow trail.	<ul style="list-style-type: none"> Project Description
L5	Bay Area Ridge Trail Council (Bern Smith)	Expresses support for the docent program, but also supports dawn to dusk access.	<ul style="list-style-type: none"> Project Description
L6	Golden Gate Audubon Society (Sean Herman)	Requests further exploration of the extent of the biodiversity of the area.	<ul style="list-style-type: none"> Biological Resources
L6	Golden Gate Audubon Society (Sean Herman)	Expresses concern for unrestricted access and impacts to biodiversity.	<ul style="list-style-type: none"> Biological Resources
L6	Golden Gate Audubon Society (Sean Herman)	Expresses concern for increased fire risk with unrestricted access and a need for adequate enforcement, funding, personnel, and training.	<ul style="list-style-type: none"> Fire Management
L7	Open SF Watershed (Chris Brousseau)	Requests that the EIR assess hiking, biking, and equestrian access.	<ul style="list-style-type: none"> Project Description Environmental Setting and Impacts
L7	Open SF Watershed (Chris Brousseau)	Requests that the EIR discuss how the trail impacts wildlife.	<ul style="list-style-type: none"> Biological Resources
L7	Open SF Watershed (Chris Brousseau)	Requests that the Skyline Quarry be evaluated for the same access programs as the Project trails.	<ul style="list-style-type: none"> Project Description
L7	Open SF Watershed (Chris Brousseau)	Requests that the EIR use “open access” instead of “unrestricted access”, as the latter has a negative connotation.	<ul style="list-style-type: none"> Project Description
L8	Palo Alto Run Club (Ron Wolf)	Expresses support for opening further access to the Watershed.	<ul style="list-style-type: none"> Beyond EIR scope
L8	Palo Alto Run Club (Ron Wolf)	Requests that the EIR address the entire extension of the trail, from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.	<ul style="list-style-type: none"> Project Description
L8	Palo Alto Run Club (Ron Wolf)	Requests that access should be extended from dawn until dusk.	<ul style="list-style-type: none"> Project Description Transportation and Circulation
L8	Palo Alto Run Club (Ron Wolf)	Requests that the EIR be expanded to cover connecting trail systems.	<ul style="list-style-type: none"> Project Description

Commenter		Summary of Comment	CEQA Subject Area(s)
L9	Silicon Valley Mountain Bikers (Charles Krenz)	Requests that the EIR describe the SFPUC's jurisdictional duties to regulate recreational access in the Peninsula Watershed.	<ul style="list-style-type: none"> Project Description
L9	Silicon Valley Mountain Bikers (Charles Krenz)	Describes that both the San Francisco and San Mateo County General Plans encourage recreational access on watershed lands.	<ul style="list-style-type: none"> Recreation
L9	Silicon Valley Mountain Bikers (Charles Krenz)	Requests that the EIR consider the impact of cycling in addition to hiking, and should not use the terminology "mountain biking".	<ul style="list-style-type: none"> Project Description Transportation and Circulation
L9	Silicon Valley Mountain Bikers (Charles Krenz)	Requests that the EIR consider the retention of the Quarry access location for cyclists so that riders do not attempt to climb onto SR-92.	<ul style="list-style-type: none"> Project Description Transportation and Circulation
Individuals			
I1	Brian Ginna	Similar to letter L8	<ul style="list-style-type: none"> See letter L8
I1	Brian Ginna	Requests that the EIR address pedestrian, cyclist, and equestrian access.	<ul style="list-style-type: none"> Project Description Transportation and Circulation
I1	Brian Ginna	Requests that the EIR address all historical sites and artifacts in the watershed that are over 50 years old.	<ul style="list-style-type: none"> Cultural Resources
I2	Bryan O'Sullivan	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I3	Chris Clutton	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I4	Dan Spier	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I5	Daniel Hadley	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I6	Eric Stempke	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I7	John Collins	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I8	Jordan Kestler	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I9	Kaaren Sipes	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I10	Leslie Young	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I11	Meg Gilmore	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I12	Michelle Boyle	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1

Commenter		Summary of Comment	CEQA Subject Area(s)
I13	Paul J. Farragher	Similar to letters L8 and I1	• See letters L8 and I1
I14	Raymond Sinsley	Similar to letters L8 and I1	• See letters L8 and I1
I15	Ryan Helft	Similar to letters L8 and I1	• See letters L8 and I1
I16	Sean Matthews	Similar to letters L8 and I1	• See letters L8 and I1
I17	Terry Barton	Similar to letters L8 and I1	• See letters L8 and I1
I17	Terry Barton	Describes how access to public lands raises environmental awareness and benefits the population.	• Beyond EIR scope
I18	Todd Lansing	Similar to letters L8 and I1	• See letters L8 and I1
I19	Tom Brown	Similar to letters L8 and I1	• See letters L8 and I1
I20	Jamie Fox	Similar to letters L8 and I1	• See letters L8 and I1
I21	John Scott	Similar to letters L8 and I1	• See letters L8 and I1
I21	John Scott	Describes how volunteer trail maintenance workdays can foster responsible trail use.	• Beyond EIR scope
I22	Rezz Sakharov	Similar to letters L8 and I1	• See letters L8 and I1
I23	Ted Ryan	Similar to letters L8 and I1	• See letters L8 and I1
I24	Mythily Sivarahah	Similar to letters L8 and I1	• See letters L8 and I1
I25	Scott Dickie	Similar to letters L8 and I1	• See letters L8 and I1
I26	Bill Schilz	Similar to letters L8 and I1	• See letters L8 and I1
I27	Joel Reed	Similar to letters L8 and I1	• See letters L8 and I1
I28	Jeremy Schaub	Similar to letters L8 and I1	• See letters L8 and I1
I29	Callista Shepherd Smith & Scott Smith	Similar to letters L8 and I1	• See letters L8 and I1
I30	Jason Strnad	Similar to letters L8 and I1	• See letters L8 and I1
I31	Anne Barnett	Similar to letters L8 and I1	• See letters L8 and I1
I32	Daniel Engovatov, Ph.D.	Similar to letters L8 and I1	• See letters L8 and I1
I32	Daniel Engovatov, Ph.D.	Requests that the EIR should study the least restrictive access mode in addition to permit-based access.	• Project Description

Commenter		Summary of Comment	CEQA Subject Area(s)
I32	Daniel Engovatov, Ph.D.	Describes how public access to nature is important for a new generation of environmentally conscious citizens.	<ul style="list-style-type: none"> Beyond EIR scope
I33	Tom Scarvie	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I34	Christopher Pincetich, Ph.D.	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I34	Christopher Pincetich, Ph.D.	Describes the benefits of cycling.	<ul style="list-style-type: none"> Beyond EIR scope
I35	Mike Naranjo	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I36	Ross Heiman	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I37	Andy Howse	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I38	Paul Soo	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I39	Ketayun Keown	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I40	Vladimir Gedgafov	Similar to letters L8 and I1	<ul style="list-style-type: none"> See letters L8 and I1
I41	Mike Buncic	Requests that the EIR explore access to Fifield/Cahill Ridge Trail at the northern Sweeney Ridge trail connection.	<ul style="list-style-type: none"> Project Description
I42	Charlie Krenz	Describes that the San Francisco General Plan and San Mateo County General Plan both include provisions for accessibility and recreation on Peninsula Watershed lands.	<ul style="list-style-type: none"> Recreation
I42	Charlie Krenz	Requests that the EIR assess hiking, equestrian, and cycling access; a permit access program; and an unrestricted access program.	<ul style="list-style-type: none"> Project Description
I42	Charlie Krenz	Describes aspects of the Peninsula Watershed Management Plan that allow recreational access to Watershed lands.	<ul style="list-style-type: none"> Recreation
I43	Gene McKenna	Supports responsible access to the Watershed in the form of open access, not docent access.	<ul style="list-style-type: none"> Project Description

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United States Department of the Interior

NATIONAL PARK SERVICE
Golden Gate National Recreation Area
Fort Mason, San Francisco, California 94123

IN REPLY REFER TO:
L76 (GOGA-PL)

FEB 03 2017

Lisa Gibson
San Francisco Planning Department
1650 Mission Street
Suite 400
San Francisco, CA 94103

RE: National Park Service Comments on the Notice of Preparation of an EIR for the Southern Skyline Boulevard Ridge Trail Extension

Dear Ms. Gibson:

Thank you for the opportunity to provide scoping comments on the December 21, 2016 Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the proposed Southern Skyline Boulevard Ridge Trail Extension (SSBRTE) project in the San Francisco Peninsula Watershed (Watershed), Case No. 2016-016100ENV. While generally supportive of this project, the National Park Service (NPS) has the following concerns:

1. Two easements granted to the U.S. Department of the Interior by the City and County of San Francisco (CCSF) in 1969 give approval authority to the Golden Gate National Recreation Area (GGNRA) Superintendent for actions within approximately 23,000 acres of the Watershed for non-water supply activities. Moreover, the Watershed is within the GGNRA legislative boundary and the easements are administered as part of GGNRA as specifically addressed in the federal legislation that expressly added them to GGNRA in 1980 (PL 96-607; 1001; 16 U.S.C. 460BB-2(p)). As such, NPS is entrusted with the responsibilities described in the Scenic Easement (on the western 19,000 acres) and the Scenic and Recreation Easement (eastern 4,000 acres).

As described in the NOP, GGNRA understands that most, if not all, of the proposed project area is only within the Scenic Easement. If this is accurate, the Draft EIR will need to identify the restrictions, the approval authorities and the approval process associated with the binding Scenic Easement. Under the easement, NPS approval extends to the following restrictions:

- Uses of the watershed other than for the collection, storage and transmission of water and protection of water quality, providing these uses conform with water supply and water quality and preserve the land as open space in its present natural condition.
- Concurrence on the design and siting of all buildings other than water utility and related structures.
- Placement of stockpiles, rock piles, debris piles except where explicitly placed for erosion control strategy.
- Placement of all signs except directional or identification signs.
- All grading (both cut and fill), with exception for the purpose of collection, storage and transmission of water and protection of water quality.
- All tree cutting, destroying or removal or brush clearance, with exception for the purpose of collection, storage and transmission of water and protection of water quality.
- Concurrence by the GGNRA Superintendent will be deemed to be granted if there is no response to a request for approval within 60 days.

2. On page six of the NOP, under the section titled APPROVALS REQUIRED, it states that “No federal permits or approvals appear to be applicable to the proposed project.” As noted above, GGNRA has approval authority under the Scenic Easement and requests that San Francisco Planning coordinate with GGNRA to seek concurrence on the proposed project. Further, the NOP does not make any reference to compliance required under the National Environmental Policy Act (NEPA). Due to our entrusted responsibilities under the easement, and because there may also be anticipated federal funding for project planning/implementation, this action is considered a federal action [40 CFR 1508.18]. As such, our planning staff would like to coordinate with your planning team for this Federal Action determination.
3. Consistent with NPS comments made on the SFPUC Peninsula Watershed Management Plan and DEIR, dated February 18, 2000 that the Fifield-Cahill Ridge Trail exceeds the water-related rights under the Scenic Easement, the proposed SSB RTE likewise exceeds the water-related rights. However, NPS makes the same comment here as it did on the Fifield-Cahill Ridge Trail proposed in the Watershed Plan, that the proposed SSB RTE, with appropriate mitigation, would be compatible with the underlying goal of the easement requirements.
4. NPS recommends that SFPUC continue to work closely with the appropriate GGNRA staff on how the proposed SSB RTE alignment at the southern terminus would connect to the future GGNRA Skyline Trail at the Phleger Estate. GGNRA’s 2014 General Management Plan specifically identifies supporting the connection of the SSB RTE to the Phleger Estate, and NPS appreciates SFPUC’s efforts to incorporate conceptual design of the trail within the Phleger Estate into the proposed project.
5. In addition to considering a range of access procedures along the entire 16- mile proposed trail, NPS recommends that SFPUC analyze the effects of different access procedures on visitor use, experience, and connectivity with adjacent lands and trails, including the Phleger Estate.
6. NPS similarly recommends SFPUC analyze and consider the consistency of the proposed range of allowed uses, i.e., pedestrian, bicyclist, and equestrian with adjacent lands and trails, including the Phleger Estate, which currently does not allow bicyclists.
7. In addition to the resource topics listed in the NOP that will be evaluated in the Draft EIR, potential visual impacts on the Scenic Easement and the development of appropriate mitigation measures need to be included.

The NPS will continue its efforts to constructively contribute to the cooperative management of the Watershed and fulfill its role as a concurring agency on non-water supply related issues as well and as an adjacent land management agency with similar goals. The NPS would like to add here its appreciation for the improved interagency relationship with the SFPUC over the last several years and looks forward to continued collaboration and coordination moving forward.

Please contact Larry Miranda (415-561-4968, larry_miranda@nps.gov) on my staff if you have questions.

Sincerely,



Craig Kenkel
Acting General Superintendent

cc:

Barbara Goodyear, Office of the Solicitor, Department of the Interior

Tim Ramirez, SFPUC Natural Resources and Lands Management Division Manager

February 2, 2017

SCH # 1998082030
GTS # 04-SM-2016-00073
SM- 35 - 23.025

Mr. Horner
City and County of San Francisco
1650 Mission Street
San Francisco, CA 94103-2479

Southern Skyline Boulevard Ridge Trail Extension – Notice of Preparation (NOP) of an Environmental Impact Report (EIR)

Dear Mr. Horner:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Southern Skyline Boulevard Ridge Trail Extension (SSBRTE). In tandem with the Metropolitan Transportation Commission's (MTC) Sustainable Communities Strategy (SCS), the Caltrans' mission signals a modernization of our approach to evaluate and mitigate impacts to the State Transportation Network (STN). Caltrans' *Strategic Management Plan 2015-2020* aims to reduce Vehicle Miles Travelled (VMT) by tripling bicycle and doubling both pedestrian and transit travel by 2020. Our comments are based on the December 21, 2016 Notice of Preparation of an Environmental Impact Report.

Project Understanding

The Project's main component, the SSBRTE, would be located at the top of the ridge, 1 to 1.75 miles upslope of Upper Crystal Springs Reservoir, extending south and generally following State Route (SR) 35 (Skyline Boulevard) from SR 92 to the southern boundary of SFPUC property at the Phleger Estate property. The trail would generally be eight feet in width. Depending upon topography, geology, and vegetation, portions of the trail may be narrower or wider (up to 12 feet in width). The proposed alignment was delineated to follow the existing ridgeline. The trail would consist of three main segments:

- Northern Segment (Segment 1): The approximately 12-foot-wide 1.9-mile northern segment would start near the existing California Department of Transportation (Caltrans)

parking area at the intersection of SR 92 and SR 35 (Upper Skyline Boulevard). The proposed design includes a new trailhead parking lot, information kiosk, and pedestrian gate to access the northern entrance to this section of the SSB RTE. Potential drainage and slope stability issues along portions of this segment would be addressed with approximately 2,500 linear feet of retaining wall.

- **Middle Segment (Segment 2):** The 1.7-mile middle segment is proposed to follow the existing fuel break along an area that is primarily a flat bench, surrounded by brush. The topography for this segment has gentle slopes throughout, with a large portion accessible by vehicle through various gates along SR 35. A pit toilet would be constructed, with a service road from SR 35 (Skyline Boulevard) providing access for construction and routine maintenance.
- **Southern Segment (Segment 3):** The 2.3-mile southern segment is the farthest segment from SR 35 (Skyline Boulevard), but access from the roadway would still be feasible at certain locations. A pit toilet would also be constructed in this segment with a service road from SR 35 (Skyline Boulevard), for routine maintenance and to provide temporary construction access for the Project. An additional service road from SR 35 (Skyline Boulevard), would be constructed in this segment to provide access for construction and routine maintenance and patrol. This segment would end at the southern boundary of SFPUC property, and connect with a trail on the Golden Gate National Recreation Area Phleger Estate.

Project Description

Please provide a figure with the trail segment improvements numbered as listed in the “Project Description” section of the NOP. In addition, the figure should clearly map Caltrans right-of-way (ROW) as it relates to the project, including existing and proposed access points to State ROW. The Draft EIR should also include the current number of trail users and the expected number of visitors after the improvements are complete.

Lead Agency

As the lead agency, City and County of San Francisco is responsible for all project mitigation, including any needed improvements to the STN. The project’s fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. This includes any required improvements to the STN or reductions in VMT. Any required improvements should be completed prior to issuance of the Building Permit. We strongly recommend early coordination occur between Caltrans and the City and County of San Francisco to address any site access issues. Time and money can be saved if this coordination occurs prior to submittal of an Encroachment Permit application. See the end of this letter for more information on the Encroachment Permit process.

Project Access Analysis

Based on the project's regional access improvements, please provide the following analysis for the project's impact during construction on the STN:

- The project-generated truck trips along SR 92 and SR 35 should occur between the hours of 9:30 AM and 2:30 PM only. This is to avoid causing an impact on SR 92 and SR 35 during the morning and evening commute periods.
- What are the expected number of daily worker-vehicle-trips and daily truck-trips, using SR 35 and SR 92?
- Provide the exact locations of construction activities which might require the closure of SR 35, as is mentioned in the NOP. In addition, provide information such as: hours and types of closures and whether closures would involve SR 35 mainline or shoulder.
- Please identify the proposed detour route.

Vehicle Trip Reduction

We encourage the applicant to pursue the Transportation Demand Management (TDM) elements described in relevant documents such as the Federal Highway Administration's *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8). These measures listed below will promote smart mobility, reduce regional VMT and traffic impacts to the STN.

- Project design to encourage walking, bicycling and convenient transit access,
- Revise parking requirements from required maximum needed to maximum threshold for the preservation of the natural resource
- Designated bicycle parking, and
- Charging stations and designated parking spaces for electric vehicles.

For additional TDM options, please refer to *Integrating Demand Management into the Transportation Planning Process: A Desk Reference*. The reference is available online at:

<http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf>.

Transportation Management Plan

Where vehicular, bicycle, and pedestrian traffic may be impacted during the construction of the proposed project requiring traffic restrictions and detours, a Caltrans-approved Transportation

Management Plan (TMP) is required. Pedestrian and bicycle access through the construction zone must be maintained at all times and comply with the Americans with Disabilities Act (ADA) regulations. See Caltrans' *Temporary Pedestrian Facilities Handbook* for maintaining pedestrian access and meeting ADA requirements during construction at:

http://www.dot.ca.gov/hq/construc/safety/Temporary_Pedestrian_Facilities_Handbook.pdf

See also Caltrans' Traffic Operations Policy Directive 11-01 "Accommodating Bicyclists in Temporary Traffic Control Zones" at: www.dot.ca.gov/trafficops/policy/11-01.pdf.

All curb ramps and pedestrian facilities located within the limits of the project are required to be brought up to current ADA standards as part of this project. The TMP must also comply with the requirements of corresponding jurisdictions. For further TMP assistance, please contact the Caltrans District 4 Office of Traffic Management Operations at (510) 286-4579. Further traffic management information is available at the following website:

www.dot.ca.gov/hq/traffops/trafmgmt/tmp_lcs/index.htm.

Cultural Resources

We recommend that the , City and County of San Francisco conduct a cultural resource technical study that includes a records search from the Northwest Information Center of the California Historical Resources Information System (CHRIS) at Sonoma State University and a field survey conducted by a qualified archaeologist and a qualified architectural historian.

Additionally, in accordance with CEQA and Assembly Bill (AB) 52, the , City and County of San Francisco will be required to conduct Native American consultation with tribes, groups, and individuals who are interested in the project area and may have knowledge of Tribal Cultural Resources, Traditional Cultural Properties, or other sacred sites. Native American consultation should include outreach by letters, emails, and phone calls. The Filoli Estate, a California Historical Landmark listed on the National Register of Historic Place, is adjacent to Caltrans ROW. The National Trust for Historic Preservation (owner of the estate) and local historical societies should be consulted regarding effects of the project upon the Filoli Estate.

Transportation Permit

Project work that requires movement of oversized or excessive load vehicles on State roadways requires a Transportation Permit that is issued by Caltrans. To apply, a completed Transportation Permit application with the determined specific route(s) for the shipper to follow from origin to destination must be submitted to:

Mr. Horner, City and County of San Francisco
February 2, 2017
Page 5

Caltrans Transportation Permits Office
1823 14th Street
Sacramento, CA 95811-7119.

See the following website for more information about Transportation Permits:

<http://www.dot.ca.gov/trafficops/permits/index.html>

Encroachment Permit

Please be advised that any work or traffic control that encroaches onto the State ROW requires an Encroachment Permit that is issued by Caltrans. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. To apply, a completed Encroachment Permit application, the adopted environmental document, and five (5) sets of plans clearly indicating State ROW must be submitted to the address below. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process.

David Salladay, District Office Chief
Office of Permits, MS 5E
California Department of Transportation, District 4
P.O. Box 23660
Oakland, CA 94623-0660

See the following website for more information:

<http://www.dot.ca.gov/trafficops/ep/index.html>

Thank you again for including Caltrans in the environmental review process. Please contact us for early coordination on new site access from SR 35. Should you have any questions regarding this letter, please contact Jannette Ramirez at 510-286-5535 or jannette.ramirez@dot.ca.gov.

Sincerely,



PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

P.O. Drawer F-2
6059 Highway 9
Felton, CA 95018
(831) 335-6740
Website: www.fire.ca.gov



Date: January 4, 2017
Environmental Document Review
NOP – draft EIR
SCH#: 1998082030

Justin Horner
City and County of San Francisco Planning Department
1650 Mission St. Suite 400
San Francisco, CA 94103-2479

Dear Mr. Horner:

The above referenced Notice of Intent to Adopt Negative Declaration was reviewed by the Resource Management office of the San Mateo-Santa Cruz Unit of the California Department of Forestry and Fire Protection (CAL FIRE). A site visit was completed with SF PUC staff prior to this review. The comments below were given verbally to SF PUC staff at that time. We look forward to continuing to work with them to ensure compliance on this project.

Tree Removal

The land proposed for this project has been classified as “Timberland” as defined under Public Resources Code (PRC) section 4526 a timberland conversion permit or conversion exemption would be required prior to the cutting of trees. This property was the subject of a Timber Harvest Plan during the early 1990’s. The project proponent should consult with a licensed Forester to complete the permit application.

Fire Hazard

This project has been identified as being in wildlands. Compliance with all applicable Fire Codes pertaining to access, vegetation clearance and suppression needs for proposed facilities will be required by the fire inspector for this project. Specific mitigations and protection measures to comply with these rules will need to be made part of the building permit.

If you need any assistance or information, please call or write to the Resource Management Office at the above listed address or telephone number.

Sincerely,
Original on file in HQ

Richard Sampson
Division Chief - Forester II
Unit Forester and Environmental Coordinator
RPF #2422

Cc:
Chris Browder
California Department of Forestry and Fire Protection
Environmental Protection,
P.O. Box 944246
Sacramento CA 94244-2460



State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



January 30, 2017

Mr. Justin Horner
City and County of San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103-2479

Dear Mr. Horner:

Subject: San Francisco Public Utilities Commission Southern Skyline Blvd Ridge Trail
Extension Project, Notice of Preparation of a Draft Environmental Impact Report,
SCH #1998082030, San Mateo County

The California Department of Fish and Wildlife (CDFW) reviewed the Notice of Preparation (NOP) of a draft Environmental Impact Report (EIR) from the City and County of San Francisco Planning Department for the San Francisco Public Utilities Commission Southern Skyline Blvd Ridge Trail Extension Project (Project) located in San Mateo County. The NOP was received in our office on December 22, 2016.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is a Trustee Agency with responsibility under the California Environmental Quality Act (CEQA) §15386 for commenting on projects that could impact fish, plant and wildlife resources. CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as the California Endangered Species Act (CESA) Permit, the Native Plant Protection Act, the Lake and Streambed Alteration Agreement (LSAA) and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources. Pursuant to our jurisdiction, CDFW has the following concerns, comments, and recommendations regarding the Project.

PROJECT DESCRIPTION AND LOCATION

Proponent: San Francisco Public Utilities Commission (SFPUC)

Summary: The Project involves extending the Bay Area Ridge Trail, modifying access management programs over trail segments and conveying a permanent easement over an existing trail segment. Trail improvements include a new multi-use trail segment extending approximately six miles south from the end of the Fifield/Cahill Ridge Trail to the Golden Gate National Recreation Area (GGNRA) Phleger Estate Trail. Additionally, a new 0.5-mile Americans with Disabilities Act (ADA) compliant loop trail will be constructed along the existing Fifield/Cahill Trail. The Project will also acquire a permanent trail easement (held by the Bay

Area Ridge Trail Council) in the vicinity of Skylawn Cemetery, north of Highway 92. Trail support facilities include installing restrooms, drainage features, retaining structures and security fences and gates. Additionally, two new trailhead parking areas will be constructed: a small 10-vehicle lot south of the Highway 35/92 intersection, and a large 50-vehicle lot north of Skylawn Cemetery.

Location: The Project trail extension is located on a ridgetop and extends south following Skyline Boulevard from Highway 92 to the southern boundary of SFPUC property at the Phleger Estate Property. The Project trail easement extends for one mile through the Skylawn Cemetery from Highway 92 to Cemetery Gate. The proposed ADA loop trail is located approximately one mile from the north end of the trail easement.

Timeframe: January 2018 to December 2018

ENVIRONMENTAL SETTING

Sufficient information regarding the environmental setting is necessary to understand the Project's, and its alternative's (if applicable), significant impacts on the environment (CEQA Guidelines, §§15125 & 15360). CDFW recommends that the CEQA document prepared for the Project provide baseline habitat assessments for special-status plant, fish and wildlife species located and potentially located within the Project area and surrounding lands, including all rare, threatened, or endangered species (CEQA Guidelines, §15380). Fully protected, threatened or endangered, candidate, and other special-status species that are known to occur, or have the potential to occur in or near the Project site, include, but are not limited to:

- Marbled murrelet (*Brachyramphus marmoratus*), FT, SE
- San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), FE, SE, FP
- California red-legged frog (*Rana draytonii*), FT, SSC
- San Francisco dusky footed woodrat (*Neotoma fuscipes annectens*), SSC
- American peregrine falcon (*Falco peregrinus anatum*), FP
- Kings Mountain manzanita (*Arctostaphylos regismontana*), 1B.2

Source: CDFW, California Natural Diversity Database, 2017

FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate; SE = State Endangered; ST = State Threatened; SC = State Candidate; SSC = State Species of Special Concern; FP = Fully Protected

CNPS Plant Ranks

- 1B = Rare, Threatened, or Endangered in California and Elsewhere
- 2A = Presumed Extirpated in California, But Common Elsewhere
- 2B = Rare, Threatened, or Endangered in California, But More Common Elsewhere

CNPS Threat Ranks

- 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

- 0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3-Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Habitat descriptions and species profiles should include information from multiple sources: aerial imagery, historical and recent survey data, field reconnaissance, scientific literature and reports, and findings from “positive occurrence” databases such as California Natural Diversity Database (CNDDB). Based on the data and information from the habitat assessment, the CEQA document can then adequately assess which special-status species are likely to occur in the Project vicinity.

CDFW recommends that prior to project implementation surveys be conducted for special-status species with potential to occur, following recommended survey protocols if available. Survey and monitoring protocols and guidelines are available at:
<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>.

Botanical surveys for special-status plant species, including those listed by the California Native Plant Society (<http://www.cnps.org/cnps/rareplants/inventory/>), must be conducted during the blooming period for all sensitive plant species potentially occurring within the Project area and require the identification of reference populations. Please refer to CDFW protocols for surveying and evaluating impacts to rare plants available at:
<https://www.wildlife.ca.gov/Conservation/Plants>.

IMPACT ANALYSIS AND MITIGATION MEASURES

The CEQA Guidelines (§15126.2) necessitate that the draft EIR discuss all direct and indirect impacts (temporary and permanent) that may occur with implementation of the Project. This includes evaluating and describing impacts such as:

- Potential for “take” (Fish and Game Code, §86) of special-status species;
- Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alteration of soils and hydrology, and removal of habitat structural features (e.g. snags, roosts, overhanging banks);
- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence; and
- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features.

The CEQA document also should identify reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the Project’s contribution to the impact (CEQA Guidelines, §15355). Although a project’s impacts may be insignificant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact – e.g., reduction of available habitat for a listed species – should be considered cumulatively considerable without mitigation to minimize or avoid the impact.

Based on the comprehensive analysis of the direct, indirect, and cumulative impacts of the Project, the CEQA Guidelines (§§ 15021, 15063, 15071, 15126.2, 15126.4 and 15370) direct the lead agency to consider and describe all feasible mitigation measures to avoid potentially significant impacts in the draft EIR, and/or mitigate significant impacts of the Project on the environment. This includes a discussion of take avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service and CDFW. These measures can then be incorporated as enforceable project conditions to reduce potential impacts to biological resources to less-than-significant levels.

Fully protected species such as the San Francisco garter snake may not be taken or possessed at any time (Fish and Game Code § 3511). Therefore, the draft EIR is advised to include measures to ensure complete take avoidance of these fully protected species.

REGULATORY REQUIREMENTS

California Endangered Species Act

Please be advised that a CESA permit must be obtained if the project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (CEQA §§ 21001(c), 21083, and CEQA Guidelines §§ 15380, 15064, 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code § 2080.

Lake and Streambed Alteration Agreement

CDFW will require an LSAA, pursuant to Fish and Game Code §§ 1600 et. seq. for Project-related activities within any 1600-jurisdictional waters within the proposed Project area. Notification is required for any activity that will substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. CDFW, as a Responsible Agency under CEQA, will consider the CEQA document for the Project. CDFW may not execute the final LSAA until it has complied with CEQA (Public Resources Code § 21000 et seq.) as the responsible agency.

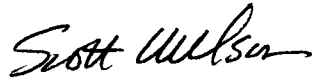
FILING FEES

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish and Game Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

Mr. Justin Horner
January 30, 2017
Page 5

If you have any questions, please contact Ms. Robynn Swan, Environmental Scientist, at (707) 576-2898 or Robynn.Swan@wildlife.ca.gov; or Ms. Randi Adair, Senior Environmental Scientist (Supervisory), at (707) 576 2786 or Randi.Adair@wildlife.ca.gov.

Sincerely,

A handwritten signature in black ink that reads "Scott Wilson". The signature is written in a cursive, flowing style.

Scott Wilson
Regional Manager
Bay Delta Region

cc: State Clearinghouse



Lisa Gibson
San Francisco Planning Department
1650 Mission St, Suite 400
San Francisco CA 94103
Regarding: South Skyline Ridge Trail Extension EIR

February 3 2017

Hello Lisa –

The Bay Area Ridge Trail is a 550-mile long loop for hikers, cyclists and equestrians on the ridgelines around the San Francisco Bay Area. To date, about 370 miles (roughly 2/3) are complete and open to the public, including 10 miles in the San Francisco Public Utilities Commission's (PUC) Peninsula Watershed, mostly on the Fifiield-Cahill Ridge Trail opened in 2003.

Land use and recreation

Subsequent to the adoption of the 2002 Peninsula Watershed Management Plan, the PUC successfully planned, implemented and documented the Ridge Trail access program. Components of the program included construction of trailheads and restrooms, organizing and implementing a docent training program and administration of the program. The PUC successfully created a cohort of knowledgeable docents capable of leading hikes and rides and educating visitors about the Watershed. The program increased public access to the Watershed in an organized, responsible way. 15 years of experience have shown that public access to the Watershed is a hugely positive feature of the PUC's overall watershed management.

We are confident that, after 15 years of access, the trail using public is capable of visiting the Watershed in a responsible manner, and that docents should no longer be required for entering the Ridge Trail sections on the Watershed. Perhaps a permit program would assuage fears among some that unfettered access will be detrimental to the Watershed. Such a program was an option offered in the 2002 Plan.

During the South Skyline Extension planning process additional opportunities for responsible public access to the Watershed have been raised. Other sections of trails in the Watershed have been identified as important to the trail use community. Though not part of the Ridge Trail project, it might be prudent to consider how those requests could be addressed. One such possibility comes to mind: docents could lead trips to manage/monitor additional public access on trails not normally per the 2002 Management Plan, which states that: "the SFPUC has always had provisions to allow access to groups, with a permit and a guide, to hike along the internal roads of the watershed." Note that text does not list only the Ridge Trail – other (if not all) trails have been site of permitted, guided trips. Perhaps that provision could be applied in the interim until such time as formal planning for additional trail access can be completed.





Bay Area
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Natural Resource effects

As we get closer to construction of the 6-mile South Skyline Ridge Trail Extension, it is reasonable to raise questions about the extent of impacts that trail construction have on the landscape. I have spent considerable time over the last 35 years observing trail use and changes to trails caused by those uses. I also built many miles of trails, and trained others to build trails and to oversee trail crews. I designed trails, laid out alignments, worked with heavy equipment operators and hand crews to build and maintain trails, and surveyed results over time. One feature of resource-conservative trail construction stands out above all others – narrow trails have lower effects on the land than wider trails. The effects are easy to describe, and easy to observe.

In the lowest-impact scenario, no heavy equipment of any kind is used in the process, with the occasional exception of materials delivery. Hand crews clear the route of brush, scrape duff to mineral soil, cut the tread into the hillside and create the drainage elements. This process works well for narrow trails, but is not suitable for wider (say, more than 5 feet) trails, which can be roughed in with modern trail building excavators. Use of excavators reduces the time needed to cut a trail into the landscape, but the effects are much larger. The wider a trail cuts into the hillside, the higher up the slope that cut needs to go as well. So the overall cut width gets much wider than just the tread itself (that is, the cut necessary to make a sustainable 8ft wide trail is much wider than the cut for a 4ft wide trail – not just 4ft wider; more like 10-12 ft wider). As there are many hundreds (indeed, probably thousands) of miles of ranch, forest and service road trails in the Bay Area already (including the Watershed), it seems reasonable to suggest that additional new trails need not be built overly wide.

Well-built narrow trails tend to degrade less than wider trail. That is, they typically are designed for minimum initial impacts to the land, and for longer-term resistance to erosion. They also are easier to maintain as the problem areas that might develop over time tend to be much smaller than those on wide trails.

Heavy equipment also brings additional impacts that hand crews do not, such as air quality impacts from emissions, potential soil and water quality problems related to fuel or lubricant spills, soil compaction from vehicle weight, etc. Although some sections of the South Skyline Extension alignment are along old road cuts or cleared vegetation management zones, there are still sections that could be considered for downsizing to 4ft wide, or even narrower.

Use patterns on narrow and wide trails indicate that almost all trail users stay in a fairly narrow range of the trail width. Indeed, in the Bay Area many trails that originally were built 4ft wide are now functionally only about 2ft wide, as almost all the use is concentrated within that width, and the rest of the trail tends to get overgrown or the unused tread never gets compacted to match the heavily-used portion.

Narrow trails are not more dangerous to trail users than wide trails such as ranch roads. If cycling speeds are a concern, that can be addressed by a combination of developing long sight lines,





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installing speed reduction features in the alignment, and educating trail users about responsible shared use of trails (which should be done irrespective of the width of the trails). Hundreds of miles of narrow (singletrack) trail in the Bay Area (including about 55 miles of Ridge Trail) are effectively managed to allow multiple use access.

Transportation and access

Because Highway 92 bisects the Peninsula Watershed, continuity of the Ridge Trail is also affected by the highway. Though not included in this review, we hope that the PUC, Skylawn Cemetery, Caltrans, San Mateo County Ridge Trail Council and other interested parties can agree to study how to implement safe crossing of Highway 92 at the Skyline Blvd intersection, to accommodate trail users traveling north or south along the Ridge Trail through the Watershed.

Thank you for the opportunity to comment on this important project.

Regards –

Bern Smith

A handwritten signature in blue ink, appearing to read "Bern Smith". The signature is stylized with a large "B" and "S" and a long horizontal stroke at the end.





Bay Area
**Ridge
Trail**
Council

Cc: Yin Lan Zhang
YZhang@sfgov.org
Justin Horner
Justin.Horner@sfgov.org



February 3, 2017

VIA REGULAR MAIL & E-MAIL

Lisa Gibson, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, California 94103
Email: lisa.gibson@sfgov.org

RE: EIR Public Scoping Written Comment Letter
Southern Skyline Boulevard Ridge Trail Extension Project
Case # 2016-016100ENV

Dear Ms. Gibson:

Please accept this comment letter on behalf of the Audubon Society (Golden Gate, Santa Clara Valley, and Sequoia Chapters), California Native Plant Society (Santa Clara Valley and Yerba Buena Chapters), Committee for Green Foothills, Native Plant Conservation Campaign, Nature in the City, and Sierra Club (San Francisco Bay and Loma Prieta Chapters). Each of our organizations appreciates the opportunity to comment on the scoping of the Southern Skyline Boulevard Ridge Trail Extension Environmental Impact Report ("Trail Extension"). While each organization has its own unique mission, we collectively strive to educate the public regarding the importance of protecting our wildlife and other natural resources. In accordance with this collective mission, we submit the following comments with regard to issues the Trail Extension EIR should address.

I. Climate Change, Drought, and Increased Likelihood of Wildfire.

The 2001 Peninsula Watershed Management Plan mentions neither climate change nor drought. Since 2001, the prevalence of climate change and the persistent threat of extreme drought evolved to become one of the Bay Area's most significant concerns. The Peninsula Watershed is not immune to the crippling effects of drought. In 2015, an unrelenting drought forced the Watershed to close due to the high risk of natural or anthropogenic-caused wildfire.

Our organizations hope the EIR addresses accelerated climate change and its likelihood to increase the frequency, duration, and intensity of droughts and other extreme weather events. The EIR should study the myriad ways extreme weather patterns affect Peninsula wildlife and Reservoir water quality. Importantly, the report should focus on the increased likelihood of wildfire and diminished reservoir water quality resulting from increased human activity. We are particularly concerned that the Watershed may have an inadequate or outdated fire management plan, especially in light of our knowledge of drought and climate change. To date, the Watershed has either no prescribed burning, vegetation treatment, or other fuel management programs that reduce wildfire risk, or has only very limited and inadequate programs for those fire-management procedures. As a result, the fuel buildup substantially increases the likelihood of a catastrophic wildfire. In addition to a significant loss of natural resources, a wildfire activates invasive plant seed banks suppressed by old growth conditions.

Extreme weather patterns may also include flooding which cause significant erosion due to stormwater overland flow, especially around roads and human clearings. The EIR should assess how

unrestricted access may exacerbate these and other hazards' impacts upon the Watershed. The EIR should therefore assess how water quality is affected by climate change, prevalent droughts, and proposed increased unrestricted human activity within the Watershed.

II. Scenic Easement.

The Trail Extension Notice of Proposal references providing “unrestricted access for the entire length of the Bay Area Ridge Trail.” The EIR must consider whether this proposal is consistent with the May 2, 1969 Scenic Easement granted by the City and County of San Francisco to the Federal Government. Our organizations assert it is not. Any proposed use involving unrestricted access is inconsistent with the Scenic Easement. Further, the EIR should not consider any mitigation or alternative involving the unauthorized provision of unrestricted access to the Watershed.

The purpose of the Scenic Easement was to preserve the Watershed by limiting activities within it. To this end, the 1969 Scenic Easement precludes granting to the public any right to enter the Watershed “for any purpose.” Our organizations' interpretation of the 1969 Scenic Easement expressly precludes the unrestricted and unsupervised grant of public access to the Watershed. Alternatively, the existing docent program effectively limits and supervises public access to the Watershed, and is not inconsistent with the Scenic Easement. Any unrestricted and unsupervised use of the trail is inconsistent with the Scenic Easement, and is therefore infeasible and impermissible.

III. Water Quality Degradation Related To Trespassers.

Naturally, the primary concern of any use of the Watershed should be how it impacts water quality. The construction of trails permitting unrestricted access for users increases the likelihood of trespassers. Such trespasses include mountain biking and equestrians which will inevitably lead to a threat of water quality degradation. Our organizations desire the EIR to fully explore to what extent *both* on-trail and off-trail mountain biking, equestrian, and other uses will increase that threat of water quality degradation. Mountain bikers have poor reputations in the Bay Area for trespassing, for failure to follow regulations in areas similar to the Watershed, and for creating conflicts among other trail users. The EIR should therefore consider the likely range of authorized and unauthorized uses and their resulting impacts. The EIR should not solely consider those uses which will be sanctioned by new or preexisting regulations. This includes, but is not limited to, the consideration of how trespassers increase the threat of water quality degradation via soil erosion, introduce and spread of exotic species, and impact wildlife – particularly reclusive species.

IV. Sudden Oak Death.

Much like climate change and drought, the 2001 Peninsula Watershed Management Plan neither addresses the risk of sudden oak death nor other emerging wildlife pathogens. Unrestricted public access will drastically increase the risk that sudden oak death will invade and spread through the Watershed. The EIR should fully consider how unrestricted public access to the Watershed will increase all human introduced risks such as sudden oak death.

Additionally, the EIR should assess how sudden oak death will impact the Watershed, how this may impact water quality and fire risk, and whether or not it is feasible to mitigate this impact while

still providing unrestricted access to the Watershed. At least three *Phytophthora* species are now found in the Watershed. Pathogens such as these affect a wide variety of native species as well as water quality.

