

April 18, 2024

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

Pursuant to the State of California Public Resources Code and the “Guidelines for Implementation of the California Environmental Quality Act of 1970” as amended to date, this is to advise you that the San Mateo County Flood and Sea Level Rise Resiliency District has prepared an Initial Study for the following project:

PROJECT NAME: Routine Maintenance on Bayside Creeks Project

LEAD AGENCY: San Mateo County Flood and Sea Level Rise Resiliency District
(OneShoreline)

Contact: Jonathan Perisho email: Projects@OneShoreline.org Phone: (650) 393-0946

APPLICANT: San Mateo County Flood and Sea Level Rise Resiliency District
(OneShoreline)

LOCATION: The Proposed Project is located within San Mateo County, California at seven (7) distinct maintenance sites along five (5) creeks (San Mateo, San Bruno, Atherton, Belmont, and Cordilleras).

ZONING: Various

DESCRIPTION: The San Mateo County Flood and Sea Level Rise Resiliency District, also known as OneShoreline, plans to regain flow capacity at existing facilities by removing excess sediment and vegetation along short segments of creek at San Mateo, San Bruno, Atherton, Belmont, and Cordilleras Creeks.

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

Pursuant to the requirements of CEQA (CEQA Guidelines Section 15071) the MND describes the proposed project; identifies, analyzes, and evaluates the potential significant environmental impacts, which may result from the proposed project; and identifies measures to mitigate adverse environmental impacts. Mitigations identified in

this document designed for the proposed project will ensure that the project will not cause a significant impact on the environment.

The MND can also be viewed online at the following link: <https://onshoreline.org/document-library/>. Documents referenced in the MND can be provided upon request by contacting the Project Manager (contact information provided below).

PUBLIC COMMENT PERIOD: The period for accepting comments on the adequacy of the environmental document is from **April 18, 2024 to May 20, 2024**. Any comments should be in writing and submitted to the following address and/or e-mail address:

Johnathan Perisho, Project Manager
San Mateo Flood and Sea Rise Resiliency District (OneShoreline)
1700 S. El Camino Real, Suite 502
San Mateo, CA 94402
projects@onshoreline.org
Office: (650) 393-0946

The environmental document is expected to go before the OneShoreline Board of Directors on **June 24, 2024**. To confirm the Board date, please contact Johnathan Perisho at (650) 393-0946.

**San Mateo County Flood
and Sea Level Rise Resiliency District
Routine Maintenance on Bayside Creeks Project**

Initial Study/Mitigated Negative Declaration

Prepared for:

San Mateo County Flood
and Sea Level Rise Resiliency District (OneShoreline)
1700 S El Camino Real, Suite 502,
San Mateo, CA 94402

Prepared by:

Montrose Environmental
1 Kaiser, Suite 340
Oakland, CA 94612

April 2024

Montrose Environmental. *Routine Maintenance on Bayside Creeks Project - Initial Study/Mitigated Negative Declaration*. Prepared for OneShoreline. April 2024. (Project No. 23.020) Oakland, CA.

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LIST OF ACRONYMS

AADT	Annual Average Daily Traffic
AB	Assembly Bill
ABAG	Association of Bay Area Governments
APE	area of potential effect
APN	assessor's parcel number
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BMP	Best Management Practice
CARB	California Air Resources Board
C/CAG	City/County Association of Governments of San Mateo County
CCC	Central California Coast
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
County	County of San Mateo
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DPM	Diesel particulate matter
DPS	distinct population segment
DTSC	California Department of Toxic Substances Control
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FTA	Federal Transportation Administration
GHG	greenhouse gas
GPS	global positioning system
IPaC	Information for Planning and Conservation
IS/MND	Initial Study/Mitigated Negative Declaration
L_v	vibration level
MLD	Most Likely Descendent
MMRP	Mitigation Monitoring and Reporting Program
MTCO _{2e}	metric tons of carbon dioxide equivalents
MTC	Metropolitan Transportation Commission
NAHC	Native American Heritage Commission

NMFS	National Marine Fisheries Service
NO _x	nitrogen oxides
NRCS	Natural Resources Conservation Service
OneShoreline	San Mateo County Flood and Sea Level Rise Resiliency District
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
PPV	peak particle velocity
Project	Routine Maintenance of Bayside Creeks Project
Proposed Project	Routine Maintenance of Bayside Creeks Project
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SamTrans	San Mateo County Transit District
SFBAAB	San Francisco Bay Area Air Basin
SFO	San Francisco International Airport
SO ₂	sulfur dioxide
TAC	Toxic Air Contaminant
TCR	Tribal Cultural Resource
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibels
WDRs	Waste Discharge Requirements
WSE	water surface elevation

Chapter 1

INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with California Environmental Quality Act (CEQA), under which the Proposed Project is evaluated at a project level (CEQA Guidelines § 15378). The San Mateo County Flood and Sea Level Rise Resiliency District, also known as OneShoreline, as the lead agency under CEQA, will consider the Proposed Project’s potential environmental impacts when considering whether to approve the Project. This IS/MND is an informational document to be used in the planning and decision-making process for the Proposed Project and does not recommend approval or denial of the Proposed Project. The Proposed Project is based on best estimates and professional judgement at the time this document was prepared and the environmental analysis has been developed with conservative assumptions to accommodate some level of modification.

This IS/MND describes the Proposed Project; its environmental setting, including existing conditions and regulatory setting, as necessary; and the potential environmental impacts of the Proposed Project on or with regard to the following topics:

Aesthetics	Land Use and Planning
Agriculture/Forestry Resources	Mineral Resources
Air Quality	Noise
Biological Resources	Population and Housing
Cultural Resources	Public Services
Energy	Recreation
Geology, Soils, and Seismicity	Transportation and Traffic
Greenhouse Gas Emissions	Tribal Cultural Resources
Hazards and Hazardous Materials	Utilities and Service Systems
Hydrology/Water Quality	Wildfire

1.1 Public Involvement Process

Public disclosure and dialogue are priorities under CEQA. CEQA Guidelines Section 15073 and Section 15105(b) require that the lead agency designate a period during the IS/MND process when the public and other agencies can provide comments on the potential impacts of the Proposed Project. Accordingly, OneShoreline’s input on this project, please send comments to the following contact:

Johnathan Perisho
San Mateo County Flood and Sea Level Rise Resiliency District
1700 S. El Camino Real, Suite 502
San Mateo, CA 94402
Email: Projects@OneShoreline.org
Phone: (650) 393-0946

During its deliberations on whether to approve the Proposed Project, OneShoreline will consider all comments received before 5:00 p.m. on the date identified in the Notice of Intent (May 4, 2024) for closure of the public comment period.

1.2 Organization of this Document

This IS/MND contains the following components:

Chapter 1, *Introduction*, provides a brief description of the intent and scope of this IS/MND, the public involvement process under CEQA, and the organization of and terminology used in this IS/MND.

Chapter 2, *Project Description*, describes the Proposed Project including its purpose and goals, the site where the Proposed Project would be constructed, the construction approach and activities, operation-related activities, and related permits and approvals.

Chapter 3, *Environmental Checklist*, presents the checklist used to assess the Proposed Project’s potential environmental effects, which is based on the model provided in Appendix G of the CEQA Guidelines. This chapter also includes a brief environmental setting description for each resource topic and identifies the Proposed Project’s anticipated environmental impacts, as well as any mitigation measures that would be required to reduce potentially significant impacts to a less-than-significant level.

Chapter 4, *References*, provides a bibliography of printed references, websites, and personal communications used in preparing this IS/MND.

Appendices, Appendix A: Local Laws and Policies and Appendix B: Air Quality Analysis.

1.3 Impact Terminology and Use of Language in CEQA

This IS/MND uses the following terminology to describe the environmental effects of the Proposed Project:

- A finding of *no impact* is made when the analysis concludes that the Proposed Project would not affect the particular environmental resource or issue.
- An impact is considered *less than significant* if the analysis concludes that no substantial adverse change in the environment would result and that no mitigation is needed.
- An impact is considered *less than significant with mitigation* if the analysis concludes that no substantial adverse change in the environment would result with the inclusion of the mitigation measures described.
- An impact is considered *significant or potentially significant* if the analysis concludes that a substantial adverse effect on the environment could result.
- *Mitigation* refers to specific measures or activities that would be adopted by the lead agency to avoid, minimize, rectify, reduce, eliminate, or compensate for an otherwise significant impact.
- A *cumulative impact* refers to one that can result when a change in the environment would result from the incremental impacts of a project along with other related past, present, or reasonably foreseeable future projects. Significant cumulative impacts might result from impacts that are individually minor but collectively significant. The cumulative impact analysis in this IS/MND focuses on whether the Proposed Project's incremental contribution to significant cumulative impacts caused by the project in combination with past, present, or probable future projects is cumulatively considerable.
- Because the term "significant" has a specific usage in evaluating the impacts under CEQA, it is used to describe only the significance of impacts and is not used in other contexts within this document. Synonyms such as "substantial" are used when not discussing the significance of an environmental impact.

Chapter 2 PROJECT DESCRIPTION

2.1 Introduction and Project Need

San Mateo County has already been severely affected by the water-related impacts of climate change, including atmospheric rivers, drought, and coastal erosion; and sea level rise threatens more people and property here than in any other county in California. This is why the San Mateo County Flood and Sea Level Rise Resiliency District, also known as OneShoreline, was established by State legislation in 2020 as the first independent countywide government agency in California to work across jurisdictional boundaries with a wide range of public and private stakeholders to plan, fund, and build the long-term resiliency of our communities and natural areas to climate change.

In OneShoreline's short history, multiple atmospheric river storms have resulted in severe flooding that has cost lives and substantial damage to private property and nature around San Mateo County. The reality that this climate change impact is already here, particularly because most flooding has occurred along creeks that cross multiple jurisdictions, compels OneShoreline to add to its original focus of long-term resilience another priority: reduce today's flooding.

To respond to this established flood threat, the Proposed Project addresses the immediate need to restore channel capacity by removing accumulated sediment, vegetation, and debris in seven (7) targeted reaches of five (5) constrained creeks. The Proposed Project focuses on ground disturbing activities along short reaches of Atherton, Cordilleras, Belmont, San Bruno and San Mateo Creeks with the following objectives:

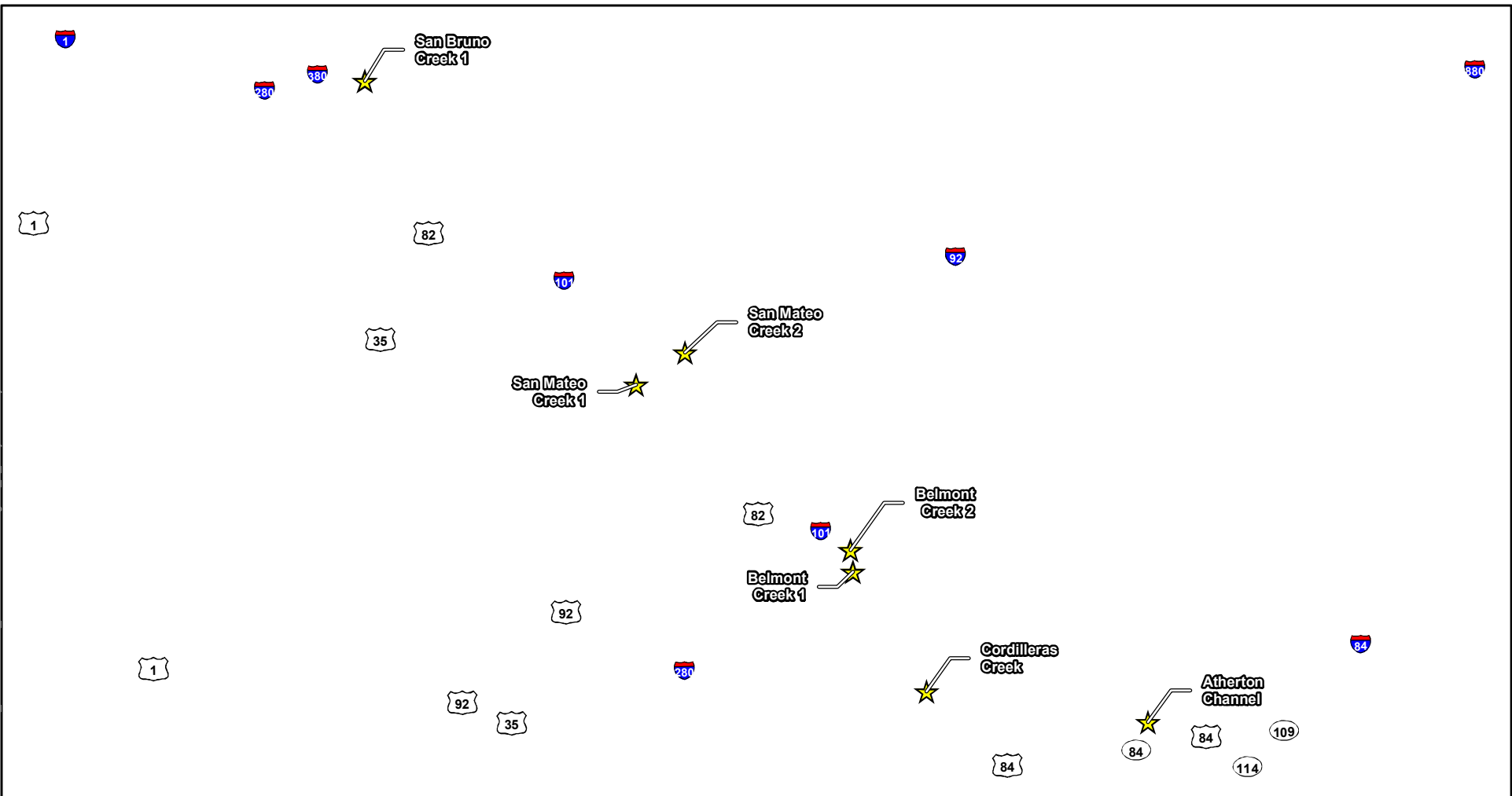
- Increase resilience of flood-prone areas by specifically targeting sites that flooded during the last two winters;
- Restore the capacity and conveyance of modified channels and existing facilities; and
- Largely focus on locations that protect disadvantaged communities and major (State) transportation corridors.

In addition to this Proposed Project, OneShoreline has already promoted a regional, holistic perspective to attenuating flood risks within four of the five creek watersheds that are the subject of this permit application through its work to plan, fund, and even construct major multi-benefit, multi-jurisdictional capital projects.

2.2 Proposed Maintenance Sites and Activities

The Proposed Project is located at seven (7) distinct maintenance sites along five (5) creeks within San Mateo County, California. The maintenance site locations are shown on **Figures 1 and 2**. The Project proposes a five (5) year maintenance program to conduct routine and reoccurring maintenance activities. The initial maintenance activity is defined as the first-time occurrence of a maintenance activity. The operational maintenance activities are those that may occur during the five (5) year permit term following initial maintenance activities. Operational maintenance activities are not anticipated to occur annually but on an as-needed basis as necessitated by site conditions. The proposed maintenance activities are described below.

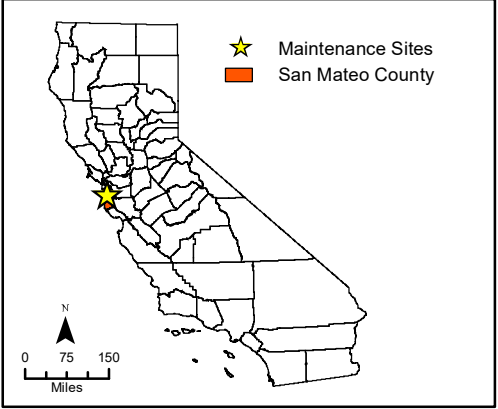
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Source: ESRI 2023

★ Maintenance Sites

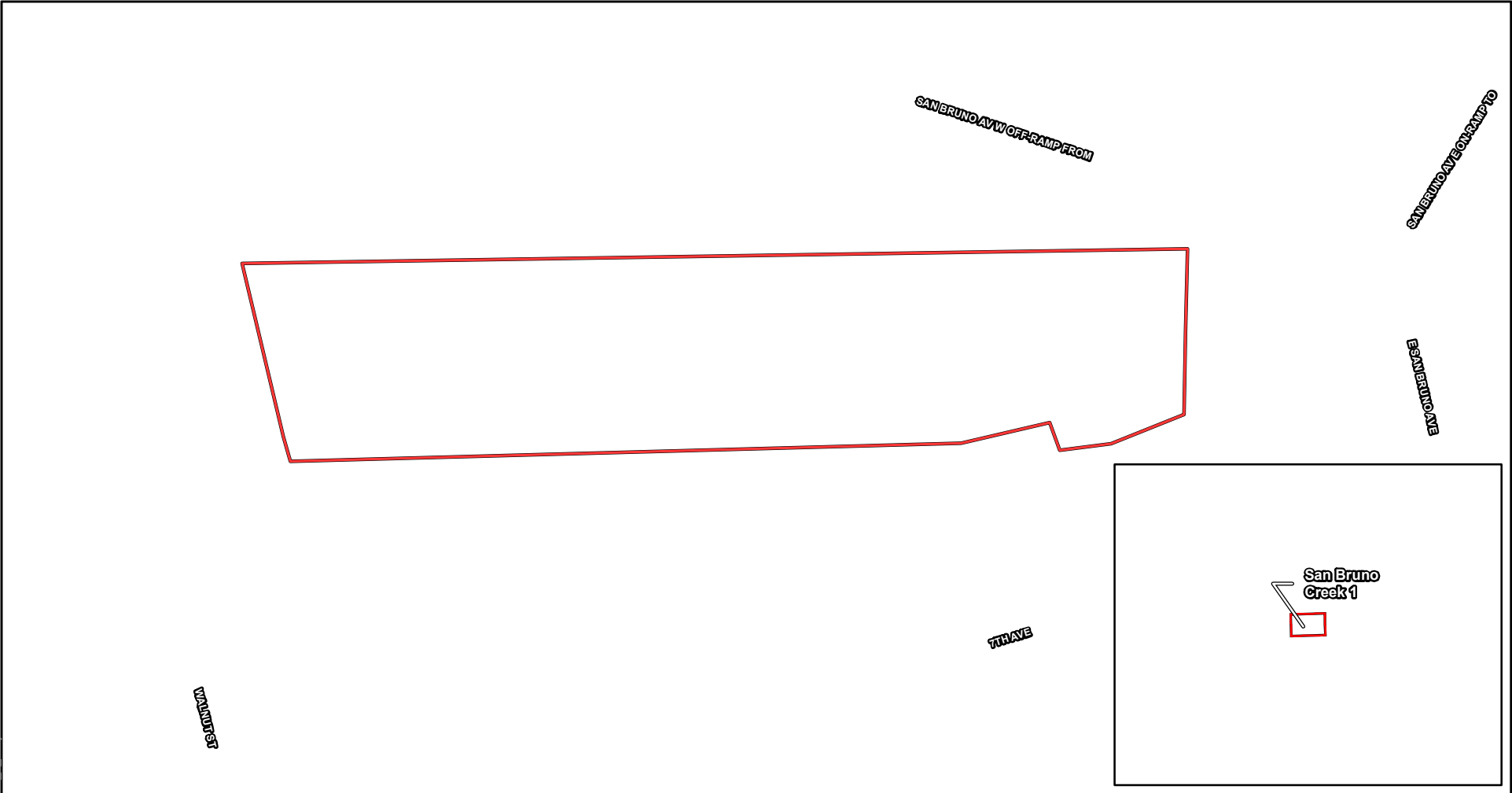
**Figure 1
Project Vicinity**



★ Maintenance Sites
■ San Mateo County

San Mateo County Flood and Sea Level Rise Resiliency District
Bayside Creeks Routine Maintenance Project

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Source: ESRI 2023

 Maintenance Areas

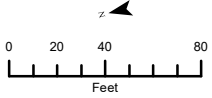
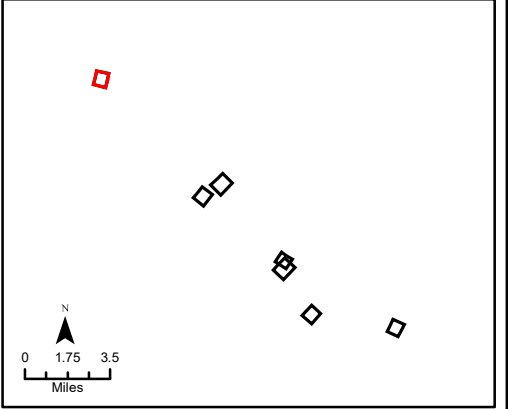
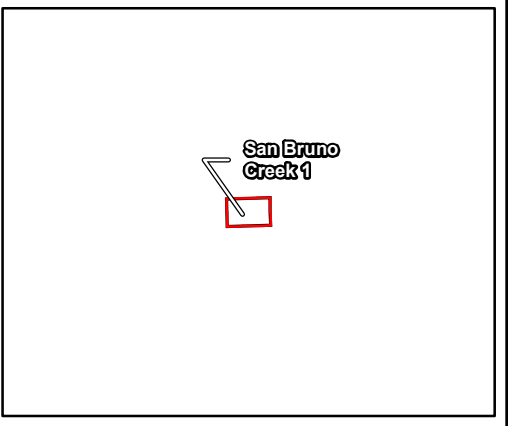
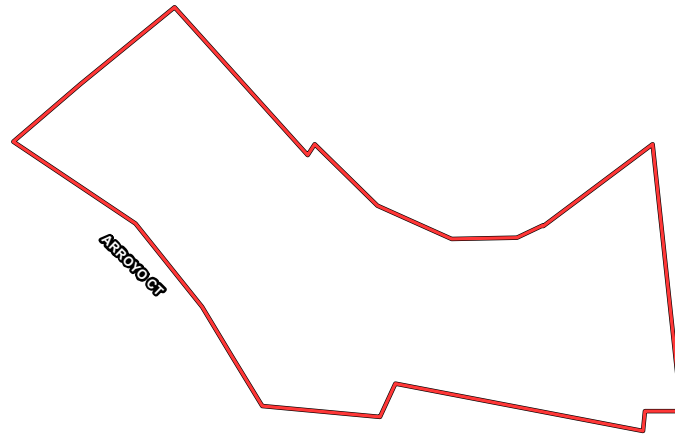


Figure 2
Project Locations
San Bruno Creek at 7th Avenue

Sheet 1 of 7

San Mateo County Flood and Sea Level Rise Resiliency District
Bayside Creeks Routine Maintenance Project





ALLEY

SEL CAMINO REAL

2ND AVE

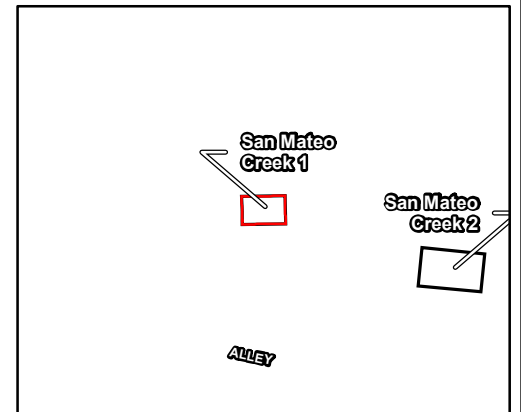

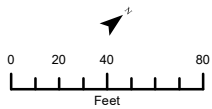


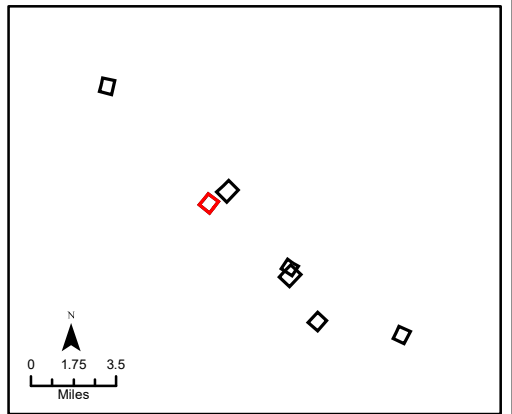
Figure 2
Project Locations
San Mateo Creek at Arroyo Court