V. Impacts of Retaining Walls and Other Construction on Wildlife Migration.

The Notice of Proposal indicates that the EIR will explore the construction of a 2,500 linear feet of retaining wall up to 8 feet high on the Northern Segment of the Trail. The EIR should consider the impacts that constructing walls, fences, and other structures in the Watershed will have on the migration of wildlife within the Watershed. Construction of barriers prevents animals (e.g. mountain lions, garter snakes, red legged frogs, newts, salamanders, bobcats, and deer) from accessing both the eastern and western portions of the Watershed. This will have a detrimental impact on the wildlife. It is critical that the extent of this impact be fully assessed.

VI. Impacts of Unsupervised and Unrestricted Access on Docent Program Effectiveness.

Our organizations applaud the success of the Watershed docent program and encourage its expansion. However, our organizations recommend that the EIR consider impacts associated with diminishing the effectiveness of the docent program by simultaneously providing unrestricted access. Any baseline for analysis must incorporate the docent program. The objective of the docent program is to provide limited public access to the Watershed in a manner that simultaneously educates and actively regulates against impermissible activities. Allowing unrestricted access to the Watershed is incompatible with the docent program. Unrestricted and unsupervised access undermines both the program's importance and ability to act as a *pro bono* regulatory authority. Reduced participation in the docent program will reduce education while increasing harmful environmental impacts. Accordingly, it is critical the EIR explore the environmental impacts related to providing public access in a manner that does not simultaneously educate and supervise – which the docent program currently provides.

VII. Enforcement of Regulations.

The EIR should assess how an inability to fund adequate park personnel and operations necessary to enforce regulations and ensure visitor safety will result in physical changes to the environment. The EIR should also consider whether rules and regulations may adequately mitigate the risk of environmental impacts from impermissible activities within the Watershed. The allowance of unrestricted access of the Watershed increases the likelihood of impermissible activities, such as off-road biking, fires, introducing invasive species, the use of drones, and littering. Each may negatively impact wildlife and water quality. However, unrestricted access increases the need for personnel to police the trails and enforce its regulations. Regulations unenforced are merely suggestions. Therefore, the EIR must consider the impacts associated with an inability to adequately fund required additional personnel and operations. In its analysis, the EIR should explore other reservoir and park (e.g. East Bay Municipal Utility District, East Bay Regional Park District¹) regulatory enforcement, their effectiveness, and the costs required to adequately enforce its regulations.

¹ We encourage consideration of the effectiveness and costs associated with regulatory enforcement at other Bay Area reservoirs and parklands, but note that these areas are qualitatively different than the Watershed. Unlike these other areas, the Watershed has been closed to unrestricted public access since the 19th Century and contains the State's most biodiverse natural resources. Consequently, a comparison between the Watershed and other reservoirs and parklands has limited application.

Ridge Trail Extension EIR Scoping Comment Letter
Case No. 2016-016100ENV
February 3, 2017

These aforementioned concerns as well as others are more fully set forth in the attached Crystal Springs Fact Sheet on Wildland Recreation Problems. Our organizations look forward to continuing to follow the Trail Extension project and commenting in the future. Thank you for your consideration and please do not hesitate to contact Arthur Feinstein (Sierra Club; arthurfeinstein@earthlink.net), Sean Herman (Golden Gate Audubon Society; hermanse07@gmail.com), Bruce Rienzo (Sierra Club; bruce@oatc.com), or Lennie Roberts (Committee for Green Foothills; lennieroberts339@gmail.com) should you have any questions or concerns.

Sincerely,

/s/

Audubon Society – Golden Gate Chapter
Audubon Society – Santa Clara Valley Chapter
Audubon Society – Sequoia Chapter
California Native Plant Society – Santa Clara Valley Chapter
California Native Plant Society – Yerba Buena Chapter
Committee for Green Foothills
Native Plant Conservation Campaign
Nature in the City
Sierra Club – Loma Prieta Chapter
Sierra Club – San Francisco Bay Chapter

Encl.
/sgh

ATTACHMENT

Crystal Springs Fact Sheet on Wildland Recreation Problems

Potential Impacts of Opening Crystal Springs Watershed to
Unlimited and Unsupervised Recreational Use
Emily Brin Roberson
California Native Plant Society
December 7, 2015
SUMMARY

1. Opening the Watershed to unsupervised use will damage soils and water quality. This damage is likely to be much greater than that anticipated in the 2002 Peninsula EIR. The current docent led system minimizes accidents and unintended uses of the Watershed. Data from academic studies, surveys of open space managers, and environmental impact statements all show that unsupervised people in wildlands:
 - create illegal, unregulated walking, biking and other trails in restricted and closed areas, particularly near water and views, leading to soil damage and erosion into waterbodies
 - break speed limits for bicycles, leading to soil damage and erosion
 - bring leashed and unleashed dogs into restricted areas, leading to soil damage
 - leave authorized areas and trails to urinate, defecate, picnic and engage in other activities which generate waste and pollution
2. Opening the Watershed will increase fire danger
 - In general, humans ignite 80-90% of all wildland fires. Thus, the introduction of unsupervised humans into a wildland ecosystem can increase the likelihood of ignition **4 to 9 times** (see Figure 1)
 - The Rim Fire which burned more than 250,000 acres near Hetch Hetchy reservoir was caused by an illegal campfire
 - Climate change is already increasing the size and frequency of wildfires worldwide
 - Wildland fire frequency and danger is greatest in densely populated areas such as the Peninsula (Figure 2)
3. Opening the Watershed will bring new flammable weeds and destructive diseases such as SOD, because people, horses and bicycles carry seeds and disease organisms throughout the Watershed, including into sensitive and protected areas via unauthorized trails.
 - The health of the Watershed is already compromised by Sudden Oak Death and at least one other deadly fungal disease.
 - Studies show that the number and abundance of invasive species is directly correlated with the intensity of use by recreationists
4. Opening the Watershed will damage water quality in the reservoir
 - Increased use by humans, horses, bicycles will all increase erosion and sedimentation into the reservoir both from authorized and unauthorized trails
 - Unsupervised humans and animals will litter, urinate and defecate in the Watershed. This waste will wash into the reservoir.
 - Unauthorized trails are concentrated near waterbodies, as is the soil damage and waste they generate
5. Opening the Watershed will damage habitat for imperiled and listed plants and animals. Outdoor recreation is 4th leading cause of species being listed, after non native species (which are spread by recreation), urbanization and agriculture. The reasons recreation imperils species habitat include:
 - Soil compaction and erosion
 - Generation of litter and human and animal waste
 - increased noise and startling of wildlife
 - changes in fire regimes
 - Creation of new barriers to free movement of wildlife within the Watershed

- Increases in number and abundance of invasive weed and disease species
6. Many circumstances have changed since the 2001 Peninsula CEQA analysis which mandate a new analysis before any change in management can be contemplated.
- Population density in the Bay Area has increased nearly 10% since ~2000.
 - New technology in outdoor recreation increases its impacts. There are new and faster types of bicycles and “fatter” better gripping tires which cause more soil damage.
 - There are new popular GPS-centered outdoor treasure hunts called “geocaching” which open space managers cite as a growing source of adverse impacts.
 - Implementation of the Americans with Disabilities Act has become more widespread and there are new, higher – and more expensive – standards for compliance. Expectations for access to open space have increased.
 - There appears to be more hostility among outdoor users, leading to increased conflicts among users and between users and law enforcement personnel.

FIGURES

Cause of U.S. wildfires: 2001-2012

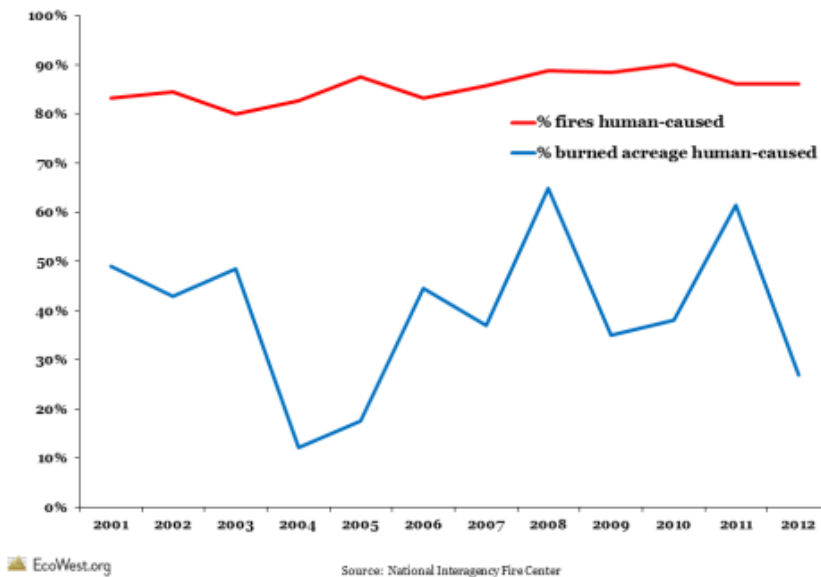
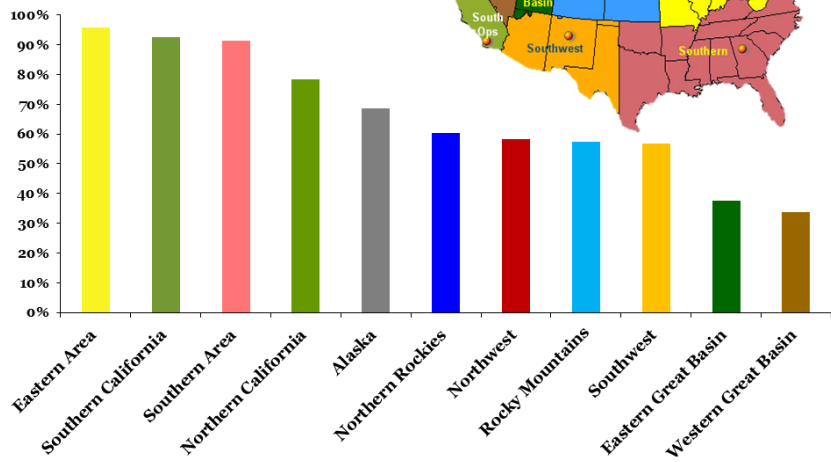


Figure 1. Ignition sources, human vs. lightning (EcoWest, 2013)

Percent of fires human-caused 2001-2010



EcoWest.org

Source: National Interagency Fire Center

Figure 2. Human caused fires: geographic trends and population density (EcoWest, 2013; See also Stein et al., 2013)

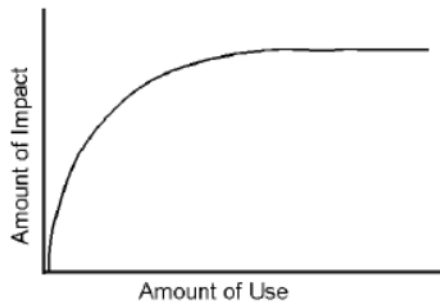


Figure 4. The relationship between frequency of use and intensity of impact is asymptotic.

Figure 3. Relationship between the amount of impact and the amount of recreation use Cole, 2004. (cited in Van Winkle, 2014)

Potential Adverse Impacts of Opening Crystal Springs Watershed to
Unlimited and Unsupervised Recreational Use
Emily Brin Roberson
California Native Plant Society
December 7, 2015

1. People break rules if they can. Without docents, unsupervised recreation users will break the rules in the Crystal Springs watershed (Watershed). Environmental impacts cannot be predicted based on the assumption that rules will be followed once the Watershed is open to unsupervised use. Therefore:
 - (i) Cost projections must be based on staffing and maintenance levels that will be effective.
 - (ii) At the same time, risk assessments (for fire danger, water quality impacts, etc.) must be based on the actual staffing and funding that will be available.

Experience as well as academic studies of human behavior in parks confirm the inevitability of widespread rulebreaking:

- The 2013 Hetch Hetchy Rim Fire was started by illegal campfire
- Illegal mountain biking trails are causing widespread destruction of soils and conflicts with other users in the Bay Area and nationwide (Clark, 2014).
- A study of “informal trails” in a large wildland park in Portland, OR examined the creation and use of unauthorized trails and their impacts on park resources (Van Winkle, 2014). She mapped 382 unauthorized trails in the 5,000 acre park.
- “Informal trails, tend to follow less sustainable alignments and are generally unmonitored, resulting in greater erosion and soil compaction, and likely serve as vectors in the spread of non-native and invasive species.” (Van Winkle, 2014)
- “People will do what they think they can get away with” was one conclusion of a 2011 survey of Bay Area open space managers (EBRPD, 2011). In other words, if docent supervision is removed from the Crystal Springs Watershed, it does not matter what rules are put in place, people will break them.
- Unauthorized, illegal trail proliferation is likely in absence of Docent supervision in the Watershed (see e.g. EBRPD, 2011; GGNRA, 2011; Van Winkle, 2014; Clark, 2014)
- The Open Space Survey also concluded: self-regulation (such as is proposed for the Watershed) is generally not effective in publicly-managed park lands (EBRPD, 2011)
- PUC staff have acknowledged that current staffing levels are not adequate to effectively monitor or control invasive or listed species (Pers. Commun, 2014)

Therefore, environmental analyses, cost projections, and management decisions must be based on the understanding that comprehensive, diligent (and thus expensive) implementation and enforcement programs are prerequisite to the adherence to and effectiveness of resource protection rules.

2. Fire Danger. Unsupervised recreation users will dramatically increase fire risk in the Watershed.
 - Federal agencies report that humans ignite 80-90% of all wildland fires. Thus, the introduction of unsupervised humans into a wildland ecosystem can increase the likelihood of ignition 4 to 9 times (see Figure 1, NPS, EcoWest, 2013; Stein et al., 2013). Many of those ignitions are associated with automobiles and other machinery and so would be less likely to occur in the Watershed. However, many are also caused by smoking (tobacco and marijuana), campfires, and fireworks, all of which can and do invariably co-occur with unsupervised recreation.
 - The enormous Rim Fire near Hetch Hetchy reservoir was caused by an illegal campfire. As the 2015-16 rainy season approaches, the reservoir and water supply is once again at risk from landslides and other erosion of burned hillsides (Alexander, 2013). 2014 was a low rainfall year (drought), but 2015 is predicted to possibly produce high rainfall due to El Nino.

- Fire suppression for the Rim fire cost over \$100 million, according to the SF Chronicle. Restoration costs for the Rim Fire run to tens of millions of dollars, \$43 million from FEMA alone, according to the FEMA website.
 - The current historic draught has created some of the driest fuel in the history of the Bay Area.
 - Studies have found that urbanization has reduced the number of foggy days in southern California. If this is also true in the Bay Area, lack of fog may also exacerbate low fuel moisture. (Williams, et al., 2015)
 - Federal data show that human-caused ignitions of wildlands increase as the surrounding population density increases (see graph 2, Stein et al., 2013). The Peninsula is very densely populated.
 - Many invasive weeds in the Bay Area are annual grasses and other highly flammable species.
 - Climate change has increased fire danger worldwide. [A 2015 study](#) (Jolly et al., 2015) in the journal Nature confirms that wildfires worldwide are larger, more numerous, and their season is longer every year; and that it is all a direct consequence of climate change. Hotter and drier conditions, beginning earlier each spring, have over 30 years doubled the area of the planet's surface that is vulnerable to wildfire; and have lengthened by 18% the average length of fire seasons worldwide.
 - The Nature study specifically states "If these fire weather changes are *coupled with ignition sources and available fuel*, they could markedly impact global ecosystems, societies, economies and climate." (emphasis added) (Jolly et al., 2015)
3. Non-native invasive weeds and other pests: Trails are pathways for invasion of weeds and diseases that compromise ecosystem health.
- A 2015 global review invasive species literature found "the abundance and richness of non-native species are significantly higher in sites where tourist activities take place than in control sites.", particularly when tourism takes the form of outdoor recreation (Anderson, et al., 2015).
 - Problematic invasive species include: diseases (e.g. sudden oak death, already present in the Watershed), flammable weeds (e.g. annual grasses), and numerous aquatic plants and animals that can impact water delivery systems
 - The informal trails study found that the presence of (unauthorized) informal trails "leads to significant changes in Forest Park plant communities that favor invasive and ruderal species", particularly close to the trails. (Van Winkle, 2014)
 - Facilitation of the spread of invasive species into natural areas by informal trails is two-fold: seeds are transported by users and wildlife along the trail corridor, and the disturbance to native vegetation and soil creates an opening for these seed to establish. (Van Winkle, 2014)
4. Water Quality: Trails cause soil damage, erosion, sedimentation, and deposition of garbage and human waste, impacting water quality and ecosystem health
- Erosion/sedimentation: "recreation managers (and regulatory agencies) have observed that trails and associated recreation use tend to elevate sediment levels in adjacent waterways.The sediments that enter into drainages and creeks can have an adverse effect on water quality, thereby endangering plant and animal species in riparian habitats (e.g., federal and /or state listed species such as California red-legged frog, Coho salmon)." (EBRPD, 2011)
 - "Water quality/sedimentation control solutions need to begin at the planning and design phases and continue to be monitored after completion of construction (EBRPD, 2011)
 - Human waste. The informal trails study found that bathroom stops, party spots, waste dumping, and camps make up 28% of all informal trails. (Van Winkle, 2014)
 - Informal trails impact wildlands even when lightly used. A few user passes rapidly affects soil and vegetation in the form of increased compaction, decreased soil moisture, and decreased vegetation (Figure 3). (Van Winkle, 2014)
 - The most common observed associations with informal trails are (i) water-related (e.g. creek access) comprising 19% of informal trails and (ii) human waste disposal comprising 29% of all informal trails (for the "human waste" category, this was commonly toilet paper, but could also include: trash, clothing, animal waste bags, or other waste products). (Van Winkle, 2014)

- So informal trails disproportionately impact water bodies and water quality because litter and human waste is deposited adjacent to them.
 - Even if official trails are located far from creeks and water bodies in order to protect them, recreation users will make trails to water bodies anyway.
5. Listed species.
 - Fully one third of the words Cactus species are at risk of extinction due to illegal harvest and trade from the wild (Beament, 2015). Other plant species are also increasingly at risk.
 - Impacts from outdoor recreation and tourism are the fourth leading reason that species are listed by the federal government as threatened or endangered, behind threats from nonnative species, urban growth and agriculture. (Anderson, 2015; Solomon, 2015)
 - The Wildlife Conservation Society found fivefold declines in detections of bobcats, coyotes and other midsize carnivores in protected areas in California that allowed quiet recreation activities like hiking, compared with protected areas that prohibited those activities. (Solomon, 2015)
 - Running, canoeing, cycling and similar activities negatively affected birds in nearly 90 percent of 69 studies that researchers reviewed in 2011. (Solomon, 2015)
 - Informal illegal walking and biking trails traverse and damage areas intentionally protected from human activity, such as listed species habitat.
 6. Dogs: No matter what the managers promise, if the Watershed is opened and docents are removed, people will break the rules and bring dogs into the Watershed. All studies reviewed for this Compendium reported widespread rule breaking by wildland users (shortcutting off established trails, deposition of litter, urine, feces and other waste, speeding, trespassing into closed areas, etc.). It is not logical to assume that dog owners will be the sole exception to this pattern.
 - In the Golden Gate National Recreation Area, in 2007 alone, over 800 warnings were issued regarding dogs illegally off leash or in closed areas (GGNRA, 2011. Appendix G)
 7. Population and Demography: The Bay Area's population is growing rapidly and its projected demographics predict ever increasing demand for outdoor recreation, particularly in "challenging terrain" where steep slopes increase landslide and erosion hazard.
 - in 2014, Bay Area population was 7.5 million according to Census estimates. In 2000, close to the date of the 2001 EIR, it was 6.8 million, an increase of nearly 10%. (Artz and Blasky. 2015, Arroyo, 2015)
 - Demographic changes: The Open Space Survey projected: "By 2020, it is projected that California's young adult group (ages 18–40) will be the most populous in the state, and will be more mobile, dependent on technology (EBRPD, 2011)
 - Moreover, as technology advances, new forms of recreational pursuits will appear and existing activities, such as biking and geocaching (an activity using global positioning systems), will continue in popularity and expand as technology allows for the development of customized equipment to accommodate use in increasingly challenging terrain." (EBRPD, 2011)
 8. Other Changed Circumstances since 2001 Peninsula EIR that make it necessary for a new EIR to be prepared
 - New uses of open space e.g. "geocaching". Geocaching is an outdoor treasure hunting activity for users of hand-held Global Position System (GPS) (EBRPD, 2011)
 - "many new subtypes of mountain biking have evolved and are in practice in Bay Area parks and open spaces including crosscountry (XC) riding, all-day endurance biking, free riding, downhill riding, and a variety of technical obstacle-focused activities." (EBRPD, 2011, see also Clark, 2014)
 - Americans with Disabilities Act (ADA). From the Open Space Survey: "In accordance with the provisions of the ADA, all newly-designed pedestrian facilities, including trails, should be accessible wherever feasible. This is placing growing pressure on open space land management agencies to develop narrow natural surface trails to meet new standards;". The requirements can increase the

- costs of trails (both initial costs and maintenance to maintain ADA compliance). The requirements may also increase the environmental impacts of the trails (EBRPD, 2011).
- Changes in the culture of some outdoor recreationists appear to have increased conflicts between law enforcement and some user groups as well as among user groups:
 - For dogs, at the GGNRA, law enforcement personnel must work in pairs. “It is assumed by staff that any contact with a dog owner regarding dog walking regulation compliance will be confrontational” (GGNRA, 2011, p. 287)
 - For bicycles, higher speeds, steeper slopes and better-gripping “fat” tires have to increased soil damage and conflicts with other users (Clark, 2014)
 - “Trail Rage” is now a new documented problem. For example in Marin, a news reports documented conflicts between bikers and horses and hikers, particularly the elderly. One hiker told reporters “I feel like some of the younger mountain bikers aren’t respectful,” (Alexander, 2015)
 - The Open Space Survey found that high speed biking is a problem throughout Bay Area. Managers are forced to use ATV and bike patrols, radar guns and other labor and cost-intensive methods to attempt to stop bike speeding. (EBRPD, 2011)
 - Terrorism, crazy people:. People are increasingly destructive as well as hostile. Should we give people easier access to our water supply? For example 6.4 mass shootings/year between 2000-2006. Between 2007 and 2013, there were 16.4 mass shootings/year. (Ehrenfreund and Goldfarb, 2015).

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Environmental Review Officer
San Francisco Planning Department
1650 Mission St., Suite 400
San Francisco, CA 94103

February 2, 2017

Dear Planning Department,

I am writing on behalf of SF Urban Riders, an organization dedicated to creating more off road cycling opportunities in San Francisco. I am writing to provide scoping comments on the Southern Skyline Boulevard Ridge Trail Extension (Case 2016-016100ENV). This is an exciting project and we are looking forward to its execution.

Primarily, we request the document include commentary on User Experience. This breaks down into at least three areas: on trail experience, access management (permissions), and access to the sites (transportation).

For trail usage, please focus on how the people who use the trails will enjoy and interact with it. This has impact beyond the obvious one of making members of the public happy. A quality user experience also helps mitigate potential issues, such as user conflict on the trail (e.g. between user types moving at different speeds) and users going off trail into habitat areas to meet some user desire.

Some examples of design features which affect the experience include trail width, material, and routing. Some of these are counter-intuitive; a narrow trail (e.g. 4' or less) can actually reduce conflict over a wider trail by reducing speed. There is good literature available on this topic. As a mountain bike advocate, I am most familiar with the books and publications from IMBA, but the Forest Service, BLM, and others also have good documents. It is important to use the recent versions, as significant research has improved the field in the past few decades.

For access management, please consider the impact that restricted timing has on the use and type of users. Not all people have the flexibility in their schedule to plan in advance or have free time during limited operating hours. Some users primarily will want to traverse the system as part of a larger trip, e.g. to follow a long segment of the Bay Area Ridge Trail. Some may be seeking experiences in solitude. These can all be successfully balanced against the other management needs of protecting the water and environment.

For transportation access, please consider two options along Highway 92 which could mitigate against the car traffic and large parking lots. One is to consider how the system will tie into the existing bus line along Highway 92, which already includes a stop near the 92/35 intersection. The other is to consider maximum access for the Quarry entrance. Allowing bicyclists and other users to enter at that point with maximum flexibility provides an alternate route close to the

existing regularly used Canada/Skyline connection, without the need to ride long distances on the narrow Highway 92 climb between Quarry Road and the Skylawn Cemetery.

In addition to the user experience issues, please consider how this EIR may be used as a basis to build upon for future trail opportunities within the watershed. This will provide a foundation to build upon should this be project become a success as we hope it will.

Thank you,

Matthew Blain
Chair, SF Urban Riders
San Francisco
matthew@sfurbanriders.org

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Friday, January 13, 2017 9:12 AM
To: Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Elijah Davidian
Cc: Fordham, Chelsea; Kern, Chris (CPC)
Subject: Fw: SFPUC meeting on the Cahill-Fifield CEQA document scope --- comments

From: ron.e.wolf@gmail.com <ron.e.wolf@gmail.com> on behalf of Ron Wolf <ron.e.wolf@ieee.org>
Sent: Friday, January 13, 2017 8:04 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: SFPUC meeting on the Cahill-Fifield CEQA document scope --- comments

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

For the past 10 years, I have led monthly trail runs on behalf of the Palo Alto Run Club. We make a practice of supporting one another on the trails, being responsible trail users, while enjoying the variety of wonderful local trails. My interest in opening further access to the SF Watershed is probably apparent. Accordingly, please add this email to the public record in the EIR Process regarding the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery. Having the entire route available provides options that a partial extension does not.

Please ensure that the EIR recognizes that access to the SF Watershed considers the possibility of dusk till dawn access as modeled in surrounding parkland. While I and my group has enjoyed permit access to the Watershed, permitting is a hinderance to access and is no substitute to free access.

Please consider expanding the EIR geographically, as well as new EIR's regarding connecting trail systems. Specifically, the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake. Having a comprehensive and connected trail system allows the public to enjoy this fantastic resource in creative and respectful ways.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for undertaking this important step in beginning the process of access reform to the SF (Crystal Springs) Watershed.

Sincerely,

Ron Wolf
San Carlos, CA

<https://www.facebook.com/events/323232801409467/>

Hilary Finck

From: CKrenz <charleskrenz@sbcglobal.net>
Sent: Friday, February 03, 2017 10:38 AM
To: Horner, Justin (CPC)
Subject: EIR Scoping comments

Mr. Charles Krenz
80 Joaquin Rd
Portola Valley Ca 94028

February 3, 2017

Environmental Review Officer
San Francisco Planning Department
1650 Mission St., STE 400
San Francisco, CA 94103

Please add this email to the public record in the EIR Process.

To Whom it concerns:

I am writing to submit additional comments to the proposed scope of the "Southern Skyline Boulevard Ridge Trail Extension Environmental Impact Report".

In the [2001 EIR for the Watershed Management Plan](#), way in the back on page XIV-4 there's brief mention of who has jurisdiction to regulate recreational access within the watershed. excerpt: "The SFPUC as fee owner of the Peninsula Watershed may allow recreational access. The text of the Scenic Easement and the Scenic and Recreation Easement do not prohibit such access."

To me this and other comments related jurisdiction deserve more prominent mention in the body of the document, perhaps their on section.

Related to Jurisdictional issues, I think it should be prominently noted that both the San Francisco General Plan, and the San Mateo County plan encourage recreational access on watershed lands. San Francisco GP: "Make open space land already in public ownership accessible to the public for compatible recreational uses" San Mateo County GP: "Recognize the San Francisco watershed lands as unique areas of special open space significance that should be protected from conflicting land uses in order to retain their value as open space, wildlife, water supply, and recreational resources."

In addition to these issues, I hope that the EIR will consider the impact of at least cycling in addition to hiking. The length of the proposed openings is particularly suitable bicycles. When cycling is discussed, I hope you use the term cycling or bicycling as opposed to mountain biking as many people associate the later term with high speed downhill riding, an activity that most users, including the cyclists, would like to see curtailed. Most of the proposed ridge trail is relatively flat and well graded, well suited for leisurely riding.

Last, I hope the EIR will consider the retention of the Quarry access location, at least for cyclists. My fear is that many riders will attempt to climb to skyline on 92. The traffic will pose a great hazard, and the slow moving cyclists will be a great frustration to motorists.

Thank you and sincerely yours

Charles Krenz
Board Member, Silicon Valley Mountain Bikers

Hilary Finck

From: Brian Ginna <bginna@gmail.com>
Sent: Saturday, January 07, 2017 7:59 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfwater.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Please include in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarcitos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Brian Ginna
Half Moon Bay, CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Thursday, January 12, 2017 9:49 AM
To: Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Elijah Davidian
Cc: Fordham, Chelsea; Kern, Chris (CPC)
Subject: FW: Public commentary for Cahill-Fifield (Bay Area Ridge) Trail EIR

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Bryan O'Sullivan [<mailto:bos@serpentine.com>]
Sent: Wednesday, January 11, 2017 4:36 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcane@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Public commentary for Cahill-Fifield (Bay Area Ridge) Trail EIR

Dear Mr Horner and colleagues,

Please add this email to the public record in the EIR process. I wish to provide my input on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please furthermore ensure that the EIR covers pedestrian, cyclist and equestrian access, and that none of these important user groups are omitted from, or downplayed in, the scientific review process.

Lastly, I would like to underscore the value of extending this EIR geographically, and request that new EIRs be performed on the connecting trail systems, i.e. the Whiting Ridge Trail; Pilarcitos Road from the San Andreas Dam; Pilarcitos Road from 5 Points to Whiting Ridge at Rancho Corral De Tierra; and Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you also to the SFPUC for finally undertaking the scientific research for which we have waited so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely yours,
Bryan O'Sullivan, San Francisco.

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Friday, January 13, 2017 11:16 AM
To: Zhang, Yin Lan (PUC); Elijah Davidian; Ramirez, Tim (WTR)
Cc: Fordham, Chelsea; Kern, Chris (CPC)
Subject: Fw:

From: cclutton@mcn.org <cclutton@mcn.org>
Sent: Friday, January 13, 2017 11:15 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject:

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Chris Clutton
POBox 2143
Fort Bragg, CA 95437

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, January 16, 2017 9:46 PM
To: Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Elijah Davidian; Kern, Chris (CPC); Fordham, Chelsea
Subject: Fwd: Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Begin forwarded message:

From: Dan Spier <danspier@gmail.com>
Date: January 16, 2017 at 4:05:38 PM PST
To: justin.horner@sfgov.org
Cc: commissioners@sfgov.org, Board.of.Supervisors@sfgov.org, Malia.Cohen@sfgov.org, Aaron.Peskin@sfgov.org, Eric.L.Mar@sfgov.org, Mark.Farrell@sfgov.org, Katy.Tang@sfgov.org, Breedstaff@sfgov.org, Norman.Yee@sfgov.org, dcanepe@smcgov.org, dpine@smcgov.org, cgroom@smcgov.org, dhorsley@smcgov.org, wslocum@smcgov.org, parkscommission@smcgov.org, ParksandRecreation@smcgov.org
Subject: Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,
Please add this email to the public record in the EIR Process.

I would like to provide my thoughts on the scope of the environmental impact report on recreational access to the Bay Area Ridge Trail from the GGNRA operated Phleger Estate to Portola Monument above San Bruno via Peninsula Watershed land. Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process. Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest. Please ensure that the EIR recognizes that access to the SF Watershed does not fail to consider the possibility of dusk till dawn access as done in surrounding parkland. Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, or new EIR's to be done on the connecting trail systems: Namely the Whiting Ridge Trail, Pilarcitos Road west from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you also for doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the Peninsula (Crystal Springs) Watershed.

Sincerely,

Dan Spier

San Francisco Ca

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, January 16, 2017 9:45 PM
To: Elijah Davidian; Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Kern, Chris (CPC); Fordham, Chelsea
Subject: Fwd: Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Begin forwarded message:

From: Daniel Hadley <dhadley141@gmail.com>
Date: January 13, 2017 at 3:24:28 PM PST
To: justin.horner@sfgov.org
Cc: commissioners@sfgov.org, Board.of.Supervisors@sfgov.org, Malia.Cohen@sfgov.org, Aaron.Peskin@sfgov.org, Eric.L.Mar@sfgov.org, Mark.Farrell@sfgov.org, Katy.Tang@sfgov.org, Breedstaff@sfgov.org, Norman.Yee@sfgov.org, dcane@smcgov.org, dpine@smcgov.org, cgroom@smcgov.org, dhorsley@smcgov.org, wslocum@smcgov.org, parkscommission@smcgov.org, ParksandRecreation@smcgov.org
Subject: Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Dear Justin Horner, other Public Officials at the SFPUC, & Elected Officials;

Please add this email to the public record in the EIR Process.

I would like to provide my thoughts on the scope of the environmental impact report on recreational access to the Bay Area Ridge Trail from the GGNRA operated Phleger Estate to Portola Monument above San Bruno via Peninsula Watershed land.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest. Please ensure that the EIR recognizes that access to the SF Watershed does not fail to consider the possibility of dusk till dawn access as done in surrounding parkland.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, or new EIR's to be done on the connecting trail systems: Namely the Whiting Ridge Trail, Pilarctos Road west from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake.

Thank you for considering my comments and adding them to the public record. Thank you also for doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the Peninsula (Crystal Springs) Watershed.

Sincerely,

Daniel Hadley, Mountain View CA

--
Daniel K. Hadley

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, January 16, 2017 9:46 PM
To: Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Elijah Davidian; Kern, Chris (CPC); Fordham, Chelsea
Subject: Fwd: Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Begin forwarded message:

From: Eric Stempke <eric@librum.org>
Date: January 16, 2017 at 8:01:12 AM PST
To: <justin.horner@sfgov.org>
Cc: <commissioners@sfgov.org>, <Board.of.Supervisors@sfgov.org>, <Malia.Cohen@sfgov.org>, <Aaron.Peskin@sfgov.org>, <Eric.L.Mar@sfgov.org>, <Mark.Farrell@sfgov.org>, <Katy.Tang@sfgov.org>, <Breedstaff@sfgov.org>, <Norman.Yee@sfgov.org>, <dcanepa@smcgov.org>, <dpine@smcgov.org>, <cgroom@smcgov.org>, <dhorsley@smcgov.org>, <wslocum@smcgov.org>, <parkscommission@smcgov.org>, <ParksandRecreation@smcgov.org>
Subject: Cahill-Fifield EIR scope (case no. 2016-016100ENV)

re: Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process.

I would like to provide my thoughts on the scope of the environmental impact report on recreational access to the Bay Area Ridge Trail from the GGNRA operated Phleger Estate to Portola Monument above San Bruno via Peninsula Watershed land.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not fail to consider the possibility of dusk till dawn access as done in surrounding parkland.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, or new EIR's to be done on the connecting trail systems: Namely the Whiting Ridge Trail, Pilarctos Road west from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake.

Thank you for considering my comments and adding them to the public record. Thank you also for doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the Peninsula (Crystal Springs) Watershed.

Sincerely, Eric Stempke, Oakland CA

Hilary Finck

From: John Collins <shinesound@yahoo.com>
Sent: Saturday, January 07, 2017 11:20 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfwater.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Cohen, Malia (BOS); Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: I would like your message included in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarcitos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

mahalo,

John Collins

Longtime coastside resident (since 1990)

Hilary Finck

From: Jordan Kestler <jordankestler@gmail.com>
Sent: Saturday, January 07, 2017 12:53 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarcitos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Jordan Kestler

Pacifica

Hilary Finck

From: Kaaren Sipes <kesipes@gmail.com>
Sent: Saturday, January 07, 2017 5:36 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Eic.L.Mar@sfgov.org; Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Please include in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,
Please add this email to the public record in the EIR Process.

I would like to add my thoughts concerning the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

I live right by the watershed, and enthusiastically support the responsible opening of this land to proper public use. When residents can experience the landscape, they become more devoted to protecting and caring for it.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrian's access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem, it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarcitos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,
Kaaren Sipes

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, January 09, 2017 9:38 AM
To: Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Elijah Davidian; Fordham, Chelsea
Cc: Kern, Chris (CPC)
Subject: FW: Please include this email in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Leslie Young [<mailto:youngl888@yahoo.com>]
Sent: Sunday, January 08, 2017 10:57 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Cohen, Malia (BOS); Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Please include this email in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

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Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

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Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Leslie Young
Redwood City

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, January 09, 2017 9:39 AM
To: Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Elijah Davidian; Fordham, Chelsea
Cc: Kern, Chris (CPC)
Subject: FW: Comment

**Justin Horner, MCP
Environmental Planner**

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: pacificameg [<mailto:pacificameg@earthlink.net>]
Sent: Friday, January 06, 2017 5:50 PM
To: Horner, Justin (CPC); commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; parksandrecreation@smcgov.org
Subject:

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate. And the northern connector trail from Sweeney ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access. And that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

Please in ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly, I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Meg Gilmore
Pacifica

Sent from Samsung tablet

Hilary Finck

From: artemischa . <artemischa@gmail.com>
Sent: Saturday, January 07, 2017 7:56 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Please include my message in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Subject line should mention you would like your message included in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

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Sincerely,

Michelle Boyle

Michelle Ruth Boyle, BA

*somatic healing and integrative bodywork

*intuitive counseling

earthmusehealingarts.com

Hilary Finck

From: Paul Farragher <paulfarragher@yahoo.com>
Sent: Friday, January 06, 2017 10:25 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Cohen, Malia (BOS); Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Cahill-Fifield EIR scope (case no. 2016-016100ENV). Please include my email into the public record

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate. And the northern connector trail from Sweeney ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

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Please ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

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Thank you for considering my comments and adding them to the public record. Thank you to the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the San Francisco (Crystal Springs) Watershed.

Sincerely,
Paul J. Farragher
Daly City, CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, January 16, 2017 9:45 PM
To: Zhang, Yin Lan (PUC); Elijah Davidian; Ramirez, Tim (WTR); Fordham, Chelsea; Kern, Chris (CPC)
Subject: Fwd: Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Begin forwarded message:

From: "Raymond Sinsley / Timber Creek" <timbercreekremodeling@gmail.com>
Date: January 13, 2017 at 3:12:16 PM PST
To: <justin.horner@sfgov.org>
Cc: <commissioners@sfgov.org>, <Board.of.Supervisors@sfgov.org>, <Malia.Cohen@sfgov.org>, <Aaron.Peskin@sfgov.org>, <Eric.L.Mar@sfgov.org>, <Mark.Farrell@sfgov.org>, <Aaron.Peskin@sfgov.org>, <Katy.Tang@sfgov.org>, <Breedstaff@sfgov.org>, <Norman.Yee@sfgov.org>, <dcanepa@smcgov.org>, <Malia.Cohen@sfgov.org>, <dpine@smcgov.org>, <cgroom@smcgov.org>, <dhorsley@smcgov.org>, <wslocum@smcgov.org>, <parkscommission@smcgov.org>, <ParksandRecreation@smcgov.org>
Subject: Cahill-Fifield EIR scope (case no. 2016-016100ENV)

re: Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process.

I would like to provide my thoughts on the scope of the environmental impact report on recreational access to the Bay Area Ridge Trail from the GGNRA operated Phleger Estate to Portola Monument above San Bruno via Peninsula Watershed land.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest. Please ensure that the EIR recognizes that access to the SF Watershed does not fail to consider the possibility of dusk till dawn access as done in surrounding parkland.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, or new EIR's to be done on the connecting trail systems: Namely the Whiting Ridge Trail, Pilarctos Road west from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake.

Thank you for considering my comments and adding them to the public record. Thank you also for doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the Peninsula (Crystal Springs) Watershed.

Sincerely,

Raymond, from Los Gatos.

Hilary Finck

From: Ryan Helft <rhelft@gmail.com>
Sent: Saturday, January 07, 2017 8:14 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Eic.L.Mar@sfgov.org; Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: EIR - Cahill-Fifield trail to Phleger Estate

Dear Justin Horner and other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access. And that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

Please in ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly, I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Ryan Helft

Palo Alto

--

Ryan Helft

c) 650 814-5817

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, January 16, 2017 9:45 PM
To: Ramirez, Tim (WTR); Elijah Davidian; Kern, Chris (CPC); Fordham, Chelsea
Subject: Fwd: Southern Skyline Boulevard Ridge Trail Extension 2016-016100ENV Public Comment

Begin forwarded message:

From: Sean Matthews <seanmatthews@live.com>
Date: January 15, 2017 at 6:09:37 PM PST
To: "justin.horner@sfgov.org" <justin.horner@sfgov.org>, "Lisa.Gibson@sfgov.org" <Lisa.Gibson@sfgov.org>, "YZhang@sfgov.org" <YZhang@sfgov.org>
Cc: "commissioners@sfgov.org" <commissioners@sfgov.org>, "Malia.Cohen@sfgov.org" <Malia.Cohen@sfgov.org>, "Aaron.Peskin@sfgov.org" <Aaron.Peskin@sfgov.org>, "Eric.L.Mar@sfgov.org" <Eric.L.Mar@sfgov.org>, "Mark.Farrell@sfgov.org" <Mark.Farrell@sfgov.org>, "Katy.Tang@sfgov.org" <Katy.Tang@sfgov.org>, "Breedstaff@sfgov.org" <Breedstaff@sfgov.org>, "Norman.Yee@sfgov.org" <Norman.Yee@sfgov.org>, "dcanepa@smcgov.org" <dcanepa@smcgov.org>, "John.Avalos@sfgov.org" <John.Avalos@sfgov.org>, "dpine@smcgov.org" <dpine@smcgov.org>, "cgroom@smcgov.org" <cgroom@smcgov.org>, "dhorsley@smcgov.org" <dhorsley@smcgov.org>, "wslocum@smcgov.org" <wslocum@smcgov.org>, "parkscommission@smcgov.org" <parkscommission@smcgov.org>, "ParksandRecreation@smcgov.org" <ParksandRecreation@smcgov.org>, "Board.of.Supervisors@sfgov.org" <Board.of.Supervisors@sfgov.org>, "RonenStaff@sfgov.org" <RonenStaff@sfgov.org>, "FewerStaff@sfgov.org" <FewerStaff@sfgov.org>, "Jane.Kim@sfgov.org" <Jane.Kim@sfgov.org>
Subject: Southern Skyline Boulevard Ridge Trail Extension 2016-016100ENV Public Comment

Honorable Commissioners, City Supervisors, and all other Public Service Officials,

As a San Francisco Bay Area resident that frequently enjoys our area's trails, I am supportive of the SFPUC moving forward with its CEQA of the Southern Skyline Boulevard Ridge Trail Extension Project. In order to ensure the fullest potential for project to proceed, I would like to request all aspects are considered in the Environmental Impact Review, including:

- Consideration of all trail extension routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.
- Consideration of pedestrian, cyclist, and equestrian users and their inclusion in the review process.
- Consideration of all historical sites and artifacts in the Watershed.

- Consideration of the possibility of dusk till dawn access as modeled in surrounding parkland.

Please consider expanding this or future EIR's geographically to include connecting trail systems such as, the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarcitos Road from Five points to Whiting Ridge at Rancho Corral De Tierra, and Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake. Having a comprehensive and connected trail system allows the public to enjoy this fantastic resource in creative and respectful ways.

Thank you for considering my comments and adding them to the public record. Thank you to the SFPUC for undertaking this important step in beginning the process of access reform of the Crystal Springs Watershed.

"Another way to close the nature gap is to grow the network of nearby natural places that people can access easily." - Sierra Club Executive Director Michael Brune 4/2/2015 <http://www.sierraclub.org/michael-brune/2015/04/national-parks-nearby-nature-outings>

Sincerely,

Sean Matthews

San Francisco

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Friday, January 06, 2017 3:25 PM
To: Zhang, Yin Lan (PUC); Elijah Davidian; Ramirez, Tim (WTR); Kern, Chris (CPC); Fordham, Chelsea
Subject: Fwd: Include message in public record for Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Begin forwarded message:

From: Terry Barton <terry.barton@gmail.com>
Date: January 6, 2017 at 1:48:28 PM PST
To: justin.horner@sfgov.org
Cc: commissioners@sfgov.org, Malia.Cohen@sfgov.org,
Aaron.Peskin@sfgov.org, Eric.L.Mar@sfgov.org, Mark.Farrell@sfgov.org,
Katy.Tang@sfgov.org, Breedstaff@sfgov.org, Norman.Yee@sfgov.org,
David.Campos@sfgov.org, dcane@smcgov.org, John.Avalos@sfgov.org,
dpine@smcgov.org, cgroom@smcgov.org, dhorsley@smcgov.org,
wslocum@smcgov.org, parkscommission@smcgov.org, ParksandRecreation@smcgov.org
Subject: Include message in public record for Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Dear Justin Horner. other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access. And that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

Please in ensure that the EIR recognizes that access to the SF Watershed is a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly, I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarcitos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Having access to public lands has helped raise awareness of the environmental issues our society must address. Our youth and all segments of the population benefit from increased access this trail will provide.

Sincerely,

Terry Barton

Mountain View, CA

Hilary Finck

From: Todd Lansing <todd@creolandarch.com>
Sent: Saturday, January 07, 2017 1:53 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Please include my email in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Dear Justin Horner. other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access. And that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

Please in ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly, I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarcitos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Todd Lansing
Resident of San Francisco,CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Friday, January 06, 2017 11:09 AM
To: Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Elijah Davidian
Cc: Fordham, Chelsea; Kern, Chris (CPC)
Subject: FW: Cahill-Fifield (Bay Area Ridge) trail

Comments have started to come in. I will forward them along as I receive them.

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Tom Brown [<mailto:thomaspbrown@gmail.com>]
Sent: Friday, January 06, 2017 10:11 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Eic.L.Mar@sfgov.org; Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org
Subject: Cahill-Fifield (Bay Area Ridge) trail

Dear Justin Horner and other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access. And that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Tom Brown (San Francisco)

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Thursday, January 19, 2017 9:34 AM
To: Elijah Davidian; Ramirez, Tim (WTR); Fordham, Chelsea; Kern, Chris (CPC)
Subject: FW: Open the SF Watershed

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Jamie Fox [<mailto:eejfox2015@gmail.com>]
Sent: Wednesday, January 18, 2017 7:18 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); RonenStaff (BOS); FewerStaff (BOS); Kim, Jane (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Open the SF Watershed

SOCIAL JUSTICE ISSUE

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake. And to include Old Canada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,
Jamie Fox,

Martinez, CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Thursday, January 19, 2017 9:36 AM
To: Ramirez, Tim (WTR); Elijah Davidian; Fordham, Chelsea; Kern, Chris (CPC)
Subject: FW: Public Record Submission for Cahill-Fifield (Bay Area Ridge) Trail EIR Process

**Justin Horner, MCP
Environmental Planner**

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: jscott_4@sbcglobal.net [mailto:jscott_4@sbcglobal.net]
Sent: Wednesday, January 18, 2017 2:29 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); RonenStaff (BOS); FewerStaff (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepe@smcgov.org; Cohen, Malia (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Public Record Submission for Cahill-Fifield (Bay Area Ridge) Trail EIR Process

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I have been a resident of the area since 1995 and am an avid mountain biker and hiker. I and my colleagues volunteer for trail maintenance and workdays whenever we can to do our part in ensuring we have access and responsible stewardship of our complex trail systems here on the SF Bay Peninsula. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

- Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.
- Please ensure EIR covers pedestrian, cyclist (both road and mountain) and equestrians access, and that none of these vested interest groups are left out of the scientific review process.
- Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.
- Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

On that later point, one way to ensure responsible trail use is by setting up frequent group events and workdays to give some level of ownership to the users of the trail systems to help in the upkeep and policing of activities and give them avenues to work with the governing agencies that police the usage in accordance with the rules and regulations that would be established. Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral

De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake. And to include Old Canada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting so long for, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

John Scott

jscott_4@sbcglobal.net

Redwood City, CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Thursday, January 19, 2017 9:35 AM
To: Elijah Davidian; Ramirez, Tim (WTR); Fordham, Chelsea; Kern, Chris (CPC)
Subject: FW: Open the watershed to Public Accesss

**Justin Horner, MCP
Environmental Planner**

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: rezrez@rediffmail.com [<mailto:rezrez@rediffmail.com>]
Sent: Wednesday, January 18, 2017 3:03 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); RonenStaff (BOS); FewerStaff (BOS); Jane.Kim@sfgov.org; Aaron.Peskin; Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Open the watershed to Public Accesss

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San

Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake. And to include Old Canada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

reZz Sakharov, San Francisco, CA, Trail Crew Leader for the Sutro Stewards, SF Urban Riders, Volunteers for Outdoor California

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Thursday, January 19, 2017 9:35 AM
To: Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Fordham, Chelsea; Kern, Chris (CPC); Elijah Davidian
Subject: FW: Please include in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103

Direct: 415-575-9023

Email: justin.horner@sfgov.org

Web: www.sfplanning.org

From: theodore.ryan@gmail.com [<mailto:theodore.ryan@gmail.com>] **On Behalf Of** Ted Ryan

Sent: Wednesday, January 18, 2017 3:22 PM

To: Horner, Justin (CPC)

Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Eic.L.Mar@sfgov.org; Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org

Subject: Please include in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Dear Justin Horner, other Public Officials at the SFPUC and Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate.

Please ensure that the EIR covers the entire extension of the trail, from the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed, and that access to the sites as a cultural heritage issue is important in the public interest.

Last, I would like to give voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems: Whiting Ridge Trail, Pilarcitos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for

doing the scientific research we have been long awaiting and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Ted Ryan
Pacifica

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Tuesday, January 24, 2017 10:14 AM
To: Ramirez, Tim (WTR); Kern, Chris (CPC); Fordham, Chelsea; Elijah Davidian
Subject: FW: Please add this email to the public record in the EIR Process for the Cahill-Fifield Trail

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103

Direct: 415-575-9023

Email: justin.horner@sfgov.org

Web: www.sfplanning.org

From: Mythily Sivarajah [<mailto:mythilyandy@gmail.com>]

Sent: Tuesday, January 24, 2017 9:55 AM

To: Horner, Justin (CPC)

Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); RonenStaff@sfgov.org; FewerStaff (BOS); Peskin, Aaron (BOS); Kim, Jane (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org

Subject: Please add this email to the public record in the EIR Process for the Cahill-Fifield Trail

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake. And to include Old Cañada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Mythily Sivarajah
San Bruno, CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Tuesday, January 24, 2017 10:14 AM
To: Elijah Davidian; Ramirez, Tim (WTR); Kern, Chris (CPC); Fordham, Chelsea
Subject: FW: Please Open the SF Watershed for responsible recreation

**Justin Horner, MCP
Environmental Planner**

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Scott Dickie [<mailto:eiger19@gmail.com>]
Sent: Tuesday, January 24, 2017 9:49 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); RonenStaff@sfgov.org; FewerStaff (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepe@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Please Open the SF Watershed for responsible recreation

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake. And to include Old Cañada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Scott B Dickie

Scotts Valley, CA

941-586-6126

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Wednesday, January 18, 2017 9:34 AM
To: Ramirez, Tim (WTR); Elijah Davidian; Kern, Chris (CPC); Zhang, Yin Lan (PUC); Fordham, Chelsea
Subject: Fw: Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA

From: Bill Schilz <billschilz@comcast.net>
Sent: Wednesday, January 18, 2017 8:35 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); RonenStaff (BOS); FewerStaff (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; Cohen, Malia (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org; Zhang, Yin Lan (PUC); Board of Supervisors, (BOS); Kim, Jane (BOS); Peskin, Aaron (BOS)
Subject: Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake. And to include Old Canada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Bill Schilz
Martinez, CA

Lord let me be the person my dogs think I am!

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Wednesday, January 18, 2017 9:45 AM
To: Zhang, Yin Lan (PUC); Kern, Chris (CPC); Elijah Davidian; Ramirez, Tim (WTR); Fordham, Chelsea
Subject: Fw: San Mateo Watershed access - please include in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV)

From: JOEL <joelareed@hotmail.com>
Sent: Tuesday, January 17, 2017 4:51 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepe@smcgov.org; Cohen, Malia (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org; joel.reed@bts.com
Subject: San Mateo Watershed access - please include in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV)

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on environmental impact study, use and access to the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate, and the broader san mateo watershed.

We live in one of the most beautiful and progressive counties in the world, and enjoy views of the majestic santa cruz mountains, redwoods, crystal springs, and more... and cannot access much of what we have. As an outdoor enthusiast, environmentalist (w/a degree in natural resources), father of 3, and proud resident, I want to build the greatest community possible. Opening up the watershed opens up a new chapter in San Mateo and will improve the lives of all those living in or visiting the area.

In support:

- please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery. In addition, I would like the team to consider opening access to lands east of Canada Road.
- Please ensure EIR covers pedestrian and cyclist and equestrians access. And that none of these vested interest groups are left out of the review process. Please ensure that the EIR covers all historical sites and artifacts

over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

- Please in ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly, I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarcitos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra; Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake; and lands from HWY 92 to Edgewood Road east of Canada Road.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Joel Reed, Redwood City

415.407.1520

joelareed@hotmail.com

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, January 30, 2017 9:40 AM
To: CPC_LitHold_chelsea.fordham_01282017; Kern, Chris (CPC); Ramirez, Tim (WTR); Elijah Davidian
Subject: FW: Bay Area Ridge Trail EIR

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Jeremy Schaub [<mailto:jwpschaub@gmail.com>]
Sent: Friday, January 27, 2017 1:32 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); RonenStaff@sfgov.org; FewerStaff (BOS); Peskin, Aaron (BOS); Kim, Jane (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Bay Area Ridge Trail EIR

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

I have been an avid hiker/trail runner for years, often doing my best to explore the wonders of the Bay Area without a vehicle. By adding this connection to the Bay Area Ridge Trail, you can help ensure additional access to public lands for all. It is a pity that the land use has been restricted, even though most other watersheds allow for recreational use. I've enjoyed the beauty of Hetch Hetchy, the Marin Watershed trails, and EBMUD's trail systems, and the quality of our drinking water is not at risk.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery. Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Jeremy Schaub, San Francisco

Hilary Finck

From: Callista Shepherd User <callista.shepherd.smith@gmail.com>
Sent: Friday, February 03, 2017 9:33 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; RonenStaff@sfgov.org; FewerStaff (BOS); Board of Supervisors, (BOS); Cohen, Malia (BOS); Zhang, Yin Lan (PUC); ronenstaff@sfgov.org; FewerStaff (BOS); Kim, Jane (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; Gibson, Lisa (CPC); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; parksandrecreation@smcgov.org
Subject: Public Comment on the Fifield-Cahill (Bay Area Ridge Trail) document

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake. And to include Old Cañada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Callista Shepherd Smith and Scott Smith
Huntington Park / Poplar Avenue

San Bruno, CA 94066

Callista Shepherd Smith

REAL ESTATE PROFESSIONAL



Mobile: 415.205.5584

Email: callista@paragon-re.com

Lic#: 01837806



Paragon Real Estate Group

1400 Van Ness Ave

San Francisco, CA 94109

www.callistasf.com

Hilary Finck

From: Jason Strnad <jstrnad@ehlokitty.org>
Sent: Friday, February 03, 2017 9:58 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); RonenStaff@sfgov.org; FewerStaff (BOS); Peskin, Aaron (BOS); Kim, Jane (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Public Comment on the EIR and public access to the Watershed

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed directly addresses dusk till dawn access as exists in surrounding parkland. A permit access system in the Watershed would be a positive move, but it does not eliminate social justice issues regarding access.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake. And to include Old Cañada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Jason Strnad
San Francisco, CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Friday, February 03, 2017 11:47 AM
To: Zhang, Yin Lan (PUC); CPC_LitHold_chelsea.fordham_01282017; Kern, Chris (CPC); Elijah Davidian; Ramirez, Tim (WTR); Hilary Finck
Subject: FW: commissioners@sfgov.org, Board.of.Supervisors@sfgov.org, Malia.Cohen@sfgov.org, Lisa.Gibson@sfgov.org; YZhang@sfgov.orgBoard.of.Supervisors@sfgov.org; RonenStaff@sfgov.org, FewerStaff@sfgov.org; Jane.Kim@sfgov.org, Aaron.Peskin@sfgov.org, Eric.L.M

Follow Up Flag: Follow up
Flag Status: Flagged

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Anne Barnett [<mailto:mauibarnett@gmail.com>]
Sent: Friday, February 03, 2017 11:09 AM
To: Horner, Justin (CPC)
Subject: commissioners@sfgov.org, Board.of.Supervisors@sfgov.org, Malia.Cohen@sfgov.org, Lisa.Gibson@sfgov.org; YZhang@sfgov.orgBoard.of.Supervisors@sfgov.org; RonenStaff@sfgov.org, FewerStaff@sfgov.org; Jane.Kim@sfgov.org, Aaron.Peskin@sfgov.org, Eric.L.Ma...

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,
Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.
Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern [gate](#) at Sweeney Ridge to the southern [gate](#) at Skylawn Cemetery.
Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.
Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.
Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.
Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarcitos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake. And to include Old Cañada road to the west of upper Crystal Springs Lake.
Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

*Sincerely,
Anne Barnett
Half Moon Bay, CA*

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Friday, February 03, 2017 11:48 AM
To: Elijah Davidian; Hilary Finck; CPC_LitHold_chelsea.fordham_01282017; Kern, Chris (CPC); Ramirez, Tim (WTR)
Subject: FW: Comment about EIR process for Cahill-Fifield (Bay Area Ridge) Trail and other SFPUC public land trail access.

Follow Up Flag: Follow up
Flag Status: Flagged

Justin Horner, MCP
Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

-----Original Message-----

From: Daniel Engovatov [<mailto:engovatov@google.com>]
Sent: Friday, February 03, 2017 11:45 AM
To: Horner, Justin (CPC)
Cc: Zhang, Yin Lan (PUC); Board of Supervisors, (BOS); RonenStaff@sfgov.org; FewerStaff (BOS); Kim, Jane (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; Cohen, Malia (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org; cstone@belmont.gov
Subject: Comment about EIR process for Cahill-Fifield (Bay Area Ridge) Trail and other SFPUC public land trail access.

Dear Justin Horner,
Dear SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process.

Given the duration and expense of environmental reviews in current regulatory climate I would like to urge you to use this opportunity for studying environmental impact not only for the Cahill-Fifield (Bay Area Ridge) Trail, but also all of existing road network on our public lands under SFPUC control in this area.

Please ensure that the EIR covers connecting routes. Please ensure EIR covers pedestrian, cyclist and equestrians access to existing road network and historical and cultural artifacts on this property. Please ensure that the least restrictive access modes are studied in addition to permit based.

Public access to nature is the most important factor in raising a new generation of environmentally conscious citizens.

Thank you for considering my comments.

Sincerely,

Daniel Engovatov, Ph.D.
Belmont, CA

Hilary Finck

From: Tom Scarvie <tom_scarvie@lbl.gov>
Sent: Friday, February 03, 2017 10:31 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfwater.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); RonenStaff@sfgov.org; FewerStaff (BOS); Kim, Jane (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: comments on EIR for Crystal Springs Watershed

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern [gate](#) at Sweeney Ridge to the southern [gate](#) at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake. And to include Old Cañada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Tom Scarvie

Berkeley, CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Friday, February 03, 2017 2:36 PM
To: CPC_LitHold_chelsea.fordham_01282017; Kern, Chris (CPC); Elijah Davidian; Hilary Finck; Ramirez, Tim (WTR)
Subject: FW: EIR Bay Area Ridge Trail comment

Follow Up Flag: Follow up
Flag Status: Flagged

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Chris Pincetich [<mailto:capincetich@yahoo.com>]
Sent: Friday, February 03, 2017 12:26 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); Board of Supervisors, (BOS); RonenStaff@sfgov.org; FewerStaff (BOS); Kim, Jane (BOS); Peskin, Aaron (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; Cohen, Malia (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: EIR Bay Area Ridge Trail comment

Dear Justin Horner, SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. Specifically, cyclists using the trail at night.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam,

Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake. And to include Old Cañada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. I believe cycling on and off-road to be a healthy, fun, safe activity that results in very little impact to natural resources, especially when compared to equestrian use or other possible uses. I look forward to the completion of a Bay Area Ridge Trail that is continuous dirt and remote roads that provides safe and fun connectivity for all users. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely

Chris

Christopher Pincetich, Ph.D.
Marine Biologist, Toxicologist, and Environmental Educator

California Naturalist Instructor, Point Reyes National Seashore Association, <http://www.ptreyes.org/>
Naturalist, Oceanic Society, <http://www.oceanicsociety.org/>

home office (415) 663-8428
cell (530) 220-3687

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, February 06, 2017 9:52 AM
To: CPC_LitHold_chelsea.fordham_01282017; Kern, Chris (CPC); Elijah Davidian; Hilary Finck; Ramirez, Tim (WTR)
Subject: FW: Public comment on the Fifield-Cahill (Bay Area Ridge Trail) EIR Document

Justin Horner, MCP
Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

-----Original Message-----

From: Mike Naranjo [<mailto:manaranjo2@yahoo.com>]
Sent: Friday, February 03, 2017 3:49 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Public comment on the Fifield-Cahill (Bay Area Ridge Trail) EIR Document

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials:

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIRs to be done on the connecting trail systems. Namely, the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake. And to include Old Cañada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Mike Naranjo
Burlingame, CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, February 06, 2017 9:50 AM
To: CPC_LitHold_chelsea.fordham_01282017; Kern, Chris (CPC); Elijah Davidian; Hilary Finck; Ramirez, Tim (WTR)
Subject: FW: Fifield-Cahill (Bay Area Ridge Trail) EIR Comments and Access Reform

Justin Horner, MCP
Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

-----Original Message-----

From: Gmail [<mailto:rosssheiman@gmail.com>]
Sent: Saturday, February 04, 2017 12:17 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepe@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Fifield-Cahill (Bay Area Ridge Trail) EIR Comments and Access Reform

Dear Justin Horner, other Public Officials at the SFPUC & Elected Officials,

I am a staunch advocate for opening the existing trails in the SF watershed for recreational use to the public.

Please add this email to the public record in the EIR Process. I would like to provide my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate and the northern connector trail from Sweeney Ridge to San Bruno Ave at the San Andreas trailhead.

Please ensure that the EIR covers the entire extension of the trail, exploring all routes from the northern gate at Sweeney Ridge to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access, and that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. Access to these sites as a cultural heritage issue is important to the public interest.

Please ensure that the EIR recognizes that access to the SF Watershed does not brush over the possibility of dusk till dawn access as modeled in surrounding parkland. While a permit access system in the Watershed is a positive move from a social justice standpoint, it merely dampens the problem it does not solve it.

Lastly, I would like to give a voice to the need of the public to have this EIR expanded geographically, and new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake. And to include Old Cañada road to the west of upper Crystal Springs Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long, and beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

-Ross Heiman
Millbrae, CA

Hilary Finck

From: Andy Howse <openthesfwatershed@gmail.com>
Sent: Friday, January 06, 2017 10:21 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Eic.L.Mar@sfgov.org; Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); Dave Pine; Carole Groom; Don Horsley; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Please add my message to the public record and for consideration. Case no. 2016-016100ENV) EIR impact scope for the Cahill-Fifield trail

Dear Justin Horner. other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access. And that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

Please in ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Andy Howse
San Bruno, CA

--

Open the SF Watershed

This is public land, and should be opened for responsible public use.

Links

[OSFW Website](#)

[OSFW Facebook Page](#)

[OSFW Twitter](#)

[Our change.org petition](#)

[OSFW YouTube](#)

Hilary Finck

From: Paul Soo <paulsoo217@gmail.com>
Sent: Friday, January 06, 2017 10:48 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgwater.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Eic.L.Mar@sfgov.org; Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: Cahill-Fifield EIR scope (case no. 2016-016100ENV) Please include this message in the public record

Dear Justin Horner. other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access. And that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

Please in ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly, I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Paul Soo from San Mateo

Hilary Finck

From: blueglobe.keownk@gmail.com on behalf of Ketayun Keown
<ketayunkeown@gmail.com>
Sent: Friday, January 06, 2017 10:42 AM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS);
Eic.L.Mar@sfgov.org; Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee,
Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS);
dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org;
wslocum@smcgov.org; parkscommission@smcgov.org;
ParksandRecreation@smcgov.org
Subject: Please include message in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Dear Justin Horner. other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access. And that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

Please in ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly, I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarctos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarctos Road through Pilarctos Valley from Pilarctos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Ketayun Keown
San Francisco, CA 94131

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Friday, January 06, 2017 12:12 PM
To: Zhang, Yin Lan (PUC); Ramirez, Tim (WTR); Elijah Davidian
Cc: Fordham, Chelsea; Kern, Chris (CPC)
Subject: FW: I would like this message included in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Vlad [<mailto:gedgafov@gmail.com>]
Sent: Friday, January 06, 2017 12:11 PM
To: Horner, Justin (CPC)
Cc: commissioners@sfgov.org; Cohen, Malia (BOS); Peskin, Aaron (BOS); Eic.L.Mar@sfgov.org; Farrell, Mark (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); Campos, David (BOS); dcanepa@smcgov.org; Avalos, John (BOS); dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org
Subject: I would like this message included in the public record for the Cahill-Fifield EIR scope (case no. 2016-016100ENV).

Dear Justin Horner. other Public Officials at the SFPUC & Elected Officials,

Please add this email to the public record in the EIR Process. I would like to weigh in my thoughts on the scope of the environmental impact report on the Cahill-Fifield (Bay Area Ridge) Trail to the GGNRA operated Phleger Estate.

Please ensure that the EIR covers the entire extension of the trail. From the northern gate at Sweeney Ridge exploring all routes to the southern gate at Skylawn Cemetery.

Please ensure EIR covers pedestrian, cyclist and equestrians access. And that none of these vested interest groups are left out of the scientific review process.

Please ensure that the EIR covers all historical sites and artifacts over the age of 50 years in the Watershed. And that access to the sites as a cultural heritage issue is important in the public interest.

Please in ensure that the EIR recognizes that access to the SF Watershed it's a public equity issue. Not to brush over the possibility of from dusk till dawn access as modeled in surrounding parkland. And that while a permit access system in the Watershed is a positive move from a social justice standpoint. It merely dampens the problem it does not solve it.

Lastly, I would like to give voice to the need of the public to have this EIR expanded geographically. And new EIR's to be done on the connecting trail systems. Namely the Whiting Ridge Trail, Pilarctos Road from the San Andreas Dam, Pilarcitos Road from 5 points to Whiting Ridge at Rancho Corral De Tierra. And Pilarcitos Road through Pilarcitos Valley from Pilarcitos Lake.

Thank you for considering my comments and adding them to the public record. Thank you for the SFPUC for finally doing the scientific research we have been waiting for for so long. And beginning the process of access reform in the SF (Crystal Springs) Watershed.

Sincerely,

Vladimir Gedgafov

253 Westridge ave, daly city, CA 94015

From: Mike B [<mailto:diskus@gmail.com>]
Sent: Wednesday, January 04, 2017 12:07 PM
To: Horner, Justin (CPC)
Subject: Re: Question as to EIR

Justin,

Thanks for your response. My specific question was as to the locked gate on Fifield Cahill at its north end where it borders with NPS land at Sweeney Ridge. Currently that gate is locked even during docent led hikes. I wanted to see that opening the gate is specifically addressed in the EIR so it may then be an option going forward if approved for access. As it would be a significant change in use patterns.

Thanks

Mike

On Tuesday, January 3, 2017, Horner, Justin (CPC) <justin.horner@sfgov.org> wrote:

Mr. Buncic,
Thank you for your email.
Yes, the access management changes would apply to the entire Fifield/Cahill Trail

Justin Horner, MCP
Environmental Planner
Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Mike B [<mailto:diskus@gmail.com>]
Sent: Tuesday, December 27, 2016 7:43 PM
To: Horner, Justin (CPC)
Subject: Question as to EIR

Hello Justin,

I have a question as to Notice of Preparation of an EIR December 21, 2016 6 Case No. 2016-016100ENV Southern Skyline Blvd. Ridge Trail Extension. As to the paragraph on Access Management. Is it within the scope of the intended EIR to examine the possibility of allowing access to the Fifield/Cahill Ridge Trail at its northern edge, where there is currently a locked gate at the border with Sweeney Ridge NPS.

Thank You
Mike Buncic
Los Gatos CA

Hilary Finck

From: Horner, Justin (CPC) <justin.horner@sfgov.org>
Sent: Monday, February 27, 2017 9:53 AM
To: CPC_LitHold_chelsea.fordham_01282017; Kern, Chris (CPC); Ramirez, Tim (WTR); Elijah Davidian; Hilary Finck
Subject: FW: Open the Watershed

Justin Horner, MCP Environmental Planner

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-575-9023
Email: justin.horner@sfgov.org
Web: www.sfplanning.org

From: Gene McKenna [<mailto:mckennagene@gmail.com>]
Sent: Saturday, February 25, 2017 12:04 AM
To: Horner, Justin (CPC); commissioners@sfgov.org; Board of Supervisors, (BOS); Cohen, Malia (BOS); Gibson, Lisa (CPC); Zhang, Yin Lan (PUC); RonenStaff@sfgov.org; FewerStaff (BOS); Mar, Eric (BOS); Farrell, Mark (BOS); Peskin, Aaron (BOS); Tang, Katy (BOS); BreedStaff, (BOS); Yee, Norman (BOS); dcanepa@smcgov.org; dpine@smcgov.org; cgroom@smcgov.org; dhorsley@smcgov.org; wslocum@smcgov.org; parkscommission@smcgov.org; ParksandRecreation@smcgov.org; Kim, Jane (BOS)
Subject: Open the Watershed

Dear Honorable Elected Officials & SFPUC Officials

Not only is opening the SF Watershed for public access a good, common sense idea, the SF Watershed, and open space in general is a social justice, equity issue. I support the resolution (SFBOS file # 160183) to allow responsible access to the SFPUC watershed lands over existing service road such as Fifield-Cahill Ridge, Pilarcitos Road, Whiting Ridge, Old Cañada, and to historical sites for the following reasons:

I am a resident of north San Mateo County. It is a socioeconomically and culturally diverse area of the SF Peninsula. We are as close to the road network in the Watershed as San Franciscans are to the Presidio. For us, the SF Watershed is the closest open space. The only one we can walk or bike to.

Sharing is caring. Opening up this land for greater access will foster more environmental stewardship by those of us who live near it and are currently not allowed to access it. (Docent access is not access). What does it say to those of us who live here if other open spaces for other people can be seen as safe and worthwhile, but ours can't? I do believe the people of this area can and will take as good care of this land as any other Bay Area residents do of the open spaces near them, including the numerous other watersheds that are already open.

The docent program is unusable by many people. It is not usable by me. It is not usable by my family. I have three kids. When we decide we can go on a hike, it is about 30 minutes in advance. And not all of us can hike the entire distance of the trail or at the pace others in a group may want to go. We have small children. We want to stroll. We want to smell the flowers and we want to turn around and go home when we are tired.

I appreciate your time and attention on this matter

Gene McKenna

San Mateo Highlands

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3 ---o0o---

4 SAN FRANCISCO PLANNING DEPARTMENT

5
6 SOUTHERN SKYLINE BOULEVARD RIDGE TRAIL EXTENSION

7 ENVIRONMENTAL IMPACT REPORT

8 PUBLIC SCOPING MEETING

9
10 Wednesday, January 18, 2017

11 San Francisco Public Utilities Commission

12 525 Golden Gate Avenue, Second Floor

13 O'Shaughnessy Conference Room

14 San Francisco, California

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20 Reported By: Deborah Fuqua, CSR #12948

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APPEARANCES:

San Francisco Planning Department:

Chelsea Fordham, EIR Coordinator

Chris Kern, Senior Environmental Planner

San Francisco Public Utilities:

Tim Ramirez, Project Sponsor

Yin Lan Zhang, Project Sponsor

Environmental Science Associates:

Eli Davidian, EIR Consultant

Hilary Finck, EIR Consultant

PUBLIC COMMENT

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1 Wednesday, January 18, 2017 6:40 p.m.

2 --o0o--

3 P R O C E E D I N G S

4 CHELSEA FORDHAM: Good evening everyone. If
5 everybody can hear me without the microphone, I would
6 prefer to not use it.

7 Can everybody here me okay?

8 UNIDENTIFIED SPEAKER: So far so good.

9 CHELSEA FORDHAM: So far so good? Okay. just
10 let me know.

11 Good evening, and thanks for coming out in
12 this weather. Tonight's scoping meeting is for the
13 Southern Skyline Boulevard Ridge Extension Project.

14 The format of tonight's meeting will take
15 following. First we'll do introductions, an overview
16 of the environmental review process, a proposed project
17 overview, next public comments, and then closing
18 remarks.

19 To introduce myself, my name is Chelsea
20 Fordham. I work at the Environmental Planning Division
21 of the San Francisco Planning Department, and I'm
22 responsible for coordinating the Department's
23 preparation of an environmental impact report, or EIR,
24 for the proposed project.

25 With me this evening is Chris Kern, also from

1 the Environmental Planning Division. Members of the
2 project sponsor team are also present, from the San
3 Francisco Public Utilities Commission, including Tim
4 Ramirez, Manager of the Natural Resources and Land
5 Management Division, and Yin Lan Zhang, Environmental
6 Project Manager.

7 Lastly, we're also joined by Eli Davidian and
8 Hilary Finck, from ESA Associates, the CEQA consultants
9 for the project.

10 A couple of housekeeping items before I get
11 started. As you come in, I hope you signed in at the
12 sign-in sheet and picked up a copy of the meeting
13 agenda at the table near the door. If you haven't done
14 so yet, please do so before you leave tonight.

15 Restrooms are located outside the hall. And
16 we kindly request that you turn off your phones. And
17 if you need to take a call, please step outside to talk
18 on your cell phones.

19 If you'd like to speak during the public
20 comment portion of the meeting, please fill out a
21 speaker card. I have a few here, so please hold up
22 your hand and we can provide you with a speaker card if
23 you would like to speak.

24 Another item which you may wish to pick up is
25 a comment form on which you can write your comments,

1 regardless if you're speaking or not. You may place
2 your comments in the box before your departure this
3 evening.

4 So tonight's meeting will be composed of two
5 portions: an overview of the EIR process and
6 description of the proposed project, and a public
7 comment portion.

8 So now we'll start and describe the EIR
9 process.

10 Okay. The EIR process, as required by the
11 California Environmental Quality Act or CEQA, is a
12 public one. The main reason for this scoping meeting
13 tonight is to solicit your comments or suggestions on
14 the scope and content of the environmental impact
15 report.

16 This is an opportunity to assist the Planning
17 Department by sharing any information you may have that
18 will be useful in preparation of the EIR. Your
19 comments could be helpful to identify significant
20 environmental issues, determine the depth and analysis
21 of the issue as appropriate, or identify the reasonable
22 project alternatives. Here's examples of the items
23 that we would like your comments on.

24 This is not a meeting about the merits of the
25 proposed project or about the project approvals, nor is

1 this a question-and-answer session. This is an
2 opportunity for us to collect information to use by the
3 EIR team that we will develop the CEQA documents with.
4 I'm always happy to respond separately by e-mail or
5 phone if you would like to discuss this further.

6 Now I would like to briefly explain to you the
7 process we'll be following for preparation of the EIR.
8 The first part of that disclosure was the issuance of
9 the Notice of Preparation, which we have copies of at
10 the table when you walked in, and Notice of Public
11 Scoping Meeting that was published on December 21st,
12 2016 to solicit your participation in this process. It
13 included a brief project description and indicated how
14 to provide comments on the scope of the EIR. The
15 notice indicated that comments may be accepted in
16 writing until Friday, February 3rd, by 5:00 p.m.

17 And over the next few months, the Planning
18 Department will be preparing the Draft EIR and initial
19 study, or DEIR and IS, which will be published and
20 distributed for public review for a period of about 45
21 days. Comments on the DEIR and IS will be accepted in
22 writing and orally at the San Francisco Planning
23 Commission Hearing, which will be held a month after
24 publication of the Draft EIR.

25 At this time, we anticipate publishing the

1 Draft EIR in the summer of this year. Following the
2 close of the public EIR comment period, the Planning
3 Department will prepare a response to comments
4 document. This document will contain written responses
5 to all substantial comments received during the Draft
6 EIR public review period. It will also identify any
7 changes to the Draft EIR as necessary to fully respond
8 to comments received.

9 The response to comments will be distributed
10 to those who commented on the Draft EIR, various
11 agencies, and other interested parties. Following
12 publication of that document, we will have an EIR
13 certification hearing again at the San Francisco
14 Planning Commission.

15 Certification of the EIR does not entail that
16 the project is approved or disapproved, rather, that it
17 satisfies the requirements under CEQA to disclose
18 environmental impacts. Project approval or disapproval
19 will be a separate action taken. The DEIR and initial
20 study will cover the following environmental topics
21 which we would like your input on: land use, cultural
22 resources, transportation and circulation, noise, air
23 quality, greenhouse gas emissions, recreation,
24 utilities and public services, biological resources,
25 geology and soil, hydrology and water quality,

1 minerals, hazards including fire hazards, hazardous
2 materials, and agriculture and forestry resources.

3 The EIR will also identify feasible measures
4 to reduce any environmental impacts determined to be a
5 part of the project. These are called mitigation
6 measures. The EIR will also consider if there's
7 alternatives to lessen the environmental impacts
8 determined as part of the EIR process.

9 Now I'm going to turn the presentation over to
10 Tim Ramirez from the SFPUC, who is going to provide an
11 overview of the proposed project. Following Tim's
12 presentation, I will describe the public comment
13 portion of the meeting, and then we will open it up to
14 public comment.

15 TIM RAMIREZ: Thank you. There you go. Thank
16 you.

17 So this will just take a quick second. This
18 is the map that is in the Notice of Preparation. And I
19 think I'll go to the next slide and talk about the
20 components of the project. I think most of us here are
21 familiar with what's proposed, but this is the ridge of
22 the watershed, Highway 92 going down the middle. And
23 the project is all in red.

24 So what we're talking about south of 92 is
25 building a new trail that does not yet exist along the

1 eastern edge of the highway, south to the GGNRA/Phleger
2 Estate. They're also talking about having an easement
3 that is currently held by the Ridge Trail Council on
4 the Skylawn Cemetery, private property, would be
5 transferred to the PUC as part of the project as well.

6 And then we're talking about a new ADA loop
7 next to the Cemetery Gate. And then, associated with
8 all of the construction and the easement, doing some
9 work to improve trail heads and also adding toilets
10 along the way for people to be able to have proper
11 facilities to be able to use the trail.

12 And then, of course, the other question
13 associated with the construction of the trail and
14 easement is managing the trail itself -- so the Michael
15 Cahill Trail that we now manage with the Docent Program
16 through the cemetery, from the Cemetery Gate, South 92,
17 and then also the newly constructed trail south of 92
18 to the Phleger Estate. So the access management
19 program describes how we would manage the proposed
20 trail in its entirety on our property, all 16 miles.

21 And those are the primary pieces of the
22 project. That's it.

23 CHELSEA FORDHAM: Thank you, Tim.

24 So now I'm just going to quickly describe the
25 public comment portion, and then I will call people's

1 names. And you're welcome to line up over here or just
2 come up as the next person leaves the podium.

3 At this point, we are ready to open up the
4 public comment period. This is an evening where you
5 may hear varying different opinions and values shared.
6 We would like you to take these considerations for each
7 speaker and audience and refrain from any
8 interruptions.

9 Speakers will have up to three minutes. Some
10 of you may have significantly more public comment at
11 this time. So, please, if this is the case, take the
12 time to complete a speaker form or you can e-mail your
13 comments later on. Please just do so by February 3rd
14 of -- by 5:00 p.m.

15 We also have a court reporter here to
16 transcribe your comments. So when you come up, please
17 state your name for the record and speak slowly and
18 clearly so the court reporter can create an accurate
19 transcript. If you are representing an organization,
20 please indicate your group and your official capacity.
21 You may be asked to spell your name for the court
22 reporter.

23 I'd also like to emphasize, again, that the
24 purpose of the meeting is to gather information to help
25 inform our analysis of the environmental impacts. It's

1 not to discuss the merits of the project. And, as
2 such, I'd like you to direct your comments to the scope
3 of the EIR.

4 Now it's time for the first speaker. And I
5 will call about three speakers at a time.

6 Mike Ferreira, Bern Smith. And Chattle Krenz?

7 CHARLIE KRENZ: Charles.

8 CHELSEA FORDHAM: Charles, sorry.

9 So Mike will be first.

10 MIKE FERREIRA: My name is Mike Ferreira. I'm
11 with the Sierra Club. I'm the conservation chair of
12 the Loma Prieta Chapter, and I've also been authorized
13 to speak on behalf of the San Francisco Bay Chapter
14 tonight. Our combined membership is now 60,000, up
15 from 50,000. We've had what we call a "Trump bump."
16 We have a mailing list of about a hundred thousand
17 names that we did not send a message to our people to
18 send e-mails to you. We will do that later.

19 But we previously have been engaged on the
20 northern part. I'm concerned we not lose the Docent
21 Program. Okay? Because we feel that that was a good
22 one. It's accomplished its purpose and should be
23 preserved.

24 It's a little tough for us to take a position
25 on the Southern Trail because, well, none of us have

1 been there yet, and we don't fully understand what the
2 accessibility would be from Highway 35. It's close to
3 Highway 35, but we don't know that you're exactly on
4 the road bed. You're not, of course.

5 And so the Southern Trail presents a whole
6 different set of problems than what we looked at for
7 the Fifield/Cahill. In a way, we're sort of creating a
8 problem by creating the trail. And we know that
9 there's wetlands; we know that there's woods; we know
10 that there's wildlife. But we're hoping that, in this
11 analysis, that you get a good, thorough inventory and
12 assessment of what the impacts will be.

13 Of course, we always believe that avoidance is
14 better than mitigating. And we're hopeful that, when
15 you do the EIR, that that will be fully analyzed and a
16 preference. We would hope that there would be a -- I
17 guess what we're hoping for, there will be a no project
18 alternative will be looked at as well.