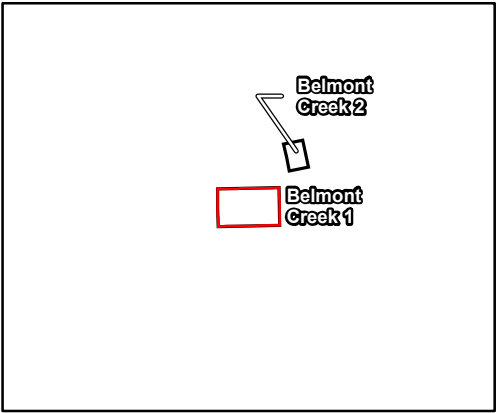
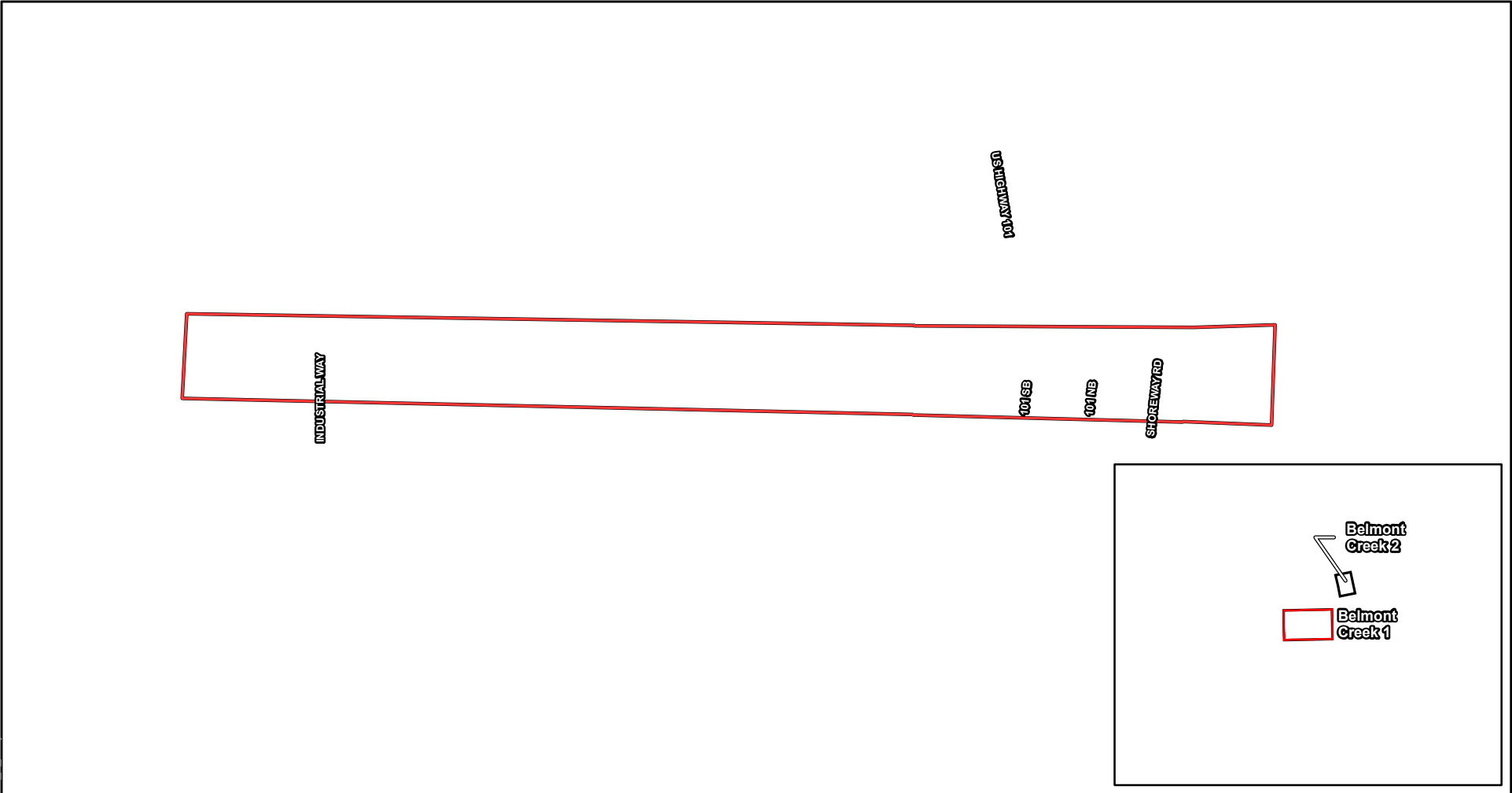
Sheet 2 of 7

 Maintenance Areas



San Mateo County Flood and Sea Level Rise Resiliency District
 Bayside Creeks Routine Maintenance Project





Source: ESRI 2023

Maintenance Areas

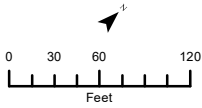
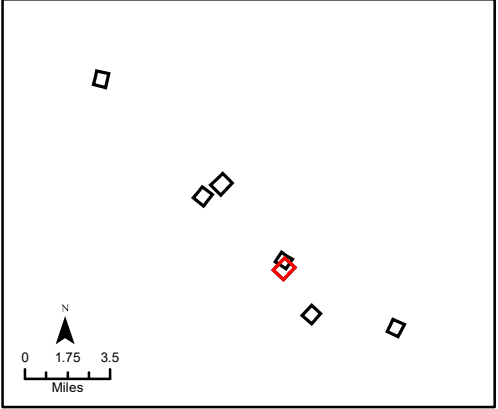
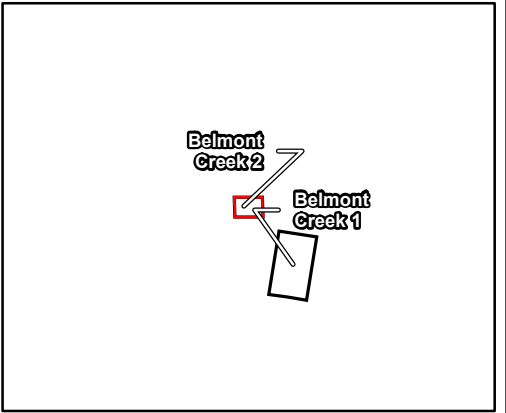
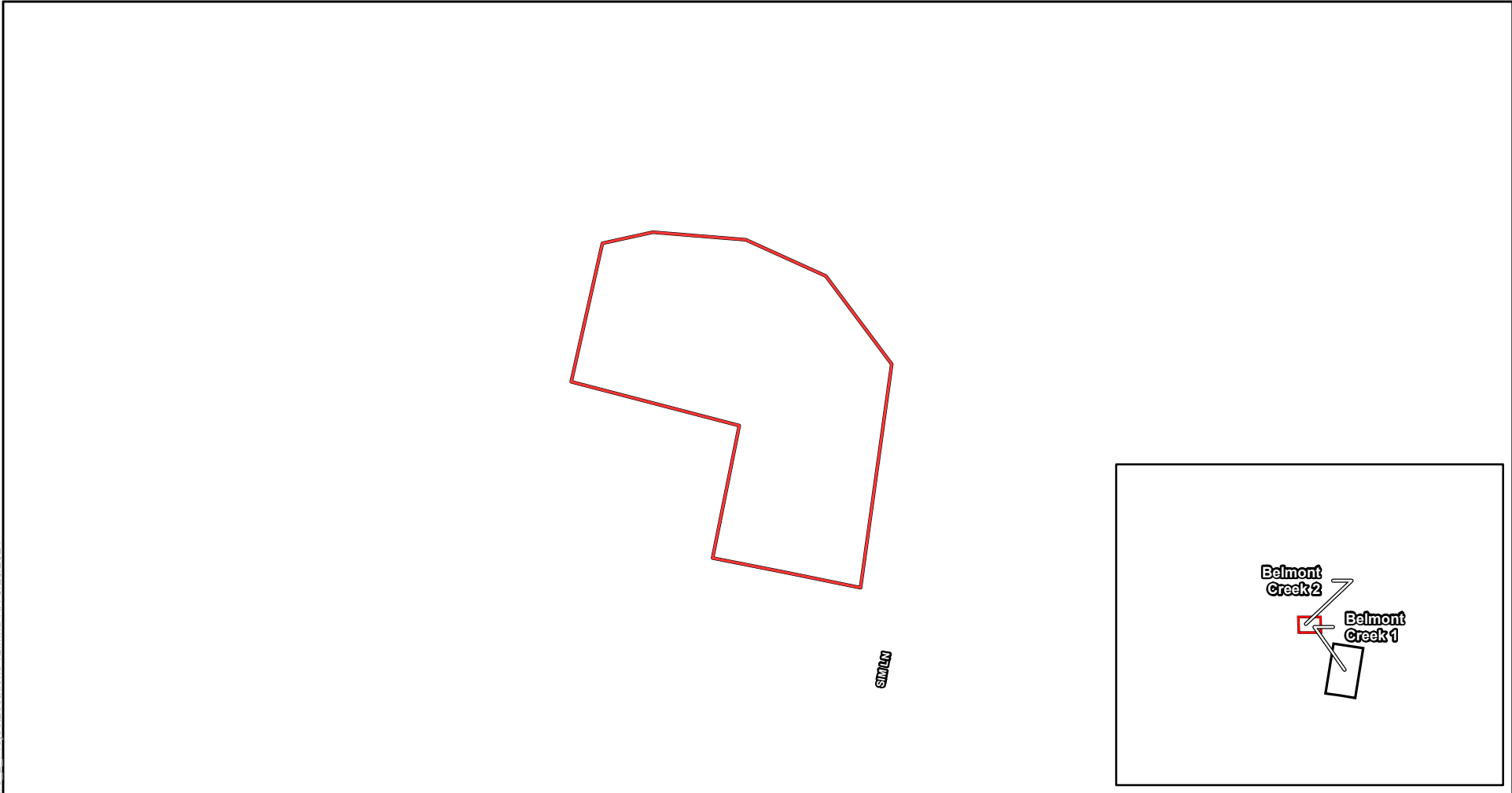


Figure 2
Project Locations
Belmont Creek at Highway 101

Sheet 4 of 7



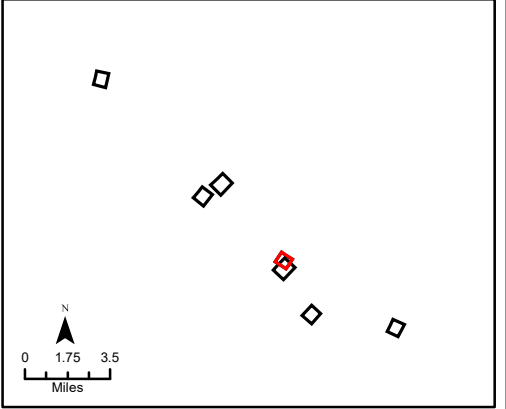
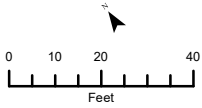


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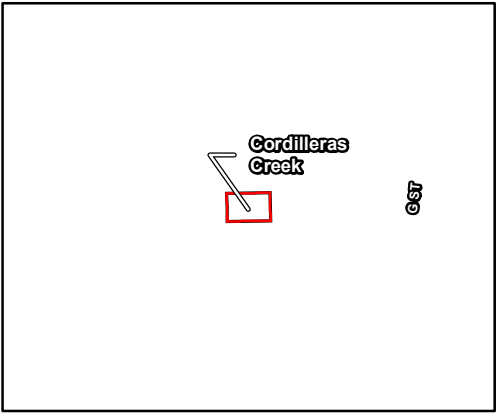
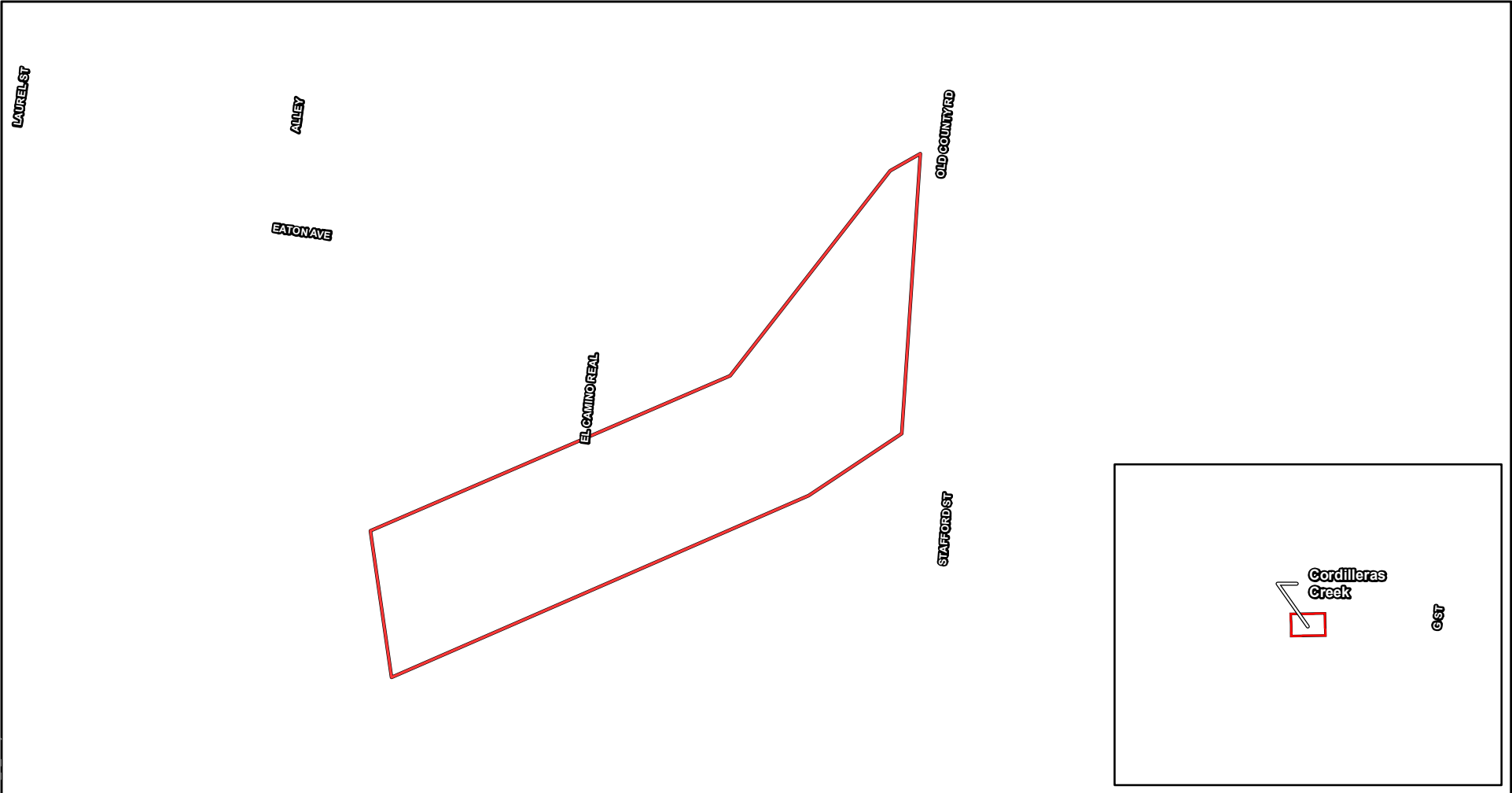
Figure 2
Project Locations
Belmont Creek at Sem Lane

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 Maintenance Areas



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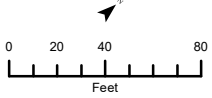


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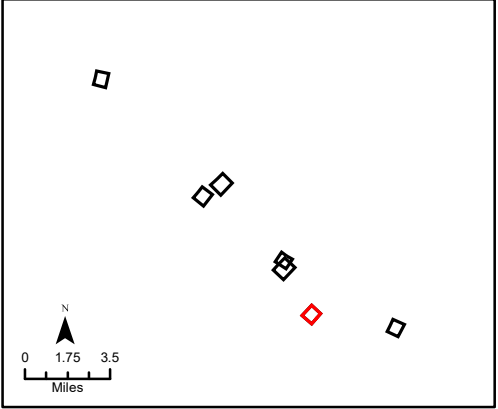
 Maintenance Areas

Figure 2
Project Locations
Cordilleras Creek at El Camino Real

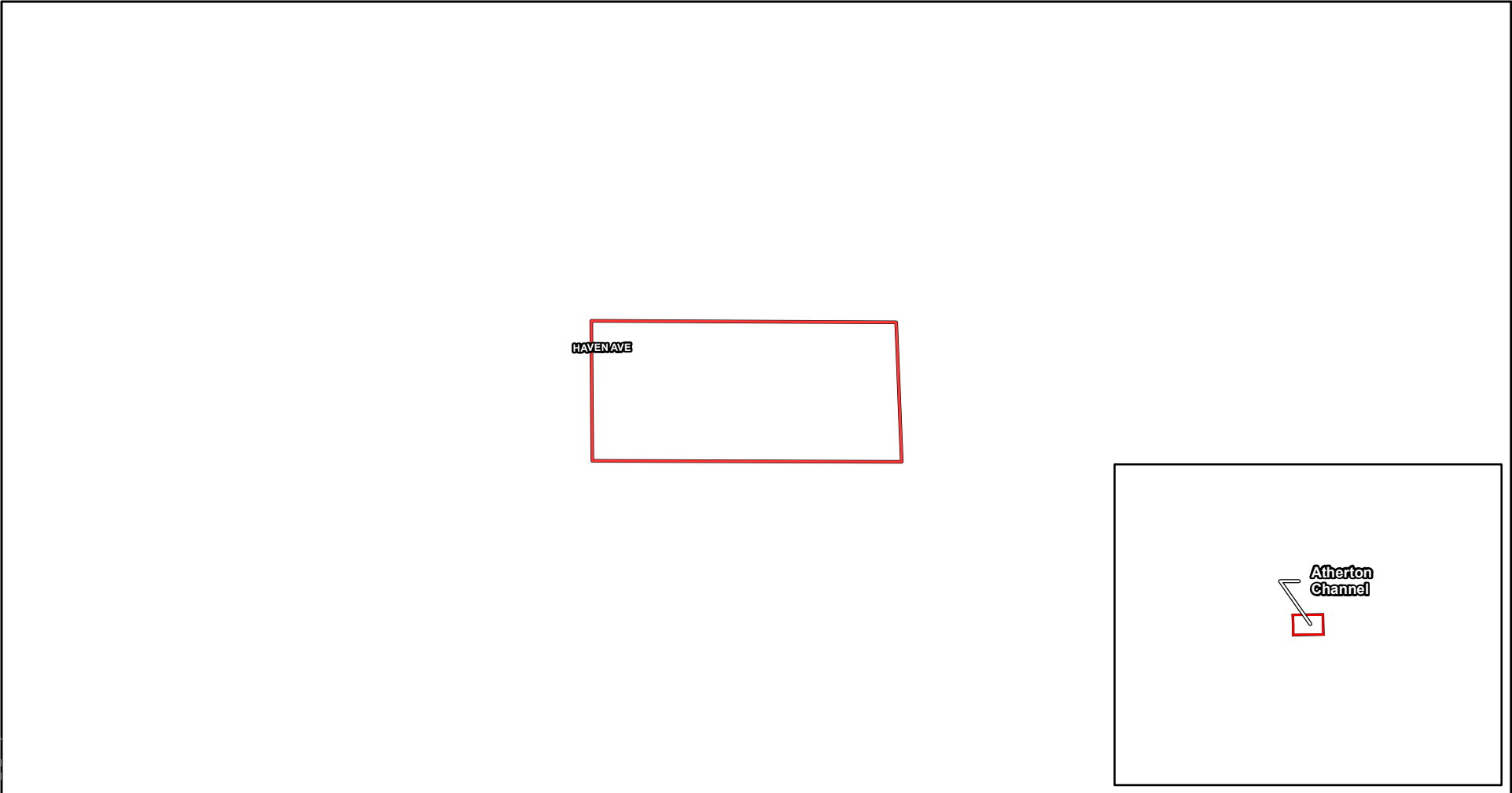
Sheet 6 of 7



San Mateo County Flood and Sea Level Rise Resiliency District
Bayside Creeks Routine Maintenance Project



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Source: ESRI 2023

 Maintenance Areas

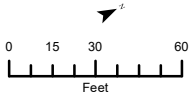
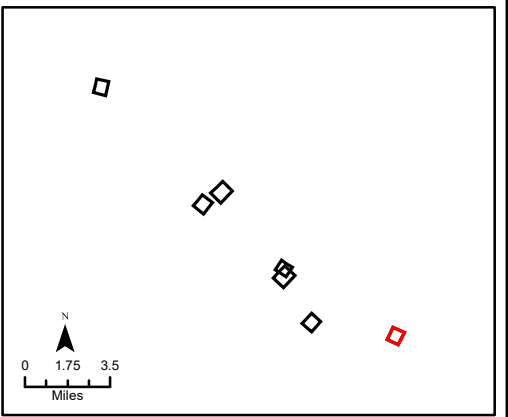
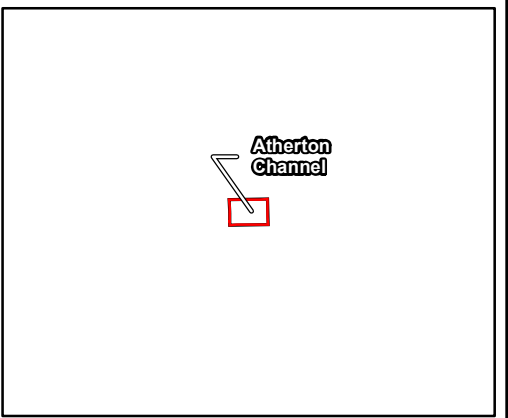


Figure 2
Project Locations
Atherton Channel at Haven Avenue

Sheet 7 of 7

San Mateo County Flood and Sea Level Rise Resiliency District
 Bayside Creeks Routine Maintenance Project



San Bruno Creek at 7th Avenue

San Bruno Creek is an intermittent to perennial stream that originates on the eastern slopes of the Northern Santa Cruz Mountains east of Skyline Boulevard. San Bruno Creek conveys flow east-northeast through the City of San Bruno, underneath Highway 101, then east to the San Francisco Bay. San Bruno Creek has a flow path approximately 5 miles long through a narrow watershed area encompassing 2.3 square miles (sq. mi.) (USGS 2023). Maintenance activities are proposed at a segment of San Bruno Creek where the creek daylight downstream of San Bruno Avenues adjacent to the 7th Avenue pump station, which is operated by OneShoreline. San Bruno Creek has open water in the center of the channel. Water depth generally ranges from 0 to 18 inches deep depending on the location within the reach. The average top of bank width is approximately 85 feet, and the wetted low flow channel width is approximately 25-30 feet. The low flow channel meanders within the confined channel. Sediment build up in the channel has created several long sandbars. Many of the sandbars are exposed devoid of vegetation. There is some emergent vegetation (pickleweed [*Salicornia pacifica*] and bulrush [*Schoenoplectus californicus*]) growing on higher bars and channel margins. Vegetation on the mid- and upper banks support weedy herbaceous species with some coyote brush (*Baccharis pilularis*) and few trees such as acacia (*Acacia* spp.) and dead willows (*Salix* spp.) on the upper banks. This segment of San Bruno Creek is not expected to be tidal-influenced after the replacement of the operational tide gates in 2022. The presence of salt tolerant species and dead willows is likely due to the tide gates not functioning properly prior to the replacement in 2022.

The channel is bounded by residential homes to the west and undeveloped space adjacent to the Highway 101 corridor to the east. An unpaved access road runs parallel to the top of both banks. Vehicle access is available near the corner of 7th Avenue and San Bruno Avenue. Equipment staging would occur at the unpaved area next to the maintenance road. OneShoreline will coordinate with the City of San Bruno for truck routes and public notices.

Maintenance activities at this location include vegetation and sediment removal near the pump station outfall area to allow for unimpeded stormwater discharge to the creek. Accumulated sediment directly downstream of the outfall area would also be removed to maintain channel conveyance capacity and reduce the potential for backwatering of the outfall area. Vegetation and sediment removal would be conducted using a long-arm excavator operating from the top of bank and placing material directly into dump trucks for off-hauling. Work within the channel will require dewatering if water is present within the work area. Initial maintenance activities would remove approximately 350 cubic yards (CY) of material over 250 linear feet (LF) of the channel downstream of the pump station outfall area. Depending on storm frequency and intensity following the initial material removal, operational maintenance activities may be triggered if sediment build-up has reduced capacity by 40 percent compared to initial maintenance activities, and may include the removal of up to 100 CY of material from the base of the concrete wing walls at the outfall discharge area.

San Mateo Creek at Arroyo Court

San Mateo Creek originates near Sweeny Ridge in San Mateo County. Approximately 85 percent of the watershed catchment area (28.7 sq. mi.) drains to the Crystal Springs Reservoirs (USGS 2023). San Mateo Creek reemerges as the discharge channel from Lower Crystal Springs Dam. From the dam, San Mateo Creek flows northeast parallel to Crystal

Springs Road with Polhmeus Creek converging with San Mateo Creek shortly downstream from the dam. San Mateo Creek then traverses through the City of San Mateo before draining to San Francisco Bay west of the mouth of Seal Slough.

Maintenance activities are proposed along a short reach of San Mateo Creek in and downstream of De Anza Historical Park adjacent to Arroyo Court, approximately 150 LF west of El Camino Real in the City of San Mateo. The maintenance reach is highly confined by apartments and commercial buildings that create a narrow pinch point. The channel corridor is constricted from approximately 80 feet wide through De Anza Historical Park down to less than 35 feet wide as the creek makes a tight S-bend between encroaching buildings upstream of El Camino Real. The area has several native species of trees growing along the banks such as California Bay (*Umbellularia californica*), western sycamore (*Platanus racemose*), Oregon ash (*Fraxinus latifolia*), California walnut (*Juglans californica*), and coast live oak (*Quercus agrifolia*). Understory vegetation is dominated by dense monocultures of non-native English ivy (*Hedera helix*) and Canary island ivy (*Hedera canariensis*). Some isolated areas along the channel support a mix of native and non-native herbaceous species such as stinging nettle (*Urtica dioica*), knotweed (*Persicaria lapathifolia*), black nightshade (*Solanum nigrum*), panicked bulrush (*Scirpus microcarpus*), hedge nettle (*Stachys ajugoides*), and bull thistle (*Cirsium vulgare*).

Several downed trees and dense tree growth at the head of the S-bend create a barrier across the creek that captures debris and further obstructs flow during storm events. A debris blockage at this location exacerbated localized backwatering and flooding of adjacent properties and roadways during 2023 winter storms that resulted in extensive damages to vehicles and structures.

The Projects initial maintenance activities are to remove several downed trees, debris, and live trees growing near the head of the S-bend. Approximately 12 trees would be removed to restore channel conveyance and lower the potential risk of future debris blockages. The trees would be stump-cut to allow the roots to provide bank stability. In addition, a narrow sediment bar along the toe of the vertical concrete left bank¹ that has formed downstream of the debris blockage would be removed to restore channel capacity through the S-bend. Approximately 25 CY of material along 50 LF of channel would be removed during the initial maintenance activity. Further sediment removal is estimated to be relatively minimal following the tree and debris removal with 5-10 CY of material removed every 4 to 5 years. Access and staging would occur from Arroyo Court. Future operational maintenance activities at this reach would include as-needed removal of debris and vegetation to prevent formation of an instream dam or backwatering through the S-bend.

San Mateo Creek at Highway 101

Maintenance activities are proposed at a second location along San Mateo Creek at the Highway 101 crossing and adjacent on-ramp and off-ramp. This 850 LF segment of San Mateo Creek is a soft bottom channel with an approximate wetted channel width of 18 feet and top of bank width of 50 feet. The creek passes through a series of concrete box culverts under Highway 101 and the associated on/off ramps and connectors. Sediment has accumulated in the culvert interiors and the channel upstream and downstream of the culverts. Dense emergent vegetation has established on the instream sediment bars

¹ When referring to left or right bank, it is in relation to looking downstream of the creek.

downstream of the culverts, promoting further deposition. Dominant vegetation is a mix of dense stands of hardstem bulrush (*Schoenoplectus acutus*) with invasive, non-native pampas grass (*Cortaderia selloana*) on the upstream side of Highway 101 and invasive, non-native giant reed (*Arundo donax*) on the downstream side of Highway 101. Other bank vegetation primarily consists of native and non-native herbaceous plants with few woody species. The channel is earthen with subtly sloped banks composed of fine material.

Maintenance work at the location includes sediment removal from the Highway 101 and interchange concrete culvert interiors. Initial maintenance activities would remove approximately 350 CY of material to restore channel conveyance capacity through the culverts and immediately upstream/downstream of the culvert openings. Instream vegetation would also be removed where it obstructs culvert openings to allow flow through the culverts. Instream vegetation would be targeted primarily along the left bank and cleared from approximately 350 LF of the 850 LF maintenance reach. The site is accessible from road pullouts and work would occur from upland, ruderal areas adjacent to the channel. Work within the culvert interiors would require diversion and dewatering of the work areas. Sediment may be removed from inside of culverts using a Vector truck where feasible, or a bobcat.

Operational maintenance activities would be determined during annual inspections based on the extent of sediment build up within the culvert interior. Once conveyance capacity is reduced by 40 percent after the initial maintenance, maintenance actions would be triggered to remove the accumulated sediment. The sedimentation rate would be dependent on the size and frequency of storm events, maintenance actions are anticipated every 3-4 years after the initial maintenance activity and removal of up to 350 CY of material. Emergent vegetation removal is anticipated to be much less in terms of total area and volume but may occur every 2-3 years to ensure the culvert openings remain clear and free of potential blockages.

Belmont Creek at Highway 101

Belmont Creek originates along Pulgas Ridge and Crestview Drive and flows east-northeast through the cities of Belmont and San Carlos, as well as parts of unincorporated San Mateo County, in an alternating series of culverted and open channel segments before discharging to San Francisco Bay via the Belmont Slough. Belmont Creek has an approximate watershed area of 3.3 sq. mi. with the upper catchment area encompassing Waterdog Lake and Open Space (USGS 2023). Maintenance activities are proposed at two locations along Belmont Creek.

The upstream maintenance site is located at the upstream side of Industrial Road to the downstream side of the Highway 101 and Shoreway Road crossing. The upstream portion of the maintenance reach is near the head of tide with fluvial processes more evident as the primary hydrological driver. The maintenance reach is a linear, trapezoidal earthen channel with a channel bed width of 10-12 feet wide and an approximate top of bank width of 30 feet. The upper banks and adjacent upland areas are dominated by non-native grasses and ruderal herbaceous plant species typical of disturbed environments. Channel conveyance capacity is limited in this reach, and this reach flooded during 2023 storm events. The creek passes under Highway 101 through a 225 LF concrete double box culvert. A stormwater outlet fitted with a flap gate discharges to the creek at the left bank directly upstream of the Highway 101 culvert.

Accumulated sediment has reduced capacity by more than 50 percent in the left (north) box culvert under Highway 101. Caltrans is planning a separate project to remove sediment and restore capacity under Highway 101. The main activities described here are focused on maintaining capacity.

Maintenance activities at this location will be triggered when conveyance capacity is reduced by 40 percent from the initial maintenance action and would return flow conveyance to a minimum of 80 percent culvert capacity following initial maintenance conducted by Caltrans, where up to 450 CY of material may be removed. An additional 30 CY of material would be removed from the culvert inlet and outfall areas. Instream vegetation would be removed 50 LF directly upstream and downstream of the culvert to reduce potential backwatering of the culvert and highway. Dewatering would be required. A temporary bypass clear water diversion system would be installed and would consist of a cofferdam upstream and downstream of the sediment removal area. A gravity diversion pipe would be routed inside the existing culvert between the upstream and downstream cofferdams. A baker tank would be staged in the parking lot adjacent to the Belmont Creek channel. Any water that seeps into the work area from outside the cofferdam would be allowed to settle in the baker tank, tested for PH and turbidity, and discharged back onto the creek on the downstream side of the cofferdam.

A Vactor truck would be used to remove sediment from the inside of the culverts, to the extent feasible. A small remote control bobcat will also be used to remove sediment from below US 101 due to height constraints. During nonworking hours, all equipment would be staged in the parking lot adjacent to the work area. Access for the upstream portion of Belmont Creek would occur off of Highway 101, utilizing a lane-closure of the southbound lane. Access for the downstream portion of Belmont Creek occur from a lane closure on Shoreline Road. Equipment would operate from the top of bank and place sediment directly into a dump truck for off-haul to the greatest extent feasible. A small remote control bobcat will also be used to remove sediment from below US 101 due to height constraints. Equipment staging will likely occur in business parking lots adjacent to Belmont Creek.

Sediment removal would also occur from the interior of the concrete box culvert under Industrial Road to restore flow conveyance at that location. Initial maintenance activities would remove approximately 40 CY of sediment from the culvert. In addition, instream vegetation would be removed 50 LF upstream and downstream of Industrial Road to better convey flow through the culvert. Access and staging would occur off of Industrial Road and the parking lot(s) adjacent to the creek. Equipment would operate from the top of bank and place sediment directly into a dump truck for off-haul to the extent feasible. Work within the culvert interiors would require diversion and dewatering of the work areas.

Operational maintenance activities to remove instream vegetation would be triggered if during the annual inspection it was deemed to significantly obstruct the culvert openings or reduce the channel capacity through the maintenance reach where flooding risks. Vegetation would be removed using a long arm excavator from top of bank, and putting material directly into a dump truck for off-haul. In addition, debris removal of material racked on the upstream side of the Highway 101 culvert would be conducted on an as-needed basis.

Belmont Creek at Sem Lane

A second maintenance site on Belmont Creek is proposed at a stormwater discharge point to Belmont Creek at the terminus of Sem Lane in the City of Belmont. Two stormwater culvert outfalls are located at this location, with one culvert discharging stormwater collected from Highway 101 directly west of the site and the second culvert discharging stormwater generated from parking lots and surfaces in and around Sem Lane. The culvert outfall area is east of the City of Belmont Corporation Yard and parking lot adjacent to Sem Lane. This reach of Belmont Creek is tidal and confined by low earthen levees. The creek drains to Belmont Slough approximately 1,500 feet northwest of the maintenance site and supports tidal marsh habitat in the creek channel with non-native grasses and ruderal species on the mid- and upper banks. The surrounding area supports mainly industrial uses.

Maintenance activities at this location include removing accumulated sediment around the two stormwater culvert outfalls to allow for proper flow conveyance to the main stem of Belmont Creek via a short, narrow slough approximately 10 feet from the levee toe. Work at this location is anticipated to occur on a more frequent basis due to the low energy tidal regime resulting in a depositional environment. Approximately 5-7 CY of material will be removed annually. Access to the site is available from Sem Lane, the unpaved areas at the road terminus, and the unpaved pedestrian trail adjacent to the channel. Staging would occur on Sem Lane. All work would be conducted from the top of the levee using a long-reach excavator with material placed directly into a dump truck. Caltrans is currently in the process of installing a duckbill (Backflow Prevention Check Valve) on the outfall at this location. Annual inspection would determine the need for dredging based on if sediment is hampering flap gate function or obstructing discharge to the narrow slough connecting to the main stem creek. Repair and/or replacement of the outfall flap gate(s) would also occur on an as-needed basis.

Cordilleras Creek at El Camino Real

Cordilleras Creek is an intermittent stream whose headwaters originate in the Pulgas Ridge Open Space Preserve in the foothills of the Santa Cruz Mountains east of Interstate 280. The creek flows northeast roughly parallel to Edgewood Road and is the approximate boundary line between the City of San Carlos and City of Redwood City. The creek passes under Highway 101 before draining to Smith Slough, Steinberger Slough, and San Francisco Bay. The maintenance reach along Cordilleras Creek includes the channel corridor from El Camino Real to the downstream side of Stafford Street. The catchment area upstream of the maintenance reach is approximately 3.0 sq. mi. (USGS 2023).

Cordilleras Creek in the maintenance area is a combination of earthen channel segments and a short concrete box channel separated by concrete culverts at El Camino Real, the Caltrain crossing, and Stafford Street. The maintenance reach is highly disturbed with predominately non-native species on the channel margins and banks and the channel bottom largely devoid of vegetation. A patch of invasive giant reed grows between the El Camino Real and Caltrain crossing. The channel between El Camino Real and Stafford Street is highly confined with short sections of vertical concrete banks or rock walls. Cordilleras Creek makes an S-bend through a 350 LF segment as it passes under El Camino Real, the Caltrain crossing, and Stafford Street. Significant sediment deposition occurs through this reach due to the channel structure and susceptibility for large debris jams to form. The

maintenance area is highly disturbed with significant trash and homeless activities in the channel.

Maintenance activities at this location would focus on removing accumulated sediment and restoring the channel capacity downstream of the El Camino Real culvert, through the S-bend, down to the entrance of the Stafford Street culvert. Sediment would be removed from approximately 150 LF to restore channel capacity and conveyance through the crossings. Initial maintenance activities would remove approximately 150 CY of material. No sediment removal work would occur upstream of El Camino Real. In addition, the existing patch of giant reed would be removed. Maintenance access would occur from El Camino Real with staging available adjacent to the channel from a vacant parking lot at the northeast side of El Camino Real.

After the initial vegetation and sediment removal, annual inspections would determine the need for operational maintenance activities such as trash and debris removal. Trash and debris within the channel would be removed on an as-needed basis. Sediment removal would be triggered if the conveyance capacity is reduced by 40 percent after the initial sediment removal through the S-bend (350 LF segment as it passes underneath El Camino Real, the Caltrain crossing, and stops at the Stafford Street culvert intake.) Operational maintenance activities may remove up to 90 CY of sediment per removal activity. Sediment accumulation rates are dependent on storm intensity and frequency, but removal activities are anticipated to occur every 2-3 years.

Atherton Channel at Haven Avenue

Atherton Channel is an engineered channel that conveys stormwater collected from an approximately 8.6 square mile area, draining parts of the cities of Menlo Park and Redwood City, towns of Woodside and Atherton, and parts of unincorporated San Mateo County, ultimately draining to San Francisco Bay via Flood Slough. The channel runs parallel to Haven Avenue and has an approximate wetted channel width of 8 feet and top of bank width of 30-35 feet. Atherton Channel is tidally influenced with open water in the center of the channel, a narrow band of pickleweed marsh along the water edges, and non-native grasses and ruderal habitat on the mid- and upper banks. The creek passes underneath Haven Avenue through a concrete double box culvert. An 18-inch diameter stormwater culvert fitted with a flap gate discharges to the channel at the right bank directly upstream of the culvert. Maintenance and repair on the flap gate may occur as needed. The surrounding area is mainly commercial areas and associated parking lots.

The proposed work in Atherton Channel would occur along Haven Avenue near Marsh Road in the City of Menlo Park. Initial maintenance activities at this location involves as-needed debris removal of material racked on the upstream side of the culvert. Approximately 6 CY of sediment would be removed from a small sediment bar on the right bank downstream of the culvert to maintain flow conveyance through the right culvert. In addition, a large non-native palm tree growing on the lower bank approximately 20 feet upstream of the culvert face would be stump-cut. All work would occur from top of bank and sidewalk along Haven Avenue. Vehicle parking and equipment staging would likely occur from business parking lots adjacent to the site.

After the initial vegetation and sediment removal, annual inspection will be conducted to determine whether operational maintenance activities such as trash, sediment, and debris

removal are needed due to significant increases in flooding risk. Trash and debris removal would occur as-needed to prevent material from creating a blockage on the upstream side of the culvert. Accumulated sediment may be removed if it is determined that material is creating a significant increase in flood risk or decrease in conveyance capacity through the culvert. Sediment removal is anticipated to be minimal with up to 4 CY of material removed every 5 years.

2.3 Project Implementation

The Project involves conducting routine maintenance activities to mitigate flooding risks by excavating and removing accumulated sediment, instream vegetation, and debris. Construction methods for these activities are described below.

Construction Equipment

Maintenance activities would involve: vegetation management; excavating accumulated sediment; and off-hauling of soil, debris, and material. Specific pieces of equipment would be determined by the construction contractor, but are anticipated to include the following types of equipment:

- Excavators (e.g., Caterpillar 336F)
- Winch
- Vector Truck
- skid steer
- Bobcat
- Manual and powered hand tools, chainsaws, weeders, mowers, etc.
- haul trucks
- portable generators
- Baker Tank
- water pump

Construction Access and Staging Areas

Construction vehicles and equipment would access the maintenance sites from existing roads and access points to the channels. Staging areas would also use existing roads and pullouts and provide materials and equipment storage, employee parking, and hazardous materials storage and containment during project implementation. Potential staging areas for each maintenance site are described in Section 1.2, above.

Site Preparation and Materials Disposal

Site preparation would include trash and debris removal of the maintenance sites, access routes into the channel, and staging areas. Vegetation management of the site would be conducted using excavators, skid steers, and/or hand labor. Trees will be retained except where indicated in Section 1.2, above.

Maintenance-related activities would require the need for off-site hauling and disposal of materials. Excavated sediment would be re-used as possible. Beneficial re-use of sediment is dependent on sediment contaminant testing results. Materials that cannot be re-used would

be disposed of at the nearest landfill. In some situations where there is available area on-site, sediment may be allowed to dry out before being transported offsite.

Flow Diversion & Dewatering

Work would be conducted during the dry season when stream flows are lowest. When work in flowing streams or tidal areas is unavoidable, surface water shall be diverted around work areas by installing cofferdams and/or clean water bypass systems.

Cofferdams may be used to isolate work sites as part of a water bypass system to ensure flows do not enter the work areas. Cofferdam installation would occur upstream and downstream of each work area and water would be pumped through a diversion pipe to a discharge location downstream of the work area. Cofferdams would be constructed out of clean gravel bags, aqua barriers or plastic sheeting. The area of dewatering would be limited to the minimum amount necessary to complete the work.

A clean water bypass enables operators or maintenance workers to transport surface flows around a construction area without adding significant amounts of turbidity or sediment. Clean water bypasses are typically used for short-term diversion of small amounts of water over short distances to enable dewatering of minor construction or repair sites. Depending on site conditions of the work area, clean water bypasses may be either gravity driven or require use of a pump to divert water around a construction area and discharged downstream of the work area in a manner that does not impair water quality, such as an energy dissipater or flow diffuser.

Project Timing and Schedule

Project maintenance activities are anticipated to begin Summer 2024. Instream activities would only be conducted during the dry season between June 15th through October 15th. Initial maintenance activities are anticipated to take a total of 8 weeks to complete.

Maintenance activities would occur Monday through Friday and would be in compliance with the San Mateo County noise ordinance, which limits construction hours to 7:00 a.m. to 6:00 p.m., or other local ordinances such as City noise ordinance that may apply. No weekend or nighttime work is anticipated.

Project Impacts

Table 1 shows the estimated Project impact area and volume.

Table 1. Estimated Project Impacts at Each Maintenance Site

Maintenance Site	Project Activities	Impact Type	Project Impacts – Initial Maintenance			Project Impacts – Operational Maintenance		
			Linear Feet	Acre	Dredge Volume (CY)	Linear Feet	Dredge Volume (CY)	Estimated Frequency of Activity
San Bruno Creek at 7 th Avenue	404 wetlands removal	Permanent	98	0.020	--	--	--	--
	Sediment removal	Temporary	250	0.119	350	250	100	4 years
	Non-wetland vegetation management	Temporary	200	0.041	--	250	--	
	Channel dewatering*	Temporary	250	0.119	--	250	--	
San Mateo Creek at Arroyo Court	Sediment and non-wetland vegetation removal	Temporary	50	0.016	25	25	10	5 years
	Channel dewatering*	Temporary	125	0.147	--	25	--	
San Mateo Creek at Highway 101	404 wetlands removal	Permanent	405	0.022	--	--	--	--
	Sediment removal	Temporary	500	0.340	50	200	50	3 years
	Sediment removal – culvert interior	Temporary	400	0.612	300	400	150	
	Channel dewatering*	Temporary	900	0.340	--	900	--	
Belmont Creek at Highway 101 / Industrial Road	Sediment and non-wetland vegetation removal	Temporary	200	0.081	30	200	10	3 years
	Sediment removal at stormwater outfall	Temporary	--	--	--	225	150	
	Sediment removal – culvert interior at Highway 101	Temporary	--	--	--	225	150	

Table 1. Estimated Project Impacts at Each Maintenance Site

Maintenance Site	Project Activities	Impact Type	Project Impacts – Initial Maintenance			Project Impacts – Operational Maintenance		
			Linear Feet	Acre	Dredge Volume (CY)	Linear Feet	Dredge Volume (CY)	Estimated Frequency of Activity
	Sediment removal – culvert interior at Industrial Road	Temporary	75	0.041	40	75	30	
	Non-wetland vegetation management	Temporary	470	0.315	--	250	120	
	Channel dewatering*	Temporary	500	0.315	--	300	--	
Belmont Creek at Sem Lane	Sediment and wetland vegetation removal – 404 wetlands	Permanent	12	0.005	--	--	--	--
	Sediment removal	Temporary	--	--	7	12	7	Annually
	Site dewatering*	Temporary	14	0.006	--	12	--	
Cordilleras Creek at El Camino Real	Sediment removal	Temporary	150	0.019	40	150	25	3 years
	Non-wetland vegetation management	Temporary	100	0.029	--	250		
	Sediment removal – culvert interior	Temporary	125	0.032	110	125	65	
Atherton Channel	Sediment and non-wetland vegetation removal	Temporary	15	0.004	6	10	4	5 years
	Channel dewatering*	Temporary	20	0.007	--	15	--	

*Channel dewatering activities are considered temporary as the affected area will return to pre-project conditions immediately upon project completion.

Revegetation and Habitat Enhancement

Hydroseeding is not recommended in tidal habitats because seed is unlikely to persist through repeated inundation during tide cycles. However, upland buffers created along the high areas will be hand casted or hydroseeded with a native upland seed mix.

Upland areas disturbed during Project implementation will be either hand casted or hydroseeded using a native seed mix. **Table 2** shows a potential seed mix for reseeding areas. Actual seed mix is dependent on regulatory agency approval and species availability.

Table 2. Plant Species Palette for Reseeding*

Scientific Name	Common Name
<i>Hordeum brachyantherum</i>	Meadow Barley
<i>Elymus glaucus</i>	Blue Wildrye
<i>Festuca rubra</i>	Red Fescue
<i>Stipa pulchra</i>	Purple Needlegrass
<i>Trifolium willdenovii</i>	Tomcat Clover

*Seed mix is subject to change but will remain either locally native species or a sterile erosion control mix.

Construction Best Management Practices

Specific construction methods would be determined by the construction contractor but would comply with the environmental protection and mitigation measures determined through the regulatory review and authorization process and described in the Project permits. Project maintenance activities would utilize and implement best management practices (BMPs) to avoid and minimize adverse effects on people and the environment. BMPs would be implemented before, during, and after construction as specified. The BMPs for the Project are identified in **Table 3**.

Table 3. Applicable BMPs to the Proposed Project

Number	Title	BMP Description
BMP-1	Construction Work Windows	<ul style="list-style-type: none"> ▪ Ground-disturbing activities in the channel will occur during the dry season (June 15 through October 15 or as allowed by permits). ▪ Work activities will occur during daylight hours and will be limited to 7 a.m.–6 p.m. ▪ No work shall be conducted during or with 24-hours of a rain event (0.5 inches in a 24-hour period).
BMP-2	Area of Disturbance	Ground disturbance within the channel will be kept to the minimum footprint necessary to complete Project construction.
BMP-3	Erosion and Sediment Control	<ul style="list-style-type: none"> ▪ At no time shall silt laden runoff be allowed to enter the waterway or directed to where it may enter the waterway. Silt control structures shall be monitored for effectiveness and shall be repaired or replaced as needed. ▪ Erosion control measures will be installed according to manufacturer’s specifications. Appropriate erosion control measures include, but are not limited to, the following: silt fences, straw bale barriers, erosion control blankets and mats, and soil stabilization measures (e.g., tackified straw with seed, jute blankets, broadcast and hydroseeding). ▪ Erosion control fabrics will consist of natural fibers that will biodegrade over time and are wildlife friendly. No plastic or other non-porous material will be used as part of a permanent erosion control approach. Plastic sheeting may be used to temporarily protect a slope from runoff. ▪ All temporary construction-related erosion control methods (e.g., silt fences) shall be removed at the completion of construction. ▪ All soils disturbed or exposed during construction activities will be seeded and stabilized using erosion control measures, such as erosion control fabric or hydromulch, or re-planted. Areas below the OHWM are exempt from this BMP.
BMP-4	Fill, Spoils, and Stockpiled Materials	Temporary fill materials, excavated spoils that have not yet been hauled off site, and stockpiled material will be isolated outside of the channel area with silt fence, filter fabric, and/or straw bales/fiber rolls. Silt fence and/or fiber rolls will be placed at any locations where work could result in loose sediment that could enter the stream. The silt fence/fiber rolls will be maintained and kept in place for the duration of the project. Any sediment or debris captured by the fence/rolls will be removed before fence/rolls are pulled.

Table 3. Applicable BMPs to the Proposed Project

Number	Title	BMP Description
BMP-5	On-site Hazardous Materials Management	<ul style="list-style-type: none"> ▪ An inventory of all hazardous materials used (and/or expected to be used) at the worksite and the end products that are produced (and/or expected to be produced) after their use will be maintained by the worksite manager. ▪ As appropriate, containers will be properly labeled with a “Hazardous Waste” label and hazardous waste will be properly recycled or disposed of off-site. ▪ Exposure of chemicals to precipitation will be minimized by storing chemicals in watertight containers or in a storage shed (completely enclosed), with appropriate secondary containment to prevent any spillage or leakage. ▪ Petroleum products, chemicals, cement, fuels, lubricants, and non-storm drainage water or water contaminated with the aforementioned materials will not contact soil and will not be allowed to enter surface waters. ▪ All toxic materials, including waste disposal containers, will be covered when they are not in use, and located as far away as possible from a direct connection to the storm drainage system or surface water. ▪ If hazardous materials are encountered at the Project site, the Contractor will remove and dispose of them according to the Spill Prevention and Response Plan (see BMP-6). ▪ Appropriate fire suppression equipment shall be available at the work site.
BMP-6	Spill Prevention and Response Plan	<p>To minimize the potential adverse effects due to the release of chemicals, fuels, lubricants, and non-storm drainage water into waterways, OneShoreline or the Contractor shall develop a Spill Prevention and Response Plan to be implemented by the Contractor and all field personnel. The plan will contain guidelines for cleanup and disposal of spilled and leaked materials at the project site. The plan will include, but not be limited to, the following measures:</p> <ol style="list-style-type: none"> 1. Contractor’s designated field personnel will be appropriately trained in spill prevention, hazardous material control, and cleanup of accidental spills. 2. Equipment and materials for cleanup of spills will be available on site, and spills and leaks will be cleaned up immediately and disposed of according to the following guidelines: <ol style="list-style-type: none"> a) For small spills on impervious surfaces, absorbent materials will be used to remove the spill, rather than hosing it down with water. b) For small spills on pervious surfaces such as soil, the spill will be excavated and properly disposed of rather than being buried.

Table 3. Applicable BMPs to the Proposed Project

Number	Title	BMP Description
		<p>c) Absorbent materials will be collected and disposed of properly and promptly.</p> <ol style="list-style-type: none"> 3. Field personnel will ensure that hazardous materials are properly handled and natural resources are protected by all reasonable means. 4. Spill response kits will be on hand at all times while hazardous materials are in use (e.g., at crew trucks and other logical locations). All field personnel will be advised of these locations. 5. The Contractor will routinely inspect the work site to verify that spill prevention and response measures are properly implemented and maintained.
BMP-7	Vehicle and Equipment Maintenance	<ul style="list-style-type: none"> ▪ Servicing of vehicles shall be conducted at designated staging areas outside of the creek channel to avoid contamination through accidental drips and spills. ▪ Incoming equipment will be checked for leaking oil and fluids. No equipment servicing will take place in the channel. If emergency repairs are required, only those repairs necessary to move equipment to a more secure location shall be permissible. ▪ All vehicles and equipment will be kept clean. Excessive build-up of oil and grease will not be permitted. ▪ Vehicle and equipment washing can occur on site only as needed to prevent the spread of sediment, pathogens, or exotic/invasive species. No runoff from vehicle or equipment washing will be allowed to enter water bodies without being subjected to adequate filtration (e.g., vegetated buffers, hay wattles or bales, and silt screens). Other proper trackout systems can be used to prevent the spread of sediment from the site.
BMP-8	Dust Management Controls and Air Quality Protection	<p>The Contractor will implement the following applicable Bay Area Air Quality Management District’s (BAAQMD’s) Basic Construction Mitigation Measures to reduce emissions of fugitive dust and equipment exhaust:</p> <ul style="list-style-type: none"> ▪ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. ▪ All haul trucks transporting soil, sand, or other loose material off-site shall be covered. ▪ All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. ▪ All vehicle speeds on unpaved roads shall be limited to 15 mph. ▪ All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

Table 3. Applicable BMPs to the Proposed Project

Number	Title	BMP Description
		<ul style="list-style-type: none"> ▪ All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. ▪ All trucks and equipment, including their tires, shall be washed off prior to leaving the site. ▪ Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel. ▪ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure [13 CCR Section 2485]). ▪ All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. ▪ Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.
BMP-9	Work Site Housekeeping	The Contractor shall maintain a neat and orderly job site and properly dispose of all trash on a daily basis. Following construction, all construction debris will be removed from the work area.
BMP-10	In-water Work	<ul style="list-style-type: none"> ▪ In-water work will be limited to June 15 through October 15, unless extended in writing by the National Marine Fisheries Service (NMFS) and the Regional Water Quality Board (RWQCB). ▪ All equipment used for in-water work will be inspected for leaks each day prior to initiation of work. Action will be taken to prevent or repair leaks prior to use.
BMP-11	Minimize Spread of Weeds and Invasive Species	<ul style="list-style-type: none"> ▪ All ground disturbing equipment used within the channel will be washed (including wheels, tracks, and undercarriages) both before and after being used at the site (see also BMP-7). ▪ Invasive exotic species that occur within the Project area shall be removed and properly disposed of off-site during initial site preparation and grading. ▪ All erosion control materials used on site, such as straw wattles, mulch, and fill material, will be certified weed free. ▪ All revegetation efforts shall include only local plant materials native to the Project area.