19 And with that, I will say that the array of
20 talent that we're aware of that's on this gives us
21 confidence that this is going to be a professional
22 undertaking. Matter of fact, I would say that we have
23 a much higher degree of confidence in that than we
24 would normally have. So we're familiar with the
25 personnel, and we think you're going to do fine.

1 So thank you very much, and we'll continue to
2 be part of the process.

3 CHELSEA FORDHAM: Thank you.

4 BERN SMITH: Hi, I'm Bern Smith. I'm here
5 representing the Bay Area Ridge Trail Council. So as
6 you can guess, this is an important project to us. I'm
7 going to send in some additional comments. I wanted to
8 touch on a couple of things that are important to me
9 personally due to my years of doing trail work.

10 And first, on the sort of construction detail
11 side, one of the things that we've learned over the
12 years is that, when building new trail, it seems like
13 it's better to err on the side of narrow rather than
14 wide. And this project's a little bit unusual in that
15 the six miles of new trail will actually include some
16 existing old road bed, which is quite wide. And
17 there's certainly no problem from our viewpoint of
18 doing that.

19 Most of the Ridge Trail is on what were
20 existing service roads of one kind or another because
21 they tend to be found on ridges, and that's what our
22 trail does too, sits on top of ridges.

23 But in this case, there will be places where
24 it's possible to be build new trail because there is no
25 existing old road bed. And our experience is that

1 narrow trails cause less physical effects on landscape.
2 The construction of a narrow trail goes much quicker so
3 that the crew is in the field for a shorter time.
4 Quite a bit less soil gets disturbed when building a
5 narrow trail rather than wider trail.

6 So I'm hoping that that can be considered as a
7 way to mitigate effects of new construction on portions
8 of the six miles south of Highway 92. And I can go
9 into more detail when I send comments.

10 I wanted to touch briefly also on management
11 details. We, at the Ridge Trail Council, have talked
12 at considerable length internally about the Docent
13 Program, which has been we think hugely successful over
14 the years. And we don't want to see it go away.

15 That said, we'd be very happy to see a sort of
16 regular park-like management of the trail wherever
17 that's feasible, open it at dawn and close it at dusk,
18 like a typical park operates. And we think that
19 there's certainly space to have a mix of those kinds of
20 management plus the possibility of a license of some
21 sort to access to property.

22 All those ought to be on the table, and we're
23 comfortable with some mix of all of those. And I will
24 share other details offline. Thank you.

25 CHELSEA FORDHAM: Thank you.

1 CHARLIE KRENZ: I'm Charlie Krenz. It's
2 K-R-E-N-Z.

3 Just a couple notes from some research we've
4 been doing.

5 San Francisco General Plan regulates its
6 management of all San Francisco lands and San Mateo
7 County. This is a quote from -- well, from the General
8 Plan. It directs San Francisco to make open space land
9 already in public ownership accessible for public and
10 for compatible recreational uses. And this includes
11 the Peninsula watershed lands.

12 If you look at the San Mateo County General
13 Plan, where these lands reside, it urges a diversity of
14 outdoor opportunities, and it specifically mentions the
15 watershed.

16 I'm hope that this EIR will cover hiking,
17 equestrian activities, and cycling. I hope it will
18 consider the permit program we've heard some discussion
19 of. I hope it will consider regular open-space-type
20 assess where a permit is not required.

21 I -- those are really my sole comments on the
22 scope of the EIR. I just want to conclude by saying
23 that there's some discussion about whether it's legal
24 or not to have recreational access on these lands. And
25 quoting the EIR to the 2000 Management Plan, they talk

1 about the primary goal of the Management Plan to
2 improve water quality, obviously.

3 But they also say one of the secondary goals
4 of the Management Plan is to provide opportunities for
5 potential compatible uses of watershed lands, including
6 educational, recreational, and scientific uses.

7 They go on to say the SFPUC, as fee owner of
8 the Peninsula Watershed may allow recreational access.
9 The text of the Scenic Easement and the Scenic
10 Recreational Easement do not prohibit such access.

11 So those are kind of important points, I
12 think, to consider when we look to the possibility of
13 recreational access over the watershed. And I hope
14 that some day, that there will be other EIRs that will
15 open it up even further. Thank you.

16 CHELSEA FORDHAM: Thank you.

17 I'm going to call up now Sean Herman followed
18 by Chris Brousseau. And if there's anybody else that
19 would like to speak, they can speak after Chris. Thank
20 you.

21 SEAN HERMAN: Thank you.

22 Hello, my name I Sean Herman. I'm here on
23 behalf of Golden Gate Audubon Society, their San
24 Francisco Preservation Committee, and just here to
25 express some thoughts. Initial thoughts with regard

1 to, first, we hope to see further exploration of the
2 biodiversity of this area. It's already acknowledged
3 it's very important in terms of biodiversity. But we
4 really want to know to what extent that is and how
5 important it is. It's one of the most biodiverse areas
6 in the State of California made in part or, if not,
7 exclusively due to the restricted access to this area
8 since the 20th century -- 19th century I should say.

9 So we are concerned with providing
10 unrestricted access and how that may affect the
11 biodiverse nature of this area.

12 Some human impacts that we are specifically
13 concerned about, particularly with regard to
14 anticipated growth in the area to come, is the
15 increased presence of, for instance, predatory corvids,
16 which are related to human activity, as well as
17 increase incidence of sudden oak death.

18 There's mention the notice regarding that
19 already taking place within the area. And so we think
20 that that is even more of a concern that should be
21 explored, as well as climate change and its
22 acceleration with regard to drought conditions, which
23 leads to one of our larger concerns, which is with
24 regard to the increased risk of fire.

25 And our hope is that somehow this can be fully

1 mitigated -- or not fully mitigated but to the extent
2 to where it's not as much of a concern as we think it
3 is right now. If fire is going to be adequately
4 prescribed -- I mean adequately addressed -- we're
5 going to have unrestricted access to the area; it's
6 going to need adequate enforcement, which requires
7 funding, personnel, training.

8 And we're unsure exactly to what extent that
9 cost may entail. And we hope that that is addressed as
10 well because, if there is no restrictive enforcement,
11 then there's going to be an increased risk of fire.
12 And 90 percent of wildfires are going to be caused by
13 human activity. So increased unrestricted access is
14 going to lead to an increased risk of endangering one
15 of the most biodiverse areas in California. So we hope
16 that that is also addressed in it.

17 Thank you very much to the opportunity. I
18 look forward to seeing what comes of this.

19 CHRIS BROUSSEAU: Thank you. My name is Chris
20 Brousseau. It's spelled B-R-O-U-S-S-E-A-U.

21 And I'm with the Open SF Watershed
22 Organization, just as a member. I happen to live in
23 San Mateo.

24 A few points about the scope and document I'd
25 like to make. First, I would like to echo the position

1 made earlier about ensuring that the EIR specifically
2 cover, you know, all modes of access from hiking and
3 biking, equestrian, walking, those sorts of things.

4 Secondly, with respect to the interest in
5 biodiversity, I love the wildlife as well. Grew up in
6 Vermont, hiked here on Mid Peninsula open space areas
7 for years. And I'd like the EIR specifically to look
8 at the impacts on the trail bed itself. A lot of the
9 discussions that I've been involved in have addressed
10 the risk of wildlife, plants, et cetera, in the area,
11 which, just as a user of open space preserves, I don't
12 know specifically what that impact is versus the impact
13 of where the users actually are. And when I go to
14 other pre serves I see low impact on the places where
15 the people are.

16 Secondly -- or excuse me, thirdly, I'd like to
17 request that Skyline Quarry which is cited in the EIR
18 as being for just equestrians and just a drop-in be
19 evaluated for the same access levels as the other
20 access points. I think we should just use this as an
21 opportunity to scientifically look at everything in the
22 same way one time, get it over with.

23 Let's see. And then, finally, with respect to
24 some of the language, I'd request that in the EIR we
25 find some other language besides, quote, "unrestricted

1 access," which in past meetings has engendered a lot of
2 negative energy because in the public forums it seems
3 to imply the anyone can go anywhere at any time, day or
4 night, no one's ever going to know, they can go off the
5 trial, et cetera.

6 And that's not at all what's being proposed.
7 So if we could find something that talks about
8 reasonable public access on the trials or something
9 that doesn't necessarily get people thinking about
10 impacts that are not likely to happen. So "open
11 access," would imply to me that I could go in there
12 24/7, that there would be no gates, those type of
13 things.

14 So there we go.

15 CHELSEA FORDHAM: Thank you.

16 Are there any other public speakers who would
17 like to speak to the scope of the EIR?

18 (No response)

19 CHELSEA FORDHAM: Well, thank you, everyone,
20 for coming tonight and providing your comments on the
21 scoping of the EIR. This ends the public comment
22 portion of the meeting.

23 A few key points that I wanted to remind you
24 of before we leave tonight: Your comments tonight will
25 be recorded by the court reporter and the EIR team will

1 be reviewing these comments to incorporate them into
2 the scope of the EIR as applicable.

3 You still do have several other opportunities
4 for additional input, including providing written
5 comments on the NOP, comments on the Draft EIR and at
6 the Planning Commission hearing on the Draft EIR and at
7 the Final EIR certification hearing.

8 If you wish to further supplement your
9 comments, please submit them in writing by February 3rd
10 at 5:00 p.m. And you should submit your comments to the
11 address listed on your agenda. And if you have any
12 questions or comments concerning the environmental
13 review process, please contact me. Or you may review
14 the Planning Department's web page in regard to the
15 environmental review process.

16 And that wraps things up. And I just want to
17 thank everybody for taking the time to come and have a
18 good night. Be please make it home safely. Thank you.

19 (Whereupon, the proceedings concluded
20 at 7:08 p.m.)
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23
24
25

1 STATE OF CALIFORNIA)
2 COUNTY OF MARIN) ss.
3
4 I, DEBORAH FUQUA, a Certified Shorthand
5 Reporter of the State of California, do hereby certify
6 that the foregoing proceedings were reported by me, a
7 disinterested person, and thereafter transcribed under
8 my direction into typewriting and is a true and correct
9 transcription of said proceedings.
10 I further certify that I am not of counsel or
11 attorney for either or any of the parties in the
12 foregoing proceeding and caption named, nor in any way
13 interested in the outcome of the cause named in said
14 caption.
15 Dated the 3rd day of February, 2017.
16
17 DEBORAH FUQUA
18 CSR NO. 12948
19
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APPENDIX B

Air Quality and Greenhouse Gas Emissions Estimates

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Averaging of Construction Emissions

With Fence

UNMITIGATED

Annual Emission from CalEEMod:

ROG	Nox	PM10	PM2.5	
1.2761	14.7688	0.6713	0.6185	tons/year

Days of Construction = (from CalEEMod input file)
Days

Total = 260

Average daily Emissions =

ROG	Nox	PM10	PM2.5	
9.82	113.61	5.16	4.76	pound/day

MITIGATED

Annual Emission from CalEEMod:

ROG	Nox	PM10	PM2.5	
0.4416	4.9989	0.1564	0.1462	tons/year

Days of Construction = (from CalEEMod input file)
Days

Total = 260

Average daily Emissions =

ROG	Nox	PM10	PM2.5	
3.40	38.45	1.20	1.12	pound/day

Averaging of Construction Emissions

No Fence

UNMITIGATED

Annual Emission from CalEEMod:

ROG	Nox	PM10	PM2.5	
1.2457	14.3738	0.6601	0.6081	tons/year

Days of Construction = (from CalEEMod input file)
Days

Total = 260

Average daily Emissions =

ROG	Nox	PM10	PM2.5	
9.58	110.57	5.08	4.68	pound/day

MITIGATED

Annual Emission from CalEEMod:

ROG	Nox	PM10	PM2.5	
0.4289	4.9439	0.1548	0.1445	tons/year
			3.39	35.7

Days of Construction = (from CalEEMod input file)
Days

Total = 260

Average daily Emissions =

ROG	Nox	PM10	PM2.5	
3.30	38.03	1.19	1.11	pound/day

SSBRT Construction - San Mateo County, Annual

SSBRT Construction

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	13.22	1000sqft	0.30	13,220.00	0
City Park	70.25	Acre	70.25	3,060,090.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction phase durations per PD.

Off-road Equipment -

Off-road Equipment - Equipment list provided by SFPUC. Drill Rig Hours adjusted to proportionize activity over 1 year. Other const equip is a concrete pump truck and ATVs. Other material equip is skid steer.

Off-road Equipment - Equipment list provided by SFPUC. Adjust scraper hours to proportionalize use over one quarter of overall parking lot period.

Trips and VMT - Trips per PD

On-road Fugitive Dust - Silt loading per CARB method 7.9

Grading - Acres disturbed per PD

Vehicle Trips - Construction Run Only.

Construction Off-road Equipment Mitigation - Tier 4 as mitigation

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblGrading	MaterialExported	0.00	8,679.00
tblGrading	MaterialImported	0.00	73,029.00
tblOffRoadEquipment	HorsePower	172.00	60.00

tblOffRoadEquipment	HorsePower	168.00	100.00
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tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	WorkerTripNumber	95.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	0.00

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					
2019	0.8894	10.3468	7.1316	0.0148	1.0582	0.4718	1.5300	0.5351	0.4347	0.9698	0.0000	1,366.2682	1,366.2682	0.3580	0.0000	1,375.2190
2020	0.3867	4.4220	3.3202	6.9200e-003	0.5195	0.1995	0.7190	0.2423	0.1838	0.4261	0.0000	627.9913	627.9913	0.1675	0.0000	632.1780
Maximum	0.8894	10.3468	7.1316	0.0148	1.0582	0.4718	1.5300	0.5351	0.4347	0.9698	0.0000	1,366.2682	1,366.2682	0.3580	0.0000	1,375.2190

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					
2019	0.3076	3.5068	7.4807	0.0148	1.0582	0.1117	1.1699	0.5351	0.1043	0.6394	0.0000	1,366.2670	1,366.2670	0.3580	0.0000	1,375.2178
2020	0.1340	1.4921	3.5735	6.9200e-003	0.5195	0.0447	0.5642	0.2423	0.0419	0.2841	0.0000	627.9908	627.9908	0.1675	0.0000	632.1774
Maximum	0.3076	3.5068	7.4807	0.0148	1.0582	0.1117	1.1699	0.5351	0.1043	0.6394	0.0000	1,366.2670	1,366.2670	0.3580	0.0000	1,375.2178

	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
Percent Reduction	65.39	66.15	-5.76	0.00	0.00	76.69	22.89	0.00	76.36	33.84	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	3-3-2019	6-2-2019	0.1053	0.0355
3	6-3-2019	9-2-2019	4.8429	1.6342
4	9-3-2019	12-2-2019	4.8033	1.6295
5	12-3-2019	3-2-2020	4.5699	1.5741
6	3-3-2020	6-2-2020	1.7788	0.5771
		Highest	4.8429	1.6342

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	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3461	1.3461	6.0000e-005	1.0000e-005	1.3513

Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	1.2261	0.0000	1.2261	0.0725	0.0000	3.0375
Water						0.0000	0.0000		0.0000	0.0000	0.0000	85.2241	85.2241	3.8500e-003	8.0000e-004	85.5580
Total	0.0300	1.0000e-005	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2261	86.5717	87.7977	0.0764	8.1000e-004	89.9485

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	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3461	1.3461	6.0000e-005	1.0000e-005	1.3513
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	1.2261	0.0000	1.2261	0.0725	0.0000	3.0375
Water						0.0000	0.0000		0.0000	0.0000	0.0000	85.2241	85.2241	3.8500e-003	8.0000e-004	85.5580
Total	0.0300	1.0000e-005	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2261	86.5717	87.7977	0.0764	8.1000e-004	89.9485

	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
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	Grading	Grading	6/1/2019	3/31/2020	5	217	Trail

2	Paving	Paving	4/1/2020	5/31/2020	5	43	Parking Lot
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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 70.25

Acres of Paving: 0.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Excavators	6	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Other Construction Equipment	6	8.00	60	0.42
Grading	Other Material Handling Equipment	2	4.00	100	0.40
Grading	Plate Compactors	6	8.00	8	0.43
Grading	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Skid Steer Loaders	4	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Trenchers	2	8.00	78	0.50
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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
Grading	38	20.00	20.00	10,214.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	20.00	20.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Grading - 2019

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					0.9572	0.0000	0.9572	0.5079	0.0000	0.5079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8418	8.9003	6.5441	0.0113		0.4654	0.4654		0.4286	0.4286	0.0000	1,012.2517	1,012.2517	0.3172	0.0000	1,020.1825
Total	0.8418	8.9003	6.5441	0.0113	0.9572	0.4654	1.4227	0.5079	0.4286	0.9364	0.0000	1,012.2517	1,012.2517	0.3172	0.0000	1,020.1825

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	0.0358	1.2493	0.4804	2.9700e-003	0.0791	4.9800e-003	0.0841	0.0212	4.7600e-003	0.0259	0.0000	303.0649	303.0649	0.0370	0.0000	303.9896
Vendor	7.2200e-003	0.1941	0.0745	4.1000e-004	9.9100e-003	1.3400e-003	0.0113	2.8700e-003	1.2800e-003	4.1500e-003	0.0000	40.6607	40.6607	3.5900e-003	0.0000	40.7505
Worker	4.5000e-003	3.1700e-003	0.0326	1.1000e-004	0.0120	8.0000e-005	0.0120	3.1800e-003	7.0000e-005	3.2500e-003	0.0000	10.2909	10.2909	2.2000e-004	0.0000	10.2964
Total	0.0476	1.4466	0.5876	3.4900e-003	0.1010	6.4000e-003	0.1074	0.0272	6.1100e-003	0.0333	0.0000	354.0165	354.0165	0.0408	0.0000	355.0365

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					0.9572	0.0000	0.9572	0.5079	0.0000	0.5079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2600	2.0603	6.8931	0.0113		0.1054	0.1054		0.0982	0.0982	0.0000	1,012.2504	1,012.2504	0.3172	0.0000	1,020.1813
Total	0.2600	2.0603	6.8931	0.0113	0.9572	0.1054	1.0626	0.5079	0.0982	0.6061	0.0000	1,012.2504	1,012.2504	0.3172	0.0000	1,020.1813

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	0.0358	1.2493	0.4804	2.9700e-003	0.0791	4.9800e-003	0.0841	0.0212	4.7600e-003	0.0259	0.0000	303.0649	303.0649	0.0370	0.0000	303.9896
Vendor	7.2200e-003	0.1941	0.0745	4.1000e-004	9.9100e-003	1.3400e-003	0.0113	2.8700e-003	1.2800e-003	4.1500e-003	0.0000	40.6607	40.6607	3.5900e-003	0.0000	40.7505
Worker	4.5000e-003	3.1700e-003	0.0326	1.1000e-004	0.0120	8.0000e-005	0.0120	3.1800e-003	7.0000e-005	3.2500e-003	0.0000	10.2909	10.2909	2.2000e-004	0.0000	10.2964
Total	0.0476	1.4466	0.5876	3.4900e-003	0.1010	6.4000e-003	0.1074	0.0272	6.1100e-003	0.0333	0.0000	354.0165	354.0165	0.0408	0.0000	355.0365

3.2 Grading - 2020

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
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Category	tons/yr										MT/yr					
Fugitive Dust					0.4333	0.0000	0.4333	0.2199	0.0000	0.2199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3388	3.5274	2.7441	4.8500e-003		0.1824	0.1824		0.1679	0.1679	0.0000	423.8193	423.8193	0.1357	0.0000	427.2126
Total	0.3388	3.5274	2.7441	4.8500e-003	0.4333	0.1824	0.6157	0.2199	0.1679	0.3878	0.0000	423.8193	423.8193	0.1357	0.0000	427.2126

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	0.0136	0.4937	0.2058	1.2400e-003	0.0706	1.5400e-003	0.0722	0.0181	1.4700e-003	0.0196	0.0000	127.7819	127.7819	0.0160	0.0000	128.1806
Vendor	2.5200e-003	0.0754	0.0300	1.7000e-004	4.2400e-003	3.8000e-004	4.6100e-003	1.2300e-003	3.6000e-004	1.5800e-003	0.0000	17.2246	17.2246	1.5000e-003	0.0000	17.2620
Worker	1.7700e-003	1.2000e-003	0.0127	5.0000e-005	5.1200e-003	3.0000e-005	5.1500e-003	1.3600e-003	3.0000e-005	1.3900e-003	0.0000	4.2609	4.2609	8.0000e-005	0.0000	4.2630
Total	0.0178	0.5702	0.2485	1.4600e-003	0.0800	1.9500e-003	0.0819	0.0207	1.8600e-003	0.0225	0.0000	149.2674	149.2674	0.0175	0.0000	149.7056

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					0.4333	0.0000	0.4333	0.2199	0.0000	0.2199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1073	0.8464	2.9448	4.8500e-003		0.0418	0.0418		0.0390	0.0390	0.0000	423.8188	423.8188	0.1357	0.0000	427.2121

Total	0.1073	0.8464	2.9448	4.8500e-003	0.4333	0.0418	0.4751	0.2199	0.0390	0.2589	0.0000	423.8188	423.8188	0.1357	0.0000	427.2121
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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	0.0136	0.4937	0.2058	1.2400e-003	0.0706	1.5400e-003	0.0722	0.0181	1.4700e-003	0.0196	0.0000	127.7819	127.7819	0.0160	0.0000	128.1806
Vendor	2.5200e-003	0.0754	0.0300	1.7000e-004	4.2400e-003	3.8000e-004	4.6100e-003	1.2300e-003	3.6000e-004	1.5800e-003	0.0000	17.2246	17.2246	1.5000e-003	0.0000	17.2620
Worker	1.7700e-003	1.2000e-003	0.0127	5.0000e-005	5.1200e-003	3.0000e-005	5.1500e-003	1.3600e-003	3.0000e-005	1.3900e-003	0.0000	4.2609	4.2609	8.0000e-005	0.0000	4.2630
Total	0.0178	0.5702	0.2485	1.4600e-003	0.0800	1.9500e-003	0.0819	0.0207	1.8600e-003	0.0225	0.0000	149.2674	149.2674	0.0175	0.0000	149.7056

3.3 Paving - 2020

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	0.0268	0.2737	0.2994	4.6000e-004		0.0149	0.0149		0.0137	0.0137	0.0000	40.6911	40.6911	0.0132	0.0000	41.0201
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0272	0.2737	0.2994	4.6000e-004		0.0149	0.0149		0.0137	0.0137	0.0000	40.6911	40.6911	0.0132	0.0000	41.0201

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	1.6700e-003	0.0499	0.0199	1.1000e-004	2.8000e-003	2.5000e-004	3.0500e-003	8.1000e-004	2.4000e-004	1.0500e-003	0.0000	11.3947	11.3947	9.9000e-004	0.0000	11.4195
Worker	1.1700e-003	7.9000e-004	8.3700e-003	3.0000e-005	3.3900e-003	2.0000e-005	3.4100e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.8188	2.8188	5.0000e-005	0.0000	2.8202
Total	2.8400e-003	0.0507	0.0282	1.4000e-004	6.1900e-003	2.7000e-004	6.4600e-003	1.7100e-003	2.6000e-004	1.9700e-003	0.0000	14.2135	14.2135	1.0400e-003	0.0000	14.2396

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	5.7100e-003	0.0247	0.3520	4.6000e-004		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	40.6911	40.6911	0.0132	0.0000	41.0201
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1000e-003	0.0247	0.3520	4.6000e-004		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	40.6911	40.6911	0.0132	0.0000	41.0201

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	1.6700e-003	0.0499	0.0199	1.1000e-004	2.8000e-003	2.5000e-004	3.0500e-003	8.1000e-004	2.4000e-004	1.0500e-003	0.0000	11.3947	11.3947	9.9000e-004	0.0000	11.4195
Worker	1.1700e-003	7.9000e-004	8.3700e-003	3.0000e-005	3.3900e-003	2.0000e-005	3.4100e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.8188	2.8188	5.0000e-005	0.0000	2.8202
Total	2.8400e-003	0.0507	0.0282	1.4000e-004	6.1900e-003	2.7000e-004	6.4600e-003	1.7100e-003	2.6000e-004	1.9700e-003	0.0000	14.2135	14.2135	1.0400e-003	0.0000	14.2396

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	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
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	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %
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Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-S	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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.490452	0.049742	0.253638	0.136789	0.017926	0.006526	0.021436	0.006323	0.003943	0.003278	0.008771	0.000435	0.000741
Parking Lot	0.490452	0.049742	0.253638	0.136789	0.017926	0.006526	0.021436	0.006323	0.003943	0.003278	0.008771	0.000435	0.000741

5.0 Energy Detail

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	1.3461	1.3461	6.0000e-005	1.0000e-005	1.3513
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.3461	1.3461	6.0000e-005	1.0000e-005	1.3513
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

5.2 Energy by Land Use - NaturalGas Unmitigated

	Natural Gas 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
Parking Lot	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

	Natural Gas 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
Parking Lot	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	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4627	1.3461	6.0000e-005	1.0000e-005	1.3513

Total		1.3461	6.0000e-005	1.0000e-005	1.3513
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Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4627	1.3461	6.0000e-005	1.0000e-005	1.3513
Total		1.3461	6.0000e-005	1.0000e-005	1.3513

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	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Unmitigated	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003

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	2.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Total	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003

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	2.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Total	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	85.2241	3.8500e-003	8.0000e-004	85.5580
Unmitigated	85.2241	3.8500e-003	8.0000e-004	85.5580

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 83.7016	85.2241	3.8500e-003	8.0000e-004	85.5580
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		85.2241	3.8500e-003	8.0000e-004	85.5580

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

City Park	0 / 83.7016	85.2241	3.8500e-003	8.0000e-004	85.5580
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		85.2241	3.8500e-003	8.0000e-004	85.5580

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.2261	0.0725	0.0000	3.0375
Unmitigated	1.2261	0.0725	0.0000	3.0375

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	6.04	1.2261	0.0725	0.0000	3.0375
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Total		1.2261	0.0725	0.0000	3.0375
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Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	6.04	1.2261	0.0725	0.0000	3.0375
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		1.2261	0.0725	0.0000	3.0375

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

SSBRT Construction No Fence - San Mateo County, Annual

SSBRT Construction No Fence

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	13.22	1000sqft	0.30	13,220.00	0
City Park	70.25	Acre	70.25	3,060,090.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction phase durations per PD.

Off-road Equipment -

Off-road Equipment - Equipment list provided by SFPUC. Drill Rig Hours adjusted to proportionally activity over 1 year. Other const equip is a concrete pump truck and ATVs. Other material equip is skid steer.

Off-road Equipment - Equipment list provided by SFPUC. Adjust scraper hours to proportionalize use over one quarter of overall parking lot period.

Trips and VMT - Trips per PD

On-road Fugitive Dust - Silt loading per CARB method 7.9

Grading - Acres disturbed per PD

Vehicle Trips - Construction Run Only.

Construction Off-road Equipment Mitigation - Tier 4 as mitigation

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	110.00	217.00
tblConstructionPhase	NumDays	75.00	43.00
tblConstructionPhase	PhaseEndDate	5/3/2019	3/31/2020
tblConstructionPhase	PhaseEndDate	11/17/2023	5/31/2020
tblConstructionPhase	PhaseStartDate	12/3/2018	6/1/2019
tblConstructionPhase	PhaseStartDate	8/5/2023	4/1/2020

tblGrading	AcresOfGrading	434.00	70.25
tblGrading	MaterialExported	0.00	8,679.00
tblGrading	MaterialImported	0.00	73,029.00
tblOffRoadEquipment	HorsePower	172.00	60.00
tblOffRoadEquipment	HorsePower	168.00	100.00
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Other Material Handling Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	WorkerTripNumber	95.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	0.00

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					
2019	0.8681	10.0663	6.9745	0.0141	1.0582	0.4639	1.5221	0.5351	0.4274	0.9625	0.0000	1,302.3373	1,302.3373	0.3378	0.0000	1,310.7824
2020	0.3776	4.3075	3.2525	6.6200e-003	0.5195	0.1962	0.7157	0.2423	0.1807	0.4230	0.0000	601.1670	601.1670	0.1588	0.0000	605.1368
Maximum	0.8681	10.0663	6.9745	0.0141	1.0582	0.4639	1.5221	0.5351	0.4274	0.9625	0.0000	1,302.3373	1,302.3373	0.3378	0.0000	1,310.7824

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					
2019	0.2987	3.4683	7.1549	0.0141	1.0582	0.1106	1.1688	0.5351	0.1032	0.6382	0.0000	1,302.3361	1,302.3361	0.3378	0.0000	1,310.7813
2020	0.1302	1.4756	3.4341	6.6200e-003	0.5195	0.0442	0.5637	0.2423	0.0413	0.2836	0.0000	601.1665	601.1665	0.1588	0.0000	605.1363
Maximum	0.2987	3.4683	7.1549	0.0141	1.0582	0.1106	1.1688	0.5351	0.1032	0.6382	0.0000	1,302.3361	1,302.3361	0.3378	0.0000	1,310.7813

	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
Percent Reduction	65.57	65.60	-3.54	0.00	0.00	76.55	22.58	0.00	76.24	33.46	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	3-3-2019	6-2-2019	0.1024	0.0351
3	6-3-2019	9-2-2019	4.7124	1.6137
4	9-3-2019	12-2-2019	4.6743	1.6093
5	12-3-2019	3-2-2020	4.4446	1.5539

6	3-3-2020	6-2-2020	1.7395	0.5706
		Highest	4.7124	1.6137

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	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3461	1.3461	6.0000e-005	1.0000e-005	1.3513
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	1.2261	0.0000	1.2261	0.0725	0.0000	3.0375
Water						0.0000	0.0000		0.0000	0.0000	0.0000	85.2241	85.2241	3.8500e-003	8.0000e-004	85.5580
Total	0.0300	1.0000e-005	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2261	86.5717	87.7977	0.0764	8.1000e-004	89.9485

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	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3461	1.3461	6.0000e-005	1.0000e-005	1.3513
Mobile	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

Waste						0.0000	0.0000		0.0000	0.0000	1.2261	0.0000	1.2261	0.0725	0.0000	3.0375
Water						0.0000	0.0000		0.0000	0.0000	0.0000	85.2241	85.2241	3.8500e-003	8.0000e-004	85.5580
Total	0.0300	1.0000e-005	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2261	86.5717	87.7977	0.0764	8.1000e-004	89.9485

	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
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	Grading	Grading	6/1/2019	3/31/2020	5	217	Trail
2	Paving	Paving	4/1/2020	5/31/2020	5	43	Parking Lot

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 70.25

Acres of Paving: 0.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Plate Compactors	6	8.00	8	0.43
Grading	Rollers	2	8.00	80	0.38
Grading	Excavators	6	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Trenchers	2	8.00	78	0.50
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Grading	Other Construction Equipment	6	8.00	60	0.42
Grading	Skid Steer Loaders	4	8.00	65	0.37
Grading	Other Material Handling Equipment	2	4.00	100	0.40
Grading	Bore/Drill Rigs	2	4.00	221	0.50
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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
Grading	38	20.00	20.00	10,214.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	20.00	20.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Grading - 2019

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					0.9572	0.0000	0.9572	0.5079	0.0000	0.5079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8206	8.6197	6.3870	0.0106		0.4575	0.4575		0.4212	0.4212	0.0000	948.3208	948.3208	0.2970	0.0000	955.7459
Total	0.8206	8.6197	6.3870	0.0106	0.9572	0.4575	1.4147	0.5079	0.4212	0.9291	0.0000	948.3208	948.3208	0.2970	0.0000	955.7459

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	0.0358	1.2493	0.4804	2.9700e-003	0.0791	4.9800e-003	0.0841	0.0212	4.7600e-003	0.0259	0.0000	303.0649	303.0649	0.0370	0.0000	303.9896
Vendor	7.2200e-003	0.1941	0.0745	4.1000e-004	9.9100e-003	1.3400e-003	0.0113	2.8700e-003	1.2800e-003	4.1500e-003	0.0000	40.6607	40.6607	3.5900e-003	0.0000	40.7505
Worker	4.5000e-003	3.1700e-003	0.0326	1.1000e-004	0.0120	8.0000e-005	0.0120	3.1800e-003	7.0000e-005	3.2500e-003	0.0000	10.2909	10.2909	2.2000e-004	0.0000	10.2964
Total	0.0476	1.4466	0.5876	3.4900e-003	0.1010	6.4000e-003	0.1074	0.0272	6.1100e-003	0.0333	0.0000	354.0165	354.0165	0.0408	0.0000	355.0365

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					0.9572	0.0000	0.9572	0.5079	0.0000	0.5079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2511	2.0218	6.5673	0.0106		0.1042	0.1042		0.0970	0.0970	0.0000	948.3196	948.3196	0.2970	0.0000	955.7448
Total	0.2511	2.0218	6.5673	0.0106	0.9572	0.1042	1.0614	0.5079	0.0970	0.6049	0.0000	948.3196	948.3196	0.2970	0.0000	955.7448

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
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Category	tons/yr										MT/yr					
Hauling	0.0358	1.2493	0.4804	2.9700e-003	0.0791	4.9800e-003	0.0841	0.0212	4.7600e-003	0.0259	0.0000	303.0649	303.0649	0.0370	0.0000	303.9896
Vendor	7.2200e-003	0.1941	0.0745	4.1000e-004	9.9100e-003	1.3400e-003	0.0113	2.8700e-003	1.2800e-003	4.1500e-003	0.0000	40.6607	40.6607	3.5900e-003	0.0000	40.7505
Worker	4.5000e-003	3.1700e-003	0.0326	1.1000e-004	0.0120	8.0000e-005	0.0120	3.1800e-003	7.0000e-005	3.2500e-003	0.0000	10.2909	10.2909	2.2000e-004	0.0000	10.2964
Total	0.0476	1.4466	0.5876	3.4900e-003	0.1010	6.4000e-003	0.1074	0.0272	6.1100e-003	0.0333	0.0000	354.0165	354.0165	0.0408	0.0000	355.0365

3.2 Grading - 2020

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					0.4333	0.0000	0.4333	0.2199	0.0000	0.2199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3298	3.4129	2.6765	4.5400e-003		0.1791	0.1791		0.1649	0.1649	0.0000	396.9950	396.9950	0.1271	0.0000	400.1714
Total	0.3298	3.4129	2.6765	4.5400e-003	0.4333	0.1791	0.6124	0.2199	0.1649	0.3848	0.0000	396.9950	396.9950	0.1271	0.0000	400.1714

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	0.0136	0.4937	0.2058	1.2400e-003	0.0706	1.5400e-003	0.0722	0.0181	1.4700e-003	0.0196	0.0000	127.7819	127.7819	0.0160	0.0000	128.1806
Vendor	2.5200e-003	0.0754	0.0300	1.7000e-004	4.2400e-003	3.8000e-004	4.6100e-003	1.2300e-003	3.6000e-004	1.5800e-003	0.0000	17.2246	17.2246	1.5000e-003	0.0000	17.2620
Worker	1.7700e-003	1.2000e-003	0.0127	5.0000e-005	5.1200e-003	3.0000e-005	5.1500e-003	1.3600e-003	3.0000e-005	1.3900e-003	0.0000	4.2609	4.2609	8.0000e-005	0.0000	4.2630

Total	0.0178	0.5702	0.2485	1.4600e-003	0.0800	1.9500e-003	0.0819	0.0207	1.8600e-003	0.0225	0.0000	149.2674	149.2674	0.0175	0.0000	149.7056
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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					0.4333	0.0000	0.4333	0.2199	0.0000	0.2199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1035	0.8300	2.8054	4.5400e-003		0.0413	0.0413		0.0385	0.0385	0.0000	396.9945	396.9945	0.1271	0.0000	400.1709
Total	0.1035	0.8300	2.8054	4.5400e-003	0.4333	0.0413	0.4746	0.2199	0.0385	0.2584	0.0000	396.9945	396.9945	0.1271	0.0000	400.1709

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	0.0136	0.4937	0.2058	1.2400e-003	0.0706	1.5400e-003	0.0722	0.0181	1.4700e-003	0.0196	0.0000	127.7819	127.7819	0.0160	0.0000	128.1806
Vendor	2.5200e-003	0.0754	0.0300	1.7000e-004	4.2400e-003	3.8000e-004	4.6100e-003	1.2300e-003	3.6000e-004	1.5800e-003	0.0000	17.2246	17.2246	1.5000e-003	0.0000	17.2620
Worker	1.7700e-003	1.2000e-003	0.0127	5.0000e-005	5.1200e-003	3.0000e-005	5.1500e-003	1.3600e-003	3.0000e-005	1.3900e-003	0.0000	4.2609	4.2609	8.0000e-005	0.0000	4.2630
Total	0.0178	0.5702	0.2485	1.4600e-003	0.0800	1.9500e-003	0.0819	0.0207	1.8600e-003	0.0225	0.0000	149.2674	149.2674	0.0175	0.0000	149.7056

3.3 Paving - 2020

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	0.0268	0.2737	0.2994	4.6000e-004		0.0149	0.0149		0.0137	0.0137	0.0000	40.6911	40.6911	0.0132	0.0000	41.0201
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0272	0.2737	0.2994	4.6000e-004		0.0149	0.0149		0.0137	0.0137	0.0000	40.6911	40.6911	0.0132	0.0000	41.0201

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	1.6700e-003	0.0499	0.0199	1.1000e-004	2.8000e-003	2.5000e-004	3.0500e-003	8.1000e-004	2.4000e-004	1.0500e-003	0.0000	11.3947	11.3947	9.9000e-004	0.0000	11.4195
Worker	1.1700e-003	7.9000e-004	8.3700e-003	3.0000e-005	3.3900e-003	2.0000e-005	3.4100e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.8188	2.8188	5.0000e-005	0.0000	2.8202
Total	2.8400e-003	0.0507	0.0282	1.4000e-004	6.1900e-003	2.7000e-004	6.4600e-003	1.7100e-003	2.6000e-004	1.9700e-003	0.0000	14.2135	14.2135	1.0400e-003	0.0000	14.2396

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	5.7100e-003	0.0247	0.3520	4.6000e-004		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	40.6911	40.6911	0.0132	0.0000	41.0201
Paving	3.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1000e-003	0.0247	0.3520	4.6000e-004		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	40.6911	40.6911	0.0132	0.0000	41.0201

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	1.6700e-003	0.0499	0.0199	1.1000e-004	2.8000e-003	2.5000e-004	3.0500e-003	8.1000e-004	2.4000e-004	1.0500e-003	0.0000	11.3947	11.3947	9.9000e-004	0.0000	11.4195
Worker	1.1700e-003	7.9000e-004	8.3700e-003	3.0000e-005	3.3900e-003	2.0000e-005	3.4100e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.8188	2.8188	5.0000e-005	0.0000	2.8202
Total	2.8400e-003	0.0507	0.0282	1.4000e-004	6.1900e-003	2.7000e-004	6.4600e-003	1.7100e-003	2.6000e-004	1.9700e-003	0.0000	14.2135	14.2135	1.0400e-003	0.0000	14.2396

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	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

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	0.0000
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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.490452	0.049742	0.253638	0.136789	0.017926	0.006526	0.021436	0.006323	0.003943	0.003278	0.008771	0.000435	0.000741
Parking Lot	0.490452	0.049742	0.253638	0.136789	0.017926	0.006526	0.021436	0.006323	0.003943	0.003278	0.008771	0.000435	0.000741

5.0 Energy Detail

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
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Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.3461	1.3461	6.0000e-005	1.0000e-005	1.3513
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.3461	1.3461	6.0000e-005	1.0000e-005	1.3513
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

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
Parking Lot	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
Parking Lot	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	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4627	1.3461	6.0000e-005	1.0000e-005	1.3513
Total		1.3461	6.0000e-005	1.0000e-005	1.3513

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4627	1.3461	6.0000e-005	1.0000e-005	1.3513
Total		1.3461	6.0000e-005	1.0000e-005	1.3513

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	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Unmitigated	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003

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	2.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Total	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003

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
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SubCategory	tons/yr										MT/yr					
Architectural Coating	2.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Total	0.0300	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	85.2241	3.8500e-003	8.0000e-004	85.5580
Unmitigated	85.2241	3.8500e-003	8.0000e-004	85.5580

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 83.7016	85.2241	3.8500e-003	8.0000e-004	85.5580

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		85.2241	3.8500e-003	8.0000e-004	85.5580

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 83.7016	85.2241	3.8500e-003	8.0000e-004	85.5580
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		85.2241	3.8500e-003	8.0000e-004	85.5580

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.2261	0.0725	0.0000	3.0375
Unmitigated	1.2261	0.0725	0.0000	3.0375

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	6.04	1.2261	0.0725	0.0000	3.0375
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		1.2261	0.0725	0.0000	3.0375

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	6.04	1.2261	0.0725	0.0000	3.0375
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		1.2261	0.0725	0.0000	3.0375

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

SSBRT Option 1 - San Mateo County, Annual

SSBRT Option 1

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	54.00	Space	0.92	51,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational run only.

Land Use - 40 ksf parking lot plus 10ksf bus lot plus 1ksf ADA parking lot

Construction Phase - Operational run only.

Off-road Equipment - Operational run only.

Trips and VMT - Operational run only.