Table 3. Applicable BMPs to the Proposed Project

Number	Title	BMP Description
BMP-13	Nesting Bird Survey	<ul style="list-style-type: none"> ▪ To the extent feasible, maintenance activities should be scheduled to avoid the nesting season. The nesting season for most birds in San Mateo County extends from February 1 through August 31, inclusive. ▪ For maintenance activities involving heavy equipment, ground disturbance, or vegetation removal that are scheduled during the nesting season (February 15 to August 15), a focused survey for active bird nests shall be conducted by a qualified biologist within 15 days prior to the beginning of project activities. During these surveys, the biologist shall inspect all trees and other potential nesting habitats (e.g., shrubs, ruderal grasslands, and structures) in and immediately adjacent to the maintenance areas for nests. ▪ If an active nest is found sufficiently close to work areas to be disturbed by these activities, a non-disturbance buffer zone will be established around the nest at the biologist's discretion and in accordance with regulatory permits and conditions to ensure that no nests shall be disturbed during Project implementation. Buffer zones will remain until the birds have fledged or the nest is no longer active as determined by a qualified biologist.

2.4 Permits and Approvals

The permits and regulatory compliance requirements, along with the responsible or permitting agency, are described for the Proposed Project in **Table 4**.

Table 4. Permit and Regulatory Requirements Applicable to the Proposed Project

Regulatory Agency	Law/Regulation	Purpose	Permit/ Authorization Type
U.S. Army Corps of Engineers (USACE), San Francisco District	Clean Water Act (CWA) Section 404	Regulates placement of dredged and fill materials into Waters of the United States.	CWA 404 Nationwide Permit (NWP) No. 3, Maintenance
San Francisco Bay Regional Water Quality Control Board (RWQCB)	CWA Section 401 with Waste Discharge Requirements	Water quality certification for placement of materials into Waters of the United States and Waters of the State.	401 Water Quality Certification
California Department of Fish and Wildlife (CDFW), Bay-Delta Region	Fish and Game Code (F&G Code) Section 1600	Applies to activities that will substantially modify a river, stream or lake.	Lake and Streambed Alteration Agreement (1602 permit)
U.S. Fish and Wildlife Service (USFWS)	Endangered Species Act (ESA)	USACE must consult with USFWS if threatened or endangered species may be affected by the Proposed Project.	USACE to conduct Informal (anticipated) Consultation
National Marine Fisheries Service	Endangered Species Act (ESA)	USACE must consult with USFWS if threatened or endangered species may be affected by the Proposed Project.	USACE to conduct Informal (anticipated) Consultation
State Historic Preservation Officer (SHPO)	National Historic Preservation Act (NHPA) Section 106	USACE must consult with SHPO if historic properties or prehistoric archaeological sites may be affected by the Proposed Project.	USACE to conduct SHPO Consultation

Chapter 3

ENVIRONMENTAL CHECKLIST

This chapter assesses the environmental impacts of the Proposed Project based on the environmental checklist provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The environmental resources and potential environmental impacts of the Proposed Project are described in the individual subsections below. Each section includes a discussion of the rationale used to determine the significance level of the Proposed Project's environmental impact for each checklist question. Relevant local laws, regulations, and policies are described in **Appendix A**. For environmental impacts that have the potential to be significant, mitigation measures are identified that would reduce the severity of the impact to a less-than-significant level.

Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by the Proposed Project, as indicated by the checklist on the following pages.

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

3.1 SECTIONS ELIMINATED FROM FURTHER ANALYSIS

Several resource topics were eliminated from further analysis based on the nature and scope of the Proposed Project activities. A brief summary and description of these resource topics dismissed from further review is provided below.

Aesthetics

The Proposed Project sites are in highly urbanized areas. The Proposed Project involves routine maintenance of existing facilities and would not change the visual characteristic of the areas. Tree and vegetation removal may change the density of vegetation in and around the creeks, but due to the amount of trees and vegetation remaining, the Project would not substantially change the natural or scenic appearance of the areas. No conflict with applicable zoning and other regulations governing scenic quality would occur. Project activities, including tree removal, will not be visible from a state scenic highway. Therefore, no impacts to aesthetic views or resources would occur.

Agricultural and Forestry Resources

The Project area primarily consists of land designated as “urban and built-up,” and “other land” (California Department of Conservation [CDOC] 2020). All of the project locations are in non-Williamson Act contract land, either non-enrolled or urban and built-up. The Proposed Project would not change current land uses (i.e., channels will continue to function as flood control channels). Thus, the Proposed Project would not convert farmland or timberland to non-agricultural or non-timberland uses, nor would they conflict with existing agricultural zoning regulations or Williamson Act contracts. As such, no impact on agricultural or forestry uses would occur.

Land Use and Planning

The Proposed maintenance activities involve removing excess sediment in flood control channels, and some tree/vegetation removal. The Proposed Project activities will not convert land or change current land use. Therefore, no impacts on land use and planning are anticipated.

Mineral Resources

Proposed maintenance activities would not take place near any active mineral mines (CDC 1996). Although there is a possibility that dredging activities could occur within areas of unknown mineral resources, the Proposed Project would not involve any activities or acquire land that could directly affect the availability of a mineral resource. Ground-disturbing activities conducted under the Proposed Project would be limited to routine maintenance actions such as sediment and vegetation removal from existing channels. None of these activities would involve dredging of substantial volumes of soil that could affect the availability of a mineral resource. Therefore, no impact on mineral resources would occur.

Population and Housing

The Proposed Project would not involve the construction of new housing or generate any long-term employment opportunities that could cause substantial population growth. Maintenance activities would be conducted by OneShoreline contractors or partners who would be filled by the local work force. The Proposed Project would not directly induce population growth related to new long-term employment opportunities. Further, the Proposed Project would not result in the construction of new roads or trails, or flood control facilities that would indirectly induce population growth; the Proposed Project would entail maintenance of existing facilities. The Proposed Project would not displace existing housing or people, such that replacement housing would be needed elsewhere. As such, no impacts related to housing displacement would occur.

3.2 AIR QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
When available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.2.1 Regulatory Setting

The following sections describe federal and state regulations, and policies that are relevant to impacts that could result from Project implementation. The regional and local regulatory environment is described in Appendix A.

Federal Laws, Regulations, and Policies

The federal Clean Air Act (CAA) is implemented by USEPA and sets ambient air limits, known as the National Ambient Air Quality Standards (NAAQS), for six criteria pollutants: carbon monoxide (CO), lead, nitrogen dioxide (NO₂), ground-level ozone (O₃), sulfur dioxide (SO₂), and particulate pollution. Two types of particulate pollution are regulated: particulate matter of aerodynamic radius of 10 micrometers or less (PM₁₀) and particulate matter of aerodynamic radius of 2.5 micrometers or less (PM_{2.5}). Of these six criteria pollutants, particulate matter and ground-level ozone pose the greatest threats to human health. The USEPA also regulates transportation-related emission sources, such as aircraft, ships, and certain types of locomotives, under the exclusive authority of the federal government. The U.S. EPA also establishes vehicular emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet stricter emission standards established by the California Air Resources Board (CARB). The USEPA has regulations involving performance standards for specific sources that may release toxic air contaminants (TACs), also known as hazardous air pollutants (HAPs) at the federal level.

State Laws, Regulations, and Policies

The California Air Resources Board (CARB) sets standards for criteria pollutants that are more stringent than NAAQS and includes the following additional contaminants: visibility reducing particles, sulfates, and vinyl chloride. The Project area is located within the San Francisco Bay Area Air Basin (SFBAAB), which includes all or portions of the nine-county Bay Area. The Bay Area Air Quality Management District (BAAQMD) manages air quality within the SFBAAB for attainment and permitting purposes. Table 5 shows the current Bay Area attainment status for the state and federal ambient air quality standards.

The Proposed Project is located in San Mateo County, which is within the San Francisco Bay Area Air Basin (SFBAAB). The Bay Area Air Quality Management District (BAAQMD) manages air quality in the basin for attainment and permitting purposes. The SFBAAB is currently in non-attainment of the state and federal ozone standard, state PM10 standards, and state and federal PM2.5 standards. The SFBAAB is in attainment or unclassified for all other pollutants. The CAA and the California Clean Air Act require areas that are designated nonattainment to reduce emissions until federal and state standards are met.

CARB has several regulations that regulate offroad vehicles emissions and limits to fleets of equipment and vehicles as well as other mobile sources. This includes recent regulatory updates to the In-use Off-Road Diesel-Fueled Regulation, Small Off-Road Engine Regulation, Portable Equipment Registration Program, Advanced Clean Fleets Regulation, Advanced Clean Trucks Regulation, and Advanced Clean Cars II Regulation. The latest revisions to the regulations for construction equipment require starting in 2024 the use of renewable diesel and verification by the lead agency that equipment used for their projects are in compliance with the applicable fleet regulations.

CARB regulates TACs by requiring implementation of various ATCMs, which are intended to reduce emissions associated with toxic substances. The following ATCMS may be relevant to the Proposed Project.

- ATCM to Limit Diesel-fueled Commercial Motor Vehicle Idling
- ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater
- ATCM for Stationary Compression Ignition Engines
- ATCM to Reduce Particulate Emissions from Diesel-Fueled Engines – Standards for nonvehicular Diesel Fuel.

Table 5. Attainment Status of the State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS		NAAQS	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone	8-Hour	0.070 ppm	N	0.070 ppm	N
	1-Hour	0.09 ppm	N	--	--
CO	8-Hour	9.0 ppm	A	9 ppm	A
	1-Hour	20 ppm	A	35 ppm	A
NO ₂	1-Hour	0.18 ppm	A	0.100 ppm	--
	Annual Arithmetic Mean	0.030 ppm		0.053 ppm	A
SO ₂	24-Hour	0.04 ppm	A	0.14 ppm	--
	1-Hour	0.25 ppm	A	0.075 ppm	--
	Annual Arithmetic Mean	--	--	0.030 ppm	--
PM ₁₀	Annual Arithmetic Mean	20 µg/m ³	N	--	--
	24-Hour	50 µg/m ³	N	150 µg/m ³	U
PM _{2.5}	Annual Arithmetic Mean	12 µg/m ³	N	12 µg/m ³	U/A
	24-Hour	--	--	35 µg/m ³	N
Sulfates	24-Hour	25 µg/m ³	A	--	--
Lead	30-Day Average	1.5 µg/m ³	A	--	--
	Calendar Quarter	--	--	1.5 µg/m ³	A
	Rolling 3-Month Average	--	--	0.15 µg/m ³	--
Hydrogen Sulfide	1-Hour	0.03 ppm	U	--	--
Vinyl Chloride	24-Hour	0.010 ppm	No Info Available	--	--
Visibility Reducing Particles	8-Hour	Extinction Coefficient of 0.23 kilometer with relative humidity less than 70%	U	--	--

Notes for table 5:

A = Attainment; CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards; N = Non-attainment; U = Unclassified; -- = Not Applicable, no applicable standard; ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

A. CAAQS = California ambient air quality standards. CAAQS for ozone, CO (except Lake Tahoe), SO₂ (1-hour and 24-hour), NO₂, PM, and visibility reducing particles are values that are not to be exceeded. All other state standards shown are values not to be equaled or exceeded.

B. NAAQS = national ambient air quality standards. NAAQS, other than ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the fourth highest daily concentration is 0.070 ppm or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than the standard. The 24-hour PM_{2.5} standard is attained when the 3-year average of the 98th percentile is less than the standard.

C. The USEPA revoked the national 1-hour ozone standard on June 15, 2005.

D. This federal 8-hour ozone standard was approved by USEPA in October 2015, and became effective on December 28, 2015.

E. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. USEPA made recommendations on attainment designations for California by October 1, 2016, and issued final designations on June 4, 2018, classifying the San Francisco Bay Area Air Basin as being in Nonattainment (Federal Register Vol. 83, No. 107, pp. 25776-25848). Nonattainment areas will have until 2020 to 2037 to meet the health standard, with attainment dates varying based on ozone level in the area.

F. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).

G. On June 2, 2010, the USEPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO₂ NAAQS must, however, continue to be used until one year following USEPA initial designations of the new 1-hour SO₂ NAAQS. USEPA classified the San Francisco Bay Area Air Basin as being in Attainment/Unclassifiable in January 2018 (Federal Register Vol. 83, No. 6, pp. 1098-1172).

H. State standard = annual geometric mean

I. In June 2002, CARB established new annual standards for PM_{2.5} and PM₁₀.

J. National lead standard, rolling three-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.

K. CARB has identified lead and vinyl chloride as toxic air contaminants, with no threshold level of exposure below which there are no adverse health effects determined.

L. Statewide visibility reducing particle standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze, and is equivalent to a 10-mile nominal visual range.

M. On January 9, 2013, USEPA issued a final rule, determining that SFBAAB has attained the 24-hour PM_{2.5} national standard. This rule suspends key SIP requirements as long as monitoring data continue to show that SFBAAB attains the standard. Despite this USEPA action, SFBAAB will continue to be designated as "nonattainment" for the national 24-hour PM_{2.5} standard until BAAQMD submits a "redesignation request" and a "maintenance plan" to USEPA, and USEPA approves the proposed redesignation.

Sources: BAAQMD 2017b; USEPA 2023

Regional Laws, Regulations, and Policies

The BAAQMD has also developed thresholds of significance for criteria air pollutants, which were published in the BAAQMD's California Environmental Quality Act Air Quality Guidelines (2023). Table 6 provides the BAAQMD's recommended significance criteria for analysis of air quality impacts, including cumulative impacts. The term "sensitive receptor" is used by the BAAQMD to refer to facilities or land uses that include members of the population particularly sensitive to the effects of air pollutants, such as children, the elderly and people with illnesses. Sensitive receptors in the vicinity of the proposed project include rural single-family residences and recreational areas.

The BAAQMD's Final 2017 Clean Air Plan (BAAQMD 2017a) establishes a goal of protecting air quality and health at the regional and local scale and lists a key priority of reducing emissions of criteria air pollutants and toxic air contaminants from all key sources. The Clean Air Plan contains numerous control measures to help achieve these goals and priorities.

Table 6. BAAQMD CEQA Thresholds of Significance for Criteria Air Pollutants

Criteria Air Pollutants and Precursors (Regional)	Construction-Related Thresholds	Operational Thresholds	
	Average Daily Emissions (lb/day)	Average Daily Emissions (lb/day)	Maximum Annual Emissions (tpy)
Reactive Organic Gases (ROG)	54	54	10
Nitrogen oxides (NOx)	54	54	10
Particulate Matter (PM10)	82 (exhaust)	82	15
Particulate Matter (PM2.5)	54 (exhaust)	54	10
PM10/PM2.5 (fugitive dust)	Best Management Practices	None	
Local Carbon Monoxide (CO)	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	
Odors	None	Five confirmed complaints per year averaged over 3 years	

tpy – tons per year; lb/day – pounds per day; ppm – parts per million

Source: BAAQMD 2023

3.2.2 Environmental Setting

The Proposed Project is located in the SFBAAB in San Mateo County along inland creeks that flow into the San Francisco Bay. The Santa Cruz Mountains run up the center of the peninsula, with elevations exceeding 2,000 feet at the southern end, decreasing to 500 feet in South San Francisco. The blocking effect of the Santa Cruz Mountains results in variations in summertime maximum temperatures in different parts of the peninsula for instance Redwood City the mean maximum summer temperatures are in the low-80's. Mean minimum temperatures during the winter months are in the high-30's to low-40's. The San Bruno Gap and Crystal Springs Gap permits maritime air to pass across the mountains and its cooling effect is commonly seen from San Mateo to Redwood City. Annual average wind speeds range from 5 to 10 mph throughout

the peninsula. Winds on the eastern side of the peninsula are often high in certain areas, such as near the San Bruno Gap and the Crystal Springs Gap.

Ozone and fine particle pollution, or PM_{2.5}, are the major regional air pollutants of concern in the San Francisco Bay Area. Ozone is primarily a problem in the summer, and fine particle pollution is a problem in the winter. Eastern Alameda County has the highest ozone levels in the Bay Area, with summer afternoon temperatures frequently approaching triple digits, spurring ozone levels to exceed health standards. In winter, PM_{2.5} can be transported westward through the Altamont Pass from the Central Valley where it adds to wood smoke levels, causing health standards to be exceeded.

The Proposed Project site locations are located in and around urban areas. Many of the reaches are adjacent to residential locations. Other areas include near major roadways, industrial areas and the San Francisco Airport.

3.2.3 Discussion of Checklist Responses

a. Conflict with or obstruct implementation of the applicable air quality plan

A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in the applicable air quality plan, which, in turn, would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, projects need to be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would exceed the growth rates included in the relevant air quality plans. BAAQMD CEQA Guidelines say that if a project is above any of its significance thresholds then it is in conflict with their air quality plans. As discussed in parts b and c below, the Project is below these significance thresholds and therefore the Project does not conflict or obstruct implementation of the 2017 Clean Air Plan. As discussed in Appendix A, San Mateo County, the Cities of Belmont, Menlo Park, Redwood City, San Bruno, San Carlos, and San Mateo all have general plans which include general guidance to reduce air pollution and/or be consistent with BAAQMD Plans. Since the Proposed Project is consistent with BAAQMD thresholds and Plans, it also does not conflict with any of these local general plans.

The Proposed Project would implement BMPs for fugitive dust and comply with the 2017 Clean Air Plan policies. Thus, the proposed Project would not conflict with or impair implementation of applicable air quality plans established by the BAAQMD or local general plans. Because the proposed Project would not generate growth or conflict with the applicable policies from the BAAQMD air quality plan (BAAQMD, 2017a), the impact related to inconsistency with air quality planning would be **less than significant**.

b. Cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area

During Project implementation, the combustion of fossil fuels for operation of construction equipment, sediment/material hauling, and worker trips would result in construction-related emissions of criteria air pollutants. In addition, construction activities would generate fugitive dust from grading and excavation activities as well as travel on unpaved roads. The Proposed

Project’s criteria air pollutant emissions during construction were modeled using conservative assumptions for equipment use, scheduling, and haul routes, as detailed in Appendix B, *Air Quality and Greenhouse Gas Emission Calculations*. Emissions were estimated using the California Emission Estimator Model (CalEEMod) version 2022.1.1.21 Based on the information included in the Project Description and anticipated equipment needs and schedule. Modeling inputs assumed construction would start on June 15, 2024 and that each reach would be done consecutively. Modeled emissions are shown in Table 7.

The BAAQMD has established mass emission thresholds and rules regarding emissions of pollutants. The BAAQMD considers that, if the emissions from a project do not exceed its air quality emission thresholds, the project’s emissions are not cumulatively considerable. As shown in Table 7, the estimated construction-related emissions associated with the Proposed Project would be less than these mass emissions significance thresholds for all pollutants. Construction emissions, in particular fugitive dust (PM10 and PM2.5) emissions, would be controlled by implementation of BMPs and would meet the BAAQMD requirements for fugitive dust BMPs. Therefore, the impact of criteria pollutant emissions during construction would be **less than significant**.

Table 7. Estimated Criteria Pollutant Emissions for the Initial Construction of the Proposed Project

	Pollutant						
	ROG	NO _x	CO	PM10 Exhaust	PM10 Fugitive	PM2.5 Exhaust	PM2.5 Fugitive
Unmitigated Construction (lb/day)							
Unmitigated Project Construction Average Daily Emissions – 2024 (lbs/day)	0.05	0.49	0.54	0.02	0.01	0.02	<0.005
BAAQMD Daily Emissions Threshold (lbs/day)	54	54	None	82	BMPs*	54	BMPs*
Exceed Threshold?	N	N	N	N	N	N	N

Note: lb/day = pounds per day.

* BMPs indicates that no calculation is required because compliance with BMPs is considered by BAAQMD to reduce the emission to below the threshold.

Operational criteria air pollutant emissions would be generated by periodic maintenance-related vehicle trips to the site and periodic use of construction equipment. Maintenance related activities will use similar equipment compared to the original construction activities, but may involve less material hauling and not all reaches will be done in the same calendar year. To conservatively estimate the operational criteria air pollutant emissions, all reaches were modeled for the projected activity including reduced material hauling starting in June 15, 2024 using CalEEMod version 2022.1.1.21 similar to the construction emissions. Modeled emissions are shown in Table 8. As shown in Table 8, the estimated construction-related emissions

associated with the Proposed Project would be less than these mass emissions significance thresholds for all pollutants.

Table 8. Estimated Criteria Pollutant Emissions for the Worst Case Annual Maintenance of the Proposed Project

	Pollutant						
	ROG	NO _x	CO	PM10 Exhaust	PM10 Fugitive	PM2.5 Exhaust	PM2.5 Fugitive
Project Implementation (lb/day)							
Project Operation Average Daily Emissions (lbs/day)	0.04	0.32	0.39	0.01	0.01	0.01	<0.005
BAAQMD Daily Emissions Threshold (lb/day)	54	54	None	82		54	
Exceed Threshold?	N	N	N	N		N	
Project Implementation (tons per year)							
Project Operation Emissions (tons/year)	0.01	0.06	0.07	<0.005	<0.005	<0.005	<0.005
BAAQMD Annual Emissions Threshold (tons/year)	10	10	None	15	None	10	None
Exceed Threshold?	N	N	N	N	N	N	N

Note: lb/day = pounds per day.

Therefore, the impact of criteria pollutant emissions during construction would be **less than significant**.

c. Expose sensitive receptors to substantial pollutant concentrations

During project construction and annual project maintenance, diesel particulate matter (DPM) and gasoline fuel combustion emissions that are classified as TACs could be emitted from construction equipment. Due to the variable nature of construction and maintenance activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically operating within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Chronic and cancer-related health effects estimated over short periods are uncertain. Cancer potency factors are based on animal lifetime studies or worker studies with long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from exposure that would last only a small fraction of a lifetime. Some studies indicate that the dose rate may change the potency of a given dose of a carcinogenic chemical. In others words, a dose delivered over a short period may have a different potency than the same dose delivered over a lifetime (California Office of Environmental Health Hazard Assessment [OEHHA] 2015). Furthermore, construction and maintenance impacts are most severe adjacent to the project

site area and decrease rapidly with increasing distance. Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB 2005). There are a few sensitive receptors in the vicinity of the Project with construction or maintenance activities in proximity to any specific receptor would be temporary, lasting 2-5 days. Additionally, as described above, the project would not generate emissions of criteria air pollutants in excess of BAAQMD significance thresholds and equipment is subject to California Air Resource Board Regulations regarding construction equipment fleets. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations. This is considered a **less than significant** impact.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

Diesel exhaust from maintenance activities may generate temporary odors while construction of the Proposed Project is underway. Excavated and recently exposed vegetation, soil, or sediment may contain decaying organic material that may create objectionable odors. Project-related odors due to exposure of organic material are expected to be minimal because of the nature of the alluvial soils in the project reach. Once construction activities have been completed, these odors would cease. Maintenance activities would also generate temporary odors, but the odors would be short-lived and would occur intermittently throughout the project area.

The intensity of the odor perceived by a receptor depends on the distance of the receptor from excavation areas and the amount and quality of the exposed soil or sediment material. Impacts related to potential generation of objectionable odors, if any, are thus expected to be temporary and **less than significant**.

3.3 BIOLOGICAL RESOURCES

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

3.3.1 Regulatory Setting

The following sections describe federal and state regulations, and policies that are relevant to impacts that could result from Project implementation. The regional and local regulatory environment is described in Appendix A.

Federal Laws, Regulations, and Policies

Endangered Species Act

The Endangered Species Act (ESA) (16 U.S. Code [USC] § 1531 *et seq.*; 50 Code of Federal Regulations [CFR] Parts 17 and 222) provides for conservation of species that are endangered or threatened throughout all or a substantial portion of their range, as well as protection of the habitats on which they depend. The USFWS and the NMFS share responsibility for implementing the ESA. In general, USFWS manages terrestrial and freshwater species, whereas NMFS manages marine and anadromous species.

Section 9 of the ESA and its implementing regulations prohibit the “take” of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. The ESA defines the term “take” to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 USC § 1532). Section 7 of the ESA (16 USC § 1531 *et seq.*) outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitats. Section 10(a)(1)(B) of the ESA provides a process by which non-federal entities may obtain an incidental take permit from USFWS or NMFS for otherwise lawful activities that incidentally may result in “take” of endangered or threatened species, subject to specific conditions. An HCP must accompany an application for an incidental take permit.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (16 USC § 1801 *et seq.*) governs all fishery management activities that occur in federal waters within the United States’ 200 nautical mile limit. The Act establishes eight Regional Fishery Management Councils responsible for the preparation of fishery management plans (FMP) to achieve the optimum yield from U.S. fisheries in their regions. These councils, with assistance from NMFS, establish Essential Fish Habitat (EFH) in FMPs for all managed species. Federal agencies that fund, permit, or implement activities that may adversely affect EFH are required to consult with the NMFS regarding potential adverse effects of their actions on EFH and respond in writing to recommendations by the NMFS.

The Pacific Fisheries Management Council has designated EFH for the following three FMPs in the Project area: Pacific coast groundfish, coastal pelagic species, and Pacific coast salmon. Thus, if the Project results in impacts on EFH, consultation with NMFS would be required. Such consultation would occur during the Section 7 or 10 consultation process (refer to the Endangered Species Act section above).

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC, Chapter 7, Subchapter II) protects migratory birds. Most actions that result in the taking of, or the permanent or temporary possession of, a migratory bird constitute violations of the MBTA. The MBTA also prohibits the destruction of occupied nests. The USFWS is responsible for overseeing compliance with the MBTA.

Clean Water Act

Clean Water Act (CWA) Section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR § 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, vernal pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of USACE under the provisions of CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of State water quality certification pursuant to Section 401 of CWA.

Section 401 of the CWA requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the U.S. In California, the State Water Resources Control Board (SWRCB) and its nine RWQCBs issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and its water quality control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that may result in discharge to waters of the U.S. (including wetlands or vernal pools) must also obtain a Section 401 water quality certification to ensure that any such discharge will comply with the applicable provisions of the CWA.

3.3.2 State Laws, Regulations, and Policies

California Fish and Game Code

The California Fish and Game Code includes various statutes that protect biological resources, including the Native Plant Protection Act of 1977 (NPPA) and the California Endangered Species Act (CESA). The NPPA (California Fish and Game Code §§ 1900–1913) authorizes the CDFW to designate plants as endangered or rare and prohibits the taking of any such plants except as authorized in limited circumstances.

CESA (California Fish and Game Code §§ 2050–2098) prohibits State agencies from approving a project that would jeopardize the continued existence of a species listed under CESA as endangered or threatened. Section 2080 of the California Fish and Game Code prohibits the take of any species that is State listed as endangered, threatened, or designated as a candidate for such listing. CDFW may issue an incidental take permit authorizing the take of listed and candidate species if that take is incidental to an otherwise lawful activity, subject to specified conditions.

California Fish and Game Code §§ 3503 and 3513 protect native and migratory birds, including their active or inactive nests and eggs, from all forms of take. In addition, §§ 3511, 4700, 5050, and 5515 identify species that are fully protected from all forms of take. Section 3511 lists fully protected birds; § 5515 lists fully protected fish; § 4700 lists fully protected mammals; and § 5050 lists fully protected amphibians.

Porter-Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (known as the Porter–Cologne Act), passed in 1969, dovetails with CWA (refer to discussion of the CWA above). It established SWRCB and divided the State into nine regions, each overseen by a RWQCB. The SWRCB is the primary State agency responsible for protecting the quality of the State’s surface water and groundwater supplies; however, much of the SWRCB’s daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing CWA Sections 401, 402, and 303[d]. In general, the SWRCB manages water rights and regulates Statewide water quality, whereas RWQCBs focus on water quality within their respective regions.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as Basin Plans) that designate beneficial uses of California’s major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin Plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met.

3.3.3 Environmental Setting

Ground disturbing activities would occur along short reaches of San Bruno, San Mateo, Belmont, and Cordilleras creeks and Atherton Channel.

San Bruno Creek at 7th Avenue

This segment of San Bruno Creek has open water in the center of the channel. Sediment build up in the channel has created several long sandbars. Many of the sandbars are exposed during low flow periods and devoid of vegetation but with some emergent vegetation (pickleweed [*Salicornia pacifica*], bulrush [*Schoenoplectus californicus*]) growing on higher bars and channel margins. Vegetation on the mid- and upper banks support weedy herbaceous species with some coyote brush (*Baccharis pilularis*) and few trees such as Acacia (*Acacia* spp.) and dead willows (*Salix* spp.) on the upper banks. No tree removal is planned for this site. The area is surrounded by 7th avenue, Highway 101 to the east, by undeveloped space to the east, residential homes to the west, and unpaved access road parallel to the right bank (east).

San Mateo Creek at Arroyo Court

This segment of San Mateo Creek is a perennial stream that is dominated by broadleaved trees. Dominant tree species along the banks include as California Bay (*Umbellularia californica*), Western Sycamore (*Platanus racemose*), Oregon Ash (*Fraxinus latifolia*), California Walnut (*Juglans californica*), and Coast Live Oaks (*Quercus agrifolia*). There are a variety of native and nonnative herbaceous plant species such as Common ivy (*Hedera helix*), stinging nettle (*Urtica dioica*), bull thistle (*Cirsium vulgare*) and canary island ivy (*Hedera canariensis*), growing along the understory and banks and in the channel. Approximately 12 trees would be removed to restore channel conveyance. The trees would be stump-cut to allow the roots to provide bank stability. In addition, a narrow sediment bar along the toe of the vertical concrete left bank that has formed downstream of the debris blockage would be removed to restore channel capacity through the S-bend. The area is surrounded by urban development such as single-family residence homes and apartment buildings.

San Mateo Creek at Highway 101

This segment of San Mateo Creek is a perennial stream, with an earthen channel with subtly sloped banks composed of fine material. Dense emergent vegetation has established on the instream sediment bars, promoting further deposition. Invasive, non-native pompas grass (*Cortaderia selloana*) is dominant along the channel banks on the upstream side of Highway 101 while a stand of invasive, non-native *Arundo* grows on the downstream side. Other bank vegetation primarily consists of native and non-native herbaceous plants with few woody species. The channel is earthen with subtly sloped banks composed of fine material. The creek passes through a series of concrete box culverts under Highway 101 and the associated on/off ramps and connectors. Sediment has accumulated in the culvert interiors and the channel upstream and downstream of the culverts.

Belmont Creek at 101

This segment of Belmont Creek is an intermittent stream, where the upper banks and adjacent upland areas are dominated by non-native grasses and ruderal herbaceous plant species typical of disturbed environments. The constraint channel is bordered by Arroyo willow thickets are dominated by arroyo willows (*Salix lasiolepis*) of varying size and density. The arroyo thickets are found along the upstream of Industrial Road. Downstream other tree species present include blue gum eucalyptus (*Eucalyptus globulus*), Brazilian pepper tree (*Schinus terebinthifolia*), and other ornamental tree species. The understory within the bank is variable in composition and is dominated by Flathead Sedge, Giant horse tail, wild fennel (*Foeniculum vulgare*), water cress, bulrush, smilio grass (*Stipa miliacea*), bulrush and non-native species shrubs and non-native annual grasses.

The upstream portion of the maintenance reach is near the head of tide with fluvial processes more evident as the primary hydrological driver. The maintenance reach is a linear, trapezoidal earthen channel with a channel bed width of 10-12 feet wide and an approximate top of bank width of 30 feet. The upper banks and adjacent upland areas are dominated by non-native grasses and ruderal herbaceous plant species typical of disturbed environments. The surrounding area is industrial with businesses laterally of the Creek and the highways perpendicular to the channel.

Belmont Creek at Sem Lane

This segment of Belmont Creek drains to Belmont Slough approximately 1,500 feet northwest of the maintenance site and supports tidal marsh habitat, salt tolerant plant species in the creek channel, and non-native grasses and ruderal species on the mid- and upper banks. This reach of Belmont Creek is tidal and confined by low earthen levees.

Cordilleras Creek

This segment of Cordilleras Creek has an earthen bottom channel separated by concrete culverts at each crossing. The channel bottom is largely devoid of vegetation with predominately non-native species on the channel margins and banks. A patch of invasive giant reed (*Arundo donax*) grows between the El Camino Real and Caltrain crossing. The maintenance area is highly disturbed with significant trash and homeless activities in the channel. The channel is highly confined between El Camino Real and Stafford Street with short sections of vertical concrete or rock walls. Cordilleras Creek forms an S bend through a 260 linear foot (LF) segment as it passes

under El Camino Real, a Caltrain crossing, and Stafford Street. Significant sediment deposition has occurred through these segments. The surrounding area is residential, and commercial. With surface streets, El Camino Real and Stafford Street running perpendicular to channel.

Atherton Channel

This segment of Atherton Channel is tidally influenced with open water in the center of the channel, a narrow band of pickleweed marsh along the water edges, and non-native grasses and ruderal habitat on the mid- and upper banks. The creek passes underneath Haven Avenue through a concrete double box culvert. An 18-inch diameter stormwater culvert fitted with a flap gate discharges to the channel at the right bank directly upstream of the culvert. A large non-native palm tree growing on the lower bank approximately 20 feet upstream of the culvert face would be stump-cut. The surrounding area is mainly large businesses and parking lots. With surface street, Haven Avenue running perpendicular to channel.

Special-Status Species

For the purposes of this assessment, special-status species are those that are listed as rare, species of concern, candidate, threatened, endangered, or fully protected by the USFWS, CDFW, or NMFS. The following resources were consulted and reviewed to identify special-status species with the potential to occur in the vicinity of the Project area:

- USFWS IPaC Trust Resources Report for the Project Area (USFWS 2023);
- California Natural Diversity Database (CNDDDB) query of federally listed species in the nine U.S. Geological Survey (USGS) quadrangles containing and surrounding the Project area (CDFW 2023; see Appendix C);
- California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California query for the three USGS 7.5-minute quadrangles containing and surrounding the Project area (CNPS 2023; see Appendix C); and
- Draft Biological Resources Report OneShoreline Maintenance Project (Montrose 2023a).

These data sources were reviewed to develop the list of special-status species and their potential to occur within the Proposed Project area. The potential for special-status species to occur in areas affected by the proposed Project was evaluated according to the following criteria:

- **None:** indicates that the area contains a complete lack of suitable habitat, the local range for the species is restricted, and/or the species is extirpated in this region.
- **Not Expected:** indicates situations where suitable habitat or key habitat elements may be present but may be of poor quality or isolated from the nearest extant occurrences. Habitat suitability refers to factors such as elevation, soil chemistry and type, vegetation communities, microhabitats, and degraded/substantially altered habitats.
- **Possible:** indicates the presence of suitable habitat or key habitat elements that potentially support the species.

- **Present:** indicates that either the target species was observed directly, or its presence was confirmed by diagnostic signs during field investigations or in previous studies in the area.

Special-status plant and animal species tables and their potential to occur in the Project area are listed in Tables C-1 and C-2 in Appendix C. These special-status species are discussed below.

Special-Status Plants

Based on the special-status plant species search described above, 77 special-status plant species that are known to occur in Project area were identified due to their occurrence in the general vicinity of the Project site (CDFW 2023, CNPS 2023, and USFWS 2023). However, 75 of these plant species were determined to have “no” or “not expected” potential to occur in the Project area. Two species have the potential to occur near the Project site. These include Point Reyes salty bird's-beak (*Chloropyron maritimum ssp. palustre*), and saline clover (*Trifolium hydrophilum*). Point Reyes salty bird's-beak and saline clover have a California Rare Plant Rank (California Rare Plant Rank [CRPR]) of 1B.2.¹ (CDFW 2023).

Point Reyes salty bird's-beak is found within coastal salt marshes. A historical observance from 1893 was recorded in an unspecified location in Belmont Slough east of the Belmont Creek maintenance sites (CDFW 2023). However, no recent CNDDDB records occur within 5 miles of any of the Project maintenance sites (CDFW 2023).

Saline clover grows in freshwater marshes and swamps, valley and foothill grassland, and vernal pools. A historical record from 1886 reported an occurrence in an unspecified location in Belmont Slough east of the Belmont Creek maintenance sites (CDFW 2023). However, no recent CNDDDB occurrences occur within 5 miles of any of the Project maintenance sites (CDFW 2023).

Special-Status Wildlife

Based on the special-status wildlife species search described above, 47 special-status wildlife species that are known to occur in the Project area were identified due to their occurrence in the general vicinity of the maintenance sites (CDFW 2023 and USFWS 2023). However, 37 of these species are not discussed in detail because of an absence of suitable habitat or a reasonable expectation of occurrence in the Project area; therefore, there is no potential for Project-related impacts on these species, and they are not discussed further. The 10 special-status wildlife species with the potential to occur near the Project maintenance sites are listed and discussed below:

- Steelhead - central California coast DPS (*Oncorhynchus mykiss irideus pop. 8*)

¹ California Rare Plant Rank definitions: 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere. Threat ranks: 0.2 - Moderately threatened in California.

- California Ridgway's rail (= clapper rail) (*Rallus obsoletus obsoletus*)
- California black rail (*Laterallus jamaicensis coturniculus*)
- Alameda song sparrow (*Melospiza melodia pusillula*)
- California red-legged frog (*Rana draytonii*; CRLF)
- San Francisco garter snake (*Thamnophis sirtalis tetrataenia*; SFGS)
- Pallid bat (*Antrozous pallidus*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)
- Salt marsh harvest mouse (*Reithrodontomys raviventris*)
- salt-marsh wandering shrew (*Sorex vagrans halicoetes*)

Steelhead, Central California Coast DPS

Steelhead are known to occur in San Mateo Creek. Previous distribution studies conducted in 1993 found steelhead at four locations of San Mateo Creek: Baywood Ave, Sierra Drive, Tartan Drive, and Arroyo Court (Leidy 2002, Leidy et al. 2005). While low numbers of steelhead are known to occur within San Mateo Creek, the creek does not provide suitable spawning habitat as Lower Crystal Springs Dam prevents anadromous migration to upper watershed spawning beds. No suitable spawning habitat is present in the Project maintenance sites along San Mateo Creek.

California Ridgway's Rail and California Black Rail

Ridgway's rail inhabit saltwater and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. This species is associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs. The closest known occurrence of Ridgway's rail is throughout Belmont Slough and northwest portion of Bair Island, approximately 0.75 miles to the north of the Belmont Creek maintenance sites, and in Smith Slough approximately 2.0 miles east of the Belmont Creek maintenance sites (CDFW 2023). Intertidal, pickleweed marsh adjacent to Belmont Creek at Sem Lane provides marginally suitable habitat for this species.

California black rail are also found in shallow margins of saltwater marshes, as well as brackish and freshwater marshes and wet meadows bordering larger bays. This species needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat. The closest known occurrence of black rail is in Belmont Slough approximately 1.4 miles northwest of the Belmont Creek at Sem Lane site (CDFW 2023). The intertidal, pickleweed marsh at the Belmont Creek at Sem Lane site provides suitable habitat for this species. Marginally suitable emergent marsh habitat is present at the Belmont Creek at Highway 101 (Industrial Way), San Bruno Creek at 7th Street, and San Mateo Creek at Highway 101.

Alameda Song Sparrow

Alameda song sparrow is resident to salt marshes bordering south San Francisco Bay. This species typically inhabits *Salicornia* marshes and nests low in *Salicornia* and *Grindelia* bushes (above high tide elevations). A historical occurrence record from 1947 documented this species approximately 0.27 miles northeast of the San Bruno Creek at 7th Street site. Although the potential to occur is low, pickleweed marsh habitat at the San Bruno Creek at 7th Street and Belmont Creek at Sem Lane sites may provide marginal nesting habitat for Alameda song sparrow.

California Red-legged Frog and San Francisco Garter Snake

California red-legged frog (CRLF) is listed as federally threatened and a California Species of Special Concern. CRLF are found in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. This species is known to occur in isolated ponds adjacent to Highway 101 near the San Francisco airport, approximately 0.50 miles east of the San Bruno Creek maintenance site (CDFW 2023).

San Francisco garter snake (SFGS) inhabits freshwater marshes, ponds and slow-moving streams. This species prefers dense cover and water depths of at least one foot with ample access to upland areas for refugia. SFGS is federally endangered, State endangered, and a California fully protected species. This species is closely associated with CRLF as the frog is one of SFGS's main prey sources and is known to occur in the same vicinity as the CRLF near the San Francisco airport approximately 0.50 miles east of the San Bruno Creek maintenance site (CDFW 2023).

Pallid Bat and Townsend's Big-eared Bat

Pallid bat and Townsend's big-eared bat are both California Species of Special Concern, and have potential to occur in grasslands, shrublands, woodlands, and forests, as well as built structures such as culverts, buildings, and bridges, although both species are sensitive to human disturbance. There are no current reported CNDDDB occurrence records for pallid bat and Townsend's big-eared bat within 5 miles of the Project maintenance sites (CDFW 2023). However, the riparian trees along San Mateo Creek at Arroyo Court and the eucalyptus trees within the vicinity of Belmont Creek at Highway 101 may provide suitable roosting habitat (e.g., exfoliating bark, cavities, hollows, and cracks) for pallid bat and Townsend's big-eared bat.

Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew

Salt marsh harvest mouse (SMHM) (listed as federally and state endangered) and salt marsh wandering shrews (state species of special concern) both inhabit salt marsh wetlands of San Francisco Bay and its tributaries. Pickleweed marsh is the primary habitat for SMHM, but both species may occur in other marsh vegetation types and in adjacent upland areas. Higher areas for flood escape and upland refugia or scattered driftwood are necessary habitat requirements to move into during high tide events and avoid predation. SMHM does not generally inhabit areas that are open and unvegetated, thus making their home range relatively small, with an average of no larger than a half-acre per individual. The nearest occurrence for SMHM is in the vicinity of the Belmont Creek at Sem Lane site located between O'Neill Slough and Highway 101, approximately 0.50 miles northwest of the maintenance site (CDFW 2023). Intertidal, pickleweed marsh habitat at Belmont Creek at Sem Lane provides suitable habitat for these

species. SMHM is also documented near the Atherton Channel in Flood Slough approximately 0.40 miles from the maintenance site (CDFW 2023).

3.3.4 Discussion of Checklist Responses

a. Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species

Two special-status plant species and 10 special-status wildlife species have some potential to occur within the Project maintenance sites.

Special-status species has some potential to occur at the following maintenance sites:

- San Bruno Creek at 7th Street: California black rail, Alameda song sparrow, California red-legged frog, and San Francisco garter snake
- San Mateo Creek at Arroyo Court: Steelhead, Pallid bat, and Townsend's big-eared bat
- San Mateo Creek at Highway 101: Steelhead and California black rail
- Belmont Creek at Sem Lane: Point Reyes salty bird's-beak, saline clover, California Ridgway's rail, California black rail, and Alameda song sparrow
- Belmont Creek at Highway 101: Point Reyes salty bird's-beak, saline clover, California black rail, Pallid bat, and Townsend's big-eared bat

The likelihood to encounter these species and the avoidance, minimization, and mitigation measures, if necessary, are discussed below.

Special-status Plants

Special-status plant species with the potential to occur are Point Reyes salty bird's-beak and saline clover. Although the likelihood to encounter these species is low, historical records document these species in the vicinity of the Belmont Creek at Sem Lane and Highway 101 sites. Since intertidal marsh habitat is found at these locations, there is some potential for these species to occur at the Belmont Creek sites.

If any of these special-status plants were present within the Project maintenance sites at Belmont Creek, Project implementation could result in the removal, trampling, or crushing of individual special-status plants, improperly controlled runoff, sediment, or hazardous materials could enter potential special-status plant habitat, or invasive species introduction into special-status plant populations. The Project would adhere to BMP-2 (Area of Disturbance), BMP-3 (Erosion and Sediment Control), BMP-4 (Fill, Spoils, and Stockpiled Materials), BMP-5 (On-site Hazardous Materials Management), BMP-6 (Spill Prevention and Response Plan), BMP-7 (Vehicle and Equipment Maintenance), and BMP-11 (Minimize Spread of Weeds and Invasive Species). Furthermore, **Mitigation Measures BIO-1** and **BIO-2** would minimize direct and indirect impacts to special-status plant species by conducting environmental awareness training and surveying for and avoiding special-status plant populations. Implementation of Project

BMPs and Mitigation Measures BIO-1 and BIO-2 would ensure that direct and indirect impacts to special-status plants species and their habitats is reduced to **less than significant with mitigation**.

Mitigation Measure BIO-1: Environmental Awareness Training

Maintenance personnel involved in the Project will attend an environmental awareness training prior to the commencement of Project disturbance activities. The training will be conducted by a qualified biologist and will involve the presentation of sensitive species and habitats documented or potentially occurring at the Project maintenance site where work would be occurring. The training will include handouts that describe each resource with respect to listing status, habitat preferences, distinguishing physical characteristics, and potential protection and avoidance measures. The handout will be distributed among construction personnel and will include photographs of the resources in order to assist in identifying sensitive resources by personnel.

Mitigation Measure BIO- 2: Special-Status Plant Survey at Belmont Creek at Sem Lane

Prior to ground disturbance or vegetation removal at the Belmont Creek at Sem Lane and downstream of Highway 101, appropriately timed survey(s) for Point Reyes salty bird's-beak and saline clover within the work area shall be conducted by a qualified biologist. Should special-status plants be observed within the work area(s), consultation with CDFW may be required to determine appropriate mitigating actions.

Steelhead, Central California Coast DPS

While low numbers of steelhead are known to occur within San Mateo Creek, the creek does not provide suitable spawning habitat as Lower Crystal Springs Dam prevents anadromous migration to upper watershed spawning beds. No suitable spawning habitat is present in the Project maintenance sites along San Mateo Creek. Instream activities in San Mateo Creek has the potential to harm and/or kill individual steelhead.

Compliance with the BMPs listed in Chapter 2 (BMP 1 through BMP 11) during construction would minimize the potential for runoff, sediment, or hazardous materials to enter aquatic and fish habitat by requiring work to be conducted in the dry season, minimizing the work area, conducting erosion and sediment control activities, properly maintaining vehicles, and developing a Spill Prevention and Response Plan. **Mitigation Measures BIO-1** and **BIO-3** would minimize potential impacts to steelhead, other fish species, and aquatic habitats by requiring environmental awareness training to be conducted and potential impacts to aquatic habitats and wildlife by requiring dewatering within creek maintenance sections by installing diversion structure and/or creek dewatering. With reasonable efforts to be made to capture and move all stranded aquatic life observed in the dewatered areas, including steelhead from dewatered areas.

Mitigation Measure BIO-3: Dewatering Measures

It is assumed that a diversion structure and/or creek dewatering would be necessary at most maintenance sites to isolate the Project work area and prevent increases in downstream turbidity and impacts to water quality. To avoid and minimize potential impacts to aquatic habitats and wildlife, the following actions are recommended:

- A qualified biologist will check for stranded aquatic life as the water level in the dewatering area drops. All reasonable efforts will be made to capture and move all stranded aquatic life observed in the dewatered areas. Capture methods may include fish landing nets, dip nets, buckets and by hand. Captured aquatic life will be released immediately downstream of the work site.
- During dewatering of the channel, the decrease in water surface elevation (WSE) and discharge of pumped water shall be controlled such that it does not result in significant increases to turbidity that could be deleterious to aquatic life.
- If pumps are used as part of the dewatering process, all pump intakes will be fitted with ¼ inch mesh screens to prevent aquatic species injury, mortality, or impingement.

California Ridgway's Rail, California Black Rail, Alameda Song Sparrow, and Nesting Birds

Intertidal, pickleweed marsh adjacent to Belmont Creek at Sem Lane provides marginally suitable habitat for California Ridgway's rail. However, this species is not expected to occur at the Belmont Creek maintenance sites due to the linear, relatively narrow channel corridor from Marine Parkway upstream to Highway 101. The channel is confined by earthen levees on both sides of the channel with the Bay Trail on the levee top, Twin Dolphin Drive (east), and surrounding commercial development. These factors concentrate streamflow to a single channel with limited sloughs or drainage channels needed for foraging, reduce upland refugia, and allow predators (cats) and humans easy access to the channel. However, the intertidal, pickleweed marsh at the Belmont Creek maintenance sites are more suitable for California black rail. In addition, marginally suitable emergent marsh habitat is present at the Belmont Creek at Highway 101 (Industrial Way), San Bruno Creek at 7th Street, and San Mateo Creek at Highway 101 sites. Although the potential to occur is low, pickleweed marsh habitat at the San Bruno Creek at 7th Street and Belmont Creek at Sem Lane sites may provide marginal nesting habitat for Alameda song sparrow as well.

If Project activities commence during nesting bird season, individual nesting birds protected under the MBTA and California Fish and Game Code could be harmed. BMP-13 would minimize potential impacts on nesting by conducting nesting bird surveys and establishing buffer zones around active nests. BMP-13 would also avoid and minimize potential impacts to California Ridgway's rail, California black rail, and Alameda song sparrow. In addition, Mitigation Measure BIO-1 (Environmental Awareness Training) would help educate maintenance workers to identify special-status species and direct proper steps to be taken in the event wildlife and/or bird nests are detected.

California Red-legged Frog and San Francisco Garter Snake

CRLF and SFGS are known to occur in isolated ponds adjacent to Highway 101 near the San Francisco airport, approximately 0.50 miles east of the San Bruno Creek maintenance site (CDFW 2023). While these species can disperse within riverine and riparian habitats, these isolated ponds are largely disconnected from the San Bruno Creek maintenance site by Highway 101, San Bruno Avenue, and other surface roadway and surrounding urban development

thereby preventing overland travel to the maintenance site. Furthermore, San Bruno Creek is culverted under the City and daylighted at the maintenance site with no hydrological surface connection to the isolated ponds. Due to habitat fragmentation and isolation from urban development, roadways, Highway 101 interchange, the residential homes directly adjacent to the San Bruno Creek, and presence of cats and other common predators, the likelihood that CRLF and SFGS may occur at the San Bruno Creek maintenance site is discountable.

Pallid Bat and Townsend's Big-eared Bat

Pallid bat and Townsend's big-eared bat may roost in the riparian trees along San Mateo Creek at Arroyo Court and the eucalyptus trees within the vicinity of Belmont Creek at Highway 101. The Project will remove approximately 12 trees within the riparian corridor at San Mateo Creek at Arroyo Court. If any of these special-status bats are present within the Project area, tree removal activities could result in the harm of individual special-status bats as well as potential maternity colony and suitable roosting habitat. bats if these species were roosting in the trees at the time of removal. To avoid and minimize potential impacts on special-status bat species, **Mitigation Measure BIO-4** would be implemented.