Vehicle Trips - Trip rates calculated on separate spread sheet using PD info and Travel Demand Memo from CHS.

Energy Use -

Grading - operational run only.

Table Name	Column Name	Default Value	New Value
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tblLandUse	LandUseSquareFeet	21,600.00	51,000.00
tblLandUse	LotAcreage	0.49	0.92
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	CC_TL	7.30	12.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	2.53
tblVehicleTrips	SU_TR	0.00	2.53
tblVehicleTrips	WD_TR	0.00	2.53

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					
2018	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
Maximum	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

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
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Year	tons/yr										MT/yr					
2018	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
Maximum	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

	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
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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
Mobile	0.0452	0.1612	0.6255	2.3700e-003	0.2215	1.9500e-003	0.2234	0.0595	1.8200e-003	0.0613	0.0000	217.0131	217.0131	7.5100e-003	0.0000	217.2009
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0496	0.1612	0.6260	2.3700e-003	0.2215	1.9500e-003	0.2234	0.0595	1.8200e-003	0.0613	0.0000	222.2069	222.2069	7.7400e-003	5.0000e-005	222.4151

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	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
Mobile	0.0452	0.1612	0.6255	2.3700e-003	0.2215	1.9500e-003	0.2234	0.0595	1.8200e-003	0.0613	0.0000	217.0131	217.0131	7.5100e-003	0.0000	217.2009
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0496	0.1612	0.6260	2.3700e-003	0.2215	1.9500e-003	0.2234	0.0595	1.8200e-003	0.0613	0.0000	222.2069	222.2069	7.7400e-003	5.0000e-005	222.4151

	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
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 Preparation	6/13/2018	6/13/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.92

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

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	0.0000	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	0.0000	0.0000

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	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
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	0.0000	0.0000

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	0.0000	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	0.0000	0.0000

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	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
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	0.0000	0.0000

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	0.0452	0.1612	0.6255	2.3700e-003	0.2215	1.9500e-003	0.2234	0.0595	1.8200e-003	0.0613	0.0000	217.0131	217.0131	7.5100e-003	0.0000	217.2009
Unmitigated	0.0452	0.1612	0.6255	2.3700e-003	0.2215	1.9500e-003	0.2234	0.0595	1.8200e-003	0.0613	0.0000	217.0131	217.0131	7.5100e-003	0.0000	217.2009

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	136.78	136.78	136.78	597,464	597,464
Total	136.78	136.78	136.78	597,464	597,464

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	12.00	7.30	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.482816	0.049967	0.258264	0.138365	0.017696	0.006700	0.022365	0.006431	0.004044	0.003214	0.008927	0.000452	0.000759

5.0 Energy Detail

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	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
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

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					
Parking Lot	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					
Parking Lot	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	MT/yr			
Parking Lot	17850	5.1928	2.3000e-004	5.0000e-005	5.2131
Total		5.1928	2.3000e-004	5.0000e-005	5.2131

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
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Land Use	kWh/yr	MT/yr			
Parking Lot	17850	5.1928	2.3000e-004	5.0000e-005	5.2131
Total		5.1928	2.3000e-004	5.0000e-005	5.2131

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	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Unmitigated	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003

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	1.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	3.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Total	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003

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	1.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Total	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

SSBRT Option 1 - San Mateo County, Annual

SSBRT Option 1

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	54.00	Space	0.92	51,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational run only.

Land Use - 40 ksf parking lot plus 10ksf bus lot plus 1ksf ADA parking lot

Construction Phase - Operational run only.

Off-road Equipment - Operational run only.

Trips and VMT - Operational run only.

Grading - operational run only.

Vehicle Trips - Trip rates calculated on separate spread sheet using PD info and Travel Demand Memo from CHS.

Energy Use -

Table Name	Column Name	Default Value	New Value
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tblLandUse	LandUseSquareFeet	21,600.00	51,000.00
tblLandUse	LotAcreage	0.49	0.92
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	CC_TL	7.30	18.90
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	2.53
tblVehicleTrips	SU_TR	0.00	2.53
tblVehicleTrips	WD_TR	0.00	2.53

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					
2018	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
Maximum	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

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					
2018	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
Maximum	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

	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
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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
Mobile	0.0593	0.2323	0.9249	3.7000e-003	0.3484	2.9800e-003	0.3514	0.0936	2.7900e-003	0.0964	0.0000	338.7099	338.7099	0.0114	0.0000	338.9958
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0637	0.2323	0.9254	3.7000e-003	0.3484	2.9800e-003	0.3514	0.0936	2.7900e-003	0.0964	0.0000	343.9037	343.9037	0.0117	5.0000e-005	344.2099

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	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
Mobile	0.0593	0.2323	0.9249	3.7000e-003	0.3484	2.9800e-003	0.3514	0.0936	2.7900e-003	0.0964	0.0000	338.7099	338.7099	0.0114	0.0000	338.9958
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0637	0.2323	0.9254	3.7000e-003	0.3484	2.9800e-003	0.3514	0.0936	2.7900e-003	0.0964	0.0000	343.9037	343.9037	0.0117	5.0000e-005	344.2099

	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
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 Preparation	6/13/2018	6/13/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.92

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

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	0.0000	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	0.0000	0.0000

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	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
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	0.0000	0.0000

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	0.0000	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	0.0000	0.0000

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	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
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	0.0000	0.0000

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	0.0593	0.2323	0.9249	3.7000e-003	0.3484	2.9800e-003	0.3514	0.0936	2.7900e-003	0.0964	0.0000	338.7099	338.7099	0.0114	0.0000	338.9958
Unmitigated	0.0593	0.2323	0.9249	3.7000e-003	0.3484	2.9800e-003	0.3514	0.0936	2.7900e-003	0.0964	0.0000	338.7099	338.7099	0.0114	0.0000	338.9958

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	136.62	136.62	136.62	939,891	939,891
Total	136.62	136.62	136.62	939,891	939,891

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	18.90	7.30	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.482816	0.049967	0.258264	0.138365	0.017696	0.006700	0.022365	0.006431	0.004044	0.003214	0.008927	0.000452	0.000759

5.0 Energy Detail

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	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
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

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					
Parking Lot	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					
Parking Lot	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	MT/yr			
Parking Lot	17850	5.1928	2.3000e-004	5.0000e-005	5.2131
Total		5.1928	2.3000e-004	5.0000e-005	5.2131

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
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Land Use	kWh/yr	MT/yr			
Parking Lot	17850	5.1928	2.3000e-004	5.0000e-005	5.2131
Total		5.1928	2.3000e-004	5.0000e-005	5.2131

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	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Unmitigated	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003

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	1.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	3.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Total	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003

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	1.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Total	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

SSBRT Option 2 - San Mateo County, Annual

SSBRT Option 2

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	54.00	Space	0.92	51,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational run only.

Land Use - 40 ksf parking lot plus 10ksf bus lot plus 1ksf ADA parking lot

Construction Phase - Operational run only.

Off-road Equipment - Operational run only.

Trips and VMT - Operational run only.

Vehicle Trips - Trip rates calculated on separate spread sheet using PD info and Travel Demand Memo from CHS.

Energy Use -

Grading - operational run only.

Table Name	Column Name	Default Value	New Value
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tblLandUse	LandUseSquareFeet	21,600.00	51,000.00
tblLandUse	LotAcreage	0.49	0.92
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	CC_TL	7.30	12.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	5.08
tblVehicleTrips	SU_TR	0.00	5.08
tblVehicleTrips	WD_TR	0.00	5.08

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					
2018	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
Maximum	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

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
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Year	tons/yr										MT/yr					
2018	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
Maximum	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

	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
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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
Mobile	0.0906	0.3233	1.2545	4.7600e-003	0.4442	3.9000e-003	0.4481	0.1194	3.6500e-003	0.1230	0.0000	435.2257	435.2257	0.0151	0.0000	435.6023
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0950	0.3233	1.2550	4.7600e-003	0.4442	3.9000e-003	0.4481	0.1194	3.6500e-003	0.1230	0.0000	440.4194	440.4194	0.0153	5.0000e-005	440.8165

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	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
Mobile	0.0906	0.3233	1.2545	4.7600e-003	0.4442	3.9000e-003	0.4481	0.1194	3.6500e-003	0.1230	0.0000	435.2257	435.2257	0.0151	0.0000	435.6023
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0950	0.3233	1.2550	4.7600e-003	0.4442	3.9000e-003	0.4481	0.1194	3.6500e-003	0.1230	0.0000	440.4194	440.4194	0.0153	5.0000e-005	440.8165

	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
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 Preparation	6/13/2018	6/13/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.92

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

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	0.0000	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	0.0000	0.0000

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	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
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	0.0000	0.0000

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	0.0000	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	0.0000	0.0000

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	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
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	0.0000	0.0000

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	0.0906	0.3233	1.2545	4.7600e-003	0.4442	3.9000e-003	0.4481	0.1194	3.6500e-003	0.1230	0.0000	435.2257	435.2257	0.0151	0.0000	435.6023
Unmitigated	0.0906	0.3233	1.2545	4.7600e-003	0.4442	3.9000e-003	0.4481	0.1194	3.6500e-003	0.1230	0.0000	435.2257	435.2257	0.0151	0.0000	435.6023

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	274.32	274.32	274.32	1,198,230	1,198,230
Total	274.32	274.32	274.32	1,198,230	1,198,230

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	12.00	7.30	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.482816	0.049967	0.258264	0.138365	0.017696	0.006700	0.022365	0.006431	0.004044	0.003214	0.008927	0.000452	0.000759

5.0 Energy Detail

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	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.1928	5.1928	2.3000e-004	5.0000e-005	5.2131
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

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					
Parking Lot	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					
Parking Lot	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	MT/yr			
Parking Lot	17850	5.1928	2.3000e-004	5.0000e-005	5.2131
Total		5.1928	2.3000e-004	5.0000e-005	5.2131

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
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Land Use	kWh/yr	MT/yr			
Parking Lot	17850	5.1928	2.3000e-004	5.0000e-005	5.2131
Total		5.1928	2.3000e-004	5.0000e-005	5.2131

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	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Unmitigated	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003

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	1.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	3.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Total	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003

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	1.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003
Total	4.4100e-003	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.6000e-004	9.6000e-004	0.0000	0.0000	1.0300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

APPENDIX C

Biological Resources

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APPENDIX C

Biological Resources

Tables BIO-1.1 and BIO-1.2, below, list the full results of California Native Plant Society, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service queries for special status plants and animals in the Project area, including those not expected or which have low potential to occur in the project area. Tables 4.8-2 and 4.8-3 in the Biological Resources section include only those species with moderate or higher potential, or which are known to be present in the watershed. Following the tables, this appendix presents summaries of special-status plants and animals present or with potential to occur, and other species and resources of note within the project area. The appendix concludes with the results of the California Natural Diversity Database query for the project area.

TABLE BIO-1.1
SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name <i>Scientific Name</i>	Listing Status	Life Form	Flowering Period	Habitat Conditions	Potential to Occur
San Mateo thorn-mint <i>Acanthomintha duttonii</i>	FE CE CRPR 1B.1	Annual herb	Apr – Jun	Chaparral, valley and foothill grassland, and coastal scrub. Extant populations only known from very uncommon serpentinite vertisol clays in relatively open areas. Elevation 165 to 660 feet.	Low ; species not seen north of Edgewood Park in recent decades; serpentine habitat limited and vertisol clays not present.
Franciscan onion <i>Allium peninsulare</i> var. <i>franciscanum</i>	CRPR 1B.2	Perennial herb (bulbiferous)	May – Jun	Cismontane woodland, and valley and foothill grassland. Clay soils, often on serpentine, sometimes volcanics. Dry hillsides. Elevation 330 to 985 feet.	Present ; observed along Fifield Ridge adjacent to trail and at other locations on the Watershed.
Bent-flowered fiddleneck <i>Amsinckia lunaris</i>	CRPR 1B.2	Annual herb	Mar – Jun	Cismontane woodland, coastal bluff scrub and valley and foothill grassland. Elevation 10 to 1,640 feet.	Moderate ; Records approximately 0.6 miles away; suitable woodland-grassland habitat present on Fifield and Cahill Ridge.
San Bruno Mountain manzanita <i>Arctostaphylos imbricata</i>	CE CRPR 1B.1	Shrub (evergreen)	Feb -- May	Chaparral, coastal scrub; sandstone outcrops. Elevation 900 to 1,200 feet.	Low ; known from only five occurrences on San Bruno Mountain.
Montara manzanita <i>Arctostaphylos montaraensis</i>	CRPR 1B.2	Shrub (evergreen)	Jan – Mar	Chaparral and coastal scrub. Slopes and ridges. Elevation 490 to 1,640 feet.	Moderate ; Habitat present on southern skyline ridge trail alignment. Recorded from Montara Mountain and San Bruno Mountain in maritime chaparral or tanoak habitat.
Kings Mountain manzanita <i>Arctostaphylos regismontana</i>	CRPR 1B.2	Shrub (evergreen)	Jan – Apr	Broadleaved upland forest, chaparral, and north coast coniferous forest. Granitic or sandstone outcrops. Elevation 1,000 to 2,400 feet.	Moderate potentially suitable habitat along southern skyline ridge trail route; not observed in 2015-6 surveys for trail alignment and work area but one individual seen near State Route 35 (S.R. 35).
Coastal marsh milk-vetch <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	CRPR 1B.2	Perennial herb	Apr – Oct	Coastal dunes, coastal salt marshes. Mesic sites in dunes or along streams or coastal salt marshes. Elevation sea level to 98 feet.	Low ; suitable salt marsh habitat not present in project area.
San Francisco Bay spineflower <i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	CRPR 1B.2	Annual herb	Apr – Aug	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub; sandy soil on terraces and slopes. Elevation 10 to 700 feet.	Low ; sandy soils in coastal scrub generally not present in project area; many records from San Francisco, all on stabilized dunes near the coast
Robust spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i>	FE CRPR 1B.1	Annual herb	Apr – Sep	Cismontane woodland, coastal dunes, coastal scrub, chaparral; sandy terraces and bluffs or in loose sand. Elevation 10 to 800 feet.	Low ; loose sand habitat generally not present in project area. Extant occurrences generally located in Santa Cruz-Monterey area.

TABLE BIO-1.1 (CONTINUED)
SPECIAL STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name Scientific Name	Listing Status	Life Form	Flowering Period	Habitat Conditions	Potential to Occur
Crystal Springs fountain thistle <i>Cirsium fontinale</i> var. <i>fontinale</i>	FE CE CRPR 1B.1	Perennial herb	Jun – Oct	Valley and foothill grassland and chaparral. Serpentine seeps and grassland. Elevation 295 to 590 feet.	Low ; suitable serpentine seep and spring habitat absent from project area.
San Francisco collinsia <i>Collinsia multicolor</i>	CRPR 1B.2	Annual herb	Mar – May	Closed-cone coniferous forest, shady coast live oak woodland, mixed evergreen forest and coastal scrub, on decomposed shale (mudstone) mixed with humus. Elevation 100 to 820 feet.	Moderate to high ; suitable habitat present on Fifield and Cahill ridges.
Western leatherwood <i>Dirca occidentalis</i>	CRPR 1B.2	Shrub (deciduous)	Jan – Apr	Broadleaved upland forest, most woodland types. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. Elevation 100 to 1,805 feet.	Present ; known from Fifield-Cahill Ridge, also locations between Skyline segment and Old Cañada Road.
San Mateo woolly sunflower <i>Eriophyllum latilobum</i>	FE CE CRPR 1B.1	Perennial herb	May – Jun	Cismontane woodland, often on roadcuts; found on and off of serpentine. Elevation 150 to 490 feet.	Moderate ; known from San Mateo Creek watershed above and below Lower Crystal Springs Dam, including lower Fifield and Cahill ridges. Habitat present in vicinity of Fifield-Cahill Ridge Trail.
Hillsborough chocolate lily <i>Fritillaria biflora</i> var. <i>ineziana</i>	CRPR 1B.1	Perennial herb (bulbiferous)	Mar – Apr	Cismontane woodland, valley and foothill grassland, probably on serpentine grassland. Known only from the Hillsborough area. Elevation 295 to 525 feet.	Low ; suitable habitat not present in project area.
Fragrant fritillary <i>Fritillaria liliacea</i>	CRPR 1B.2	Perennial herb (bulbiferous)	Feb – Apr	Coastal scrub, valley and foothill grassland, and coastal prairie. Often on serpentine; various soils reported, though usually clay. Elevation 10 to 1,345 feet.	Low ; suitable grassland habitat limited in project area; most nearby colonies are limited to serpentine grassland east of Lower Crystal Springs Reservoir.
Short-leaved evax <i>Hesperervax sparsiflora</i> var. <i>brevifolia</i>	CRPR 1B.2	Annual herb	Mar – Jun	Coastal bluff scrub (sandy), coastal dunes and coastal prairie; sandy bluffs and flats. Elevation 0 to 700 feet.	Low ; although one non-specific occurrence record is reported from S.R. 35, specific localities are generally on the immediate coast.
Marin western flax <i>Hesperolimon congestum</i>	FT CT CRPR 1B.1	Annual herb	Apr – Jul	Chaparral, valley and foothill grassland. In serpentine barrens, and in serpentine grassland and chaparral. Elevation 100 to 1,200 feet.	Low ; suitable serpentine grassland habitat not present in project area
Kellogg's horkelia <i>Horkelia cuneata</i> var. <i>sericea</i>	CRPR 1B.1	Perennial herb	Apr – Sep	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral; on old dunes and sandhills in openings. Elevation 15 to 700 feet.	Low ; distribution is generally more coastal than project area; nearest record is Devil's Slide, Montara Mountain.

TABLE BIO-1.1 (CONTINUED)
SPECIAL STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name <i>Scientific Name</i>	Listing Status	Life Form	Flowering Period	Habitat Conditions	Potential to Occur
Point Reyes horkelia <i>Horkelia marinensis</i>	CRPR 1B.2	Perennial herb	May -- Sep	Coastal dunes, coastal prairie, coastal scrub; sandy flats and dunes near coast; in grassland or scrub plant communities. Elevation 6 to 2,600 feet.	Moderate ; most records are in Marin County but range is from Santa Cruz County to Marin; nearest records are Junipero Serra Park in San Bruno and San Andreas Reservoir valley.
Crystal Springs lessingia <i>Lessingia arachnoidea</i>	CRPR 1B.2	Annual herb	Jul – Oct	Coastal sage scrub, valley and foothill grassland, cismontane woodland. Grassy slopes on serpentine; sometimes on roadsides. Elevation 200 to 655 feet.	Low to moderate ; suitable serpentine grassland habitat very limited in project area.
Arcuate bush mallow <i>Malacothamnus arcuatus</i> (or <i>M. fasciculatus</i>)	CRPR 1B.2	Shrub (evergreen)	Apr – Sept	Chaparral or coastal scrub on gravelly alluvium. Most often in disturbed areas. May be fire dependent for germination. Elevation 260 to 1,165 feet.	Moderate to high ; suitable chaparral habitat present. Known from several small colonies at edge of Crystal Springs Reservoir and San Andreas Lake.
Davidson's bush mallow <i>Malacothamnus davidsonii</i>	CRPR 1B.2	Shrub (deciduous)	June-Jan	Chaparral, cismontane woodland, coastal scrub, riparian woodland; in sandy washes. Elevation 600 to 2,800 feet.	Low ; Reported from Kern, Los Angeles, Santa Barbara, San Luis Obispo and Monterey Counties; CNPS record from San Mateo County may be in error.
Marsh microseris <i>Microseris paludosa</i>	CRPR 1B.2	Perennial herb	Apr – Jun	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland; moist grassland, open woodland. Elevation 15 to 1,000 feet.	Low ; Species found primarily in moist sites. Most localities are near the immediate coast.
Woodland woollythreads <i>Monolopia gracilens</i>	CRPR 1B.2	Annual herb	Mar – Jul	Chaparral, valley and foothill grassland, cismontane woodland, broadleaved upland forest, North Coast coniferous forest; grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns. Elevation 330 to 4,000 feet.	Moderate to high ; Suitable habitat present and species is known from several small sites within the watershed.
Dudley's lousewort <i>Pedicularis dudleyi</i>	CR CRPR 1B.2	Perennial herb	Apr – Jun	Chaparral (maritime) cismontane woodland, north coast coniferous forest, and valley and foothill grassland. In deep shady woods of older coast redwood forests. Elevation 200 to 2,950 feet.	Low ; deep shady forest present in project area but species not observed during 2015-6 NES field surveys of SSB RTE.
White-rayed pentachaeta <i>Pentachaeta bellidiiflora</i>	FE CE CRPR 1B.1	Annual herb	Mar – May	Valley and foothill grassland. Open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock. Elevation 115 to 2,035 feet.	Low ; historical records from Pulgas Ridge, but no recent records in vicinity and not observed in field surveys.
White-flowered rein orchid <i>Piperia candida</i>	CRPR 1B.2	Perennial herb	May-Sep	North Coast coniferous forest, lower montane coniferous forest, broadleaved upland forest; sometimes on serpentine. Forest duff, mossy banks, rock outcrops and muskeg. Elevation 150 to 5,400 feet.	Moderate ; Two nearby records are from Los Trancos Preserve and Portola State Park in redwood forest.

TABLE BIO-1.1 (CONTINUED)
SPECIAL STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name Scientific Name	Listing Status	Life Form	Flowering Period	Habitat Conditions	Potential to Occur
Choris' popcornflower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	CRPR 1B.2	Annual herb	Mar – Jun	Chaparral, coastal scrub and coastal prairie; mesic sites. Elevation 50 to 330 feet.	Moderate ; suitable moist habitat may be present on Fifield Ridge.
Oregon polemonium <i>Polemonium carneum</i>	CRPR 2B.2	Perennial herb	Apr – Sep	Coastal prairie, coastal scrub, lower montane coniferous forest. Elevation 0 to 6,100 feet.	Low ; only one record from Pilarcitos area in CNDDB; suitable habitat present but species has not been seen in area for over 100 years.
Hickman's cinquefoil <i>Potentilla hickmanii</i>	FE CE CRPR 1B.1	Perennial herb	Apr – Aug	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, marshes and swamps. Freshwater marshes, seeps, and small streams in open or forested areas along the coast. Elevation 15 to 405 feet.	Low ; known range is coastal, and project area is apparently out of species range.
San Francisco campion <i>Silene verecunda</i> ssp. <i>verecunda</i>	CRPR 1B.2	Perennial herb (bulbiferous)	Mar – Aug	Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, and coastal prairie. Often on mudstone or shale; rarely on serpentine. Elevation 100 to 2,115 feet.	Low ; suitable habitat may be present in project area, but species not observed during field surveys.
San Francisco owl's clover <i>Triphysaria floribunda</i>	CRPR 1B.2	Annual herb	Apr – Jun	Coastal prairie, coastal scrub, valley and foothill grassland. On serpentine and non-serpentine substrate. Elevation 35 to 525 feet.	Low ; nearest records from near San Andreas Lake; suitable habitat limited in project area.
Coastal triquetrella <i>Triquetrella californica</i>	CRPR 1B.2	Moss	n/a	Coastal bluff scrub, coastal scrub; grows near the coast in open gravels on roadsides, hillsides, rocky slopes and fields. On gravel or thin soil over outcrops. Elevation 30 to 330 feet.	Moderate to high ; collection records reported from Sweeney Ridge and San Bruno Mountain.

NOTES:

^a Phenology is the study of periodic occurrences in nature, such as the migration of birds and the ripening of fruit, and their relation to climate.

CODES

FE: Federally listed as Endangered
CE: State of California listed as Endangered
CR: State of California listed as Rare
CRPR = California Rare Plant Ranking
1A: Presumed extinct in California
1B: Rare, Threatened, or Endangered in California and elsewhere
2: Rare, Threatened, or Endangered in California, but more common elsewhere

FT: Federally listed as Threatened
CT: State of California listed as Threatened
CNPS = California Native Plant Society

POTENTIAL TO OCCUR

Low = Habitat not present in the project area and/or few occurrences in the region.
Moderate = Marginal habitat present in the project area and/or some occurrences in the region.
High = Good habitat present in the project area and/or nearby occurrences.
Present = Species is known to occur in the project area based on CNDDB occurrences or recent field surveys.

SOURCES: CNDDB, 2017; CNPS, 2017; U.S. FWS, 2017; AECOM, 2017; SFPUC Rare Plants GIS, 2017; Consortium of California Herbaria San Mateo County search, 2017.

TABLE BIO-1.2
SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name Scientific Name	Status	Habitat	Potential to Occur
INVERTEBRATES			
Opler's longhorn moth <i>Adela oplerella</i>	SA	Valley and foothill grassland, usually on serpentine substrate. Larvae feed on cream cups (<i>Platystemon californicus</i>).	Low ; limited habitat.
Edgewood blind harvestman <i>Calicina (=Sitalcina) minor</i>	SA	Open grassland in serpentine environments. Found beneath serpentine rocks in grassland near permanent springs.	Low ; limited serpentine grassland and spring habitat. Nearby records are at Edgewood Park and grasslands near Crystal Springs Dam.
San Bruno elfin butterfly <i>Callophrys mossii bayensis</i>	FE	Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is <i>Sedum spathulifolium</i> .	Present ; known locality of <i>Sedum spathulifolium</i> and butterfly species is present along Fifield Ridge portion of project area.
Monarch butterfly <i>Danaus plexippus</i>	SA	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Low ; potential winter roost trees are present in the project area, but no winter roosts have been reported. Nearby records are more coastal than project area.
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Castilleja densiflora</i> and <i>C. exserta</i> are the secondary host plants.	Low ; <i>Plantago erecta</i> and <i>Castilleja</i> plants present in grasslands on Fifield Ridge, but the extent of habitat is too small to support a stable population. However, a recorded occurrence, presumed extant, from the 1990s approximately 2.4 miles east of the study area where critical habitat for the species has also been designated. A recorded occurrence approximately 1.2 miles west of the project area from the 1970s is extirpated.
Ricksecker's water scavenger beetle <i>Hydrochara rickseckeri</i>	SA	Habitat is unknown, but assumed to be similar to other species in this genus, including vernal pools, lakes, ponds, marshes and quiet streams. Range includes Alameda, Marin, San Mateo, and Sonoma Counties.	Not expected ; One collection from the vicinity of the Pulgas Water Temple in 1954 (presumed extant). Aquatic habitat very limited in the project area.
San Francisco forktail damselfly <i>Ischnura gemina</i>	SA	Endemic to the San Francisco Bay area. Small, marshy ponds and ditches with emergent and floating aquatic vegetation.	Not expected ; Suitable marshy habitat generally absent from the project area and environs. No documented records within 3 miles of the project area.
Bumblebee scarab beetle <i>Lichmanthe ursina</i>	SA	Inhabits coastal sand dunes from Sonoma County south to San Mateo County. Usually flies close to sand surface near the crest of the dunes.	Not expected ; Suitable sand dune habitat is not present. No documented records within 3 miles of the project area.
Edgewood Park micro-blind harvestman <i>Microcina edgewoodensis</i>	SA	Open grassland in areas dry areas; found beneath serpentine rocks in grassland adjacent to scrub oaks.	Low ; Although there is grassland on serpentine on Fifield Ridge, it is not very rocky and is not associated with scrub oaks. Only one occurrence (CNDDDB Occ. 1) at Edgewood Park in the region of the project.

TABLE BIO-1.2 (CONTINUED)
SPECIAL STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name Scientific Name	Status	Habitat	Potential to Occur
INVERTEBRATES (cont.)			
Mission blue butterfly <i>Plebejus =Icaricia, Aricia icarioides missionensis</i>	FE	Inhabits coastal scrub in scattered localities in San Francisco, San Mateo and Marin Counties. Three larval host plants: <i>Lupinus albifrons</i> var. <i>collinus</i> , <i>L. variicolor</i> , and <i>L. formosus</i> , of which <i>L. albifrons</i> is favored.	Present ; Colonies of host plants, larvae and adult butterflies observed at several areas in the northern portion of the Watershed, including within the service road on Fifield Ridge.
Callippe silverspot butterfly <i>Speyeria callippe</i>	FE	Restricted to northern coastal scrub and nearby grasslands of peninsulas and Mateo and Alameda Counties; host plant is <i>Viola pedunculata</i> . Most adults found on east-facing slopes; males congregate on hilltops in search of females.	Low ; Northern coastal scrub and grassland habitat containing host plant is present in low quantities in the project area, mainly on Fifield Ridge.
Myrtle's silverspot butterfly <i>Speyeria zerene myrtleae</i>	FE	Northern coastal scrub and coastal prairie; extirpated from San Mateo County. Larval foodplant thought to be <i>Viola adunca</i> .	Low ; Subspecies is believed extirpated from San Mateo County.
FISH			
Steelhead (Central California Coast DPS) <i>Oncorhynchus mykiss</i>	FT	Coldwater streams tributary to the ocean.	Absent ; Occurs in San Mateo Creek downstream from Lower Crystal Springs Dam and in Pilarcitos Creek, but suitable permanent aquatic habitat not present in project area.
AMPHIBIANS			
California tiger salamander <i>Ambystoma californiense</i>	FT, CT	Restricted to the grasslands and lowest foothill regions of central and northern California. Breeding habitats are vernal pools or other seasonal wetlands. During the dry season, tiger salamanders travel up to 1.6 kilometers to find small mammal burrows, which they use as aestivation habitat.	Low ; None have been detected during aquatic surveys on the Watershed. The project area is a few miles north of the nearest known historical populations in San Mateo County.
Santa Cruz black salamander <i>Aneides niger</i>	CSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz and Santa Clara counties; adults found under rocks, talus and damp woody debris.	Moderate ; Nearest known record is about 2 miles southeast of project area and suitable habitat is present in project area.
California giant salamander <i>Dicamptodon ensatus</i>	CSC	Aquatic, meadow and seep. North Coast coniferous forest, riparian forests; aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Present ; Recorded less than 1 mile from the Fifield-Cahill ridges portion of project area.
Foothill yellow-legged frog <i>Rana boylei</i>	CSC	Partly shaded, low-gradient 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.	Not expected ; Historically the species occurred in the watershed, but currently the only known record near the project is on Pescadero Creek near the coast. Low-gradient streams with rocky riffles not present in project area.

TABLE BIO-1.2 (CONTINUED)
SPECIAL STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name <i>Scientific Name</i>	Status	Habitat	Potential to Occur
AMPHIBIANS (cont.)			
California red-legged frog <i>Rana draytonii</i>	FT, CSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11–20 weeks of permanent water for larval development; must have access to aestivation habitat. Adults may move considerable distance between breeding and estivation habitat	Present; Observed less than 1 mile from the Fifield and Cahill ridges portion of project area.
Red-bellied newt <i>Taricha rivularis</i>	CSC	Broadleaved upland forest, North coast coniferous forest, redwood forest; lives in terrestrial habitats. Adults are active at the surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean rocky substrate.	Low; Although upland habitat attributes favorable for species, breeding habitat may be some distance away. Nearest known records (CNDDB Occs. 134, 135) are in Santa Clara County several miles to the southeast.
REPTILES			
Western pond turtle <i>Actinemys marmorata</i>	CSC	Found in ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat for egg-laying.	Moderate; Known from many records throughout the watershed; suitable habitat is present in aquatic habitat adjacent to the project area.
San Francisco garter snake <i>Thamnophis sirtalis tetrataenia</i>	FE, CE, FPS	Vicinity of freshwater marshes, ponds, and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least 1 foot. Upland areas near water also very important.	Present; Known to occur in the project area on the Fifield and Cahill ridges portion of the project and an incidental observation in the SSB RTE alignment area as well.
BIRDS			
Cooper's hawk <i>Accipiter cooperii</i>	WL	Appears in most wooded areas of the state. Requires dense stands of live oak, riparian deciduous or other forest habitats near water when nesting. Increasingly found breeding in residential neighborhoods. Preys on medium-sized birds and small mammals.	Present; Project area contains suitable nesting habitat and foraging resources; reported from several localities within the project area.
Tricolored blackbird <i>Agelaius tricolor</i>	CSC	(Nesting colony) Highly colonial species, most numerous in Central Valley and vicinity; largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Not expected; Nearest records are more than 10 miles to the southeast in Santa Clara County. Suitable habitat not present in project area.
Grasshopper sparrow <i>Ammodramus savannarum</i>	CSC	Breeds in portions of western California, including most coastal counties south to northwest Baja, the western Sacramento Valley, and along the western edge of the Sierra Nevada. Breeds in moderately open grasslands with patchy shrubs. Favors native grasslands; however, in California presence of native grasses is less important than absence of trees.	Low; Marginal habitat present in localized areas of patchy scrub but likely not enough open grassland for this species.

TABLE BIO-1.2 (CONTINUED)
SPECIAL STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name Scientific Name	Status	Habitat	Potential to Occur
BIRDS (cont.)			
Golden eagle <i>Aquila chrysaetos</i>	CFP	Breeds in a variety of open and semi-open habitats. Nest in cliff sites, but, in the central Coast Range of California, more commonly in large trees including ponderosa pine, oaks, California laurel, eucalyptus, California sycamore, Douglas fir, Fremont cotton wood and white spruce. Feeds primarily on mammals, especially California ground squirrel and black-tailed jackrabbit in California.	Low; Project area includes marginal nesting habitat in Douglas fir and other large trees; however, it may not be open enough or near enough to hunting grounds to support nesting golden eagles.
Bell's sage sparrow <i>Artemisiospiza (=Amphispiza) belli belli</i>	WL	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub. Nests located on the ground beneath a shrub or in a shrub 6 to 18 inches above ground. Territories about 50 yards apart.	Low; Suitable nesting and foraging habitat present in the project area; however, there are no documented occurrences within the 11-quadrant search surrounding the project area.
Short-eared owl <i>Asio flammeus</i>	CSC	Forages in swamp lands, both fresh and salt, lowland meadows, and irrigated alfalfa fields. Tule patches and tall grass needed for nesting and daytime roost. Nests on dry ground in depressions concealed in tall vegetation.	Low; All records for San Mateo County are coastal or bay shore wetlands and marshes.
Long-eared owl <i>Asio otus</i>	CSC	Riparian bottomlands, grown to tall willows and cottonwoods, belts of live oaks paralleling stream courses; requires adjacent open and land productive of mice and the presence of old nests of crows, hawks and magpies for breeding.	Low; suitable habitat limited in project area and probably does not include sufficient open habitat for this species; nearest record is in Monte Bello Open Space Preserve, Stevens Creek watershed.
Burrowing owl <i>Athene cucularia</i>	CSC	Found in a wide variety of arid and semi-arid environments. Nesting habitat consists of open areas with mammal burrows, ranging from native prairie to urban habitats. Burrows need to be located in well-drained, level to gently sloping areas characterized by sparse vegetation and bare ground.	Low; Small mammal burrows are present in the project vicinity, but only marginal habitat is present in the project area. Nearest record is Coyote Point, San Mateo.
Marbled murrelet <i>Brachyramphus marmoratus</i>	FT, CE	(Nesting) Feeds near shore on fish; nests along coast in California, from Half Moon Bay to Santa Cruz and from Eureka to the Oregon border. Nests high in old-growth redwood-dominated forests, to over 50 miles inland, often in Douglas firs. Requires large diameter (>30 cm) limbs or naturally-occurring platforms with collection of pine needles, moss, or duff to serve as nest.	High; The project area crosses U.S. Fish and Wildlife Service-designated critical habitat; core nesting habitat is located approximately 0.4 miles from the Fifield-Cahill ridge trail along Pilarcitos Creek near Stone Dam Reservoir and potential nesting habitat overlaps the trail.
Ferruginous hawk <i>Buteo regalis</i>	WL	(Wintering) Open terrain from grasslands to desert, including grasslands and arid areas of California with abundant small mammals.	Not expected; Suitable foraging habitat not present in the project vicinity; does not breed in California.

TABLE BIO-1.2 (CONTINUED)
SPECIAL STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name Scientific Name	Status	Habitat	Potential to Occur
BIRDS (cont.)			
Vaux's swift <i>Chaetura vauxi</i>	CSC	(Nesting) Natural cavities with vertical entranceways, such as hollow trees. (Foraging) Open sky over woodlands, lakes, and rivers where flying insects are abundant. Nesting habitat is forest, either coniferous or mixed, but primarily old growth with snags for nesting and roosting.	Present; Observed in Watershed; suitable nesting and foraging habitat present on both Fifield-Cahill ridge trail and SSB RTE portions of project area; species observed at Sweeney Ridge, Skylawn Memorial Park, near Skyline Quarry.
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT, CSC	(Nesting) Federal listing applies only to the Pacific coastal population. Sandy beaches, salt pond levees, and shores of large alkali lakes, needs sandy gravelly, or friable soils for nesting.	Not expected; Although there are known populations in the region, suitable habitat does not exist in the project area.
Northern harrier <i>Circus cyaneus</i>	CSC	(Nesting) Coastal scrub, valley and foothill grassland, riparian scrub, wetlands and other habitats. Nests on ground in shrubby vegetation, usually at marsh edge; forages in grasslands for small mammals by flying low over the landscape, using hearing as well as sight to hunt.	Moderate; Known to occur in the Watershed. Foraging habitat is marginal along the southern skyline ridge trail. Suitable foraging habitat is present south of the proposed universal access loop trail on the Fifield-Cahill Ridge Trail. No suitable nesting habitat in the project area. Nearest records are from Bair Island, Union City in salt marsh.
Olive-sided flycatcher <i>Contopus cooperi</i>	CSC	Breeds in montane coniferous forests, at forest edges and openings, such as meadows and ponds. Winters at forest edges and clearings where tall trees or snags are present.	High; Known to occur in the Watershed, observed at Skylawn Memorial Park and at Purisima Creek Redwoods Preserve along S.R. 35. Suitable nesting habitat is present in Douglas firs and other conifers.
Black swift <i>Cypseloides niger</i>	CSC	(Nesting) Coastal belt from Santa Cruz County south to San Luis Obispo County, central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above surf; forages widely.	Not expected; Possible foraging area in project vicinity; however, no suitable nesting habitat in the area. Nearby records in San Mateo and Santa Cruz counties are generally along the coast.
White-tailed kite <i>Elanus leucurus</i>	CFP	Breeds in California's Central Valley, along entire length of coast and in Imperial Valley. Nests in wide variety of trees 3 – 50 m tall on habitat edges. Forages for small mammals in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands by kiting.	Moderate; Known to occur in the Watershed. Foraging habitat is marginal along the Southern Skyline Boulevard Ridge Trail. Suitable foraging habitat is present south of the proposed universal access loop trail on the Fifield-Cahill ridge trail. Potential nesting trees present along Fifield and Cahill ridges portion of project area.
Little willow flycatcher <i>Empidonax traillii brewsteri</i>	CE	Mountain meadows and riparian habitats in the Sierra Nevada and Cascades. Prefers moist shrubby areas that often include standing or running water. Habitat includes thickets of willows, along streams in broad valleys, in canyon bottoms, around mountain seepages, or at the margins of ponds and lakes.	Not expected; Project area is outside the reported range of this species.

TABLE BIO-1.2 (CONTINUED)
SPECIAL STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name Scientific Name	Status	Habitat	Potential to Occur
BIRDS (cont.)			
Merlin <i>Falco columbarius</i>	CSC	A winter migrant in California. This species winters in a variety of habitats from the coast to grasslands, savannahs, woodlands, and open forests in the mountains, but it prefers open habitats near water.	High; Known to winter in Watershed; does not nest/breed in California.
American peregrine falcon <i>Falco peregrinus anatum</i>	FD, CD, CFP	(Nesting) Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	High; Nesting pair documented in recent years less than one mile from project area; suitable foraging resources are present in the project area.
San Francisco common yellowthroat <i>Geothlypis trichas sinuosa</i>	CSC	Resident of the San Francisco Bay region, in freshwater and saltwater marshes. Requires thick, continuous cover down to water surface for foraging, tall grasses, tule patches, willows for nesting.	Low; Although present at many locations along Crystal Springs and San Andreas Reservoirs, species is unlikely to forage in the project area.
Bald eagle <i>Haliaeetus leucocephalus</i>	FD, CE, CFP	(Nesting and wintering) Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Roosts communally in winter. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine.	Moderate (nesting); Nests in the Watershed less than 1.5 miles from Fifield and Cahill ridges portion of project area. Nesting habitat is present in the project area, but is probably too far from water to be preferred.
Harlequin duck <i>Histrionicus</i>	CSC	(Nesting) Breeds on west slope of the Sierra Nevada, nesting along shores of swift, shallow rivers. Nest often built in recess, sheltered overhead by stream bank, rocks, woody debris, usually within 7 feet of water.	Not expected; No suitable habitat in the vicinity of the project area.
Loggerhead shrike <i>Lanius ludovicianus</i>	CSC	(Nesting) Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting	Not expected; Project area is outside of known range for species.
Alameda song sparrow <i>Melospiza melodia pusillula</i>	CSC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits <i>Salicornia</i> marshes; nests low in <i>Grindelia</i> bushes (high enough to escape high tides) and in <i>Salicornia</i> .	Not expected; The project area does not provide suitable habitat for the species.
Osprey <i>Pandion haliaetus</i>	CSC	Occurs in ponderosa pine and mixed conifer habitats along seacoasts, lakes, and rivers. Foraging areas require large snags and open trees near large, clear, open waters.	Low; Project is somewhat out of known range of species; suitable habitat is along Crystal Springs Reservoir edge, somewhat distant from project area.
Bryant's savannah sparrow <i>Passerculus sandwichensis alaudinus</i>	CSC	Year-round range extends from Monterey Bay to Del Norte County within about 10 miles from the coast, although sometimes farther. Most abundant near coastal marshes, also found in moist fields, bottomlands, pastures.	Not expected; Although within the known range of the species, suitable habitat is not present in the project area.