Mitigation Measure BIO-4: Special-status Bat Surveys

To minimize impacts on bat maternity colonies during the maternity season (March 15 – July 31) or non-reproductive roosting bats during the non-maternity season (August 1 – March 14), a qualified biologist will conduct a pre-construction survey for roosting bats prior to the onset of ground-disturbing or tree removal activities. The biologist will inspect for evidence of bat use within suitable habitat, such as guano, urine staining, or oil staining. If evidence of use is observed, or if high-quality roost sites are present in areas where evidence of bat use might not be detectable (such as a tree cavity), an evening emergence survey and/or a nocturnal acoustic survey may be necessary to determine if a bat colony is present and to identify the specific location of the bat colony.

- If no active maternity colony or non-breeding bat roost is located, Project work can continue as planned.
- If an active maternity colony or non-breeding roost is located, the Project work will be modified to avoid disturbance of the roosts, if feasible.
- If an active maternity colony is located and Project work cannot be modified to avoid removal or disturbance of the colony location, disturbance will be scheduled to take place outside the maternity roost season (March 15– July 31), and a non-disturbance buffer zone (determined by a qualified biologist) will be implemented during the maternity roost season.

If an active non-breeding bat roost is located and Project work cannot be modified to avoid removal of the occupied tree, the tree will be removed using a two-day phased method as follows: Day 1, under supervision of a qualified biologist, tree limbs not containing suitable bat roosting habitat will be removed; then, Day 2, the rest of the tree can be removed.

Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew

Intertidal, pickleweed marsh habitat at Belmont Creek at Sem Lane provides suitable habitat for SMHM and salt marsh wandering shrew. While marsh habitat is present downstream of the Belmont Creek at Highway 101 maintenance site, habitat is limited at this location due to a very narrow marsh habitat band along the wetted channel and insufficient upland refugia from predators. Similar conditions are present at the Atherton Channel maintenance site where the channel generally lacks sufficient marsh and suitable upland refugia and cover. Maintenance activities to remove accumulated sediment and overgrown vegetation at the culvert outfall area to Belmont Creek at Sem Lane could harm and/or kill individual SMHM and/or salt marsh wandering shrew during Project implementation.

Certain avoidance measures were built into the Project approach, such as operating excavators from the ruderal habitat along the top of bank and outside of the wetland habitat. Project activities at this site are also minor in extent and duration with maintenance activities within the marsh habitat expected to last for less than 1 day, thus limiting the potential to encounter these species. Additionally, compliance with the BMPs listed in Chapter 2, specifically BMP-2, during construction would reduce potential impacts to special-status mammal habitat by minimizing the work area. Even with adherence to Project BMPs, impacts to special-status mammal species and their habitat would occur. Implementation of **Mitigation Measures BIO-1** and **BIO-5** would minimize direct and indirect impacts on special-status mammals by conducting environmental awareness training and requiring a monitor to be present onsite for ground disturbance activities and/or vegetation removal within salt marsh habitat.

Mitigation Measure BIO-5: Special-Status Mammals at Belmont Creek

- A biologist, will be onsite to monitor ground disturbance activities and/or vegetation removal within salt marsh habitat in the maintenance work area at Belmont Creek at Sem Lane and downstream of Highway 101 for special-status salt marsh mammal species. Ground disturbance to special-status salt marsh mammal species habitat (including, but not limited to, pickleweed and emergent salt marsh vegetation, including bulrush and cattails) will be avoided to the extent feasible. Where special-status salt marsh mammal species cannot be avoided.
- All vegetation within potential habitat for the special-status salt marsh habitat mammal species within the Project site and within a 2-foot buffer around the Project work area shall be removed by hand using only nonmechanized hand tools (i.e., trowel, hoe, rake, and shovel) prior to the initiation of work within these areas. Pickleweed stands will be removed by hand or weedwhacker. Vegetation height will be maintained at or below 5 inches above ground. Vegetation shall be removed under the supervision of biologist. Vegetation removal may begin when no mice are observed and shall start at the edge farthest from the salt marsh or the poorest habitat and work its way towards better salt marsh habitat, and from center of project outward.
- Silt fences would be erected adjacent to construction areas to define and isolate potential special-status species in marsh habitat.

- Prior to the initiation of work each day, the biologist shall thoroughly inspect the work area and adjacent habitat areas to determine if special-status salt marsh mammal species are present. Any necessary repairs to the fencing shall be completed within 24 hours of the initial observance of the damage. Work shall not continue within 300 feet of the damaged exclusion fencing until the fences are repaired and the site is surveyed by a biologist to ensure that special-status salt marsh species has not entered the work area. In the event special-status salt marsh mammal species have entered the work area, the animal would be given space to leave the work area on its own volition and the biologist would contact CDFW and USFWS for guidance.
- No work will occur within 50 feet of suitable tidal marsh habitat within two hours before and after an extreme high tide event (6.5 feet or higher measured at the Golden Gate Bridge and adjusted to the timing of local high tides) unless special-status salt marsh mammal species- proof exclusion fencing has been installed around the work area.
- Anyone accessing salt marsh habitat will walk carefully through the marsh, avoiding high pickleweed cover and wrack where special-status mammals are likely to nest or find cover.

Project adherence to applicable BMPs and Mitigation Measures BIO-1 through BIO-5 would reduce potential impacts on species identified as a candidate, sensitive, or special-status species to **less than significant with mitigation**.

b. Substantial adverse effect on any riparian habitat or other sensitive natural community

Project implementation would occur within short reaches of aquatic and riparian habitats of Atherton, Cordilleras, Belmont, San Bruno and San Mateo Creeks, which are considered a sensitive habitat by CDFW. The Project would result in approximately 0.97 acres (total across the seven maintenance sites) of temporary impacts to sensitive riparian and aquatic habitat during maintenance activities and channel dewatering. These habitats would return to pre-Project condition immediately following to within 1-year of maintenance activities. Approximately 0.05 acres of wetland habitat would be converted to open water habitat at the San Bruno Creek, San Mateo Creek at Highway 101, and Belmont Creek at Sem Lane. Furthermore, implementation BMP-2 (Area of Disturbance), BMP-3 (Erosion and Sediment Control), BMP-5 (On-site Hazardous Materials Management), BMP-6 (Spill Prevention and Response Plan), BMP-7 (Vehicle and Equipment Maintenance), and BMP-11 (Minimize Spread of Weeds and Invasive Species) would avoid and minimize potential impacts to sensitive natural communities during Project implementation. Therefore, since Project impacts are largely temporary and BMPs would control accidental hazards during implementation, effects on sensitive riparian habitat would be **less than significant**.

c. Substantial adverse effects on state or federally protected wetlands

A jurisdictional water delineation for the Project area was conducted in August 2023 by Montrose Environmental. As described above, approximately 0.05 acres of wetland habitat at

three maintenance sites, San Bruno Creek, San Mateo Creek at Highway 101, and Belmont Creek at Sem Lane, would be converted to open water habitat. These wetland areas consist of 0.02 acre emergent freshwater marsh (San Mateo Creek at Highway 101), 0.020 acre brackish marsh (San Bruno Creek), and 0.01 acre salt marsh (Belmont Creek at Sem Lane) habitat. The Project removes this vegetation to restore channel capacity for flood conveyance, hence creating open water aquatic habitat. The conversion of 0.05 acre of wetland habitat to open water aquatic habitat would not be considered a substantial impact on protected wetlands due to the minimal impact area at the three sites. Potential Project-related impacts on State or federally protected wetlands would be **less than significant**.

d. Substantial interference with wildlife movement, established wildlife corridors, or the use of native wildlife nursery sites

Project maintenance activities occur primarily within the channel and adjacent upland areas of the creeks at each maintenance site. The Project maintenance site are surrounded by developed and urban areas, and do not provide a significant wildlife corridor for terrestrial wildlife species. Accordingly, the Project is not anticipated to impede the movement by resident or migratory wildlife due the temporary nature of the work occurring in short reaches of each creek.

While steelhead are known to occur within San Mateo Creek, spawning habitat is absent from the Project site and excessive sedimentation through the reach results in relatively shallow and diffuse flow across the sediment bars and highly dense pockets of emergent vegetation that choke open water habitat. Dewatering activities would temporarily exclude resident fish from dewatered portions of the channel. However, BMP-10 (In-water Work) limits maintenance activities to the summer months, outside of the steelhead migration period and Project activities would be temporary and would not create substantial interference with movement, migratory corridors, or nursery sites or impede fish movement. Further, post-Project conditions would increase the area and depth of open water habitat within the maintenance site and restore conveyance capacity of culverts thereby improving conditions for fish movement and migration.

Mitigation Measures BIO-1 and BIO-3 would minimize potential impacts to steelhead, other fish species, and aquatic habitats by and potential impacts to aquatic habitats and wildlife by requiring dewatering within creek maintenance sections by installing diversion structure and/or creek dewatering, and relocating native fish species.

A number of resident and migratory wildlife species, notably birds, can utilize adjacent/nearby aquatic and riparian areas at the maintenance sites. Implementation of BMP-13, *Nesting Bird Surveys*, would avoid potential impacts on nesting birds protected by the MBTA and California Fish and Game Code by conducting nesting bird surveys and establishing buffer zones around active nests.

Therefore, impacts on wildlife movement and use of native wildlife nursery sites would be **less than significant with mitigation**.

e. Conflict with local policies or ordinances protecting biological resources

The Project maintenance sites occur within the County of San Mateo, and the cities of San Bruno, San Mateo, Belmont, San Carlos, Redwood City, and Menlo Park. Each city has adopted

different biological measures or policies protecting biological resources (Appendix A). The Proposed Project would not conflict with goals or policies described in the city general plans.

Project maintenance activities at San Mateo Creek at Arroyo Court would remove approximately 12 trees and would need to comply with the City of San Mateo's Protected Tree Ordinance (Chapter 13.40 of City of San Mateo Code). A tree removal permit is required to remove any Protected Tree/Heritage Tree, as defined as any oak (*Quercus* spp.) tree with a trunk that has a diameter of 10 inches or more, any other tree with a trunk diameter of 15 inches or more, multi-stem trees that sum to the above diameters, any tree or stand of trees designated by resolution of the City Council to be of special historical value or of significant community benefit, and a stand of trees, the nature of which makes each dependent on the others for survival (City of San Mateo 2020).

Similarly, Project maintenance activities at Atherton Channel would remove one large palm tree and would need to comply with the City of Menlo Park's Heritage Tree Ordinance. Heritage trees are defined as any tree other than oaks that has a trunk with a diameter of 15 inches or more, any oak tree native to California has a trunk with a diameter of 10 inches or more, or a tree or group of trees specifically designated by the City Council for protection because of its historical significance, special character or community benefit.

OneShoreline and its contractors or partners would attain tree removal permits from the respective City prior to removing any protected or heritage trees. Therefore, impacts related to local ordinances protecting biological resources would be less than significant.

f. Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP

The Proposed Project conducts routine maintenance that are largely temporary in nature and would not result in take of listed species. The Proposed Project would not conflict with provisions adopted by an HCP, Natural Community Conservation Plan, or other approved local, regional, or State HCP. There would be **no impact**.

3.4 CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The term “cultural resources” refers to sites, objects, buildings, structures, burials, and cultural landscapes. Cultural Resources can also be classified as built-environment resources, archaeological resources, and human remains. Built-environment resources generally refer to above-ground designed, constructed, and landscape features and include buildings, structures, objects, and districts. Archaeological resources generally refer to deposits, structural features, and objects below ground. Human remains are also addressed in this section.

3.4.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Construction of the Proposed Project would require a CWA Section 404 permit from the U.S. Army Corps of Engineers. As a result, the project constitutes a federal undertaking as defined by Title 54 USC Section 300101 of the National Historic Preservation Act (NHPA) and mandates compliance with 54 USC Section 306108, commonly known as Section 106 of the NHPA and its implementing regulations found under Title 36 of the CFR Section 800, as amended in 2001. To comply with Section 106 of the NHPA, the project proponent must consider the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places (NRHP).

The implementing regulations of the NHPA require that cultural resources be evaluated for NRHP eligibility if they cannot be avoided by an undertaking (Proposed Project). To determine site significance through application of NRHP criteria, several levels of potential significance that reflect different (although not necessarily mutually exclusive) values must be considered. As provided in Title 36 CFR Section 60.4, “the quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and

association” and must be considered within the historic context. Resources must also be at least 50 years old, except in rare cases, and, to meet eligibility criteria of the NRHP, must:

(A) Be associated with events that have made a significant contribution to the broad patterns of our history; or

(B) Be associated with the lives of persons significant in our past; or

(C) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(D) Have yielded, or may be likely to yield, information important in prehistory or history.

For archaeological sites evaluated under criterion (D) above, integrity requires that the site remain sufficiently intact to convey the expected information to address specific important research questions.

Cultural resources also may be considered separately under the National Environmental Protection Act per Title 42 USC Sections 4321 through 4327. These sections require federal agencies to consider potential environmental impacts and appropriate mitigation measures for projects with federal involvement.

State Laws, Regulations, and Policies

CEQA and CEQA Guidelines

The proposed project must comply with CEQA (Public Resources Code [Pub. Res. Code] 21000 et seq. and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Chapter 3), which determine, in part, whether the project has a significant effect on a unique archaeological resource (per Pub. Res. Code 21083.2) or a historical resource (per Pub. Res. Code 21084.1).

CEQA Guidelines CCR 15064.5 notes that “a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.” Lead agencies are required to identify potentially feasible measures or alternatives to avoid or mitigate significant adverse changes in the significance of a historical resource before such projects are approved. According to the CEQA guidelines, historical resources are:

Listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (per Pub. Res. Code 5024.1(k));

Included in a local register of historical resources (per Pub. Res. Code 5020.1) or identified as significant in a historical resource survey meeting the requirements of Pub. Res. Code 5024.1(g); or

Determined by a lead state agency to be historically significant.

CEQA Guidelines CCR 15064.5 also applies to unique archaeological resources as defined in Pub. Res. Code 21084.1.

California Register of Historical Resources

Public Resources Code § 5024.1 establishes the CRHR. The register lists all California properties considered to be significant historical resources. The CRHR includes all properties listed as or determined to be eligible for listing in the NRHP, including properties evaluated under Section 106 of the NHPA. The criteria for listing are similar to those of the NRHP. Criteria for listing in the CRHR include resources that:

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

The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

3.4.2 Environmental Setting

Cultural resources include prehistoric archaeological sites; historic-era archaeological sites; tribal cultural resources (TCRs); and historic buildings, structures, landscapes, districts, and linear features. In northern California, human occupation extends back in time for at least 9,000-11,500 years with Native American occupation and use of the Bay Area extending over 5,000-8,000 years and possibly longer. The project area has changed over the past 6,000 years due to either natural factors or urban development including flood control. The County of San Mateo was once inhabited by several different native peoples, and was then settled by Spanish explorers in the late 1760s and 1770s (Milliken et al. 2009). After California became part of the United States, San Mateo County kept its rural character and had an economy mostly propped up by providing water and lumber for the development of San Francisco (Marschner 2000). Today, the land around the Project locations is a mix of residential, industrial, and commercial land.

Archival Research

A record search was conducted by the Northwest Information Center (NWIC) of the California Historical Resources Information System at Sonoma State University. The purpose of the record search was to identify the presence of any previously recorded cultural resources within the Project site, and to determine whether any portions of the Project site had been surveyed for cultural resources. The record search (NWIC File No. 23-0106) indicated that twenty-two cultural resource studies have been conducted within the Project area, and sixty-five studies have taken place within the 0.25-mile record search area. Three cultural resources were

previously identified within the Project study area by the records search, and 79 resources were located within the 0.25-mile buffer of the Project area.

The first resource within the Project area is a prehistoric shellmound located near the San Mateo Creek at Arroyo Court Project site, immediately west of the intersection of El Camino Real and Baywood Avenue (P-41-000011). This resource was first discovered in the early 1900's during accidental excavation for a development project, and has since been evaluated through surveys and testing. Monitoring of construction nearby at the Versailles Senior Housing project at the corner of El Camino Real and Crystal Springs Road recovered several burial deposits and other habitation debris. Two radiocarbon dates place the site at around 405 and 408 years Before Present (BP) or the Terminal Late Period, although one Napa obsidian hydration reading was placed at 1,722 BP (Byrd et al. 2012). While this resource was never formally evaluated for listing in the CRHR, it is considered eligible for listing in the CRHR as an historic resource due to the data potential for understanding California prehistory.

An additional historical resource, the Church of Saint Matthew Mills Memorial Hospital (P-41-001029), is also located near the Arroyo Court Project site. This historic structure is estimated to have been built between 1914 and 1928 and is considered to be eligible for listing in the NRHP/CRHR. The last resource identified within the Project area, located near the Cordilleras Creek at El Camino Real site, is the Cordilleras Creek Culvert (P-41-002463). It is associated with the Southern Pacific Railroad improvement program from the early 1900's but was found as not eligible for listing in the NRHP/CRHR due a to a lack of significance. As a result, it is not considered historic resource under CEQA guidelines.

Archaeological Survey and Results

A pedestrian survey of the Project area was conducted by Dean Martorana, a qualified archaeologist from Montrose Environmental on October 30, 2023. As described in Chapter 2, *Project Description*, the Project area includes seven separate sites spanning five creeks within San Mateo County. All Project sites are located within a mixture of residential, industrial, and commercial land uses and are heavily impacted by previous urban development. The surrounding areas generally consist of ruderal grassland with large amounts of debris and trash. Indeed, many of the areas of proposed maintenance along existing streams were under bay waters during the pre-contact period, and, as such, these areas are not considered to contain evidence of human occupation during this period. No built environment resources will be affected by the Project actions. As a result, a pedestrian survey was conducted of those maintenance locations that were not completely under bay waters during the pre-contact period. Beyond what was previously known about resources in the vicinity of the Project through the NWIC record search, cultural resources were identified within or near the Project areas during the survey.

Native American Outreach

An email request was made to the Native American Heritage Commission (NAHC) on August 1, 2023, to review its files for the presence of recorded sacred sites on the Project site. The NAHC responded on August 12, 2023, stating that the records search identified significant resources in the Project vicinity. The NAHC also provided a list of 13 tribes and tribal contacts with a traditional and cultural affiliation with the Project area for notification pursuant to Public

Resources Code § 21080.3.1 (Assembly Bill 52). Letters were sent to each contact on November 15th, 2023, to elicit any concerns or information regarding any known tribal cultural resources within the project area. To date, one response was received that the letters to two tribal representatives could not be delivered, most-likely due to insufficient postage. Montrose followed up via email to ensure the individuals were properly informed. Coordination with tribes is described further in Section 3.14, "Tribal Cultural Resources."

3.4.3 Discussion of Checklist Responses

a. Cause a Substantial Adverse Change in the Significance of a Historical Resource

As stated above, two structural cultural resources were identified within the Project area during the initial records search. The Church of Saint Matthew Mills Memorial Hospital (P-41-001029) is located adjacent to San Mateo Creek at the Arroyo Court Project site and was found as eligible for listing in the NRHP/CRHR. While this is considered a historical resource under CEQA guidelines CCR 15064.5, it is not expected that Project activities would materially alter the property or the setting. Proposed Project activities at this site mainly include tree removal and sediment removal from the existing concrete channel and would occur mainly within and directly outside of the channel. Further, no alteration of the existing setting is proposed that would affect the Church. The second structural resource identified within the Project area, the Cordilleras Creek Culvert (P-41-002463), intersects with the Cordilleras Creek Project site, but was found to be not eligible for listing in the NRHP/CRHR. As a result, this resource is not considered a Historic Resource by Section 15064.5 of the CEQA guidelines.

For the reasons listed above, it is not expected that the Proposed Project would cause any adverse changes any historical resources within the Project area. As a result, the Project would have a **less than significant** impact on historical resources.

However, historical resources that are archaeological in nature may be accidentally discovered during Project construction; archaeological resources are discussed further in Section 3.4.3(b) below.

b. Cause a Substantial Adverse Change in the Significance of an Archaeological Resource — Less than Significant with Mitigation

According to previously recorded findings, both human remains and artifacts such as arrowheads, a bow, and shell-fragments, were previously found in close proximity to the prehistoric shellmound located near the Arroyo Court Project Site. Although extensive field efforts did not identify any prehistoric materials or human remains associated with the resource in the vicinity of the Project site, archaeological remains may be buried with no surface manifestation. Excavation activities related to the Proposed Project have a low potential for uncovering archaeological materials during construction because the project activities involve sediment removal along previously disturbed bank of creek that abuts the parking lot for the apartment complex along Crystal Springs Road, which is now about 200-feet south of where the channel flowed during the pre-contact period. Consequently, the alterations that have taken place to the channel to date have likely destroyed any intact midden at this location; indeed, the sediment removal and tree removal at this location will not remove material beyond the existing

level of disturbance; however, the possibility remains that even minor ground disturbance could uncover buried archaeological materials. If archaeological remains were accidentally discovered that are determined eligible for listing in the CRHR, and construction activities would affect them in a way that would render them ineligible for such listing, a significant impact would result. Should previously undiscovered archaeological resources be found, implementation of Mitigation Measure CR-1 would require the contractor to immediately halt work if materials are discovered, evaluate the finds for NRHP/CRHR eligibility, and implement appropriate mitigation measures, as necessary. Implementation of Mitigation Measure CR-1 would reduce impacts related to accidental discovery of significant archaeological resources to a level that is **less than significant with mitigation**.

Mitigation Measure CR-1: Immediately Halt Construction If Cultural Resources Are Discovered, Evaluate All Identified Cultural Resources for Eligibility for Inclusion in the NRHP/CRHR, and Implement Appropriate Mitigation Measures for Eligible Resources.

OneShoreline will include this measure in construction plans and specifications. If any cultural resources, such as structural features, unusual amounts of bone or shell, flaked or ground stone artifacts, historic-era artifacts, human remains, or architectural remains, are encountered during any project construction activities, work shall be suspended immediately at the location of the find and within a radius of at least 50 feet and the OneShoreline will be contacted.

All cultural resources accidentally uncovered during construction within the Project site and restoration area will be evaluated for eligibility for inclusion in the NRHP/CRHR. Resource evaluations will be conducted by individuals who meet the U.S. Secretary of the Interior's professional standards in archaeology, history, or architectural history, as appropriate. If any of the resources meet the eligibility criteria identified in Pub. Res. Code Section 5024.1 or Pub. Res. Code Section 21083.2(g), mitigation measures will be developed and implemented in accordance with CEQA Guidelines Section 15126.4(b) before construction resumes.

For resources eligible for listing in the NRHP/CRHR that would be rendered ineligible by the effects of project construction, additional mitigation measures will be implemented. Mitigation measures for archaeological resources may include (but are not limited to) avoidance; incorporation of sites within parks, greenspace, or other open space; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Mitigation measures for archaeological resources will be developed in consultation with responsible agencies and, as appropriate, interested parties such as Native American tribes. Native American consultation is required if an archaeological site is determined to be a TCR. Implementation of the approved mitigation will be required before resuming any construction activities with potential to affect identified eligible resources at the site.

c. Disturbance of any human remains, including those interred outside of formal cemeteries – less than significant with mitigation

While there is a previously recorded finding of human remains associated with the shellmound at the Arroyo Court site, no evidence of human remains was discovered in or near any of the seven Project areas during field surveys. Additionally, because Project activities would not

create ground disturbance beyond the existing level of disturbance, it is not expected that there would be any impact to human remains. Although unlikely, there is the possibility that excavations associated with construction could uncover burials, if they are present. Impacts on accidentally discovered human remains would be considered a significant impact. Implementation of Mitigation Measure CR-2 would require that, if human remains are uncovered, work must be halted, and the County Coroner must be contacted. Adherence to these procedures and provisions of the California Health and Safety Code would reduce potential impacts on human remains to a level that is **less than significant with mitigation**.

Mitigation Measure CR-2: Immediately Halt Construction if Human Remains Are Discovered and Implement Applicable Provisions of the California Health and Safety Code.

OneShoreline will include this measure in construction plans and specifications. If human remains are accidentally discovered during project construction activities, the requirements of California Health and Human Safety Code Section 7050.5 will be followed. Potentially damaging excavation will halt in the vicinity of the remains, with a minimum radius of 100 feet, and the County Coroner will be notified. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (California Health and Safety Code Section 7050.5[b]). If the Coroner determines that the remains are those of a Native American, they must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). Pursuant to the provisions of Pub. Res. Code Section 5097.98, the NAHC will identify a Most Likely Descendent (MLD). The MLD designated by the NAHC will have at least 48 hours to inspect the site, once access is granted, and propose treatment and disposition of the remains and any associated grave goods. OneShoreline will work with the MLD to ensure that the remains are removed to a protected location and treated with dignity and respect.

3.5 ENERGY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.5.1 Regulatory Setting

Federal Laws, Regulations, and Policies

At the federal level, the USEPA has developed regulations to reduce greenhouse gas (GHG) emissions from motor vehicles and has developed permitting and reporting requirements for large stationary emitters of GHGs. The USEPA and National Highway Traffic Safety Administration (NHTSA) set standards for passenger cars and light trucks for the Corporate Average Fuel Economy (CAFE) standards and GHG emissions standards.

State Laws, Regulations, and Policies

In recent years, California has enacted numerous policies and plans to address GHG emissions and climate change. In 2006, the California State Legislature enacted Assembly Bill (AB) 32, the Global Warming Solutions Act, which set the overall goals for reducing California’s GHG emissions to 1990 levels by 2020. Senate Bill (SB) 32, a follow-up to the California Global Warming Solutions Act of 2006 (AB 32), similarly calls for a statewide GHG emissions reduction to 40 percent below 1990 levels by December 31, 2030. Executive Orders (EOs) S-3-05 and B-16-2012 further extend this goal to 80 percent below 1990 levels by 2050. The California Air Resources Board (CARB) has completed rulemaking to implement several GHG emission reduction regulations and continues to investigate the feasibility of implementing additional regulations. These include the low carbon fuel standard, which reduces GHG emissions associated with fuel usage, and the renewable portfolio standard, which requires electricity suppliers to increase the amount of electricity generated from renewable sources. CARB has implemented a mandatory reporting regulation and a cap-and-trade program for large emitters of GHGs. CARB has recently enacted the Advanced Clean Fleets Regulation which requires fleets that are well suited for electrification to transition to zero-emission vehicles (ZEV) through requirements to both phase-in the use of ZEVs for targeted fleets and requirements that manufacturers only manufacture ZEV trucks starting in the 2036 model year.

CARB approved the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) in December 2022. The 2022 Scoping Plan outlines the proposed framework of action for achieving the 2045 GHG target of an 85 percent reduction in GHG emissions relative to 1990 levels; the update also adds carbon neutrality as a science-based guide for California’s climate work (CARB 2022). The 2022 Scoping Plan outlines how carbon neutrality can be achieved to reduce GHGs to meet the emission targets by reducing anthropogenic emissions and expanding actions to capture and store carbon. New to the 2022 Scoping Plan is a commitment to incorporate and quantify natural and working lands as a key component to GHG reductions and actions around capture and storage of carbon. The 2022 Scoping Plan strategy for meeting the state’s 2030 GHG target incorporates the full range of legislative actions and state-developed plans that have relevance to the year 2030. The 2022 Scoping Plan is heading toward the 2045 target of 85 percent below 1990 levels and carbon neutrality.

BAAQMD has established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the San Francisco Bay Area Air Basin. The climate protection program includes measures that promote energy efficiency, reduce VMT, and develop alternative sources of energy, all of which assist in reducing emissions of GHG and air pollutants that affect the health of residents.

The BAAQMD CEQA Air Quality Guidelines originally were prepared in 1999 to assist in the evaluation of air quality impacts of projects and plans proposed in the San Francisco Bay Area. The guidelines provide nonbinding recommended procedures for evaluating potential air quality impacts during the environmental review process, consistent with CEQA requirements, including recommended thresholds of significance, mitigation measures, and background air quality information. The guidelines also include recommended assessment methodologies for air toxics, odors, and GHG emissions. In June 2010, the BAAQMD Board of Directors adopted CEQA thresholds of significance and an update of the CEQA Air Quality Guidelines, which included significance thresholds for GHG emissions based on the emission reduction goals for 2020 articulated by the California State Legislature in AB 32. These thresholds were revised in 2022 for land use projects, shifting from a “Brightline” threshold, which is a level of emissions not to exceed regardless of the size or scope of the project, to a threshold requiring either compliance with a prescriptive list of project design elements for buildings and transportation or consistency with a local GHG reduction strategy that meets the criteria cited in CEQA Guidelines Section 15183.5(b). There are no local GHG reduction strategies that meets the criteria cited in CEQA Guidelines applicable to this project because construction emissions are temporary and variable, the Air District has not developed a quantitative threshold of significance for construction-related GHG emissions

3.5.2 Environmental Setting

Climate change is caused, in part, from accumulation in the atmosphere of GHGs, which are produced primarily by the burning of fossil fuels for energy. Because GHGs (carbon dioxide [CO₂], methane [CH₄], nitrogen dioxide [NO₂], and chlorofluorocarbons [CFCs]) persist and mix in the atmosphere, emissions anywhere in the world affect the climate everywhere in the world. Consequently, the cumulative analysis is the same as the discussion concerning Proposed Project impacts. GHG emissions are typically reported in terms of carbon dioxide equivalents (CO₂e), which convert all GHGs to an equivalent basis taking into account their GWP compared to CO₂.

CARB compiles GHG inventories for the State of California. Based on CARB's 2020 GHG inventory data, California emitted 369.2 MMTCO₂e, including emissions resulting from imported electrical power (CARB 2023). Between 1990 and 2022, the population of California grew by approximately 9.7 million (from 29.8 to 39.1 million) (California Department of Finance 2023a), representing an increase of approximately 31 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from \$773 billion in 1990 to \$3.60 trillion in 2022, representing an increase of approximately 365 percent (over four times the 1990 gross state product) (California Department of Finance 2023b). Despite this population and economic growth, CARB's 2020 statewide inventory indicates that California's net GHG emissions in 2020 were below 1990 levels of 431 MMTCO₂e, which was the 2020 GHG reduction target codified in California Health and Safety Code (HSC), Division 25.5, also known as The Global Warming Solutions Act of 2006 (AB 32). Although 2020 data may be slightly irregular due to the COVID-19 pandemic, previous years were already below the 1990 levels.

3.5.3 Discussion of Checklist Responses

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources

The Proposed Project would directly generate greenhouse gas (GHG) emissions during maintenance activities from the combustion of fossil-fuels by construction equipment, trucks hauling materials, and worker vehicles.

The Proposed Project's criteria air pollutant emissions during construction were modeled using conservative assumptions for equipment use, scheduling, and haul routes, as detailed in Appendix B, *Air Quality and Greenhouse Gas Emission Calculations*. Emissions were estimated using the California Emission Estimator Model (CalEEMod) version 2022.1.1.21. Based on the information included in the Project Description and anticipated equipment needs and schedule. Modeling inputs assumed construction would start on June 15, 2024 and that each reach would be done consecutively. The initial maintenance activities would generate 29 metric tonnes of carbon dioxide equivalent emissions per year and would be considered de minimis and unlikely to impact the overall GHG emissions of California in achieving its statewide goals. This is less than the energy use of 4 homes in a year or 7 passenger cars. Subsequent maintenance activities would generate less GHG emissions per year as each reach will not likely need maintenance in the same year and improvements in equipment and vehicles in the future may decrease these emissions even further. Given the minimal annual GHG emissions associated with the Project maintenance activities, it is unlikely that this would impede the progress toward the State's GHG reduction goals as specified in SB 32 and executive orders. BAAQMD does not have any applicable significance thresholds for this type of infrastructure project. Thus, this impact is **less than significant**.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

The Proposed Project would be subject to statewide and local GHG emission reduction plans and policies. The State of California implemented AB 32 to reduce GHG emissions to 1990 levels by 2020. SB 32 codified an overall goal for reducing California's GHG emissions to 40 percent below 1990 levels by 2030. EOs S-3-05 and B-16-2012 further extend this goal to 80 percent

below 1990 levels by 2050. Through the San Mateo County Community Climate Action Plan, the unincorporated area of San Mateo County set a GHG emissions reduction target of 45 percent below 1990 levels by 2030 and demonstrate carbon neutrality within unincorporated San Mateo County by 2040. San Mateo County's Community Climate Action Plan (2022) provides details on how this goal will be met with proposed measures and supporting actions that include goals to increase zero-emission vehicles, sequester carbon in soils and vegetation and improve water quality and soil health. The City of San Mateo 2020 Climate Action Plan established per capita GHG emission targets of 4.3 metric tonnes of carbon dioxide equivalents in 2030 and 1.2 metric tonnes of carbon dioxide equivalents in 2050. The measures mostly pertain to building energy efficiency and electric vehicle infrastructure and clean vehicle fleets. Redwood City adopted in 2020 their 2030 Climate Action Plan with a goal of 50% reduction in 2005 levels by 2030. The measures are primarily focused on building energy efficiency, renewable energy, water conservation, smart growth and measures to reduce transportation emissions. The City of Menlo Park's Climate Action Plan has measures and goals aimed at reducing fossil fuel use by encouraging electric buildings, increasing electric vehicles and reducing vehicle miles traveled. Menlo Park also plans to develop a climate adaptation plan to protect the community from sea level rise and flooding. The City of Belmont has an adopted Climate Action Plan with the goal of 40% reduction in GHG emissions by 2035. The City of Belmont's Climate Action Plan outlines measures associated with energy use, transportation, land use, solid waste and water. The transportation measures only apply to municipal vehicles and no other measures are applicable to the Proposed Project. The Proposed Project would be consistent with these goals and would not impede the progress of implementation of other measures and strategies. For the reasons detailed here and in item (a) above, the Proposed Project would not conflict with AB 32 or SB 32, the local general plan, or San Mateo County's climate action plan or any of the local cities Climate Action Plans. Therefore, this impact would be **less than significant**.

3.6 GEOLOGY, SOILS, AND SEISMICITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.6.1 Regulatory Setting

Federal Laws, Regulations, and Policies

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) and creation of the National Earthquake Hazards Reduction Program (NEHRP) established a long-term earthquake risk reduction program to better understand, predict, and mitigate risks associated with seismic events. Four federal agencies are responsible for coordinating activities under NEHRP: USGS; National Science Foundation (NSF); Federal Emergency Management Agency (FEMA); and National Institute of Standards and Technology (NIST). Since its inception, NEHRP has shifted its focus from earthquake prediction to hazard reduction. Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning (FEMA 2023).

State Laws, Regulations, and Policies

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code § 2621 *et seq.*), also known as the Alquist-Priolo Act, was passed in 1972 to mitigate the hazard of surface faulting to structures intended for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps depicting those zones. Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. If an active fault is identified, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet) (DOC 2023a). Under the Alquist-Priolo Act, an active fault is one that has ruptured in the last 11,000 years (DOC 2023a).

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resource Code §§ 2690-2699.6) is intended to reduce the threat to public safety resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The Seismic Hazards Mapping Act highlights the need to identify and map seismic hazard zones to allow cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations that reduce and mitigate those hazards to protect public health and safety. Cities and counties are required to regulate development within mapped Seismic Hazard Zones (DOC 2023b).

General Permit for Construction Activities

The State of California adopted the Construction General Permit, Order No. 2022-0057-DWQ. SWRCB Water Quality Order 2022-0033-DWQ (Construction General Permit) regulates

construction site stormwater management. Projects that will result in stormwater discharges and also disturb 1 or more acres of soil, or disturb less than 1 acre, but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the Construction General Permit for discharges of stormwater associated with construction activity. The General Permit requires the preparation of a Project-specific Stormwater Pollution Prevention Plan (SWPPP) to minimize any potential stormwater impacts to surface waters (SWRCB 2023). Construction activities that are subject to this permit include clearing, grading, and ground disturbance (stockpiling or excavation), but do not include regular maintenance activities performed to restore the original grade of the disturbed area.

Permit applicants are required to submit a Notice of Intent (NOI) to the SWRCB and to prepare a SWPPP. The SWPPP identifies BMPs that must be implemented to reduce construction effects on receiving water quality based on pollutants. BMPs are directed at implementing sediment and erosion control measures and other measures to control chemical contaminants. The SWPPP must also include descriptions of the BMPs to reduce pollutants in stormwater discharges after all construction phases have been completed at the site (post-construction BMPs). The SWPPP must contain a visual monitoring program, a chemical monitoring program for “nonvisible” pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a waterbody listed on the CWA Section 303(d) list of waterbodies impaired for sediment.

Public Resources Code Section 5097.5

Public Resources Code § 5097.5 defines a misdemeanor as any unauthorized disturbance or removal of a historic or prehistoric ruin, burial ground, or archaeological or vertebrate paleontological site on public lands,² without the express permission of the public agency having jurisdiction over the lands. This protection includes fossilized footprints, inscriptions, or other archaeological, paleontological, or historical features on public land.

CEQA and CEQA Guidelines

The lead agency having jurisdiction over a project is also responsible to ensure that paleontological resources are protected in compliance with CEQA and other applicable statutes. Paleontological and historical resource management is also addressed in Public Resources Code § 5097.5, “Archaeological, Paleontological, and Historical Sites.” This statute defines as a misdemeanor any unauthorized disturbance or removal of a fossil site or remains on public land and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on State lands to preserve or record paleontological resources. This statute would apply to any construction or other related project impacts that would occur on State-owned or State-managed lands.

² As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

3.6.2 Environmental Setting

Geology

Underlying geological units generally consist of older Quaternary alluvium and terrace deposits extruding from the foothills and transition area from the mountains to the estuarine plain, with younger alluvium observed along the southern portion of the foothills near the cities of Menlo Park and Palo Alto (Wagner et al. 1991). Much of the San Francisco Bay shoreline consists of artificial fill, particularly around the San Francisco International Airport and Redwood City (Wagner et al. 1991). Near Foster City, the San Francisco Bay shoreline consists of artificial fill and intertidal deposits-peaty mud moving southward.

Soils

Six (6) soil types are present within the study area (NRCS 2023). These soil mapping units are listed in Table 9. Due to the dispersed nature of the study area, only soils within 50 feet of the individual project sites were included in the table below.

Table 9. NRCS Soil Types Mapped in the Proposed Project Area

Map Unit Symbol	Map Unit Name	Map Unit Details	Hydric Soil	Waterbody/Site
134	Urban land-Orthents, reclaimed complex	0 to 2 percent slopes	Yes	San Bruno Creek at 7 th ; Belmont Creek at Highway 101
123	Orthents, cut and fill-Urban land complex	0 to 5 percent slopes	No	San Mateo Creek at Arroyo Court; San Mateo Creek at Highway 101
132	Urban land-Orthents, cut and fill complex	0 to 5 percent slopes	No	San Mateo Creek at Arroyo Court
117	Novato clay, Fagan Loam	0 to 1 percent slopes	Yes	Belmont Creek at Sem Lane; Atherton Channel
131	Urban land	NA	No	Cordilleras Creek
118	Novato clay	0 to 1 percent slopes ponded	Yes	Atherton Channel

Seismicity

The San Francisco Bay Area is one of the most seismically active regions in the United States. Significant earthquakes that occur in the Bay Area are generally associated with crustal movement along well-defined, active fault zones of the San Andreas Fault System, which regionally trend in a northwesterly direction. All project sites are not within an earthquake fault line (CDC 2015).

Ground Shaking

The USGS 2015 Working Group on California Earthquakes (Field 2015) has reported a 95 percent chance that at least one magnitude 6.7 or greater earthquake will occur within northern California within the next 30 years, with a 72 percent chance of occurrence within the Bay Area.

Liquefaction and Differential Settlement

Soil liquefaction results from loss of strength that could occur due to earthquake ground shaking. Soils most susceptible to liquefaction are clean, loose, saturated, poorly graded sands and silts. The California Geological Survey (CGS) has compiled Seismic Hazard Zone Reports, including maps that depict where historical occurrences of liquefaction were reported or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements. All project sites are within a mapped liquefaction zone (CGS 2023b).

Landslide, Slope Failure, and Lateral Spreading

None of the project sites are mapped in a landslide zone (CGS 2023).

Paleontological Resources

Paleontological resources are the preserved remains or traces of remains of ancient organisms. Geologic units that contain paleontological resources in one geographic location are likely to contain paleontological resources in another geographic location. Therefore, the likelihood of finding paleontological resources at a site depends on the geologic unit(s) underlying the site and its likelihood of yielding fossils (based on age, rock type, depositional environment, documented history of yielding fossils in other geographic locations, and whether previous finds were localized concentrations).

In California, paleontological resources are generally observed in sedimentary and metasedimentary deposits. Based on a database query of the University of California Museum of Paleontology in search of paleontological discoveries, 1698 recorded collections were found within San Mateo County. Specimens included plant material, invertebrates, microfossils, and vertebrates; and were found in geologic formations listed below (University of California Museum of Paleontology [UCMP] 2023).

Geologic formations within San Mateo County with recorded paleontological resources include:

- Butano
- Princeton
- Pillar Point
- Pigeon Point
- Purisima
- Meganos
- Merced
- Moss Beach
- Pomponio State Beach
- Vaqueros
- Santa Clara
- San Gregorio Beach
- Tunitas Creek
- Thorton Beach
- Whiskey Hill

3.6.3 Discussion of Checklist Responses

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Seismic-related rupture of a known earthquake fault

There are no known active faults that cross the Project area (CGS 2023). In addition, the Proposed Project would not increase likelihood of surface fault rupture. Therefore, the Project would not increase risk of loss, injury, or death involving seismic-related surface fault rupture. There would be **no impact**.

ii. Strong seismic ground shaking

The Project area is located in a region known to be seismically active, with the potential for large earthquakes. However, neither implementation nor operation of the Project would increase likelihood of seismic ground shaking. Therefore, the Project would not increase risk of loss, injury, or death involving seismic ground shaking. There would be **no impact**.

iii. Seismic-related ground failure, including liquefaction

The Project area is located on soils that have been mapped as having moderate liquefaction risk (CGS 2023b). However, the Proposed Project removes recently deposited soils and excess vegetation from flood control channels. Furthermore, tree stumps will be left in place to retain bank stability. The impact would be **less than significant**.

iv. Landslides

The Project sites are not located in landslide risk areas. There would be **no impact**.

b. Substantial soil erosion or the loss of topsoil

Ground-disturbing activities include vegetation, sediment and debris and trash removal. However, the majority of sediment removal involves instream deposition bar and within culvert interiors where existing sediment is subject to mobilization and instream transport. In most locations, instream vegetation removal would be conducted using a long-arm excavator operating from the top of bank and existing access roads. The tree removal at Atherton Channel and San Mateo Creek at Arroyo Court will leave the tree stump in place and would not disturb the streambanks.

While Project activities may temporarily disturb soils from equipment operation, overall impacts would be minor and localized in scale. Additionally, adherence to the project's BMPs would minimize risk of erosion and sedimentation from Project implementation, specifically BMP-1: Construction Work Windows, BMP-2: Area of Disturbance, BMP-3: Erosion and Sediment Control, and BMP-8: Fill, Spoils, and Stockpiled Materials. Any potential impact related to soil erosion and loss of topsoil would be considered **less than significant**.

c. Location on a geologic unit or soil that is unstable or that would become unstable as a result of the Proposed Project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse

The Project area is relatively flat and not susceptible to landslides, and the Proposed Project would not increase the potential for off-site landsliding. In addition, the Proposed Project would not involve removal of groundwater or other subsurface resources and would not increase risks of subsidence or collapse.

Lateral spreading typically occurs along streambanks or depositional areas where saturated, unconsolidated sediments overlie a more compacted soil layer. The alluvial soils in the Project area may be susceptible to lateral spreading under certain conditions. However, Project activities are focused on accumulated sediment within culvert interiors, the inlet and outlet areas of culverts, and localized instream bars. The potential for Project maintenance activities to create conditions subject to lateral spreading is discountable. Therefore, this impact would be **less than significant**.

d. Location on expansive soil, creating substantial direct or indirect risks to life or property

Expansive soils are predominantly composed of clays and can undergo shrinking and swelling creating differential ground movements. The shrink-swell potential for soils in the Project area is inferred to be low where alluvium is dominated by sand and gravel since shrink-swell behavior correlates with the presence of particular clay minerals in the fine sediment fraction. In addition, the Proposed Project removes accumulated sediment and would not increase risk to life or property, even if the soils happened to exhibit expansive properties. The Proposed Project would be **no impact**.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater

The Project does not include septic tanks or alternative wastewater disposal systems. Therefore, there would be **no impact**.

f. Destruction of a unique paleontological resource or site or unique geological feature

The Proposed Project activities involve routine maintenance activities which would be removing recently deposited alluvial soils. Dredging would be limited to surficial deposits and would not be deep enough to encounter unique paleontological or geological features. Therefore, there would be **no impact** to unique paleontological and geological features.

3.7 GREENHOUSE GAS EMISSIONS

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

3.7.1 Regulatory Setting

This section describes the federal, state, and regional regulations related to GHG emissions and climate change. Local laws, regulations, and policies are detailed in Appendix A.

Federal Laws, Regulations, and Policies

At the federal level, the USEPA has developed regulations to reduce greenhouse gas (GHG) emissions from motor vehicles and has developed permitting and reporting requirements for large stationary emitters of GHGs. The USEPA and National Highway Traffic Safety Administration (NHTSA) set standards for passenger cars and light trucks for the Corporate Average Fuel Economy (CAFE) standards and GHG emissions standards.

State Laws, Regulations, and Policies

In recent years, California has enacted numerous policies and plans to address GHG emissions and climate change. In 2006, the California State Legislature enacted Assembly Bill (AB) 32, the Global Warming Solutions Act, which set the overall goals for reducing California’s GHG emissions to 1990 levels by 2020. Senate Bill (SB) 32, a follow-up to the California Global Warming Solutions Act of 2006 (AB 32), similarly calls for a statewide GHG emissions reduction to 40 percent below 1990 levels by December 31, 2030. Executive Orders (EOs) S-3-05 and B-16-2012 further extend this goal to 80 percent below 1990 levels by 2050. The California Air Resources Board (CARB) has completed rulemaking to implement several GHG emission reduction regulations and continues to investigate the feasibility of implementing additional regulations. These include the low carbon fuel standard, which reduces GHG emissions associated with fuel usage, and the renewable portfolio standard, which requires electricity suppliers to increase the amount of electricity generated from renewable sources. CARB has implemented a mandatory reporting regulation and a cap-and-trade program for large emitters of GHGs. CARB has recently enacted the Advanced Clean Fleets Regulation which requires fleets that are well suited for electrification to transition to zero-emission vehicles (ZEV) through requirements to both phase-in the use of ZEVs for targeted fleets and requirements that manufacturers only manufacture ZEV trucks starting in the 2036 model year.

CARB approved the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) in December 2022. The 2022 Scoping Plan outlines the proposed framework of action for achieving the 2045 GHG target of an 85 percent reduction in GHG emissions relative to 1990 levels; the update also adds carbon neutrality as a science-based guide for California’s climate work (CARB 2022). The 2022 Scoping Plan outlines how carbon neutrality can be achieved to reduce GHGs to meet the emission targets by reducing anthropogenic emissions and expanding actions to capture and store carbon. New to the 2022 Scoping Plan is a commitment to incorporate and quantify natural and working lands as a key component to GHG reductions and actions around capture and storage of carbon. The 2022 Scoping Plan strategy for meeting the state’s 2030 GHG target incorporates the full range of legislative actions and state-developed plans that have relevance to the year 2030. The 2022 Scoping Plan is heading toward the 2045 target of 85 percent below 1990 levels and carbon neutrality.

Regional Laws, Regulations, and Policies

BAAQMD has established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the San Francisco Bay Area Air Basin. The climate protection program includes measures that promote energy efficiency, reduce VMT, and develop alternative sources of energy, all of which assist in reducing emissions of GHG and air pollutants that affect the health of residents. BAAQMD also seeks to support and stimulate climate protection programs in the region through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

The BAAQMD CEQA Air Quality Guidelines originally were prepared in 1999 to assist in the evaluation of air quality impacts of projects and plans proposed in the San Francisco Bay Area. The guidelines provide nonbinding recommended procedures for evaluating potential air quality impacts during the environmental review process, consistent with CEQA requirements, including recommended thresholds of significance, mitigation measures, and background air quality information. The guidelines also include recommended assessment methodologies for air toxics, odors, and GHG emissions. In June 2010, the BAAQMD Board of Directors adopted CEQA thresholds of significance and an update of the CEQA Air Quality Guidelines, which included significance thresholds for GHG emissions based on the emission reduction goals for 2020 articulated by the California State Legislature in AB 32. These thresholds were revised in 2022 for land use projects, shifting from a “Brightline” threshold, which is a level of emissions not to exceed regardless of the size or scope of the project, to a threshold requiring either compliance with a prescriptive list of project design elements for buildings and transportation or consistency with a local GHG reduction strategy that meets the criteria cited in CEQA Guidelines Section 15183.5(b). There are no local GHG reduction strategies that meets the criteria cited in CEQA Guidelines applicable to this project except for the City of Belmont’s 2017 Climate Action Plan adopted with their 2035 Belmont General Plan and Belmont Village Specific Plan (see Appendix A, *Local Laws and Policies*). Because construction emissions are temporary and variable, the Air District has not developed a quantitative threshold of significance for construction-related GHG emissions.

3.7.2 Environmental Setting

Climate change is caused, in part, from accumulation in the atmosphere of GHGs, which are produced primarily by the burning of fossil fuels for energy. Because GHGs (carbon dioxide [CO₂], methane [CH₄], nitrogen dioxide [NO₂], and chlorofluorocarbons [CFCs]) persist and mix in the atmosphere, emissions anywhere in the world affect the climate everywhere in the world. Consequently, the cumulative analysis is the same as the discussion concerning Proposed Project impacts. GHG emissions are typically reported in terms of carbon dioxide equivalents (CO₂e), which convert all GHGs to an equivalent basis taking into account their GWP compared to CO₂.

Global climate change is already affecting ecosystems and societies throughout the world. Climate change adaptation refers to the efforts undertaken by societies and ecosystems to adjust to and prepare for current and future climate change, thereby reducing vulnerability to those changes. Human adaptation has occurred naturally over history; people move to more suitable living locations, adjust food sources, and more recently, change energy sources. Similarly, plant and animal species also adapt over time to changing conditions; they migrate or alter behaviors in accordance with changing climates, food sources, and predators.

CARB compiles GHG inventories for the State of California. Based on CARB's 2020 GHG inventory data, California emitted 369.2 MMTCO₂e, including emissions resulting from imported electrical power (CARB 2023). Between 1990 and 2022, the population of California grew by approximately 9.7 million (from 29.8 to 39.1 million) (California Department of Finance 2023a), representing an increase of approximately 31 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from \$773 billion in 1990 to \$3.60 trillion in 2022, representing an increase of approximately 365 percent (over four times the 1990 gross state product) (California Department of Finance 2023b). Despite this population and economic growth, CARB's 2020 statewide inventory indicates that California's net GHG emissions in 2020 were below 1990 levels of 431 MMTCO₂e, which was the 2020 GHG reduction target codified in California Health and Safety Code (HSC), Division 25.5, also known as The Global Warming Solutions Act of 2006 (AB 32). Although 2020 data may be slightly irregular due to the COVID-19 pandemic, previous years were already below the 1990 levels.