TABLE BIO-1.2 (CONTINUED)
SPECIAL STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name <i>Scientific Name</i>	Status	Habitat	Potential to Occur
BIRDS (cont.)			
Double-crested cormorant <i>Phalacrocorax auritus</i>	CSC	(Rookery site) Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Not expected; Suitable nesting and foraging habitat absent from project area and environs.
Purple martin <i>Progne subis</i>	CSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests mostly in old woodpecker cavities, but also human-made structures. Nest is often located in a tall, isolated tree or snag.	Present; Reported from Fifield/Cahill Ridge Road, Sawyer Ridge Road, Skylawn Memorial Park, and along SSB RTE route. Reported as nesting on Sweeney Ridge.
Bank swallow <i>Riparia riparia</i>	CT	(Nesting) Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected; Project area does not provide suitable nesting or foraging habitat.
Yellow warbler <i>Setophaga (=Dendroica) petechia</i>	CSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants such as cottonwoods, sycamores, ash and alders.	Not expected; Project area does not provide suitable nesting or foraging habitat and is outside of species' known range.
California least tern <i>Sterna antillarum browni</i>	FE, CE	(Nesting colony) Nests along the coast from San Francisco Bay south to northern Baja California.	Not expected; Project area does not provide suitable salt flats and alkali flats nesting and foraging habitat.
MAMMALS			
Pallid bat <i>Antrozous pallidus</i>	CSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting; chaparral, coastal scrub, valley and foothill grassland, and many other habitats; roosts must protect bats from high temperatures; very sensitive to disturbance of roosting sites	Low; several records (CNDDB Occs. 249, 292, 294, 295, 297) surround the project area but are mostly fairly old. Sensitivity to disturbance may have extirpated species from developed areas.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	CSC	Humid coastal regions of northern and central California. Roosts in limestone caves, lava tubes, mines, buildings, etc. Will only roost in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to disturbance.	Moderate; Anthropogenic structures may serve as roosting habitat. Abundant foraging habitat is present in the project area.
Santa Cruz kangaroo rat <i>Dipodomys venustus</i>	CSC	Silverleaf manzanita mixed chaparral in the Zayante Sand Hills ecosystem of the Santa Cruz Mountains. Needs soft, well-drained sand.	Low; Chaparral habitat in the project area is poor/marginal. Despite description of very specific habitat in Santa Cruz County, three records (CNDDB Occs. 2, 10, 11) are from Redwood City, Palo Alto and Jasper Ridge are reported but have not been re-located in many decades.

TABLE BIO-1.2 (CONTINUED)
SPECIAL STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Common Name Scientific Name	Status	Habitat	Potential to Occur
MAMMALS (cont.)			
Western mastiff bat <i>Eumops perotis californicus</i>	CSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Not expected; Although abundant foraging habitat may be present, project area is far from known range of species.
Hoary bat <i>Lasiurus cinereus</i>	SA	Broadleafed upland forest, cismontane woodland, lower montane coniferous forest, North Coast coniferous forest; roosts in dense foliage of medium to large trees. Feeds primarily on moths; required open water. Prefers open habitats and habitat mosaics with access to trees for cover and open areas or habitat edges for feeding.	High; many records of species both north and south of project area; suitable habitat present in wooded portions of Fifield-Cahill ridge trail and SSB RTE alignment areas.
Fringed myotis <i>Myotis thysanodes</i>	SA	Occupies a wide variety of habitats, including valley foothill hardwood and hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.	High; Recorded between Crystal Springs Reservoir and S.R. 35; suitable hardwood-conifer forest is extensive in project area, especially S.R. 35 portion.
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	CSC	Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded grass, leaves, and other material. May be limited by availability of nest-building materials.	High; Woodrat nests observed throughout wooded and scrub habitats in Watershed; suitable habitat is extensive in most parts of project area.
Big free-tailed bat <i>Nyctinomops macrotis</i>	CSC	Low-lying arid areas in southern California. Needs high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Low; Suitable foraging habitat is present; project area located outside the normal range for this species, although CNDDDB Occ. 20 is reported from Pacifica.
American badger <i>Taxidea taxus</i>	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. Digs burrows.	Moderate; One known occurrence near the southern portion of the project area. Suitable open habitat is found elsewhere throughout the project area.

CODES

FC: Federal Candidate for listing	CT: State of California Threatened	CE: State of California Endangered
FE: Federally Endangered	CSC: California Species of Special Concern	SA: CDFG Special Animal; not considered special status for CEQA analysis
FT: Federally listed as Threatened	FPS: California Fully Protected Species	WL: Watch List
FD: Federal Delisted	CP: State of California Proposed for listing	

POTENTIAL TO OCCUR

Not expected = Habitat not present or outside of species' range.
Low = Limited habitat in the project area and/or few occurrences in the region.
Moderate = Marginal habitat present in the project area and/or some occurrences in the region.
High = Good habitat present in the project area and/or nearby occurrences.
Present = Species is known to occur in the project area based on CNDDDB occurrences or recent field surveys.

SOURCES: CNDDDB, 2017; U.S. Fish and Wildlife Service, 2017; Mayer & Laudenslayer, 1988; Zeiner et al., 1990a and 1990b.

Special Status Species

The following descriptions provide a detailed summary of selected special status plant and animal species and habitats with potential to occur.

Special Status Plant Species

Franciscan Onion (Allium peninsulare var. franciscanum)

Franciscan onion (*Allium peninsulare* var. *franciscanum*), a CRPR Rank 1B.2 species, is a bulbiferous perennial herb. It is known from cismontane woodland and chaparral as well as valley and foothill grassland habitats. Franciscan onion is often found on dry hillsides with rocky clay soils, sometimes in openings in chaparral or under light shade in oak woodland. It has been reported from decomposed shale, volcanic and serpentine substrates. This herb blooms from May to June and generally occurs from 330 to 985 feet in elevation. This species ranges from Sonoma and San Mateo, to Santa Clara County, with most records in San Mateo County. This species has been observed at a few locations along the edges of Fifield Ridge Road within one mile of the Portola Gate.¹ CNDDDB Occ. 9 is an approximate locality placed on Spring Valley ridge near the Fifield Ridge Road segment of the project area; Occ. 5 is near Crystal Springs Reservoir, where plants occur along Sawyer Camp Trail. A number of new records for this species have been reported recently from Edgewood Park, San Mateo Creek canyon, Redwood City and other nearby sites,² suggesting that additional populations may be present in suitable habitat in this region.

Bent-flowered Fiddleneck (Amsinckia lunaris)

Bent-flowered fiddleneck (*Amsinckia lunaris*) is an annual herb blooming from March to June, and growing at elevations from 165 to 1,640 feet. This CRPR Rank 1B.2 species is found in cismontane woodland and coastal bluff scrub as well as in valley and foothill grassland. Bent-flowered fiddleneck occurs from Santa Cruz and Alameda Counties north to Marin, Lake, and Colusa Counties, and possibly as far north as Shasta or Siskiyou County. Bent-flowered fiddleneck is known from shaded understory in San Mateo Creek canyon (CNDDDB Occ. 5), rocky outcrops on North Tank Hill on San Bruno Mountain (CNDDDB Occ. 6) and in grassland near Sawyer Camp Trail (CNDDDB Occ. 52), sometimes in small colonies. Records indicate bent-flowered fiddleneck approximately 0.6 miles from project area. The project area is thus well within the range of the species and suitable rocky scrub, grassland and woodland habitat is present along Fifield-Cahill Ridge Trail. Therefore, the potential to occur is considered moderate.

¹ SFPUC, Natural Resources Division, *Geographic Information System Database for Peninsula Watershed - Rare Plants*, 2017.

² San Francisco Planning Department, *Final Mitigated Negative Declaration, PG&E Gas Transmission Line 109 Canada Road, Bunker Hill, and Crystal Springs Pipeline Replacement Project*, San Mateo County, 2016. This document (and all other documents cited in this report, unless otherwise noted) is on file for public review at the Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 96.222E.

Montara manzanita (Arctostaphylos montaraensis)

Montara manzanita (*Arctostaphylos montaraensis*) is a CRPR 1B.2 ranked evergreen shrub that flowers from January through March. It occurs primarily in chaparral and coastal scrub habitats along slopes and ridgetops. It may be found at elevations ranging from 490 to 1,640 feet. Suitable habitat for this species is present on the southern skyline ridge trail alignment, where it has moderate potential to occur. CNDDDB records this species from Montara Mountain (CNDDDB Occ. 1,2 and 6) in maritime chaparral and San Bruno Mountain (CNDDDB Occ. 8) in rocky coastal scrub habitat.

Kings Mountain Manzanita (Arctostaphylos regismontana)

Kings Mountain manzanita (*Arctostaphylos regismontana*) is an evergreen shrub that grows to 12 feet in height and flowers from January through April. Its CRPR Rank is 1B.2. This species is reported from broadleaved upland forest, chaparral, and North Coast coniferous forest on granitic or sandstone outcrops. It is described as occurring on open brushy, rocky slopes, sometimes in association with Montara manzanita, brittleleaf manzanita (*A. crustacea*), huckleberry, yerba santa, poison-oak, toyon, and interior live oak. Kings Mountain manzanita is restricted almost entirely to San Mateo County, with a few localities in northern Santa Cruz County.

One individual was observed near S.R. 35 in the vicinity of the project area.³ Several CCH records are located quite near the southern portion of the project area, one reported as 2 miles north of the summit of Kings Mountain at S.R. 35 (POM212013), and two more at Kings Mountain (DS143254, UC1120840). The most northerly locations are on Peak Mountain, the middle summit of Montara Mountain (CNDDDB Occ. 15) and near Lake Pilarcitos (CNDDDB Occ. 23). Although the proposed project area is situated within the range of this species, the potentially suitable habitat is located mainly along the southern skyline ridge trail route, where it has moderate potential to occur; although, this area was surveyed in 2016 and the species was not found within the proposed project area.

San Francisco Collinsia (Collinsia multicolor)

San Francisco collinsia (*Collinsia multicolor*) is an annual herb that blooms from March through May and has a CRPR Rank of 1B.2. This species is found in closed-cone coniferous forest, oak and oak-bay woodland, and coastal scrub and is often found on open areas on north- and northwest-facing slopes, on decomposed shale (mudstone) or serpentine mixed with humus. It can be found at elevations ranging from 100 to 820 feet. This collinsia species occurs primarily from San Francisco County south to Monterey County and a disjunct location in San Luis Obispo County. Most CNDDDB-reported localities are in San Mateo County, and several are on Peninsula Watershed lands (CNDDDB Occs. 11, 14, 15) near Pilarcitos Lake, near San Andreas Reservoir, in San Mateo Creek canyon, and on the Half Moon Bay Road (CCH, GH365612). Several new populations have been recently observed on Watershed lands near Redwood City and San Mateo

³ Simono, Scott, *The Proposed Southern Skyline Boulevard Bay Area Ridge Trail Extension and Skylawn Staging Area: Surveys for Special-Status Plants along the Proposed Trail Route on San Francisco Public Utilities Peninsula Watershed Lands*, memo to file dated July 21, 2015, 11 pages.

in open oak-buckeye woodland, sometimes on roadcuts.⁴ Extensive suitable habitat is present in portions of Fifield-Cahill Ridge Trail. Therefore, it has moderate to high potential to occur; although, it was not observed along the SSB RTE alignment in 2016.

Western Leatherwood (Dirca occidentalis)

Western leatherwood (*Dirca occidentalis*) is a deciduous shrub occurring in broadleaved upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland habitat types. This plant has a CRPR Rank of 1B.2, blooms from January to April and is often found on mesic sites and brushy slopes, mostly in mixed evergreen and foothill woodland communities from 100 to 1,805 feet in elevation. This shrub occurs from south of Sonoma County to San Mateo and Santa Clara Counties, with a number of localities in the Oakland Hills in Alameda and Contra Costa Counties. The PWMP FEIR reported a single individual next to the Fifield Ridge Trail in 1998.⁵ It is occasional as isolated shrubs in the coyote brush scrub and coastal scrub throughout Fifield Ridge, on Cahill Ridge and infrequently along Old Cañada Road south of Highway 92. It becomes somewhat decadent in the absence of fire and is overtopped by oaks and conifers.

San Mateo Woolly Sunflower (Eriophyllum latilobum)

San Mateo woolly sunflower (*Eriophyllum latilobum*) is federally and state listed as endangered and is a CRPR Rank 1B.1 species. No critical habitat has been designated or proposed for San Mateo woolly sunflower. This perennial herb blooms from May to June and commonly occurs in oak woodland and possibly Douglas-fir and oak-bay woodland. Often located on roadcuts on and off serpentine outcroppings at elevations from 150 to 490 feet, this species is restricted to San Mateo County. CNDDDB reports five occurrences of the species, three of them on the Peninsula Watershed (Occs. 1, 4, 5), near Pilarcitos Dam, along Sawyer Ridge Road, and San Mateo Creek canyon. Additional locations are farther south in San Mateo County. New populations have been found recently in the upper San Mateo Creek drainage, and habitat resembling known populations is present along the Fifield-Cahill Ridge Trail. Although not expected, there is moderate potential that additional populations are present in and near the proposed project area.

Point Reyes Horkelia (Horkelia marinensis)

Point Reyes horkelia (*Horkelia marinensis*), a CRPR Rank 1B.2 species, is a perennial herb blooming from May to September within habitats of coastal dunes, coastal prairie and coastal scrub. This species has an elevation range of 6 to 2,600 feet and is often found on sandy flats and dunes. The species ranges from Mendocino to Santa Cruz County. Although reported as occurring near the coast, the two CNDDDB records from the query area are from Junipero Serra Park in San Bruno and

⁴ San Francisco Planning Department, *Final Mitigated Negative Declaration, PG&E Gas Transmission Line 109 Canada Road, Bunker Hill, and Crystal Springs Pipeline Replacement Project*, San Mateo County, 2016.

⁵ San Francisco Planning Department, *Peninsula Watershed Management Plan Final Environmental Impact Report*, Section V, Natural Resources (p. V-18), File No. 96.22E; State Clearinghouse No. 98082030, certified January 11, 2001, www.sfwater.org/Modules/ShowDocument.aspx?documentID=4343, accessed May 18, 2018.

from the hills behind Colma (Occs. 26 and 33). In addition, Oberlander⁶ reported a population in a clearing in San Andreas Valley, just to the east of Fifield Ridge (CCH, DS370678). Thus, the potential for this species to occur near the proposed project area is moderate.

Crystal Springs Lessingia (Lessingia arachnoidea)

Crystal Springs lessingia (*Lessingia arachnoidea*), a CRPR Rank 1B.2 species, is an annual herb blooming from July to October within habitats of coastal sage scrub, valley and foothill grassland, and cismontane woodland. This species has an elevation range of 200 to 655 feet and is often associated with grassy slopes on serpentine, and occasionally along roadsides. Nearly all CNDDDB records are from San Mateo County with a few outliers in Sonoma and Santa Clara Counties; and of the known localities, most are on Peninsula Watershed lands, including Buri Buri Ridge, Pulgas Ridge, the serpentine grasslands and openings along Upper and Lower Crystal Springs Reservoirs, and San Mateo Creek canyon (CNDDDB Occs. 1, 2, 5, 6, 7, 10, 12). Although many records are fairly near the proposed project area, suitable serpentine grassland habitat is limited to small areas of Fifield Ridge, areas which have been surveyed frequently. The potential for this species occurring near the proposed project area is low to moderate.

Arcuate Bush Mallow (Malacothamnus arcuatus = M. fascicularis)

Arcuate bush mallow (*Malacothamnus arcuatus* [=*M. fasciculatus*]) is an evergreen shrub with a CRPR Rank of 1B.2. The species blooms from April to September, generally occurring in chaparral communities and primarily on gravelly alluvium at elevations from 260 to 1,165 feet. Plant associates include coyote bush, California sage, chamise (*Adenostoma fascicularis*), pitcher sage (*Lepechinia calycina*), and deerbrush (*Acmispon glaber* [=*Lotus scoparius*]).⁷ It grows most abundantly in open ground after fire or mechanical disturbance. This species occurs primarily in San Mateo and Santa Clara Counties with a few records in Santa Cruz County. Several records are within the Peninsula Watershed and near the proposed project area: CNDDDB Occurrence 20 is northwest of San Andreas Reservoir; Occurrence 22 is at the southern end of Sawyer Ridge; Occurrence 32 is a historic, general location in Spring Valley; and two new records are near Edgewood Road and Canada Road.⁸ CNDDDB Occurrence 30 is near Peninsula Watershed land in San Mateo Creek canyon. Although large populations of plants may be found in areas of disturbance such as fire, plants are often found as small colonies or isolated individuals on roadcuts, openings, landslides or other smaller disturbances. Because the project area is surrounded by colonies of this species and suitable habitat is present in all portions of the project area, this species has moderate to high potential to occur.

Woodland Woollythreads (Monolopia gracilens)

Woodland woollythreads (*Monolopia gracilens*) is an annual herb in the sunflower family with a CRPR Rank of 1B.2. This species is found in chaparral, valley and foothill grassland, oak woodland,

⁶ Oberlander, G.T., *The Taxonomy and Ecology of the Flora of the San Francisco Watershed Reserve*, Doctoral dissertation, Stanford University, 1953.

⁷ San Francisco Planning Department, *Final Mitigated Negative Declaration, PG&E Gas Transmission Line 109 Canada Road, Bunker Hill, and Crystal Springs Pipeline Replacement Project*, San Mateo County, 2016.

⁸ Ibid.

broadleaved upland forest and North Coast coniferous forest. It is typically found in grassy sites and openings on sandy to rocky soils. It is sometimes found on serpentine, and may be found in abundance after burns. Plant associates mentioned in CNDDDB records include coyote brush, deerbrush, chamise, buckbrush (*Ceanothus cuneatus*), and coast redwood. Woodland woollythreads ranges from San Luis Obispo through San Mateo counties and Alameda and Contra Costa Counties, with a few outliers in the Central Valley. Most localities are in Santa Clara County. The species is known from several small sites within the watershed. Two CNDDDB localities are near the northern and southern ends of the proposed project area; Occurrence 40 is a general location near Pilarcitos Lake, and Occurrence 36 is a general location on Monte Bello Ridge on Black Mountain. Because the project area contains extensive areas of potentially suitable habitat, this species was considered to have moderate to high potential to occur in the project area.

White-flowered Rein Orchid (Piperia candida)

White-flowered rein orchid (*Piperia candida*) is a perennial herb that is listed by CNPS as CRPR Rank 1B.2. This species flowers from May to September. Its habitat is North Coast coniferous forest, lower montane coniferous forest, and broadleaved upland forest in forest duff, mossy banks, rock outcrops, and muskeg (grassy bogs). Plant associates include coast redwood, tanoak, wax myrtle, huckleberry, Douglas-fir, trillium (*Trillium* sp.), star flower, and slink pods. This species is known from many localities along the moist coastal areas of Northern California, from Del Norte and Humboldt Counties southward to Santa Cruz County. Only a few populations are reported from San Mateo County, and only two from the region of the project: CNDDDB Occ. 3 is in Los Trancos Open Space Preserve at the San Mateo-Santa Clara County line, and CNDDDB Occ. 4 is in Portola State Park. Habitat descriptions suggest fairly moist redwood forest habitat for this species, so the redwood forest habitat along the proposed SSB RTE alignment has low to moderate potential to support this species.

Choris' Popcornflower (Plagiobothrys chorisianus var. chorisianus)

Choris' popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*) is an annual herb in the waterleaf family and is listed as CRPR Rank 1B.2. This species flowers from March through June. Its habitat is chaparral, coastal scrub, coastal prairie, coastal bluff scrub and grassland in mesic sites and seasonal wetlands, sometimes surrounded by oak woodland. Plant associates are reported as sedge (*Carex* sp.), toad rush (*Juncus bufonius*), isoetes (*Isoetes nuttallii*), spikerush (*Eleocharis macrostachya*) and brass buttons (*Cotula* sp.). Nearby species included coyote brush, California blackberry, yerba buena (*Clinopodium douglasii*), and strawberry (*Fragaria vesca*). Choris' popcornflower ranges from Monterey County northward to Mendocino County, with most localities in San Mateo County. Several populations are relatively near the proposed project area: CNDDDB Occ. 7 is along Old Cañada Road opposite the Pulgas Water Temple, and the species was recently reported from the Adobe Gulch area nearby. CNDDDB Occs. 9 and 10 are from the northern and southern ends of Sweeney Ridge, respectively. Additional nearby records are from San Bruno Mountain (CNDDDB Occ. 39). Relatively small moist depressions can support colonies of this species, which has moderate to high potential to occur in many parts of the proposed project area.

Coastal Triquetrella (Triquetrella californica)

Coastal triquetrella (*Triquetrella californica*) is a moss in the family Pottiaceae. It has a CRPR Rank of 1B.2. This species is found in coastal bluff scrub and coastal scrub along the coast, in grasslands and in open, sparsely vegetated gravels and thin soils on roadsides, hillsides, rocky slopes and fields. This species is known from only 13 CNDDDB occurrences, from San Diego to Del Norte Counties, generally very close to the coast. CNDDDB reports two localities from San Francisco (Occs. 3 and 4), one from San Bruno Mountain (Occ. 12), and on Sweeney Ridge (Occ. 8) near the Bay Discovery Commemorative Site, a short distance west from the proposed project area. The latter site is described as the edge of a gravel service road surrounded by coyote brush shrubland with grassy open gravelly areas. This description describes much of the Fifield Ridge Road segment of the project area, so the potential for this species to occur within the project is high.

Special Status Wildlife Species

Federal and/or State Listed Species

San Bruno Elfin Butterfly

Status. The San Bruno elfin butterfly (*Callophrys mossii bayensis*) is federally-listed as endangered. It has no California protection status.

General Ecology and Distribution. This butterfly is found in coastal, mountainous areas with grassy ground cover and rock outcrops, usually surrounded by coastal scrub. Steep, north-facing slopes within the fog belt support its larval host plant, Pacific stonecrop (*Sedum spathulifolium*). CNDDDB has 10 occurrence records for this species; seven, including all recent, specific records, are from San Bruno Mountain and Montara Mountain. The largest population is an extended population on San Bruno Mountain (CNDDDB Occ. 4).

Project Area Occurrence. Records for San Bruno elfin butterfly near the project area include two CNDDDB records from near Pacifica (Occs. 3 and 13), on Whiting Ridge, about a mile from Fifield Ridge Road (Occ. 1), and two records farther west toward Montara (Occs. 14 and 21). CNDDDB Occurrence 22 is on Fifield Ridge immediately adjacent to Fifield Ridge Road. Monitoring of the San Bruno elfin butterfly reports that the number of individuals along this portion of the Ridge Trail have declined in recent years, but concludes that unfavorable weather conditions and not current levels of trail use are likely responsible for the decline.⁹

Mission Blue Butterfly

Status. The Mission blue butterfly (*Plebejus* (= *Icaricia*, *Arícia*) *icarioides*) is federally-listed as endangered. It has no California protection status.

General Ecology and Distribution. The Mission blue butterfly inhabits grasslands and scrub of the San Francisco peninsula. Its three larval host plants are lupines, *Lupinus albifrons* var. *collinus*,

⁹ Arnold, Richard A., 2016 *Monitoring Report for the Endangered San Bruno Elfin and Mission Blue Butterflies at the San Francisco Peninsula Watershed*, prepared for San Francisco Public Utilities Commission, December 2016.

L. variicolor, and *L. formosus*. Of these, silver bush lupine (*L. albifrons*) is favored. Important nectar plants are coast buckwheat (*Eriogonum latifolium*), hairy false goldenaster (*Heterotheca villosa* or *H. sessiliflora* ssp. *bolanderi*), blue dicks (*Dichelostemma capitatum* or *D. congestum*) and Ithuriel's spear (*Triteleia laxa*). Mission blue butterfly is mostly limited to the northern San Francisco peninsula, known from 14 occurrences; 13 in San Francisco and northern San Mateo Counties, plus a single locality at Fort Baker in Marin County. The southernmost CNDDDB occurrence is in the vicinity of San Andreas Dam (CNDDDB Occ. 11), although SFPUC has records of the species extending several miles farther south in the Peninsula Watershed.¹⁰ Most of the species' distribution, and six of the 14 CNDDDB occurrence records, are from San Bruno Mountain. Three more are from the vicinity of Pacifica, and three are from San Francisco. Because the host plants do not compete well with larger woody vegetation, colonies of Mission blue butterfly shift with the availability of host plants, which are often found in small openings in the grassland and scrub. Thus, specific localities occur within the general localities mapped by CNDDDB, and potentially elsewhere in suitable habitat.

Project Area Occurrence. Monitoring along the Fifield Ridge Road portion of the project area showed that Mission blue butterflies and their food plants were found in three locations in and near the service road, and 17 more locations supported the larval food plant, lupine.¹¹ Along Fifield Ridge Road, the observed numbers and colonies of Mission Blue butterflies have declined since 2011. No evidence of trampling or other damage to foodplants was observed, and the report concludes that weather conditions, particularly drought, are probably responsible for the decline rather than the current level of public usage.¹²

Callippe Silverspot Butterfly

Status. The Callippe silverspot butterfly (*Speyeria callippe callippe*) is federally-listed as an endangered species.

General Ecology and Distribution. This member of the brush-footed butterflies, Nymphalidae, is found in coastal scrub and grassland. Larvae eat only one species of plant, Johnny jump-up (*Viola pedunculata*). Adults nectar from several plant species. Adults exhibit "hilltopping" behavior in which adults seek a topographic summit, where they congregate, court, and mate. This species was listed as endangered in 1997. Historically, the Callippe silverspot butterfly was known from San Francisco and San Mateo Counties. It is believed extirpated from San Francisco County.¹³ Populations in Solano and Alameda County are believed to be intermediate populations with *S. c. comstocki*;¹⁴ the population in Solano County is believed to be extirpated and that in Alameda

¹⁰ Arnold, Richard A., 2003. *Monitoring Report for the Endangered San Bruno Elfin and Mission Blue Butterflies at the Bay Area Ridge Trail Project Site in the Crystal Springs Reservoir*, prepared for San Francisco Public Utilities Commission, September 2003.

¹¹ Ibid.

¹² Arnold, Richard A., 2016 *Monitoring Report for the Endangered San Bruno Elfin and Mission Blue Butterflies at the San Francisco Peninsula Watershed*, prepared for San Francisco Public Utilities Commission, December 2016.

¹³ Federal Register, 43(128): 28938-45, *Proposed Endangered or Threatened Status or Critical Habitat for 10 Butterflies and Moths*

¹⁴ Federal Register, 45(82):20503-20505, *Endangered and Threatened Wildlife and Plants; Reproposal of Critical Habitat for One Species of Butterfly [Callippe silverspot butterfly]*, March 28, 1980.

County is very small. The San Mateo County population consists of a larger meta-population on San Bruno Mountain (CNDDDB Occ. 3, 6, 7, 11, 12, 15).¹⁵

Project Area Occurrence. The northern portion of the project area is situated more than 5 miles from the San Bruno Mountain population across substantial urbanized habitat unfavorable for dispersal. Although the required foodplant for this species is found in the vicinity of the project area,¹⁶ suitable habitat is not extensive. Northern coastal scrub and grassland habitat containing host plant is present in low quantities in the project area, mainly on Fifield Ridge. Callippe silverspot has low potential to occur in the project area.

California Red-legged Frog

Status. The California red-legged frog (*Rana draytonii*) is federally-listed as a threatened species and is a California species of special concern.

General Ecology and Distribution. This rapid species is principally a pond frog that can be found in permanent or semi-permanent (seasonal or ephemeral) ponds, pools, streams, springs, marshes, sag ponds, and lakes. CRLF seek sunny locations in which to bask during the daytime. Moist woodlands, forest clearings, and grasslands also provide upland dispersal habitat for this species in the non-breeding season. Adult CRLF seek waters with shoreline vegetation for breeding and protection from predators, but may be found in unvegetated waters as well. Adults consume insects such as beetles, caterpillars and isopods, while tadpoles forage on algae and detritus. Adult CRLF are known to travel substantial distances from aquatic breeding habitat to upland refugia, and when moving from one aquatic habitat to another. In one study, the median upland movement distance was 500 feet, but CRLF were recorded as moving as far as 1.75 mile from aquatic habitat across upland habitats.¹⁷

Historically, CRLF occurred along the coast from the vicinity of Point Reyes National Seashore, Marin County, and inland from Redding, Shasta County southward to northwestern Baja California, Mexico.¹⁸ CNDDDB has 1,407 occurrence records for this species. The majority of CRLF occurrences in the San Francisco Bay Area are from Contra Costa and Alameda Counties; however, approximately 80 CNDDDB records for CRLF are on file in the 11-quadrant search area surrounding the project area, in San Francisco, San Mateo, and Santa Clara Counties.

Project Area Occurrence. Many records for CRLF have been reported from the Peninsula Watershed, in reservoirs and associated streams above and below these impoundments. CNDDDB Occurrence 1,274 is located immediately adjacent to the Fifield Ridge Road portion of the project area, and Occurrence 830 is located nearby. Monitoring and trapping have regularly resulted in

¹⁵ Ibid.

¹⁶ Oberlander, G.T., *The Taxonomy and Ecology of the Flora of the San Francisco Watershed Reserve*, Doctoral dissertation, Stanford University, 1953.

¹⁷ Fellers, Gary N. and Patrick M. Kleeman, California Red-legged Frog (*Rana draytonii*) Movement and Habitat Use: Implications for conservation, *J. Herpetology*, 41 (2): 271-281, 2007.

¹⁸ Jennings, M. R., and M. P. Hayes, 1994. *Amphibian and reptile species of special concern in California. Final Report to the California Department of Fish and Game*, Inland Fisheries Division, Rancho Cordova, CA, 1994, 225pp.

detection of CRLF at multiple locations in the watershed¹⁹ within 500 feet of the ridge trail,. Thus, the project is well within the distance from these aquatic habitats that CRLF is known to travel, and much of the project route can be assumed to comprise dispersal habitat for CRLF.

San Francisco Garter Snake

Status. The San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) is both federally- and California-listed as endangered. It is also a Fully Protected species under California Fish and Game Code.

General Ecology and Distribution. The San Francisco garter snake (SFGS) inhabits freshwater ponds and slow streams with emergent vegetation; nearby upland grasslands with small rodent burrows may also provide upland refugia for this species. Banks with emergent and bankside vegetation, such as cattails, bulrushes and spikerushes are preferred cover. Open upland habitat such as grassland is important for basking. SFGS feeds on CRLF, Sierran treefrogs, immature California newts (*Taricha torosa*), western toads, and a variety of small fishes. Like other garter snakes, this species is live-bearing. It is active during the warm months, but hibernates in winter and sometimes retreats to upland burrows during dry periods, migrating up to several hundred yards between aquatic habitat and burrow sites.²⁰ In addition to the aquatic habitat necessary for foraging, SFGS require sunny sites for basking; ideal sites are grasslands or meadows with scattered shrubs to provide cover. The geographic distribution of SFGS is limited to 66 localities in San Mateo County, and a single record in Santa Cruz County at Año Nuevo (CNDDDB Occ. 2).

Project Area Occurrence. Due to the sensitivity of SFGS to illegal collection, locality data on this species is “suppressed” by CNDDDB. However, it is known to have substantial populations at watershed reservoirs, and smaller wetland sites near the project area. Because it is known to utilize upland areas at some distance from aquatic habitat, SFGS is assumed to be present within the project area, especially where ponds and wetlands are nearby. The species has been documented at locations less than 500 feet from the project area. A trapping study conducted along the Fifield-Cahill ridge trail found 8 San Francisco garter snakes along the ridge.²¹

Marbled Murrelet

Status. The marbled murrelet (*Brachyramphus marmoratus*) is federally listed as threatened and California-listed as endangered.

General Ecology and Distribution. The marbled murrelet is a small, secretive member of the auk family (Alcidae). This seabird feeds on small fish in the Pacific Ocean and nests in old-growth forests, usually within six miles of the coast. Although first described in 1789, a nest site of the

¹⁹ CDM and Merritt Smith Consulting, *San Francisco Garter Snake and Red-legged Frog Survey Report and Marbled Murrelet Survey Report*, prepared for San Francisco Public Utilities Commission, Summer 2003, 9 pp.

²⁰ U.S. Fish and Wildlife Service, *Species Accounts, San Francisco garter snake*, https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/es_sf-garter-snake.htm, accessed July 10, 2017.

²¹ Yacelga, M., Stagnaro, B. and T. Lim, 2016 San Francisco Garter Snake Trapping Results (Cahill Ridge Road, Mud Dam 1, and Pilarcitos Reservoir), Letter report from BioMaAs, Inc. and AECOM to the San Francisco Public Utilities Commission, October 31, 2016.

species was first discovered and documented only in 1974.²² Marbled murrelets are highly vulnerable to land use changes, including loss of old-growth trees from logging, development, and habitat fragmentation. Declines in species' populations resulted in federal listing in 1992 and a recovery plan for the species was completed in 1997. Avian nest predation is a primary cause of mortality, and common ravens, crows, and Steller's jays are the primary predators.²³ These birds prey on murrelet eggs and chicks while the parents are foraging, or even attack the parents while they are on the nest, causing them to temporarily abandon the nest, at which point the eggs or chicks are eaten by the predator. Most occurrences of suitable habitat are in protected lands that often are parks. Studies have shown that apparently minor habitat alteration such as the presence of campsites and resulting litter attracts birds such as jays. Avian predation by human "subsidized" species, especially corvids, has been shown to be a critical contributor to the declining murrelet population documented throughout the species' range and within the central California population.²⁴

Marbled murrelets range from coastal Santa Cruz County northward through Canada and Alaska, including the Aleutian Islands. The central California population breeds in old growth forest reserves from Half Moon Bay south to Santa Cruz. These murrelets are thought to be genetically distinct from northern California murrelets.²⁵ CNDDDB maintains 12 records for this species in the 11-quad vicinity of the project area, mostly in more extensive redwood and old-growth Douglas-fir forests in Portola Redwoods State Park, Big Basin, Pescadero Creek County Park, near La Honda, and Purisima Creek Open Space.

Project Area Occurrence. The project area crosses U.S. Fish and Wildlife Service-designated critical habitat for this species. One record is reported from the Peninsula Watershed: CNDDDB Occurrence 41 near Stone Dam and Pilarcitos Reservoir. Critical Habitat unit CA-12 comprising 978 acres in the Pilarcitos Creek watershed was designated in 2011.²⁶ This critical habitat touches the Cahill Ridge Road portion of the project area and closely parallels Cahill Ridge for about three miles (see Figure 4.8-6). Protocol-level surveys for marbled murrelets has been conducted annually during the breeding season from 2005 through 2018. In each year, the species has been detected and nesting behavior has been observed.²⁷ Core nesting habitat is located approximately 0.4 miles from the Fifield-Cahill ridge trail in the area downstream of Stone Dam along Pilarcitos Creek, and is a "hub" of murrelet activity, with 99 distinct murrelet detections recorded in 2016. Suitable potential nesting habitat overlaps the Fifield-Cahill ridge trail. Murrelets are thought to be using habitat upstream of Stone Dam as well. Detection levels appear stable for this nesting group. Murrelets may shift nesting sites from year to year, although all of the breeding behavior has been limited within the Peninsula Watershed to the designated critical habitat. The report

²² Cornell Lab of Ornithology, *Species Account, Marbled Murrelet*, 2017, https://www.allaboutbirds.org/guide/Marbled_Murrelet/lifehistory, accessed January 30, 2017.

²³ Hamer, T.E. and S.K. Nelson, Characteristics of Marbled Murrelet nest trees and nesting stands, *Ecology and Conservation of the Marbled Murrelet* (C.J. Ralph, G.L. Hunt, Jr., M.G. Raphael, and J.F. Piatt, eds.), USDA Forest Service General Technical Report PSW-152, Albany, CA, 1995, pp. 69 to 82.

²⁴ Ibid.

²⁵ Avocet Research Associates, 2018. Marbled Murrelet (*Brachyramphus marmoratus*) Protocol-level nesting season surveys on San Francisco Public Utility Commission Lands, Upper Pilarcitos Creek, San Mateo County, California: 18 September 2018.

²⁶ U.S. Fish and Wildlife Service, *Critical Habitat Units for Northern Spotted Owl and Marbled Murrelet*, Data Base website <https://databasin.org/maps/new#datasets=d15113e3006042bc87714ba557364bc9>, accessed June 27, 2018.

²⁷ Avocet Research Associates. 2018.

notes that the habitat value at this site is enhanced by relatively low human use and alteration. At present, the potential avian nest predators observed in the project area have been Cooper's hawk, sharp-shinned hawk, great horned owl, common raven, Steller's jay, and possibly northern pygmy-owl.²⁸ The numbers of detections of corvid species was consistent with undisturbed habitat lacking human-subsidized food sources.

Bald Eagle

Status. The bald eagle (*Haliaeetus leucocephalus*) is California-listed as endangered. It has been de-listed federally.

General Ecology and Distribution. Bald eagles are often found on lake margins, river, and ocean shore for both nesting and wintering. Most nests are within one mile of the water. Their large stick nests are usually constructed in large, old-growth snags or very large live trees with open branches. Nest sites may be used for several years, and their nesting territories may also be stable for long periods, since the pairs themselves tend to remain stable. In the winter, bald eagles roost communally, usually near water. Bald eagles feed on a variety of small animals, usually fish or waterfowl, and they also eat carrion, including salmon, deer, and cattle.²⁹ Historically, bald eagles were widespread and abundant in California but by the early 1970s when the bald eagle was listed as endangered, fewer than 30 nesting pairs remained in California, the result of DDT and perhaps also lead accumulation in this top predator. Following sustained recovery efforts and a reduction of environmental toxins, the bald eagle was de-listed by the U.S. Fish and Wildlife Service in 2007. Bald eagles are now reported to nest in 41 of California's 58 counties. CNDDDB maintains 325 records of nesting bald eagles in California.

Project Area Occurrence. Although CNDDDB has no records of nesting bald eagles in San Mateo, Santa Clara or Santa Cruz Counties, watershed resource specialists have reported a nesting pair near Crystal Springs Reservoir in some large trees. Bald eagles have been frequently reported along Crystal Springs Reservoir. The nesting location is less than 1.5 miles from the Fifield-Cahill ridge portion of the project area. Nesting habitat is present in the project area, but is probably too far from water to be preferred. Most breeding and foraging activity is likely to be away from the ridge trail.

Non-Listed Special Status Wildlife Species

Santa Cruz Black Salamander

Status. The Santa Cruz black salamander (*Aneides niger*) is a CDFW species of special concern.

General Ecology and Distribution. The Santa Cruz black salamander is in the lungless salamander family Plethodontidae that respire through its skin and mouth tissues. This requires it to live in damp environments on land and to move about on the ground only during times of high humidity. They are terrestrial rather than aquatic, laying their eggs in moist places on land.

²⁸ Ibid.

²⁹ CDFW, 2018, species account, Bald Eagle, <https://www.wildlife.ca.gov/Conservation/Birds/Bald-Eagle>, accessed June 27, 2018.

Adults forage for small invertebrates on the ground at night during wet weather. Typical food items include ants, termites, and millipedes. Santa Cruz black salamanders may be active along streams all year, but in general these salamanders stay underground during dry periods. This species is found in mixed deciduous and coniferous woodlands and coastal grasslands, being found under rocks, talus and damp woody debris. Some authors describe the habitat as clearings in California buckeye-oak woodland, forested creeks, and rocky springs and streams, being found most frequently where the soil is constantly damp to near saturated.³⁰ The range of the species is San Mateo, Santa Cruz and Santa Clara Counties. CNDDDB has 77 occurrence records throughout its range, most in Santa Cruz County. There are seven occurrences for this species in the 11-quad region of the project, on both coastal and inland sides of the Santa Cruz Mountains.

Project Area Occurrence. The nearest record to the project area is McGarvey Gulch, Huddart County Park, Woodside, a general location about two miles southeast of the proposed project terminus. This is the northernmost locality for this species. Suitable habitat may be present in damp places and along streams or near seeps or springs in mixed conifer-hardwood habitats along the southern or middle portions of the proposed SSB RTE alignment.

California Giant Salamander

Status. California giant salamander (*Dicamptodon ensatus*) is a California species of special concern.

General Ecology and Distribution. This is one of the largest terrestrial salamanders in North America, heavy, stocky animals growing up to 12 inches total length. They are light reddish brown with copper-colored marbling. California giant salamanders are known from wet coastal forests near streams and seeps, with aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults are known from wet forests under rocks and logs near streams and lakes. Larvae are born in the water; they swim using an enlarged tail fin and breathe with external gills. They then transform into the four-legged adult form and breathe air with lungs, although some animals retain their gills as adults and continue to live in water. Transformed animals forage on the forest floor on rainy nights, and during daylight in wet periods in winter. The California giant salamander will eat anything small enough to overpower and eat, including slugs and other invertebrates, and small vertebrates such as salamanders, small rodents, and lizards, even animals as large as woodrats.³¹ CNDDDB maintains 228 occurrence records for this species in coastal areas from Mendocino and Lake Counties southward to Santa Cruz County. Seventeen of these records are within the 11-quad region including the project area.

Project Area Occurrence. CNDDDB Occurrence 85 is located at Mud Dam, a small impoundment near Five Points and quite near the project area as it passes from the Fifield Ridge Road to Cahill Ridge Road segments. Potential habitat may also be present at the wetland along the southern portion the proposed SSB RTE alignment.

³⁰ The HerpersGuide Blog, <http://blog.herpersguide.com/santa-cruz-black-salamander/> accessed June 27, 2018.

³¹ California Herps: California Giant Salamander species account: <http://www.californiaherps.com/salamanders/pages/d.ensatus.html>, accessed January 26 2017.

Western Pond Turtle

Status. The western pond turtle (*Actinemys marmorata*) is a California species of special concern.

General Ecology and Distribution. Western pond turtles are found in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. They require sunny basking sites consisting of logs, vegetation mats, or rocks; and upland habitat for egg-laying. Females may travel up to 0.5-mile to the nesting site, while annual movements of 0.1-mile or more may occur to winter refuges above flood levels. Adults and young feed on insects, small fish, worms, crustaceans, carrion, and algae. Adults may hibernate or estivate to avoid extremes of heat or cold.³² Historic range includes British Columbia, with extant occurrences from Washington to southern California. CNDDDB maintains 1,209 occurrences for the species in California, including 14 from the 11-quad region including the project area.

Project Area Occurrence. All of the CNDDDB occurrences from the 11-quad region are recorded from the Peninsula Watershed, along the shorelines of reservoirs and their drainages. Western pond turtle basking sites are present along the shoreline and nesting habitat along the sandy eastern shoreline of these reservoirs. CNDDDB Occurrence 1,223 is located about 0.5 mile downstream from the Fifield/Cahill ridge road. Ponds in the watershed, as close as 400 feet to the trail, also contain suitable turtle habitat.³³ Due to the turtle's capacity to travel some distance to upland refuges, this species could be found in the project area on Fifield and Cahill ridges.

Cooper's Hawk

Status. The Cooper's hawk (*Accipiter cooperii*) is identified by the CDFW as a Watch List species.

General Ecology and Distribution. Cooper's hawk is a relatively large accipiter found in broken forest and woodland habitat where it preys on mostly smaller birds and sometimes small mammals. They are skillful fliers, pursuing their prey through the canopy and understory. Cooper's hawks nest in pines, oaks, and Douglas-firs, preferring dense woods on gentle topography. The nest itself is a pile of sticks over two feet in diameter and 6-17 inches high with a cup-shaped depression in the middle. Cooper's hawks are year-round residents throughout California from Humboldt to Imperial and San Diego Counties in wooded areas; they are generally not resident in most parts of the Central Valley and desert regions.

Project Area Occurrence. CNDDDB has only 107 occurrences for this species throughout California, but Cooper's hawks are much more abundant than these records suggest. The project area contains suitable nesting habitat and foraging resources for Cooper's hawk. Although there are no CNDDDB records for this species in the 11-quad search area, Cooper's hawks can be expected to occur in wooded areas throughout the project area including on Sweeney Ridge, as well as the Skylawn Memorial Park, Quarry Road, and SSB RTE portions of the project area.

³² NatureServe: *Actinemys marmorata*; <http://explorer.natureserve.org/servlet/NatureServe?searchName=Actinemys+marmorata+>, accessed June 27, 2018.

³³ CDM and Merritt Smith Consulting, 2003, San Francisco Garter Snake and Red-legged Frog Survey Report and Marbled Murrelet Survey Report, prepared for San Francisco Public Utilities Commission, Summer 2003. 9 pages.

Vaux's Swift

Status. Vaux's swift (*Chaetura vauxi*) is a California species of special concern.

General Ecology and Distribution. This species is a migrant and summer resident, breeding from southeastern Alaska to central California. This species' breeding distribution along the coast generally follows the distribution of coast redwoods, but probably is patchy because of forest fragmentation.³⁴ They may also use Douglas-fir forest and other forest types, but in lower densities. Swifts nests in cavities in trees or sometimes artificial structures, constructing a nest in an open half-circle made of small twigs or conifer needles fastened together using sticky saliva; this is formed around a hollow chamber in the tree. Swifts forage in a variety of habitats and at various heights, often over water, seeking small flying insects.

Project Area Occurrence. Distribution maps for Vaux's swift show this species' range extending along the Santa Cruz Mountains from mid-San Mateo County southward through Santa Cruz County.³⁵ Suitable nesting habitat would be present in the project area along Cahill Ridge Road and the southern segment of the SSB RTE, and nearby open water over Crystal Springs Reservoir could provide foraging habitat. CNDDDB has no records in the 11-quad area surrounding the project area, although other sources have reported sightings at Huddart County Park a few miles to the southeast,³⁶ Sweeney Ridge, and Skylawn Memorial Park. The only confirmed breeding bird record for San Mateo County is slightly to the east of the Fifield Ridge Road segment of the project area.³⁷

Northern Harrier

Status. The northern harrier (*Circus cyaneus*) is a California species of special concern.

General Ecology and Distribution. The northern harrier inhabits coastal scrub, valley and foothill grassland, riparian scrub, wetlands and other habitats. It nests on ground in shrubby vegetation, usually at marsh edge, and forages in grasslands for small mammals by flying low over the landscape, using hearing as well as sight to hunt. This is a widespread species in California, occupying lowlands and marshes throughout the state.

Project Area Occurrence. CNDDDB reports two occurrences for northern harrier in the 11-quad region surrounding the project area; one is from Bair Island (CNDDDB Occ. 6) and the other from salt marsh in Union City in Alameda County (CNDDDB Occ. 1). Several sightings have been reported from the margins of San Andreas Lake and Crystal Springs Reservoir, and this species is regularly sighted at Skylawn Memorial Park³⁸ but these probably are foraging birds rather than nesting individuals. Foraging habitat is marginal along the southern skyline ridge trail. Suitable foraging habitat is present south of the proposed universal access loop trail on the Fifield-Cahill

³⁴ Hunter, John E., Vaux's Swift, in CDFW, Bird Species of Special Concern, 2008; <https://www.wildlife.ca.gov/Conservation/SSC/Birds>, accessed January 27 2017.

³⁵ Ibid.

³⁶ eBird Range Map for Vaux's Swift, <http://ebird.org/ebird/map>. Accessed February 8, 2017.

³⁷ San Mateo County Breeding Bird Atlas, published by Sequoia Audubon Society, May 2001; [https://www.nps.gov/goga/learn/.../SM-Grnd-nesting-birds-S M-Breeding-Bird-Atlas](https://www.nps.gov/goga/learn/.../SM-Grnd-nesting-birds-S-M-Breeding-Bird-Atlas). Accessed January 27, 2017.

³⁸ eBird Range Map for Northern Harrier, <http://ebird.org/ebird/map>. Accessed February 8, 2017.

Ridge Trail. This species is expected to move through and possibly forage in the project area, but there is no suitable nesting habitat in the project area.

White-tailed Kite

Status. The white-tailed kite (*Elanus leucurus*) is a California species of special concern.

General Ecology and Distribution. The white-tailed kite is a medium-sized raptor found in open grasslands and savannas where it forages for small mammals, especially voles. Substantial groves of dense, broad-leaved, deciduous trees are used for nesting and roosting. White-tailed kites forage in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands. This species begins breeding in January and February, with most fledging complete by October.³⁹ Nests are a fragile platform of stick leaves, weed stacks and similar materials located in a tree or bush. Perhaps because of its conspicuous foraging behavior of hovering while searching for prey, the white-tailed kite is a readily-observed, although its nests may not be as frequently seen. This species is a yearlong resident in cismontane California. CNDDDB has 162 occurrences for this species statewide.

Project Area Occurrence. CNDDDB reports three occurrences for white-tailed kite within the 11-quadrant region surrounding the project area; all are along the marshes and wetlands of the San Francisco Bay, all at Bair Island (CNDDDB Occs. 5, 6, and 7). It is considered a possible breeder in the Sweeney Ridge area.⁴⁰ EBird records many sightings of this species at the San Andreas and Crystal Springs Reservoir margins, and also at Skylawn Memorial Park.⁴¹ It is likely to be observed along the project area. Foraging habitat is marginal along the southern skyline ridge trail. Suitable foraging habitat is present south of the proposed universal access loop trail on the Fifield-Cahill Ridge Trail. Potential nesting trees present along Fifield-Cahill Ridge portion of project area

Merlin

Status. The merlin (*Falco columbarius*) is a California species of special concern.

General Ecology and Distribution. This falcon is a winter migrant in California. This species winters in a variety of habitats from the coast to grasslands, savannas, woodlands, and open forests in the mountains, but it prefers open habitats near water.⁴² In California, merlin is found at elevations up to 3,900 feet, primarily in the western half of the state.

Project Area Occurrence. CNDDDB has a single occurrence record (Occ. 12) in Pacifica, an individual observed during the winter. Additional records are reported by EBird at Sweeney Ridge, Skylawn Cemetery, and along the margins of San Andreas Lake and Crystal Springs Reservoirs.⁴³

³⁹ Zeiner et al., California's Wildlife, Volume II, Birds. Department of Fish and Game. November 1990.

⁴⁰ San Mateo County Breeding Bird Atlas, published by Sequoia Audubon Society, May 2001; <https://www.nps.gov/goga/learn/.../SM-Grnd-nesting-birds-S M-Breeding-Bird-Atlas>. Accessed January 27, 2017.

⁴¹ EBird Range Map for white-tailed kite, <http://ebird.org/ebird/map>. Accessed February 8, 2017.

⁴² Zeiner et al., California's Wildlife, Volume II, Birds. Department of Fish and Game. November 1990.

⁴³ EBird Range Map for merlin, <http://ebird.org/ebird/map>. Accessed February 8, 2017.

Within the project area, herbaceous wetlands, grasslands, and woodlands provide foraging and roosting habitat for merlin. This species is not expected to nest/breed in the project area.

American Peregrine Falcon

Status. The American peregrine falcon (*Falco peregrinus anatum*) has been de-listed both federally and by California. It continues to be a fully protected species under Fish and Game Code.

General Ecology and Distribution. Peregrine falcons feed on medium-sized to large birds such as ducks and nest near wetlands, lakes, rivers or other water on cliffs, banks, or human structures. Pigeons and doves may be some of the most important food items (their nest is a scrape or depression or ledge in an open site. Peregrine falcons breed from Alaska to Baja California and are widely distributed in California, breeding in 40 counties, although they are uncommon.⁴⁴ The peregrine falcon was among the first species to be listed under the FESA in 1970 because its populations had declined dramatically from DDT accumulation and resulting nest failure. With the reduction in this environmental toxin, populations have recovered somewhat and the species was de-listed by the U.S. Fish and Wildlife Service in 1999 and by the California Fish and Game Commission in 2009. CNDDDB maintains 54 occurrence records for this species, but the details on these records are suppressed to minimize the risk of unauthorized take of adults or nestlings.

Project Area Occurrence. CNDDDB has four occurrence records in San Mateo, Mindego and San Francisco South quadrangles, and peregrine nesting habitat is present within the Watershed. Peregrine falcons could forage on and near the Fifield and Cahill Ridge Roads, although their preferred habitat is generally more open.

Purple Martin

Status. The purple martin (*Progne subis*) is a California species of special concern.

General Ecology and Distribution. This species is a large member of the swallow family. It inhabits woodland, low-elevation coniferous forests of Douglas-fir, ponderosa pine and Monterey pine. It nests primarily in old woodpecker cavities, but also in human-made structures. Nests are often located in tall, isolated trees and snags. Purple martins catch a variety of flying insects, including dragonflies, grasshoppers, cicadas, bees, wasps, termites, and an array of smaller insects, often foraging quite high above the ground. Martins breed in California, but migrate to South America for the winter. Starlings and house sparrows compete with purple martins for nest cavities.

Project Area Occurrence. CNDDDB has no occurrences on record in the 11-quad region of the project, but The Sequoia Audubon Society breeding bird atlas lists this species as breeding in the Sweeney Ridge and north San Andreas Lake area (Sequoia Audubon Society, 2001). EBird shows records during the breeding season for some localities on Fifield and Cahill Ridges, Skylawn Memorial Park, and several locations along S.R. 35 in the vicinity of the SSB RTE alignment.⁴⁵ The

⁴⁴ American peregrine falcon species account for the Desert Renewable Energy Conservation Plan, Dudek and ICF, 2012.

⁴⁵ EBird Range Map for purple martin, <http://ebird.org/ebird/map>. Accessed January 27, 2017.

extensive large areas of mature Douglas-fir provide excellent breeding habitat and foraging habitat is available

Townsend's Big-eared Bat

Status. Townsend's big-eared bat (*Corynorhinus townsendii townsendii*) is a California species of special concern.

General Ecology and Distribution. This bat occurs throughout California, although available information on its distribution is limited. This bat occupies the humid coastal regions of northern and central California, living in a variety of habitats that include coastal conifer and broad-leaf forests, oak and conifer woodlands, arid grasslands and deserts, and high-elevation forests and meadows. Throughout most of its geographic range, this bat is most common in mesic sites. Known roosting sites in California include limestone caves and lava tubes, though the species will also use mine tunnels, buildings, and other human-made structures. Habitat must include appropriate roosting, maternity, and hibernacula sites that are free from disturbances by humans. A single visit by humans can cause the bats to abandon a roost. Females typically roost in large maternity colonies, which are highly susceptible to disturbance. Males usually roost singly or in small groups, and are probably not affected as much as females by disturbances. Both sexes hibernate in buildings, caves, and mine tunnels, either singly (males) or in small groups.⁴⁶ CNDDDB has 625 occurrence records for Townsend's big-eared bat in California, from Siskiyou to San Diego Counties.

Project Area Occurrence. CNDDDB reports 11 occurrences of this species from the 11-quad region of the project area, including several on La Honda Road to the south, near Harry Tracy Water Treatment Plant (CNDDDB Occ. 431), and near Twin Peaks in San Francisco (Occ. 310). The project area offers suitable habitat for Townsend's big-eared bat due to this species' habitat preference for coastal woodlands and the relative lack of human activities on the Peninsula Watershed. Anthropogenic structures within the project area may provide roosting opportunities, and the variety of mixed hardwood forests and oak woodlands provide foraging habitat. This species is likely to occur within the project area.

Hoary Bat

Status. The hoary bat (*Lasiurus cinereus*) is a California species of special concern.

General Ecology and Distribution. The hoary bat is a widespread, solitary species. It winters along the coast and in southern California, breeding inland and north of the winter range. Habitats for breeding include all woodlands and forests with medium to large-sized trees and dense foliage. Roosting habitat is dense foliage in medium to large trees. Preferred sites are hidden from above, with few branches below, and ground cover of low reflectivity. This species feeds primarily on moths, although other flying insects are also taken. Unlike some bats, the hoary bat requires regular

⁴⁶ Williams, Dan F., Mammalian Species of Special Concern, prepared for CDFG, 1986.

access to water for drinking.⁴⁷ CNDDDB has 235 occurrence records for this species in California, ranging from Shasta and Trinity Counties southward to San Diego County.

Project Area Occurrence. CNDDDB reports 12 occurrences of hoary bat in the 11-quadrant area surrounding the project, including Portola Valley, Palo Alto, San Bruno, and San Francisco. The records nearest the project area are mostly non-specific. Because of the extensive suitable habitat within the Watershed and along the project route, hoary bat is expected to be present. Collection records from August through May suggest that hoary bats winter in the project area. It is not clear whether they also breed in this area.

Fringed Myotis

Status. The fringed myotis (*Myotis thysanodes*) is a California species of special concern.

General Ecology and Distribution. The fringed myotis is widespread in California, occurring in all but the Central Valley and desert regions. Its abundance appears to be irregular and it may be common locally. It occurs in a wide variety of habitats, with optimal habitat being pinyon-juniper, oak woodland, and hardwood-conifer, usually at elevations above 4,000 feet.⁴⁸ Fringed myotis feed mostly on beetles, but also on moths, arachnids, and beetles. It often catches prey in flight, but also is capable of hovering, gleaning from foliage, and occasionally may land on the ground. It feeds over water and open habitats. This species uses separate day and night roosts, seeking caves, mines, buildings and crevices. Maternity colonies of up to 200 individuals are located in caves, mines, buildings or crevices, which are highly vulnerable to disturbance. CNDDDB has 85 occurrence records for fringed myotis, from Shasta and Del Norte Counties to San Diego County.

Project Area Occurrence. A juvenile was reported between Crystal Springs Reservoir and S.R. 35 (CNDDDB Occ. 44). This is the only CNDDDB record for San Mateo County or the 11-quadrant search area. However, it strongly suggests that fringed myotis breed near the project area, which contains extensive suitable habitat.

San Francisco Dusky-Footed Woodrat

Status. The San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) is a California species of special concern.

General Ecology and Distribution. This medium-sized rodent is widespread in chaparral, woodland, and forest habitats with well-developed undergrowth, where their conical stick houses are often visible.⁴⁹ These houses may be as much as 6 feet tall, and contain multiple chambers used for sleeping and food storage. Houses are usually occupied by single adults or females with young and can be used by successive generations of woodrats. Woodrat houses provide cover for many other animal species, including small mammals, reptiles, amphibians, and arthropods—thus

⁴⁷ Harris, J. species account for hoary bat, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2341>. Accessed January 27 2017.

⁴⁸ Ibid.

⁴⁹ Carraway and Verts, 1991, *Neotoma fuscipes*. Mammalian Species 386: 1-10.

increasing local biodiversity.^{50,51} Woodrats feed primarily on the foliage of evergreen broadleaf plants such as oaks, coffeeberry (*Frangula californica*), blue elderberry, toyon, and gooseberry (*Ribes* spp.).⁵² Reproduction occurs from February through September. The San Francisco dusky-footed woodrat is found on the Peninsula southward to Santa Cruz County, and in the East Bay hills as well. CNDDDB has only 16 records throughout the range of the subspecies, but this does not represent the abundance or extent of populations.

Project Area Occurrence. CNDDDB has five records for San Francisco dusky-footed woodrat from the 11-quad search area, and three of these are from the Peninsula Watershed (CNDDDB Occs. 1, 2, 10). Suitable habitat for San Francisco dusky-footed woodrat is widespread in the project area and it is expected to occur frequently there.

American Badger

Status. The American badger (*Taxidea taxus*) is a California species of special concern.

General Ecology and Distribution. This badger is an uncommon permanent resident found throughout most of the state. The badger is active throughout the year in most of its range in California, except in the North Coast area where it enters variable periods of torpor in winter. This species is both nocturnal and diurnal, and frequents drier open stages of most shrub, forest, and herbaceous habitats. Badgers dig burrows in friable soil for cover. They frequently reuse old burrows, although some may dig a new den each night, especially in summer. Home range estimates vary geographically and seasonally. Ranges recorded in other western states varied from 338 to 1,549 acres, with the males usually occupying the larger territories. Badgers mate in summer and early fall, with young born mostly in March and April in burrows that are usually found in areas with sparse overstory cover.⁵³ As might be expected for a wide-ranging animal like the American badger, CNDDDB has 523 records for this species throughout the state, including three in San Mateo County.

Project Area Occurrence. CNDDDB reports three occurrences in the 11-quad area surrounding the project area. CNDDDB Occurrence 127 is on the Peninsula Watershed in the vicinity of Peak Mountain, about 2 miles southwest of the Fifield Ridge Road segment, in an area with extensive coastal scrub habitat similar to that of the project area. Habitat for American badger is present in many parts of the project area and this species is expected to occur there.

⁵⁰ Cranford, 1982, The effect of woodrat houses on population density of *Peromyscus*. Journal of Mammalogy 63:663–666.

⁵¹ Vestal, 1938, Biotic relations of the wood rat (*Neotoma fuscipes*) in the Berkeley Hills, Journal of Mammalogy 19: 1-36.

⁵² Ibid.

⁵³ CDFG, 2009, American badger, California Wildlife Habitat Relationships System, California Department of Fish and Wildlife, California Interagency Wildlife Task Group.

Sensitive Natural Communities Vegetation Monitoring Plots

The management plan specified to encourage and allow investigations of special status plants and communities on the watershed to further the SFPUC's understanding of the watershed's vegetation and its condition, and called for monitoring the effects of natural processes that help maintain the variability and health of the ecosystem, but could negatively affect wildlife species.⁵⁴ This policy and action are believed to be the impetus for the establishment of 34 permanent vegetation monitoring plots on the Peninsula Watershed, first sampled in 2004 and then repeated in 2009.⁵⁵ Each plot is situated in an Ecological Sensitivity Zone in a natural community considered sensitive under CEQA or SFPUC policy. Plot DFR-1 (signifying Douglas-fir and redwood forest) in Douglas-fir forest is located just to the north of the Central Coast Water District tank. The plot is near, or possibly bisected by the universal access loop trail. Plot DFR-2, in coast redwood forest, is located immediately adjacent or possibly within, the proposed southern skyline ridge trail near the southern end of the alignment. Plot DFR-3, also in Douglas-fir forest, is located about 0.5 mile farther to the northwest, somewhat to the east of the Cahill Ridge Trail. Plot SG-2, a serpentine grassland plot, is situated on Fifield Ridge in a grassy opening in an area already demarcated by a sign and split rail fence warning that access is prohibited. The plots are marked inconspicuously to avoid tampering; each corner was originally marked with a rebar stake and heavy orange plastic stake and a laminated sign which has since deteriorated. Three of the four markers were relocated at SG-2 on April 5, 2017.

⁵⁴ SFPUC, *Peninsula Watershed Management Plan*, p.5-10.5, 2002.

⁵⁵ Orion Environmental Associates, *Vegetation Surveys of the Peninsula Watershed*, As-needed Operational Support Services Agreement CS-837-C, prepared for the San Francisco Public Utilities Commission, Land and Resources Management Section, 2010.

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Taxonomic Group< IS (Dune< OR Scrub< OR Herbaceous< OR Marsh< OR Riparian< OR Woodland< OR Forest< OR Alpine< OR Inland Waters< OR Marine< OR Estuarine< OR Riverine< OR Palustrine< OR Ferns< OR Gymnosperms< OR Monocots< OR Dicots< OR Lichens< OR Bryophytes< OR Fungi)
< AND Quad< IS (Half Moon Bay (3712244)< OR Hunters Point (3712263)< OR La Honda (3712233)< OR Mindego Hill (3712232)< OR Montara Mountain (3712254)< OR Palo Alto (3712242)< OR Redwood Point (3712252)< OR San Francisco South (3712264)< OR San Gregorio (3712234)< OR San Mateo (3712253)< OR Woodside (3712243))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Acanthomintha duttonii</i> San Mateo thorn-mint	PDLAM01040	Endangered	Endangered	G1	S1	1B.1
<i>Agrostis blasdalei</i> Blasdale's bent grass	PMPOA04060	None	None	G2	S2	1B.2
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	PMLIL021R1	None	None	G5T1	S1	1B.2
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G2G3	S2S3	1B.2
<i>Arctostaphylos andersonii</i> Anderson's manzanita	PDERI04030	None	None	G2	S2	1B.2
<i>Arctostaphylos franciscana</i> Franciscan manzanita	PDERI040J3	Endangered	None	G1	S1	1B.1
<i>Arctostaphylos imbricata</i> San Bruno Mountain manzanita	PDERI040L0	None	Endangered	G1	S1	1B.1
<i>Arctostaphylos montana</i> ssp. <i>ravenii</i> Presidio manzanita	PDERI040J2	Endangered	Endangered	G3T1	S1	1B.1
<i>Arctostaphylos montaraensis</i> Montara manzanita	PDERI042W0	None	None	G1	S1	1B.2
<i>Arctostaphylos pacifica</i> Pacific manzanita	PDERI040Z0	None	Endangered	G1	S1	1B.2
<i>Arctostaphylos regismontana</i> Kings Mountain manzanita	PDERI041C0	None	None	G2	S2	1B.2
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i> coastal marsh milk-vetch	PDFAB0F7B2	None	None	G2T2	S2	1B.2
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
<i>California macrophylla</i> round-leaved filaree	PDGER01070	None	None	G3?	S3?	1B.2
<i>Carex comosa</i> bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T2	S2	1B.1



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Helianthella castanea</i> Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
<i>Hemizonia congesta ssp. congesta</i> congested-headed hayfield tarplant	PDAST4R065	None	None	G5T1T2	S1S2	1B.2
<i>Hesperervax sparsiflora var. brevifolia</i> short-leaved evax	PDASTE5011	None	None	G4T3	S2	1B.2
<i>Hesperolinon congestum</i> Marin western flax	PDLIN01060	Threatened	Threatened	G1	S1	1B.1
<i>Heteranthera dubia</i> water star-grass	PMPON03010	None	None	G5	S2	2B.2
<i>Horkelia cuneata var. sericea</i> Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
<i>Horkelia marinensis</i> Point Reyes horkelia	PDROS0W0B0	None	None	G2	S2	1B.2
<i>Lasthenia californica ssp. macrantha</i> perennial goldfields	PDAST5L0C5	None	None	G3T2	S2	1B.2
<i>Layia carnosa</i> beach layia	PDAST5N010	Endangered	Endangered	G2	S2	1B.1
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Leptosiphon croceus</i> coast yellow leptosiphon	PDPLM09170	None	Candidate Endangered	G1	S1	1B.1
<i>Leptosiphon rosaceus</i> rose leptosiphon	PDPLM09180	None	None	G1	S1	1B.1
<i>Lessingia arachnoidea</i> Crystal Springs lessingia	PDAST5S0C0	None	None	G2	S2	1B.2
<i>Lessingia germanorum</i> San Francisco lessingia	PDAST5S010	Endangered	Endangered	G1	S1	1B.1
<i>Limnanthes douglasii ssp. ornduffii</i> Ornduff's meadowfoam	PDLIM02039	None	None	G4T1	S1	1B.1
<i>Malacothamnus arcuatus</i> arcuate bush-mallow	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
<i>Microseris paludosa</i> marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
<i>Monardella sinuata ssp. nigrescens</i> northern curly-leaved monardella	PDLAM18162	None	None	G3T2	S2	1B.2
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>N. Central Coast Calif. Roach/Stickleback/Steelhead Stream</i> N. Central Coast Calif. Roach/Stickleback/Steelhead Stream	CARA2633CA	None	None	GNR	SNR	
<i>North Central Coast Steelhead/Sculpin Stream</i> North Central Coast Steelhead/Sculpin Stream	CARA2637CA	None	None	GNR	SNR	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
Northern Maritime Chaparral Northern Maritime Chaparral	CTT37C10CA	None	None	G1	S1.2	
Pedicularis dudleyi Dudley's lousewort	PDSCR1K0D0	None	Rare	G2	S2	1B.2
Pentachaeta bellidiflora white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
Piperia candida white-flowered rein orchid	PMORC1X050	None	None	G3	S3	1B.2
Plagiobothrys chorisianus var. chorisianus Choris' popcornflower	PDBOR0V061	None	None	G3T2Q	S2	1B.2
Polemonium carneum Oregon polemonium	PDPLM0E050	None	None	G3G4	S2	2B.2
Polygonum marinense Marin knotweed	PDPGN0L1C0	None	None	G2Q	S2	3.1
Potentilla hickmanii Hickman's cinquefoil	PDROS1B0U0	Endangered	Endangered	G1	S1	1B.1
Sacramento-San Joaquin Coastal Lagoon Sacramento-San Joaquin Coastal Lagoon	CALA1360CA	None	None	GNR	SNR	
Sanicula maritima adobe sanicle	PDAP11Z0D0	None	Rare	G2	S2	1B.1
Serpentine Bunchgrass Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Silene verecunda ssp. verecunda San Francisco campion	PDCAR0U213	None	None	G5T2	S2	1B.2
Stuckenia filiformis ssp. alpina slender-leaved pondweed	PMPOT03091	None	None	G5T5	S3	2B.2
Suaeda californica California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
Trifolium amoenum two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Triphysaria floribunda San Francisco owl's-clover	PDSCR2T010	None	None	G2?	S2?	1B.2
Triquetrella californica coastal triquetrella	NBMUS7S010	None	None	G2	S2	1B.2
Usnea longissima Methuselah's beard lichen	NLLEC5P420	None	None	G4	S4	4.2
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	
Valley Oak Woodland						

Record Count: 80



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Ischnura gemina</i> San Francisco forktail damselfly	IIOD072010	None	None	G2	S2	
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Lichnanthe ursina</i> bumblebee scarab beetle	IICOL67020	None	None	G2	S2	
<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S	None	None	G5T2?	S2S3	SSC
<i>Microcina edgewoodensis</i> Edgewood Park micro-blind harvestman	ILARA47010	None	None	G1	S1	
<i>Myotis thysanodes</i> fringed myotis	AMACC01090	None	None	G4	S3	
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Oncorhynchus mykiss irideus</i> steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
<i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Plebejus icarioides missionensis</i> Mission blue butterfly	IILEPG801A	Endangered	None	G5T1	S1	
<i>Rallus longirostris obsoletus</i> California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1	FP
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
<i>Speyeria zerene myrtilae</i> Myrtle's silverspot butterfly	IILEPJ608C	Endangered	None	G5T1	S1	
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis sirtalis tetrataenia</i> San Francisco gartersnake	ARADB3613B	Endangered	Endangered	G5T2Q	S2	FP

Record Count: 39



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)
 AND Quad IS (Half Moon Bay (3712244) OR Hunters Point (3712263) OR La Honda (3712233) OR Mindego Hill (3712232) OR Montara Mountain (3712254) OR Palo Alto (3712242) OR Redwood Point (3712252) OR San Francisco South (3712264) OR San Gregorio (3712234) OR San Mateo (3712253) OR Woodside (3712243))

11 quad search around Montara Mountain, San Mateo and Woodside quads

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Adela oplerella</i> Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Aneides niger</i> Santa Cruz black salamander	AAAAD01070	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Asio flammeus</i> short-eared owl	ABNSB13040	None	None	G5	S3	SSC
<i>Asio otus</i> long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Banksula incredula</i> incredible harvestman	ILARA14100	None	None	G1	S1	
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	None	G2G3	S1	
<i>Brachyramphus marmoratus</i> marbled murrelet	ABNNN06010	Threatened	Endangered	G3G4	S1	
<i>Caecidotea tomalensis</i> Tomales isopod	ICMAL01220	None	None	G2	S2S3	
<i>Calicina minor</i> Edgewood blind harvestman	ILARA13020	None	None	G1	S1	
<i>Callophrys mossii bayensis</i> San Bruno elfin butterfly	IILEPE2202	Endangered	None	G4T1	S1	
<i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
<i>Circus cyaneus</i> northern harrier	ABNKC11010	None	None	G5	S3	SSC
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
<i>Dicamptodon ensatus</i> California giant salamander	AAAAH01020	None	None	G3	S2S3	SSC
<i>Dipodomys venustus venustus</i> Santa Cruz kangaroo rat	AMAFD03042	None	None	G4T1	S1	
<i>Dufourea stagei</i> Stage's dufourine bee	IIHYM22010	None	None	G1G2	S1?	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S1	
<i>Falco columbarius</i> merlin	ABNKD06030	None	None	G5	S3S4	WL
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Hydroporus leechi</i> Leech's skyline diving beetle	IICOL55040	None	None	G1?	S1?	
<i>Ischnura gemina</i> San Francisco forktail damselfly	IIODO72010	None	None	G2	S2	
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Lichnanthe ursina</i> bumblebee scarab beetle	IICOL67020	None	None	G2	S2	
<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S	None	None	G5T2?	S2S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Microcina edgewoodensis</i> Edgewood Park micro-blind harvestman	ILARA47010	None	None	G1	S1	
<i>Mylopharodon conocephalus</i> hardhead	AFCJB25010	None	None	G3	S3	SSC
<i>Myotis thysanodes</i> fringed myotis	AMACC01090	None	None	G4	S3	
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Oncorhynchus mykiss irideus</i> steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
<i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Plebejus icarioides missionensis</i> Mission blue butterfly	IILEPG801A	Endangered	None	G5T1	S1	
<i>Rallus longirostris obsoletus</i> California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1	FP
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	None	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
<i>Speyeria adiastrae adiastrae</i> unsilvered fritillary	IILEPJ6143	None	None	G1G2T1	S1	
<i>Speyeria callippe callippe</i> callippe silverspot butterfly	IILEPJ6091	Endangered	None	G5T1	S1	
<i>Speyeria zerene myrtilae</i> Myrtle's silverspot butterfly	IILEPJ608C	Endangered	None	G5T1	S1	
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	SSC
<i>Sternula antillarum browni</i> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
<i>Taricha rivularis</i> red-bellied newt	AAAAF02020	None	None	G4	S2	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis sirtalis tetrataenia</i> San Francisco gartersnake	ARADB3613B	Endangered	Endangered	G5T2Q	S2	FP
<i>Trachusa gummifera</i> San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	G1	S1	
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	

Record Count: 63

IPaC Information for Planning and Conservation U.S. Fish & Wildlife Service

IPaC resource list

Location

San Mateo County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and should not be used for planning or analyzing project level impacts.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to “request of the Secretary information whether any species which is listed or proposed to be

listed may be present in the area of such proposed action” for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Review section in IPaC or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by creating a project and making a request from the Regulatory Review section.

Listed species¹ are managed by the [Endangered Species Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

The following species are potentially affected by activities in this location:

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is a final critical habitat designated for this species. Your location overlaps the designated critical habitat. http://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/2076	Threatened

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/4240	Endangered

California Least Tern <i>Sterna antillarum browni</i>	Endangered
No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/8104	
Marbled Murrelet <i>Brachyramphus marmoratus</i>	Threatened
There is a final <u>critical habitat</u> designated for this species. Your location overlaps the designated critical habitat. http://ecos.fws.gov/ecp/species/4467	
Short-tailed Albatross <i>Phoebastria (=Diomedea) albatrus</i>	Endangered
No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/433	
Western Snowy Plover <i>Charadrius alexandrinus nivosus</i>	Threatened
There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/8035	

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i>	Threatened
There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/321	
Steelhead <i>Oncorhynchus (=Salmo) mykiss</i>	Threatened
There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/1007	
Tidewater Goby <i>Eucyclogobius newberryi</i>	Endangered
There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/57	

Flowering Plants

NAME	STATUS
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Fountain Thistle	<i>Cirsium fontinale</i> var. <i>fontinale</i>	Endangered
No critical habitat has been designated for this species.		
http://ecos.fws.gov/ecp/species/7939		
Hickman's Potentilla	<i>Potentilla hickmanii</i>	Endangered
No critical habitat has been designated for this species.		
http://ecos.fws.gov/ecp/species/6343		
Marin Dwarf-flax	<i>Hesperolinon congestum</i>	Threatened
No critical habitat has been designated for this species.		
http://ecos.fws.gov/ecp/species/5363		
San Mateo Thornmint	<i>Acanthomintha obovata</i> ssp. <i>duttonii</i>	Endangered
No critical habitat has been designated for this species.		
http://ecos.fws.gov/ecp/species/2038		
San Mateo Woolly Sunflower	<i>Eriophyllum latilobum</i>	Endangered
No critical habitat has been designated for this species.		
http://ecos.fws.gov/ecp/species/7791		
White-rayed Pentachaeta	<i>Pentachaeta bellidiflora</i>	Endangered
No critical habitat has been designated for this species.		
http://ecos.fws.gov/ecp/species/7782		

Insects

NAME	STATUS
Bay Checkerspot Butterfly	Threatened
<i>Euphydryas editha bayensis</i>	
There is a final critical habitat designated for this species.	
Your location is outside the designated critical habitat.	
http://ecos.fws.gov/ecp/species/2320	
Mission Blue Butterfly	Endangered
<i>Icaricia icarioides missionensis</i>	
No critical habitat has been designated for this species.	
http://ecos.fws.gov/ecp/species/6928	

Myrtle's Silverspot Butterfly *Speyeria zerene myrtleae* Endangered
 No critical habitat has been designated for this species.
<http://ecos.fws.gov/ecp/species/6929>

San Bruno Elfin Butterfly *Callophrys mossii bayensis* Endangered
 No critical habitat has been designated for this species.
<http://ecos.fws.gov/ecp/species/3394>

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/613	Endangered
Southern Sea Otter <i>Enhydra lutris nereis</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/8560	Threatened

Reptiles

NAME	STATUS
San Francisco Garter Snake <i>Thamnophis sirtalis</i> <i>tetrataenia</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/5956	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
California Red-legged Frog <i>Rana draytonii</i> http://ecos.fws.gov/ecp/species/2891#crithab	Final designated

Marbled Murrelet *Brachyramphus marmoratus*

Final designated

<http://ecos.fws.gov/ecp/species/4467#crithab>

Migratory birds

Birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service³. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The migratory birds species listed below are species of particular conservation concern (e.g. [Birds of Conservation Concern](#)) that may be potentially affected by activities in this location, not a list of every bird species you may find in this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the [AKN Histogram Tools](#) and [Other Bird Data Resources](#).

NAME	SEASON(S)
Allen's Hummingbird <i>Selasphorus sasin</i> http://ecos.fws.gov/ecp/species/9637	Breeding
Ashy Storm-petrel <i>Oceanodroma homochroa</i> http://ecos.fws.gov/ecp/species/7237	Breeding
Bald Eagle <i>Haliaeetus leucocephalus</i> http://ecos.fws.gov/ecp/species/1626	Year-round
Bell's Sparrow <i>Amphispiza belli</i> http://ecos.fws.gov/ecp/species/9303	Year-round
Black Oystercatcher <i>Haematopus bachmani</i> http://ecos.fws.gov/ecp/species/9591	Year-round
Black Rail <i>Laterallus jamaicensis</i> http://ecos.fws.gov/ecp/species/7717	Breeding
Black Skimmer <i>Rynchops niger</i> http://ecos.fws.gov/ecp/species/5234	Breeding
Burrowing Owl <i>Athene cunicularia</i> http://ecos.fws.gov/ecp/species/9737	Year-round
Common Yellowthroat <i>Geothlypis trichas sinuosa</i> http://ecos.fws.gov/ecp/species/2084	Breeding
Costa's Hummingbird <i>Calypte costae</i> http://ecos.fws.gov/ecp/species/9470	Breeding
Fox Sparrow <i>Passerella iliaca</i>	Wintering
Lawrence's Goldfinch <i>Carduelis lawrencei</i> http://ecos.fws.gov/ecp/species/9464	Breeding

Lesser Yellowlegs <i>Tringa flavipes</i> http://ecos.fws.gov/ecp/species/9679	Wintering
Lewis's Woodpecker <i>Melanerpes lewis</i> http://ecos.fws.gov/ecp/species/9408	Wintering
Long-billed Curlew <i>Numenius americanus</i> http://ecos.fws.gov/ecp/species/5511	Wintering
Marbled Godwit <i>Limosa fedoa</i> http://ecos.fws.gov/ecp/species/9481	Wintering
Nuttall's Woodpecker <i>Picoides nuttallii</i> http://ecos.fws.gov/ecp/species/9410	Year-round
Oak Titmouse <i>Baeolophus inornatus</i> http://ecos.fws.gov/ecp/species/9656	Year-round
Olive-sided Flycatcher <i>Contopus cooperi</i> http://ecos.fws.gov/ecp/species/3914	Breeding
Peregrine Falcon <i>Falco peregrinus</i> http://ecos.fws.gov/ecp/species/8831	Year-round
Red Knot <i>Calidris canutus ssp. roselaari</i> http://ecos.fws.gov/ecp/species/8880	Wintering
Rufous-crowned Sparrow <i>Aimophila ruficeps</i> http://ecos.fws.gov/ecp/species/9718	Year-round
Short-billed Dowitcher <i>Limnodromus griseus</i> http://ecos.fws.gov/ecp/species/9480	Wintering
Short-eared Owl <i>Asio flammeus</i> http://ecos.fws.gov/ecp/species/9295	Wintering
Snowy Plover <i>Charadrius alexandrinus</i>	Breeding

Tricolored Blackbird <i>Agelaius tricolor</i> http://ecos.fws.gov/ecp/species/3910	Year-round
Western Grebe <i>aechmophorus occidentalis</i> http://ecos.fws.gov/ecp/species/6743	Wintering
Whimbrel <i>Numenius phaeopus</i> http://ecos.fws.gov/ecp/species/9483	Wintering
Yellow Warbler <i>dendroica petechia</i> ssp. <i>brewsteri</i> http://ecos.fws.gov/ecp/species/3230	Breeding

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAA/NCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAA/NCCOS models: the models were developed as part of the NOAA/NCCOS project: [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#). The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities

off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the [Northeast Ocean Data Portal](#), which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The [Avian Knowledge Network \(AKN\)](#) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest, survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the [Migratory Bird Programs AKN Histogram Tools](#) webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project](#) webpage.

Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe

wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Not for
consultation

CNPS *California Native Plant Soc* Rare and Endangered Plant Inventory

Plant List

2 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 37122F3

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Suaeda californica	California seablite	Chenopodiaceae	perennial evergreen shrub	1B.1	S1	G1
Triphysaria floribunda	San Francisco owl's-clover	Orobanchaceae	annual herb	1B.2	S2?	G2?

Suggested Citation

CNPS, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org> [accessed 13 January 2017].

Search the Inventory

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Information

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Contributors

[The Calflora Database](#)

[The California Lichen Society](#)

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CNPS *California Native Plant Soc* Rare and Endangered Plant Inventory

Plant List

76 matches found. *Click on scientific name for details*

Search Criteria

Found in 9 Quads around 37122D3

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
<u>Acanthomintha duttonii</u>	San Mateo thorn-mint	Lamiaceae	annual herb	1B.1	S1	G1
<u>Agrostis blasdalei</u>	Blasdale's bent grass	Poaceae	perennial rhizomatous herb	1B.2	S2	G2
<u>Allium peninsulare var. franciscanum</u>	Franciscan onion	Alliaceae	perennial bulbiferous herb	1B.2	S1	G5T1
<u>Amsinckia lunaris</u>	bent-flowered fiddleneck	Boraginaceae	annual herb	1B.2	S2S3	G2G3
<u>Androsace elongata ssp. acuta</u>	California androsace	Primulaceae	annual herb	4.2	S3S4	G5?T3T4
<u>Arabis blepharophylla</u>	coast rockcress	Brassicaceae	perennial herb	4.3	S4	G4
<u>Arctostaphylos andersonii</u>	Anderson's manzanita	Ericaceae	perennial evergreen shrub	1B.2	S2	G2
<u>Arctostaphylos montaraensis</u>	Montara manzanita	Ericaceae	perennial evergreen shrub	1B.2	S1	G1
<u>Arctostaphylos regismontana</u>	Kings Mountain manzanita	Ericaceae	perennial evergreen shrub	1B.2	S2	G2
<u>Astragalus nuttallii var. nuttallii</u>	ocean bluff milk-vetch	Fabaceae	perennial herb	4.2	S4	G4T4
<u>Astragalus pycnostachyus var. pycnostachyus</u>	coastal marsh milk-vetch	Fabaceae	perennial herb	1B.2	S2	G2T2
<u>Calandrinia breweri</u>	Brewer's calandrinia	Montiaceae	annual herb	4.2	S4	G4
<u>California macrophylla</u>	round-leaved filaree	Geraniaceae	annual herb	1B.2	S3?	G3?
<u>Calochortus umbellatus</u>	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	4.2	S4	G4
<u>Castilleja ambigua var. ambigua</u>	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	4.2	S4	G4T5
<u>Centromadia parryi ssp. congdonii</u>	Congdon's tarplant	Asteraceae	annual herb	1B.1	S2	G3T2
<u>Centromadia parryi ssp. parryi</u>	pappose tarplant	Asteraceae	annual herb	1B.2	S2	G3T2
<u>Chloropyron maritimum ssp. palustre</u>	Point Reyes bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.2	S2	G4?T2
<u>Chorizanthe cuspidata var. cuspidata</u>	San Francisco Bay spineflower	Polygonaceae	annual herb	1B.2	S1	G2T1
<u>Cirsium andrewsii</u>	Franciscan thistle	Asteraceae	perennial herb	1B.2	S3	G3

<u>Cirsium fontinale var. fontinale</u>	Crystal Springs fountain thistle	Asteraceae	perennial herb	1B.1	S1	G2T1
<u>Cirsium praeteriens</u>	lost thistle	Asteraceae	perennial herb	1A	SX	GX
<u>Clarkia concinna ssp. automixa</u>	Santa Clara red ribbons	Onagraceae	annual herb	4.3	S3	G5?T3
<u>Collinsia multicolor</u>	San Francisco collinsia	Plantaginaceae	annual herb	1B.2	S2	G2
<u>Cypripedium fasciculatum</u>	clustered lady's-slipper	Orchidaceae	perennial rhizomatous herb	4.2	S4	G4
<u>Cypripedium montanum</u>	mountain lady's-slipper	Orchidaceae	perennial rhizomatous herb	4.2	S4	G4
<u>Dirca occidentalis</u>	western leatherwood	Thymelaeaceae	perennial deciduous shrub	1B.2	S2	G2
<u>Elymus californicus</u>	California bottle-brush grass	Poaceae	perennial herb	4.3	S4	G4
<u>Eriogonum nudum var. decurrens</u>	Ben Lomond buckwheat	Polygonaceae	perennial herb	1B.1	S1	G5T1
<u>Eriophyllum latilobum</u>	San Mateo woolly sunflower	Asteraceae	perennial herb	1B.1	S1	G1
<u>Eryngium aristulatum var. hooveri</u>	Hoover's button-celery	Apiaceae	annual / perennial herb	1B.1	S1	G5T1
<u>Eryngium jepsonii</u>	Jepson's coyote thistle	Apiaceae	perennial herb	1B.2	S1	G1
<u>Erysimum franciscanum</u>	San Francisco wallflower	Brassicaceae	perennial herb	4.2	S3	G3
<u>Fissidens pauperculus</u>	minute pocket moss	Fissidentaceae	moss	1B.2	S2	G3?
<u>Fritillaria biflora var. ineziana</u>	Hillsborough chocolate lily	Liliaceae	perennial bulbiferous herb	1B.1	S1	G3G4T1
<u>Fritillaria lanceolata var. tristulis</u>	Marin checker lily	Liliaceae	perennial bulbiferous herb	1B.1	S2	G5T2
<u>Fritillaria liliacea</u>	fragrant fritillary	Liliaceae	perennial bulbiferous herb	1B.2	S2	G2
<u>Grindelia hirsutula var. maritima</u>	San Francisco gumplant	Asteraceae	perennial herb	3.2	S1	G5T1Q
<u>Hesperervax sparsiflora var. brevifolia</u>	short-leaved evax	Asteraceae	annual herb	1B.2	S2	G4T3
<u>Hesperolinon congestum</u>	Marin western flax	Linaceae	annual herb	1B.1	S1	G1
<u>Horkelia cuneata var. sericea</u>	Kellogg's horkelia	Rosaceae	perennial herb	1B.1	S1?	G4T1?
<u>Horkelia marinensis</u>	Point Reyes horkelia	Rosaceae	perennial herb	1B.2	S2	G2
<u>Iris longipetala</u>	coast iris	Iridaceae	perennial rhizomatous herb	4.2	S3	G3
<u>Lasthenia californica ssp. macrantha</u>	perennial goldfields	Asteraceae	perennial herb	1B.2	S2	G3T2
<u>Legenere limosa</u>	legenere	Campanulaceae	annual herb	1B.1	S2	G2
<u>Leptosiphon ambiguus</u>	serpentine leptosiphon	Polemoniaceae	annual herb	4.2	S4	G4
<u>Leptosiphon croceus</u>	coast yellow leptosiphon	Polemoniaceae	annual herb	1B.1	S1	G1

<u>Leptosiphon rosaceus</u>	rose leptosiphon	Polemoniaceae	annual herb	1B.1	S1	G1
<u>Lessingia arachnoidea</u>	Crystal Springs lessingia	Asteraceae	annual herb	1B.2	S2	G2
<u>Lessingia hololeuca</u>	woolly-headed lessingia	Asteraceae	annual herb	3	S3?	G3?
<u>Lilium maritimum</u>	coast lily	Liliaceae	perennial bulbiferous herb	1B.1	S2	G2
<u>Limnanthes douglasii ssp. ornduffii</u>	Ornduff's meadowfoam	Limnanthaceae	annual herb	1B.1	S1	G4T1
<u>Lupinus arboreus var. eximius</u>	San Mateo tree lupine	Fabaceae	perennial evergreen shrub	3.2	S2	G2Q
<u>Malacothamnus aboriginum</u>	Indian Valley bush-mallow	Malvaceae	perennial deciduous shrub	1B.2	S3	G3
<u>Malacothamnus arcuatus</u>	arcuate bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	S2	G2Q
<u>Malacothamnus davidsonii</u>	Davidson's bush-mallow	Malvaceae	perennial deciduous shrub	1B.2	S2	G2
<u>Malacothamnus hallii</u>	Hall's bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	S2	G2
<u>Micropus amphibolus</u>	Mt. Diablo cottonweed	Asteraceae	annual herb	3.2	S3S4	G3G4
<u>Microseris paludosa</u>	marsh microseris	Asteraceae	perennial herb	1B.2	S2	G2
<u>Monolopia gracilens</u>	woodland woollythreads	Asteraceae	annual herb	1B.2	S3	G3
<u>Navarretia myersii ssp. myersii</u>	pincushion navarretia	Polemoniaceae	annual herb	1B.1	S2	G2T2
<u>Pedicularis dudleyi</u>	Dudley's lousewort	Orobanchaceae	perennial herb	1B.2	S2	G2
<u>Pentachaeta bellidiflora</u>	white-rayed pentachaeta	Asteraceae	annual herb	1B.1	S1	G1
<u>Piperia candida</u>	white-flowered rein orchid	Orchidaceae	perennial herb	1B.2	S3	G3
<u>Plagiobothrys chorisianus var. chorisianus</u>	Choris' popcornflower	Boraginaceae	annual herb	1B.2	S2	G3T2Q
<u>Polemonium carneum</u>	Oregon polemonium	Polemoniaceae	perennial herb	2B.2	S2	G3G4
<u>Potentilla hickmanii</u>	Hickman's cinquefoil	Rosaceae	perennial herb	1B.1	S1	G1
<u>Ranunculus lobbii</u>	Lobb's aquatic buttercup	Ranunculaceae	annual herb	4.2	S3	G4
<u>Silene verecunda ssp. verecunda</u>	San Francisco campion	Caryophyllaceae	perennial herb	1B.2	S2	G5T2
<u>Stuckenia filiformis ssp. alpina</u>	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb	2B.2	S3	G5T5
<u>Trifolium amoenum</u>	two-fork clover	Fabaceae	annual herb	1B.1	S1	G1
<u>Trifolium hydrophilum</u>	saline clover	Fabaceae	annual herb	1B.2	S2	G2
<u>Triphysaria floribunda</u>	San Francisco owl's-clover	Orobanchaceae	annual herb	1B.2	S2?	G2?
<u>Triquetrella californica</u>	coastal triquetrella	Pottiaceae	moss	1B.2	S2	G2
<u>Tropidocarpum capparideum</u>	caper-fruited tropidocarpum	Brassicaceae	annual herb	1B.1	S1	G1

[Usnea longissima](#)

Methuselah's beard
lichen

Parmeliaceae

fruticose lichen
(epiphytic)

4.2

S4

G4

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Plant List

38 matches found. [Click on scientific name for details](#)

Search Criteria

Found in Quad 37122F4

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	1B.2	S2S3	G2G3
Arabis blepharophylla	coast rockcress	Brassicaceae	perennial herb	4.3	S4	G4
Arctostaphylos franciscana	Franciscan manzanita	Ericaceae	perennial evergreen shrub	1B.1	S1	G1
Arctostaphylos imbricata	San Bruno Mountain manzanita	Ericaceae	perennial evergreen shrub	1B.1	S1	G1
Arctostaphylos montana ssp. ravenii	Presidio manzanita	Ericaceae	perennial evergreen shrub	1B.1	S1	G3T1
Arctostaphylos montaraensis	Montara manzanita	Ericaceae	perennial evergreen shrub	1B.2	S1	G1
Arctostaphylos pacifica	Pacific manzanita	Ericaceae	evergreen shrub	1B.2	S1	G1
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	Fabaceae	perennial herb	4.2	S4	G4T4
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2
Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	annual herb	1B.2	S2	G3T2
Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	Polygonaceae	annual herb	1B.2	S1	G2T1
Chorizanthe robusta var. robusta	robust spineflower	Polygonaceae	annual herb	1B.1	S1	G2T1
Cirsium andrewsii	Franciscan thistle	Asteraceae	perennial herb	1B.2	S3	G3
Cirsium occidentale var. compactum	compact cobwebby thistle	Asteraceae	perennial herb	1B.2	S1	G3G4T1
Collinsia multicolor	San Francisco collinsia	Plantaginaceae	annual herb	1B.2	S2	G2
Equisetum palustre	marsh horsetail	Equisetaceae	perennial rhizomatous herb	3	S1S3	G5
Erysimum franciscanum	San Francisco wallflower	Brassicaceae	perennial herb	4.2	S3	G3
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	1B.2	S2	G2
Gilia capitata ssp. chamissonis	blue coast gilia	Polemoniaceae	annual herb	1B.1	S2	G5T2
Gilia millefoliata	dark-eyed gilia	Polemoniaceae	annual herb	1B.2	S2	G2
Grindelia hirsutula var. maritima	San Francisco gumplant	Asteraceae	perennial herb	3.2	S1	G5T1Q

Helianthella castanea	Diablo helianthella	Asteraceae	perennial herb	1B.2	S2	G2
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	Asteraceae	annual herb	1B.2	S1S2	G5T1T2
Hesperevax sparsiflora var. brevifolia	short-leaved evax	Asteraceae	annual herb	1B.2	S2	G4T3
Heteranthera dubia	water star-grass	Pontederiaceae	perennial herb	2B.2	S1	G5
Horkelia cuneata var. sericea	Kellogg's horkelia	Rosaceae	perennial herb	1B.1	S1?	G4T1?
Horkelia marinensis	Point Reyes horkelia	Rosaceae	perennial herb	1B.2	S2	G2
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	4.2	S3	G3
Lessingia germanorum	San Francisco lessingia	Asteraceae	annual herb	1B.1	S1	G1
Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	S2	G2Q
Monardella sinuata ssp. nigrescens	northern curly-leaved monardella	Lamiaceae	annual herb	1B.2	S2	G3T2
Pentachaeta bellidiflora	white-rayed pentachaeta	Asteraceae	annual herb	1B.1	S1	G1
Plagiobothrys chorisianus var. chorisianus	Choris' popcornflower	Boraginaceae	annual herb	1B.2	S2	G3T2Q
Silene verecunda ssp. verecunda	San Francisco campion	Caryophyllaceae	perennial herb	1B.2	S2	G5T2
Suaeda californica	California seablite	Chenopodiaceae	perennial evergreen shrub	1B.1	S1	G1
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	1B.1	S1	G1
Triphysaria floribunda	San Francisco owl's-clover	Orobanchaceae	annual herb	1B.2	S2?	G2?
Triquetrella californica	coastal triquetrella	Pottiaceae	moss	1B.2	S2	G2

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APPENDIX D

SFPUC Specifications for Preventing the Introduction and Spread of Phytophthora Species, Including Sudden Oak Death

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SPECIFICATIONS FOR PREVENTING THE INTRODUCTION AND SPREAD OF PHYTOPHTHORA SPECIES, INCLUDING SUDDEN OAK DEATH

This project has the potential to spread plant pathogens. Best Management Practices (BMP's) should be implemented before and during construction to minimize the spread of plant pathogens as described below. Virtually all practices for preventing the introduction and spread of plant pathogens such as *Phytophthora*, including sudden oak death (*Phytophthora ramorum*), are based on preventing the following:

- movement of contaminated materials into a work site;
- spread of contaminated materials within a site; and
- movement of contaminated materials to other sites.

BMPs are based on the following general strategies for minimizing risks of introducing or spreading *Phytophthora*:

- Minimize risk-generating activities – KEEP HIGH RISK ACTIVITIES TO THE MINIMUM needed to accomplish the task, including minimizing the area of disturbance and amount of soil and roots moved.
- Divide operations spatially across the site – separate projects into smaller activity areas where possible to minimize long range spread or spread from potentially infested areas to non-infested areas. This may include directional controls (working from non-infested toward potentially infested areas).
- Phase operations over time across site – separate project activities over time to minimize spread from potentially infested areas to non-infested areas or avoid working in high-risk areas under wet conditions.
- Use clean or sanitized materials – ensure that materials used in construction activities, including earth materials, mulches, erosion control materials, and coarse woody debris are free of contamination.
- Decontaminate more frequently – more frequent cleaning and sanitizing of tools and equipment may be needed where risks cannot be otherwise reduced. Note that some cleaning and decontamination is normally needed in conjunction with the above strategies.

Environmental Training

- Information on plant pathogens will be included in the preconstruction environmental tailboard meeting that will be given to all construction personnel.
- The training will include a summary of *Phytophthora* including sudden oak death (SOD), its issues, spread, and prevention. Copies of all applicable *Phytophthora* BMPs should be made available at the jobsite for reference.
- The biological monitor will ensure that construction staff understand provisions for *Phytophthora*/SOD spread prevention throughout the project, and pathogen considerations will be routinely addressed during regular tailboard meetings.
- The monitoring biologist should ensure that all staff have participated in the training by establishing and keeping a sign-in sheet that will record attendees.

General protocols

- Cleaning and sanitation required before entering sites to prevent introduction of contamination from other locations:

Phytophthora contamination may be present in agricultural and landscaped areas, on nursery stock, and in some native or restored habitat areas. Contamination can be spread via soil, plant material and debris, and water from infested areas. Arriving at the site with clean vehicles, equipment, tools, footwear, and clothes helps prevent unintentional contamination of the site from outside sources. Continual vigilance is needed, even if a site is already contaminated with one or more species of *Phytophthora*, including SOD, because introducing additional pathogens can make a bad situation worse.

- Cleaning and sanitation required when leaving a site to prevent pathogen spread to other locations:

The risk of acquiring and spreading *Phytophthora* contamination, including SOD, is much greater when work occurs in areas known to be infested with these pathogens. When leaving contaminated sites, equipment, vehicles, footwear, and clothing should be cleaned to prevent pathogen movement to other sites.

Tree Removals

Tree removals should be scheduled from June to October when conditions are warm and dry to avoid the moist conditions which favor the spread of pathogens like SOD. Inadvertent movement of soil, organic materials, or infected branches, twigs, and leaves (even after they are removed from the plant) can facilitate movement of pathogens. Green waste should be handled according to the specific conditions outlined for a given species (California Bay, Tanoak, Oak) and in accordance with pathogen quarantine regulations (<https://www.cdfa.ca.gov/plant/pe/InteriorExclusion/SuddenOakDeath/>). Only approved establishments for handling regulated green waste will be used for any material that is taken off site (Appendix X).

When removing oak, tanoak, or bay trees the following procedures should be followed:

- Cut tree stumps as close to the ground as practical.
- Do not grind the stumps. Stump grinding is not recommended because the equipment may become contaminated by soil and result in pathogen spread when used at another location.
- California bay and tanoak trees will need to be handled carefully.
 - All cut material should be sectioned and relocated directly downstream of the site from which it was cut, moving the material the shortest distance possible from point of origin.
 - Do not haul these materials off site.
 - California bay and tanoak trees should not be chipped.
- Oaks may be sectioned and left on site, chipped, and/or hauled off site as specified by the SFPUC forester or designated representative.
- If Oaks are hauled off site, they should only be hauled to approved establishments for handling SOD regulated green waste can be used (see Appendix X for approved list, and <http://phpps.cdfa.ca.gov/PE/InteriorExclusion/pdf/RegEstundercompforSOD.pdf>).

- The operation of vehicles or heavy equipment in such areas may lead to further disease spread when soil is disturbed and moved around.
 - Vehicles and heavy equipment should arrive on site clean of mud, dirt, and debris including plant material.
 - Before leaving a site, clean mud and debris from vehicles and heavy equipment.
- Work should occur in low-risk areas before proceeding to high risk areas.
- Work should occur directionally from upslope to downslope where applicable.
- To minimize the need for decontamination work should be completed in one area before moving onto another and movement should be minimized between areas.
- Before working:
 - Inform crews about the arboricultural implications of SOD and sanitation practices when they are working in potentially infested areas.
 - Provide crews with sanitation kits. (Sanitation kits should contain the following: approved sanitizing solution and spray bottle, or Clorox Clean-up®, scrub-brush, metal scraper, boot brush and plastic gloves).

All equipment, including employee personal protective equipment (PPE), should arrive on the project site clean of soil, seeds, plant parts, non-native aquatic invertebrates, non-native insects (i.e. Argentine ants, New Zealand Mud snails), chytrid fungus and plant pathogens including *Phytophthora* species such as SOD. Contractors should notify the SFPUC in advance of equipment delivery so that a representative can inspect equipment at the time of delivery.

To avoid or minimize the spread of pathogens including Sudden Oak Death (*Phytophthora ramorum*) and soil born *Phytophthora*, pests, aquatic noxious species, and non-native invasive plant species, contractors should prepare, submit and implement a Noxious Species Spread-Minimization Plan to the SFPUC for review and approval. The plan should be informed by a survey of project sites for SOD infested areas performed by a certified arborist and a survey of project sites for invasive plants by qualified personnel. The plan should include the following measures:

- Description of the results of the surveys for SOD, and invasive plants.
- Contractor's equipment, including employee PPE, should arrive on the project site clean of soil, seeds, plant parts, non-native aquatic invertebrates, non-native insects (i.e. Argentine ants, New Zealand Mud snails), chytrid fungus and soil and plant pathogens including *Phytophthora* species such as SOD. Contractors should notify the SFPUC at least 5 working days in advance of equipment delivery so that the SFPUC or a representative can inspect equipment at the time of delivery.
- Only certified, weed-free, sterilized, imported erosion-control materials may be used.
- To reduce the movement of invasive species, contractors should stockpile and cover topsoil removed during excavation, which should subsequently be used to refill excavated areas.
- Contractors should clean all construction equipment when entering and leaving SFPUC watershed property and/or the project site. Remove all dirt, plant parts, and material that may carry target non-native invasive plant species seed or sudden oak death (SOD)

pathogen (*Phytophthora ramorum*) or other pathogens or *Phytophthora*, whether detected by laboratory analysis, or not.

Tools should be sanitized after use on confirmed or suspected infested trees or in known infested areas that may contain SOD, other *Phytophthora*, and other pathogens, including chippers, vehicles, pruning, or cutting equipment.

The following measures should be implemented to minimize the spread of pathogens including SOD and other pathogens:

- Project Sites in the general operating area that are found to have none of the *Phytophthora* symptoms should be the initial operational sites before moving to sites where symptoms may be present. However, all plant and soil debris will be treated as possibly contaminated and disposed of as described below.
- To the extent practical and feasible, equipment will be routed away from pathogen host plants and trees (such as California bays and tan oaks for SOD), especially in areas with disease symptoms. Roads and supply or vehicle staging areas, and other sites of equipment activity should be located away from high risk areas, such as areas with pathogen host plants, and especially areas with disease symptoms.

SOD Debris Disposal:

- For SOD host material and green waste mixed with host material, contractors should have a Compliance Agreement for Hauler/Transporter pursuant to California Code of Regulations 3154.
- SOD host material and green waste mixed with host material should be disposed of offsite at a licensed facility with a Compliance Agreement and appropriate exhibits pursuant to California Code of Regulations 3154.
- SOD host material and green waste mixed with host material should be transported in accordance with California Department of Food and Agriculture Plant Quarantine Manual (<https://www.cdffa.ca.gov/plant/pe/InteriorExclusion/SuddenOakDeath/>).
- The SFPUC or an appointed representative should be contacted prior to the transporting of potentially infected material.
- The haul vehicle should be inspected prior to transporting material to ensure that the material is adequately covered to keep from being inadvertently dislodged during transporting.
- Alternatively, and as approved in advance by the SFPUC and an Air Pollution Control Officer, an air curtain burner may be used to burn cut vegetation onsite.

Soil Moving Activities

- Excess soil: If approved for onsite spreading, all cast soil should be kept as close as possible to the source location.
- Removed rocks: If approved for onsite spreading, rocks, and other removed trail obstacles should be left as close as possible to point of origin.

- On-site fill soil: If approved for use, on-site soil used for fill should be sourced as close as possible to the site of use. Do not move fill soil from areas that are more likely to be contaminated, uphill from the source, or between watersheds or sub-watersheds.
- To reduce the movement of target non-native invasive plant species into uninfested areas, Contractor should stockpile and cover topsoil removed during excavation, which should be subsequently used to refill excavated areas.
- Water used for dust control or other construction purposes should be from verifiable clean sources or treated.
- Adjust the amount of water applied and time between wetting and equipment use as appropriate for soil and site conditions to minimize amount of soil or tread material that adheres to tools and equipment.
- Avoid excessive water application that results in runoff or puddling.
- Brush or rinse adhered soil and debris from equipment and tools as needed to minimize movement from point of origin.

Imported Materials (soil, mulch, gravel, etc.)

- No materials should be imported unless specifically approved in advance by the SFPUC.
- Use only materials that have been previously approved by the SFPUC and are sanitized, heat-treated, or are free of contamination due to manufacturing conditions or sourcing, and maintained in a way to prevent subsequent contamination.
- Load new clean materials directly into thoroughly cleaned vehicles, carts, trailers, etc., and unload directly at point of use onto clean, dry surfaces. Do not place materials on the ground, especially under wet conditions.
- Store new materials to be used at a job site on carts, platforms, or clean tarps. Do not place stockpiles in places they will be exposed to runoff. Cover and install perimeter protections if inclement weather is likely. Cover if inactive for at least 14 days.
- Mulch:
 - Mulch should be obtained from chipping of material generated on-site as a result of pruning woody plants during clearing and grubbing operations or from commercial sources previously approved by the SFPUC;
 - Trees selected for on-site chipping for mulch should be approved by a State Certified Arborist.
 - California bay and tanoak trees should not be used for mulch or chipped.
 - Mulch should be free of rocks, soil, invasive plant materials or propagules, and inorganic debris (e.g., metals, plastics, glass, etc.). Mulch should be at least 95 percent material by volume less than 3 inches and no more than 30 percent by volume less than 1 inch in length.
- Imported soil:
 - Soil and other organic materials should only be imported as previously approved by the SFPUC.
 - Imported soil should be as supplied by Zanker Landscape Materials, 675 Los Esteros Road San Jose CA 95134 408.515.6330, Planter Mix created via phytosanitary measures, or approved equal.

- Imported soil and other organic materials should at a minimum be heat treated to 140°F (60°C) or higher for at least 30 minutes.
- All handling equipment should be cleaned and decontaminated, including all vehicle tires, tractor buckets, truck beds, and tools (including work boots, gloves, etc.) with an approved sanitizing solution before handling soil for transport and/or installation.
- Imported soil should be similar to the existing site soil and should be fertile, friable, natural, productive soil containing a normal amount of humus, and should be capable of sustaining healthy plant life. Planting soil should be free of subsoil, heavy or stiff clay, rocks, gravel, brush, roots, weeds, noxious seeds, sticks, trash, and other deleterious substances. Soil should not be infested with nematodes or with other noxious animal life or toxic substances. Soil should be obtained from well- drained, arable land, and should be of an even texture. Soil should not be taken from areas on which are growing any noxious weeds such as Morning Glory, Sorrel, or Bermuda Grass.
- Imported soil should have a pH value of between 6.0 and 7.5, a boron concentration of the saturation extract of less than 1 ppm, salinity of the saturation extract at 25 degrees C. of less than 4.0 millimoles, and a sodium absorption rate (SAR) of less than 8.
- The silt and clay content of imported soil should not exceed that of the existing soil it is to be placed over. It should be a "Sandy Loam" as classified in accordance with USDA Standards with a combined total of between 25% To 40% Clay and Silt. Provide existing site soil sample analysis report for comparison with the imported soil report.
- Gravel and Aggregate Base:
 - Gravel shall be free from organic matter and other deleterious substances, and shall be of such nature that it can be compacted readily under watering and rolling to form a firm, stable base. Gravel and aggregate base shall not sourced from recycled material.

Gear, Tools, and Personal Protective Equipment

- Any personal protective equipment, gear, tools, clothing, or footwear entering and exiting SFPUC watershed property must be cleaned so that they are visibly free of dirt and debris.
- Use all reasonable methods to sanitize personal gear and crew equipment before leaving the site.
 - Scrape, brush and/or hose off accumulated soil, mud, and plant material from clothing, gloves, and shoes
 - Cleaned items must then be treated with an approved chemical sanitizer (see "Sanitizing" section below).
- Cleaning and decontamination must occur when moving from one site to a different site.
 - Cleaning and decontamination within the same site is not required when moving in a downstream direction for features that are hydrologically connected. Always work from upstream to downstream in riparian areas and when moving between ponds that are within a single drainage.

- Decontaminate boots, gear, PPE, and tools, before moving to new upstream locations.

Cleaning and Washing:

- Equipment, vehicles and large tools must be free of soil and debris on tires, wheel wells, vehicle undercarriages, and other surfaces before arriving on SFPUC lands. It is not acceptable to wash or decontaminate in parking areas, on roadways, or along foot trails prior to entering sensitive areas. Soiled items should not be cleaned after entrance to the watershed. A high-pressure washer and/or compressed air may be used to ensure that soil and debris are completely removed.
- The interior of equipment (cabs, etc.) should be free of mud, soil, gravel and other potentially contaminated material. Interiors should be vacuumed, washed, and/or treated with sanitizing agents as needed to eliminate pathogen propagules that could be transferred to other areas.
- Clean gear with a brush or scraper to remove as much visible mud and debris as possible. Take care to check crevices and hard to see areas for soil and debris. Thoroughly clean and wash all parts of tools and equipment, including handles, grips, wheels, and frames. For larger equipment and digging tools, use a power washer, compressed air, or water jet to remove soil, seeds, plant material, and debris.
- Verifiably new and unused equipment may be exempt from decontamination but subject to inspection.
- All vehicles and equipment should be inspected by an SFPUC representative prior to allowing entry to the site.

Sanitizing Guidelines:

- Clean gear with a brush or scraper to remove as much visible mud and debris as possible. Take care to check crevices for soil and debris. Thoroughly clean and wash all parts of tools and equipment, including handles, grips, wheels, and frames. For larger equipment and digging tools, use a power washer, compressed air, or water jet to remove soil, seeds, plant material, and debris.
- All surfaces that may have contacted soil or vegetation must be sanitized using high temperature water exceeding 140°F, steam, or approved chemicals. Wheels, tires, mud flaps, and other areas that directly contact the soil surface are of particular concern.
- Chemical sanitizing materials must be applied at the proper concentrations as defined below. These chemicals may be applied with a spray bottle, back pack sprayer, or other method that ensures soaking coverage of the area being sanitized. Smaller items may be soaked.
- Pressure washing may be combined with high temperature cleaning, where facilities exist, to satisfy the sanitization requirement. A surface temperature exceeding 140°F for 30 minutes must be verified using a hand-held infrared temperature sensor. Use caution when working with hot liquids and high-pressure fluids.

- The application of an approved chemical agent can substitute for steam or high temperature cleaning.
- If items are rinsed with water first, they should be allowed to dry to the point that the sanitizing material is not further diluted.
- Items visibly free of soil, organic matter, and debris should be sprayed with an approved sanitizing material such that the surface of the item is saturated.
- Ensure that the sanitization material contacts the entire item.
- Items with textured surface or hard to reach assemblies (such as the hinge on clippers), should be soaked in an approved sanitizing material. For footwear and hand tools used for moving soil or cutting vegetation, soaking the equipment in a footbath with sanitizer can be used as an alternative to a spray bottle
- Items susceptible to corrosion or damage may be rinsed with clean, fresh water following the application of sanitizing materials. Some of these materials can cause permanent damage to plastics, synthetic fabrics, and metals. Use caution and consult the manufacturers labeling or Material Safety Data Sheet (MSDS).
- Ensure that items requiring post-application rinse are saturated with sanitizing material for the appropriate duration.
- Approved Sanitizing Solutions:

Approved Sanitizing Solutions

Sanitizer	Concentration	Required Contact Time	Notes
Ethyl or isopropyl alcohol	≥70%	Until dry	Thoroughly wet surface and allow to air dry. Dilution not needed. Flammable.
Bleach (sodium hypochlorite)	0.53%	1 minute	Do not use on materials that will corrode, such as steel. Can cause irritation to eyes, mouth, lungs, and skin. May damage clothing.
<u>Quaternary ammonium compounds (QAC) or Quat.</u>	<u>3.1% (4oz per gallon or 1:31 for Quat-128. Ratios should be halved for Quat-256.)</u>	<u>10 minutes</u>	<u>Odorless, colorless, and non-corrosive. Many commercial products available; check product labels for dilution instructions. Dilution in hard water up to 200 ppm solute concentration is acceptable.</u>

Bleach dilution guidelines.

Percent sodium hypochlorite in bleach	Parts bleach	Parts water	Diluted bleach percent sodium hypochlorite
5.25%	1	9	0.53%
6.00%	1	10.4	0.53%
8.25%	1	14.6	0.53%
8.30%	1	14.8	0.53%

Appendix # (see attached pdf "2018_CAQuarantineApprovedGWList.pdf")

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APPENDIX E

Expanded Hazards Mitigation Measure M- HZ-8: Fire Management Plan

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APPENDIX E

Expanded Hazards Mitigation Measure M-HZ-8: Fire Management Plan

Mitigation Measure M-HZ-8: Fire Management Plan.

The SFPUC shall prepare and implement a new fire management plan in coordination with the California Department of Forestry and Fire Protection (CalFire) prior to opening the southern skyline ridge trail, universal access loop trail, or Fifield-Cahill ridge trail to unsupervised public access. The new fire management plan shall include the actions of the fire management element of the Peninsula Watershed Management Plan relevant to the project and which have not been completed.

Specifically, the new fire management plan shall include:

- Relevant fire defense improvement actions related to increasing the water supply for firefighting and constructing access improvements (Peninsula Watershed Management Plan fire defense improvement actions fir2, fir3, fir4, fir5, fir6, and fir7, as included below).
 - **Action fir2** – Install a total of five dry hydrants into reservoirs or other water sources to reduce the complexity of long-distance water shuttle operations. The dry hydrants shall be installed at the following locations:
 - south of Section 19 on the east side of Old Canada Road (to be co-located with a water tank)
 - at the east end of Pilarcitos Dam
 - at the intersection of San Mateo Creek and the road to Lower Crystal Springs Reservoir (near mud dam)
 - at boat ramp approximately 100 yards south of San Andreas reservoir Adit #2 (maximo Asset N25).
 - near the most pronounced point south of Lower Crystal Springs Dam on the eastern shore of Lower Crystal Springs Reservoir (boat ramp).
 - **Action fir3** – Install and maintain a total of five helispots, each with a tank capable of holding approximately 10,000 gallons from which water can be drafted. The helispots shall be located on access roads along the northern one-third of the watershed at the locations listed below:
 - in Section 25 at the fuelbreak on Montara Mountain at elevation 1,700 feet above sea level

- on the border of Sections 18 and 19 at the fuelbreak at elevation 660 feet above sea level
- in Section 21 at the fuelbreak of Sawyer's Ridge at elevation 1,180 feet above sea level
- north of San Andreas Lake on the access road that leads to a cottage at elevation 660 feet above sea level
- east of I-280 south of Highway 92 on the ridgeline trail running west from the jeep trail
- **Action fir4** – Working with adjacent landowners, install one additional wet hydrant outside of SFPUC lands along Pilarcitos Creek near the boundary of Sections 10 and 11
- **Action fir5** – Install one additional metal water tank of 10,000-gallon capacity and a supporting water collection system south of Section 19 on the east side of Old Canada Road (to be co-located with a dry hydrant)
- **Action fir6** – Undertake the following improvements to provide better access to enhance fire suppression capabilities:
 - repair/re-engineer Ingoing Road where culverts need to be replaced and underlayment rebuilt
 - ongoing coordination with the Golden Gate National Recreation Area to provide access from Sneath Lane Gate, Mori Point Trail from Shell Dance to Baquiano Trail, and Picardo Ranch Road to Baquiano Trail
 - ongoing coordination with CalFire to maintain emergency access on all gates leading to Scarper Peak on Frenchman's Creek Road
- **Action fir7** – Continue identifying and constructing road improvements including necessary turnouts, turnarounds, and safety zones as topography and soil characteristics permit (exact location to be determined in the field) to provide better access and enhance fire suppression capabilities.
- Relevant fuel management actions related to reducing fuel volume and flammability, establishing/maintaining fuel discontinuity, and preventing fires from spreading to the tree crowns (Peninsula Watershed Management Plan fuel management action fir8).
 - **Action fir8** – Complete the *fuel management projects* listed below in coordination with applicable agencies to reduce fuels on the watershed. In implementing these projects, adhere to the Fuel Management Standards, Guidelines, and Fuel Management Methods Available (e.g., hand labor, tree removal, mechanical treatments, prescribed burning, grazing, and chemical treatments coordinated with the SFPUC Integrated Pest Management Plan) set forth in the Peninsula Watershed Management Plan Appendix A-1 (fire management element). A complete description of the fuel management projects as well as the recommended treatment and schedule is also included in the fire management element.

- *Continue Projects 13-14 – Cahill Ridge Fuelbreaks Recommendations:* Thin Douglas fir stands, chip and scatter slash. In high fire hazard areas remove or prescribe burn slash.
- *Continue Projects 15-19 – Ridgeline Fuelbreaks Recommendations:* Reduce fuel loads through various means, including mechanical, prescribed fire, and mowing. If warranted due to erosion hazard, drill native grass seed into slopes less than 20 percent.
- *Continue Project 20 – Polhemus Canyon Recommendations:* Mow roadsides and prune lower branches of woodlands. High priority areas are those areas adjacent to residential areas.
- *Continue Project 21 – Telephone Line Recommendations:* Mechanically clear brush under line and thin forest.
- *Continue Project 22 – Skyline Ridge Recommendations:* Thin forest stands, remove Monterey cypress (to extent feasible), and hand thin shrubs around small oak trees.
- *Continue Project 26 – Old Canada Rd. Recommendations:* Prune lower branches of woodlands, remove understory per prescription standards along road, and mow vegetation along road.
- *Continue Projects 27-28 – Clearance around Structures Recommendations:* Comply with defensible space guidelines and mow annually.
- *Continue Project 29 – Powerline Clearing Recommendations:* Remove hazardous trees and inspect lines after storms.
- Relevant fire response actions that provide the framework for the SFPUC's response to fires (Peninsula Watershed Management Plan fire response actions fir9, fir10, fir11, fir12, and fir13). Action fir9 - Watershed staff shall report and provide preliminary assessment of all fires to CalFire and SFPUC's Division Dispatch. Division Dispatch will in turn call 911 and notify the watershed manager.
 - **Action fir10** – Following assessment and reporting of the fire, initial response shall be made if the fire appears to be easily suppressed. If the fire is already large or is quickly gaining intensity beyond the capability of limited water and suppression ability, evacuate and report situation and staff location to watershed dispatch.
 - **Action fir11** – If an evacuation is necessary, contact the San Mateo County Sheriff Department, the Office of Emergency Services, San Mateo County Police Department, and CalFire; have dispatch notify SFPUC employees; and set up an incident command system and liaison with other agencies.
 - **Action fir12** – Prepare and provide to affected agencies and organizations maps and information that depict and explain items such as special requirements within the watershed to protect water quality, safe zones, turnout locations, locations of wet and dry hydrants, helispots, fuel break locations, natural barriers, evacuation routes, and areas of limited or modified suppression. Affected agencies and organizations including but not be limited to:

- Golden Gate National Recreation Area
- CalFire/San Mateo County Fire Department
- San Bruno
- Millbrae
- Burlingame
- Hillsborough
- San Mateo
- North County Fire Authority
- Daly City
- Woodside
- Redwood City
- Pacifica
- Mid-Peninsula Open Space District
- Filoli Estate

If prescribed burns are proposed for fuel management, the fire management plan shall specify appropriate actions for safe implementation. These actions include preparing a prescription (or burn plan), coordinating with appropriate regulatory agencies regarding potential environmental impacts, obtaining a burn permit from the Bay Area Air Quality Management District, and notifying the public and neighboring agencies. The prescribed burn shall be conducted when conditions permit both adequate combustion and control of the fire and shall be coordinated with CalFire as part of its vegetation management program.

The new fire management plan shall address all of the identified fire management element actions and tailor those actions to site-specific conditions, as well as the potential effects of climate change. The plan's implementation methodology shall consider and incorporate, as relevant, the methods set forth in the Peninsula Watershed Management Plan's Appendix A-1 (Peninsula Watershed Fire Management Element). An implementation schedule shall be provided. The southern skyline ridge trail, universal access loop trail, and Fifield-Cahill ridge trail shall not be opened for unsupervised access until the actions intended to address fire risk in those areas have been completed. The SFPUC shall coordinate preparation and implementation of the fire management plan with CalFire as part of its fire prevention and vegetation management programs, in accordance with standing procedures and Peninsula Watershed Management Plan policy F9. Implementation of the fire management plan shall be assigned to an incident commander employed by the SFPUC's Natural Resources and Land Management Division in accordance with Peninsula Watershed Management Plan action fir13.

- **Action fir13** – Assign the duties of implementation of the fire management plan and incident commander to an existing or new Natural Resources and Land Management Division staff member.