3.7.3 Discussion of Checklist Responses

a. Generate a net increase in greenhouse gas emissions which may have a significant impact on the environment

The proposed Project would directly generate greenhouse gas (GHG) emissions during maintenance activities from the combustion of fossil-fuels by construction equipment, trucks hauling materials, and worker vehicles.

The Proposed Project's criteria air pollutant emissions during construction were modeled using conservative assumptions for equipment use, scheduling, and haul routes, as detailed in Appendix B, *Air Quality and Greenhouse Gas Emission Calculations*. Emissions were estimated using the California Emission Estimator Model (CalEEMod) version 2022.1.1.21 Based on the

information included in the Project Description and anticipated equipment needs and schedule. Modeling inputs assumed construction would start on June 15, 2024 and that each reach would be done consecutively. The initial maintenance activities would generate 29 metric tonnes of carbon dioxide equivalent emissions per year and would be considered de minimis and unlikely to impact the overall GHG emissions of California in achieving its statewide goals. This is less than the energy use of 4 homes in a year or 7 passenger cars. Subsequent maintenance activities would generate less GHG emissions per year as each reach will not likely need maintenance in the same year and improvements in equipment and vehicles in the future may decrease these emissions even further. Given the minimal annual GHG emissions associated with the Project maintenance activities, it is unlikely that this would impede the progress toward the State's GHG reduction goals as specified in SB 32 and executive orders. BAAQMD does not have any applicable significance thresholds for this type of infrastructure project. Thus, this impact is **less than significant**.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases

The Proposed Project would be subject to statewide and local GHG emission reduction plans and policies. The State of California implemented AB 32 to reduce GHG emissions to 1990 levels by 2020. SB 32 codified an overall goal for reducing California's GHG emissions to 40 percent below 1990 levels by 2030. EOs S-3-05 and B-16-2012 further extend this goal to 80 percent below 1990 levels by 2050. Through the San Mateo County Community Climate Action Plan, the unincorporated area of San Mateo County set a GHG emissions reduction target of 45 percent below 1990 levels by 2030 and demonstrate carbon neutrality within unincorporated San Mateo County by 2040. San Mateo County's Community Climate Action Plan (2022) provides details on how this goal will be met with proposed measures and supporting actions that include goals to increase zero-emission vehicles, sequester of carbon in soils and vegetation and improve water quality and soil health. The City of San Mateo 2020 Climate Action Plan established per capita GHG emission targets of 4.3 metric tonnes carbon dioxide equivalents in 2030 and 1.2 metric tonnes carbon dioxide equivalents in 2050. The measures mostly pertain to building energy efficiency and electric vehicle infrastructure and clean vehicle fleets. Redwood City adopted in 2020 their 2030 Climate Action Plan with a goal of 50% reduction in 2005 levels by 2030. The measures are primarily focused on building energy efficiency, renewable energy, water conservation, smart growth and measures to reduce transportation emissions. The City of Menlo Park's Climate Action Plan has measures and goals aimed at reducing fossil fuel use by encouraging electric buildings, increasing electric vehicles and reducing vehicle miles traveled. Menlo Park also plans to develop a climate adaptation plan to protect the community from sea level rise and flooding. The City of Belmont has an adopted Climate Action Plan with the goal of 40% reduction in GHG emissions by 2035. The City of Belmont's Climate Action Plan outlines measures associated with energy use, transportation, land use, solid waste and water. The transportation measures only apply to municipal vehicles and no other measures are applicable to the Proposed Project. The Proposed Project would be consistent with these goals and would not impede the progress of implementation of other measures and strategies. For the reasons detailed here and in item (a) above, the Proposed Project would not conflict with AB 32 or SB 32, the local general plan, or San Mateo County's climate action plan or any of the local cities Climate Action Plans. Therefore, this impact would be **less than significant**.

3.8 HAZARDS AND HAZARDOUS MATERIALS

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

3.8.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to hazards and hazardous materials in relation to the Proposed Project.

Hazardous Materials Management

The USEPA is the lead agency with responsibility for enforcing federal laws and regulations that govern hazardous materials that can affect public health or the environment. The major federal laws and regulations pertaining to the management of hazardous materials are the Resource Conservation and Recovery Act (RCRA) and the Toxic Substances Control Act (TSCA). RCRA, enacted in 1976, provides a general framework for the USEPA to regulate hazardous waste from the time it is generated until its ultimate disposal. In accordance with RCRA, facilities that generate, treat, store, or dispose of hazardous waste are required to ensure that the waste is properly managed from “cradle to grave” by complying with the federal waste manifest system. The California Department of Toxic Substance Control (DTSC) administers the RCRA program in California. The TSCA, also enacted in 1976, provides the USEPA with the authority to regulate the production, importation, use, and disposal of chemicals that pose a risk to public health and the environment.

Hazardous Materials Transportation

The federal Hazardous Material Transportation Act was amended in 1990 and 1994 to strengthen regulations for protecting life, property, and the environment from the inherent risks of transporting hazardous materials. Furthermore, the U.S. Department of Transportation (DOT) developed hazardous materials regulations pertaining to classification, packaging, transport, and handling, as well as regulations regarding employee training and incident reporting. The transport of hazardous materials is subject to both RCRA and DOT regulations. The California Highway Patrol, the California Department of Transportation (Caltrans), and DTSC are responsible for enforcing federal and State regulations pertaining to the transport of hazardous materials. If a discharge or spill of hazardous materials occurs during transportation, the transporter is required to take appropriate immediate action to protect human health and the environment (e.g., notify local authorities and contain the spill); the transporter is also responsible for cleanup.

State Laws, Regulations, and Policies

Hazardous Materials Release Sites

In California, the USEPA has granted enforcement authority of federal hazardous materials regulations to the California Environmental Protection Agency (Cal/EPA). Under the authority of Cal/EPA, the DTSC and the SWRCB are responsible for overseeing the remediation of contaminated soil and groundwater sites. The provisions of Government Code § 65962.5 (also known as the Cortese List) require the DTSC, SWRCB, California Department of Health Services, and California Department of Resources Recycling and Recovery to submit information to Cal/EPA pertaining to sites that were associated with solid waste disposal, hazardous waste disposal, and/or hazardous material releases.

Wildland Fire Protection

In accordance with California Public Resource Code §§ 4201–4204 and Government Code §§51175–51189, the California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), represent the risks

associated with wildland fires. The FHSZs mapped by CAL FIRE for State and local responsibility areas are classified as medium, high, or very high based on fire hazards; however, the law requires only identification of Very High Fire Hazard Severity Zones (VHFHSZ) in local responsibility areas.

Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the RCRA and the State Hazardous Waste Control Law. Both laws impose “cradle-to-grave” regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

California Occupational Safety and Health Administration

California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in the State. Cal/OSHA regulations concerning the use of hazardous materials in the workplace, as detailed in Title 8 of the CCR, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.

Cal/OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Safety Data Sheets be available to employees and that employee information and training programs be documented.

Regional Water Quality Control Board

The SWRCB and RWQCBs regulate hazardous substances, materials, and wastes through a variety of State statutes, including, for example, the Porter-Cologne Water Quality Control Act, Cal. Water Code § 13000 et seq., and the underground storage tank cleanup laws (Cal. Health and Safety Code §§ 25280-25299.8). RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Any person proposing to discharge waste within any region must file a report of waste discharge with the appropriate regional board.

3.8.2 Environmental Setting

Existing Hazards and Hazardous Materials

Existing Hazards and Hazardous Materials

Table 10 shows the nearby hazardous materials sites that have not been indicated as closed as documented by Geotracker (SWRCB, 2023) or as needing no further action by EnviroStor (DTSC, 2023) that are located within 1,000 feet of the Project site.

Table 10. Hazardous Materials Sites Near the Project Area

	Site Name	Type of Site	Contaminants of Concern	Potential Media of Concern
1.	Fuel Hydrant System United Parking Lot	Open- Inactive	Kerosene	Soil
2.	Humboldt Square	Voluntary Cleanup	Lead	Soil
3.	Brusco Property	Open-Assessment and Interim Remedial Action	Tetrachloroethylene	None specified
4.	Sequoia Union High School	Inactive-Needs Evaluation	Metals	Soil, Soil vapor
5.	Eaton Cleaners and Dyers	Open-Assessment and Interim Remedial Action	Solvents	Other groundwater (uses other than drinking water)
6.	Menlo Park Sanitation	No Further Action at of 9/1/1985	Metals	None specified
7.	3705 Haven Avenue	Open-Assessment and Interim Remedial Action	MTBE, TBA, Other Chlorinated Hydrocarbons, Tetrachloroethylene (PCE), Trichloroethylene (TCE)	None specified
8.	3723 Haven Avenue Development	Open-Assessment and Interim Remedial Action	Benzene, dichloroethane, Trichloroethylene, Vinyl Chloride	Other groundwater (uses other than drinking water), soil vapor
9.	Menlo Portal	Open – Remediation	Arsenic, benzene, dichloroethane, diesel, gasoline, total petroleum, hydrocarbons, trichloroethylene, vinyl chloride	Aquifer used for drinking water supply, soil vapor
10.	Siltec	Open – Site assessment	Other chlorinated hydrocarbons, trichloroethylene, vinyl chloride, volatile organic compounds	Other groundwater (uses other than drinking water), soil

Notes:

a SWRCB, 2023

b DTSC, 2023

Airports

San Francisco Airport is located within 2,000 feet of the nearest Project maintenance site at San Bruno Creek.

Wildfire Hazards

The Proposed Project sites are located within an urban area and is not classified as a fire hazard zone by either the County of San Mateo (2023) or by CAL FIRE (2022). In the County Community Wildfire Plan, the area around the Project maintenance sites are not identified as being in a Wildland Urban Interface (County of San Mateo, 2018).

Sensitive Receptors

Sensitive receptors adjacent to Project segments:

- San Bruno Creek at 7th Avenue: The channel is bounded by residential homes to the west.
- San Mateo Creek at Arroyo Court: The channel is bounded by residential homes on both sides.
- San Mateo Creek at Highway 101: The channel is bounded by residential homes to the southeast.
- Belmont Creek at Highway 101: No adjacent sensitive receptors.
- Belmont Creek at Sem Lane: No adjacent sensitive receptors.
- Cordilleras Creek at El Camino Real: Redwood High School is located approximately 200 feet from the northern end of the Cordilleras Creek.
- Atherton Channel at Haven Avenue: No adjacent sensitive receptors.

3.8.3 Discussion of Checklist Responses

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

As described in Chapter 2, Project implementation would involve removing existing debris and trash; dewatering activities; and hauling of soil, debris, and material on- and offsite. Accordingly, Project implementation would potentially require the routine transfer, use, storage, or disposal of hazardous materials used during typical construction activities. During maintenance activities, hazardous materials typically associated with maintenance activities, such as fuel, oil, and lubricants, would be used when operating mechanized equipment. The Project would comply with all relevant federal, State, and local statutes and regulations related to transport, use, storage, or disposal of hazardous materials during construction, and all materials designated for disposal would be evaluated for appropriate federal and State hazardous waste criteria. During routine transport and use of equipment, small amounts of fuel and oil could be accidentally released. Implementation of BMP 3 (Erosion and Sediment Control), BMP-4 (Fills, Spoils, and Stockpiled Materials), BMP-5 (On-site Hazardous Materials Management), BMP-6 (Spill Prevention and Response Plan), BMP-7 (Vehicle and Equipment Maintenance), BMP-9 (Work Site Housekeeping), and BMP-10 (In-Water Work) would require the safe handling, storage, and disposal of chemicals used during the construction phase. A summary of these measures is included in Chapter 2, Table 3.

As described in Chapter 2, the Project removes accumulated sediment and vegetation and would not require special handling. In addition, any spoils or other on-site soils that become contaminated by products used by heavy construction equipment (e.g., from a hydraulic fluid leak) would be hauled offsite for disposal at a permitted landfill. The Proposed Project would not produce hazardous emissions or handle acutely hazardous materials, substances, or waste.

Therefore, the Project would have **less than significant** impact during construction and operation.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

The Project site is not located on a known area of active hazardous materials contamination (DTSC 2023, SWRCB, 2023). In addition, as discussed in Response (d) below, the Project area is not located on a hazardous site listed pursuant to Government Code § 65962.5. As discussed in Response (a) above, maintenance activities associated with the Proposed Project would use a minor amount of hazardous materials, such as oils, fuels, and lubricants. However, the use of hazardous materials would comply with all applicable laws and regulations. BMP-5, BMP-6, BMP-7, BMP-9, and BMP-10 would be implemented as part of the Proposed Project would ensure the safe handling, storage, and disposal of chemicals used during maintenance activities. With compliance with all applicable laws and regulations and the implementation of these BMPs, potential impacts to the public or environment through accidental release of hazardous materials would be **less than significant**

c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

As outlined in the environmental setting section above, Redwood High School is located approximately 200 feet from the northern end of the Cordilleras Creek site. Project activities would occur 300 feet from school buildings at its nearest point. Project implementation would be typical of general construction activities. BMPs implemented as part of the proposed Project would ensure the safe handling, storage, and disposal of chemicals used during the construction process. Specifically, BMP-5, BMP-6, BMP-7, BMP-9, and BMP-10 would be implemented to address accidental releases of hazardous materials. With compliance with all applicable laws and regulations and the implementation of these BMPs, potential impacts to Redwood High School would be **less than significant**.

d. Located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or the environment

The Project sites are not located on or near a site that is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5. Therefore, the Project would not create a significant hazard to the public or the environment. There would be **no impact**.

e. Located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a private airport or public airport and result in a safety hazard or excessive noise for people residing or working in the study area

San Francisco Airport is located within 2,000 feet from the maintenance sites at San Bruno Creek at 7th Avenue. The Project would not construct any structures, would not create a safety

hazard, and would not result in an increase use of areas near the airport that would result in excessive noise for people working in the study area. The Project would have a **less than significant** impact.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

Project implementation would not involve large numbers of personnel. However, the use of adjacent roadways by maintenance vehicles and hauling trucks accessing the site could interfere with emergency access, creating a potentially significant impact. Implementation of **Mitigation Measure TR-1** (see Section 3.13, *Transportation*) would provide traffic control at the Project access road that could allow emergency vehicles access through the area and to the site. With implementation of Mitigation Measures TR-1, Project implementation would not impair emergency response or interfere with implementation of an adopted emergency response plan or emergency evacuation plan and would have a **less than significant impact with mitigation**.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

Project activities remove excessive and dense vegetation, which would reduce the potential for accidental wildfire ignition by removing flammable vegetation. The presence of invasive species is correlated with an increase risk and frequency of wildfire. Implementation of BMP-11, Minimize Spread of Weeds and Invasive Species, which requires measures to minimize the chance of the accidental spread of weeds and invasive plants, would further ensure that the Project would not increase the risk of accidental wildfire post-construction due to the presence of more highly flammable invasive species. Therefore, the impact would be **less than significant**.

3.9 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Proposed Project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act Section 404

Section 404 of the CWA prohibits the discharge of dredged and fill materials into waters of the United States, including wetlands, without prior U.S. Army Corps of Engineers (USACE) authorization. “Discharge of dredged material” and “discharge of fill material” are defined in Title 33, Section 323.2 of the Code of Federal Regulations (33 Code of Federal Regulations [CFR] Section 323.2). Waters of the United States, including wetlands, are defined in 33 CFR Section 328.3. USACE jurisdiction in wetlands and other waters of the United States is described in more detail in Section 3.4, *Biological Resources*.

USACE does not consider “incidental fallback,” or small volumes of dredged material that become redeposited within waters of the United States during dredging or excavation activities, to be a discharge of dredged material. As a result, the incidental fallback associated with excavating sediment from a stream channel using long-reach excavators or similar equipment from a top-of-bank location or within the channel would not be regulated by USACE under CWA Section 404.

Other CWA sections are implemented by state agencies as described below.

State Laws, Regulations, and Policies

Porter-Cologne Water Quality Control Act

California’s Porter-Cologne Act was enacted in 1969 and, together with the federal CWA, provides regulatory guidance to protect water quality and water resources. The Porter-Cologne Act established SWRCB and divided California into nine regions, each overseen by a Regional Water Quality Control Board (RWQCB). The Porter-Cologne Act established regulatory authority over waters of the state, which are defined as “any surface water or groundwater, including saline waters, within the boundaries of the State.” More specifically, SWRCB and its nine RWQCBs have jurisdiction over the bed and banks of a stream channel, its riparian corridor, and its beneficial uses. The San Francisco Bay RWQCB has jurisdictional authority to implement the Porter-Cologne Act in most of San Mateo County. All waters of the United States in the Proposed Project area also are considered waters of the state and are subject to RWQCB jurisdiction under the Porter-Cologne Act. The Porter-Cologne Act assigns responsibility for implementing CWA Sections 303, 401, and 402 to SWRCB and RWQCBs, as described further below.

The Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met. Under the Porter-Cologne Act, basin plans must be updated every 3 years. Beneficial uses of the creeks impacted by the Proposed Project are shown in Table 11 below.

Table 11. Beneficial Uses of Creeks in the Proposed Project

Creek	AGR	MUN	FRSH	IND	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPAWN	WARM	WILD	REC-1	REC-2	NAV
South Bay Basin																	
Belmont Slough								E			E	E		E	E	E	
Belmont Creek													E	E	E	E	
Cordilleras													E	E	E	E	
Atherton Channel													E	E	E	E	
San Bruno Creek													E	E	E	E	
San Mateo Creek			E				E			E	E	E	E	E	E	E	
Bay Slough (San Mateo)								E			E			E	E	E	

Notes: E = Existing Beneficial Use: Indicates an existing beneficial use actually attained in the surface or ground water.

AGR = agricultural supply ; MUN= municipal and domestic water supply; FRSH = freshwater replenishment; IND = industrial service supply; COMM = commercial and sport fishing; SHELL = shellfish harvesting; COLD = cold freshwater habitat; EST = estuarine habitat; MAR = marine habitat; MIGR = fish migration; RARE = preservation of rare and endangered species; SPAWN = fish spawning; WARM = warm freshwater habitat; WILD = wildlife habitat; REC-1 = water contact recreation; REC-2= noncontact water recreation; NAV = navigation.

¹REC-1 applies within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline. This distance is consistent with the applicability of water-contact standards in the Water Quality Plan for the Ocean Waters of California.

Source: California Water Boards San Francisco Basin Plan 2022a

The San Francisco Bay Basin Plan contains qualitative and quantitative water quality objectives for bacteria, dissolved oxygen, oil and grease, pH, salinity, sediment and suspended material, tastes and odors, temperature, and other criteria to protect beneficial uses. The following key water quality objectives established in the Basin Plan (2022a) apply to the Proposed Project. Where multiple water quality objectives existed, the most conservative metric was selected.

- Dissolved oxygen for tidal waters is minimum of 5.0 milligrams per liter (mg/L) downstream of Carquinez Bridge and 7.0 mg/l upstream of Carquinez Bridge.
- Dissolved oxygen for non-tidal waters: coldwater habitat – 7.0 mg/L; warmwater habitat – 5.0 mg/L
- Temperature: The temperature of any cold or warm freshwater habitat shall not be increased by more than 5 degrees Fahrenheit (°F) (2.8 degrees Celsius [°C]) above the natural receiving water temperature
- Turbidity: Increases from normal background light penetration or turbidity relating to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 Nephelometric Turbidity Units (NTU)

- pH: The pH shall not be depressed below 6.5 or raised above 8.5, which encompasses the pH range usually found in waters within the basin; controllable water quality factors shall not cause changes greater than 0.5 unit in normal ambient pH levels.

Clean Water Act

Section 303 and Total Maximum Daily Load

Under Section 303 of the CWA, the RWQCBs, in conjunction with USEPA, are responsible for:

- identifying “impaired water bodies” (those that do not meet established water quality standards);
- identifying the pollutants causing impairment;
- establishing priority rankings for waters on the list; and
- developing and implement pollution control plans, also called Total Maximum Daily Loads (TMDLs), to improve water quality.

The Section 303(d) list is updated every 3 years.

Section 401

All projects that have a federal component and may affect water quality in the state (including projects that require federal agency approval, such as issuance of a CWA Section 404 permit) also must comply with CWA Section 401. The purpose of Section 401 is to evaluate water quality when considering activities associated with dredging or placement of fill materials into waters of the United States. Section 401 compliance involves obtaining a CWA Section 401 Water Quality Certification to confirm that any such discharge will comply with the applicable provisions of the CWA, including state water quality standards. Section 401 Water Quality Certifications are issued by the RWQCBs.

Section 402

As authorized under CWA Section 402, the RWQCBs regulate point-source and non-point-source discharges into surface waters (other than dredged or fill material) through the NPDES permit program. Applicants can acquire either general permits (those that cover a number of similar or related activities) or individual permits for discharges to waters of the United States. Examples of activities covered under the NPDES permit program include general construction activities, aquatic weed pesticide applications, and stormwater drainage. Permits are valid for a 5-year period.

CWA Section 402(p) requires NPDES permits for stormwater discharges from municipal separate storm sewer systems (MS4s), stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges, which are considered significant contributors of pollutants to waters of the U.S. San Mateo County (and OneShoreline as a County flood management agency) is subject to requirements in the Municipal Regional Stormwater NPDES Permit for Phase I municipalities and agencies in the San Francisco Bay Area (Order R2-2022-0018) also referred to as the Municipal Regional Permit (MRP).

3.9.2 Environmental Setting

Hydrology

The maintenance sites include San Bruno Creek, San Mateo Creek, Belmont Creek, Cordilleras Creek, and Atherton Channel with adjacent land use including riparian corridors, parks, culverts, roads, and highways. The maintenance sites are in a developed, urban setting, and modified watershed systems. Waterways drain to San Francisco Bay (Bay). The Bayside region encompasses the area extending from the San Mateo/San Francisco County boundary in the north to the San Mateo boundary in the south. The western boundary of the Bayside region is generally the ridgeline of the Santa Cruz Mountains that divides bay draining from coastal draining watersheds. The Proposed Project sites are generally located in the developed Bay plain area, roughly following Highway 101 along the western shore of the Bay. These channel types are located throughout the Proposed Project vary from perennial riverine to intermittent channels depending on their location and the amount and timing of runoff or stormwater contribution to the channel.

Topography

The landform and topographic conditions of individual maintenance sites vary due to the specific physical setting and the presence of roads, culverts, channelized streams and stormwater ditches, or other site features, but are relatively flat with elevations ranging from 75 feet at San Mateo Creek at Arroyo Court to 5 feet at Atherton Channel.

Climate

The study area exhibits a Mediterranean climate with mild, wet winters and warm, dry summers. The study area has a Mediterranean climate characterized by cool, wet winters and hot, dry summers. Average temperatures range from a low of 40.5 degrees Fahrenheit (°F) in January to a high of 79.3°F in September. Average annual precipitation is approximately 19.02 inches, with the majority of precipitation occurring from November through April (NRCS 2022).

Lower San Mateo Creek is listed on the Section 303(d) list for toxicity. The creeks impacted by the Proposed Project ultimately flow into San Francisco Bay, which is listed as impaired under the 303(d) list with the following pollutants of concern: Chlordane, DDT (Dichlorodiphenyltrichloroethane), Dieldrin, Dioxin compounds (including 2,3,7,8-TCDD), Furan compounds, invasive species, Mercury, PCBs (Polychlorinated biphenyls), PCBs (Polychlorinated biphenyls) (dioxin-like), Selenium, and trash (Caltrans 2022).

Groundwater Levels, Flows, and Quality

Groundwater is expected to vary based on tides and season. Most of the project sites are in areas with shallow wells, having water less than 40 feet below ground surface (San Mateo County 2023). Various state-designated groundwater aquifers or basins are present within the project area (California Department of Water Resources [DWR] 2022).

Floodplains and Tsunamis

The Federal Emergency Management Agency (FEMA) has identified Special Flood Hazard Areas as areas that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. Most 1-percent annual chance floods (or base floods) in San Mateo County are located in topographically low areas along the Bay margins, such as the western extent of San Mateo, Belmont, and Redwood City. Areas directly adjacent to creek channels are typically designated as Special Flood Hazard Areas. San Bruno Creek, San Mateo Creek, Belmont Creek at Sem Lane, Cordilleras Creek, and Atherton Channel are in a high flood risk area (FEMA 2023). Belmont Creek at Industrial Road is in 0.2 percent annual chance flood hazard (FEMA 2023). San Mateo County has 20 jurisdictional dams within the Santa Cruz mountains, their foothills, along the Bay margins, and on the coastal terrace (County of San Mateo 2005). Potential dam failure could result in inundation in various watersheds downstream of the dams. All project sites are outside of a tsunami inundation zone (DOC 2023).

3.9.3 Discussion of Checklist Responses

a. Violate any water quality standards, waste discharge requirements or otherwise substantially degrade water quality

Ground-disturbing activities including sediment and vegetation removal which could result in erosion and the movement of sediment to surface waters downstream from work areas. The movement and transport of soil, sediment and other loose material associated with these activities could also emit dust which could affect surface waters in the vicinity of work areas. Other related water quality impacts include increased turbidity and water temperature, and reduced dissolved oxygen levels in the water column. These ground-disturbing activities have the potential to degrade water quality or violate waste discharge requirements established by the San Francisco Bay RWQCB.

Implementation of BMP-1 (Timing of Work), BMP-2 (Area of Disturbance), BMP-3 (Erosion and Sediment Control), and BMP-04 (Fill, Spoils and Stockpiled Materials) would adequately prevent against erosion and sediment transport during and after sediment removal. Ground-disturbing maintenance activities in jurisdictional waterways, such as vegetation or sediment removal would occur during the dry season when work sites are dry or water levels are at their lowest and present little risk for sediment erosion and transport. To the extent feasible, equipment is operated from top of bank to reduce impact to waterways. Furthermore, any trees that will be removed will be stump-cut for bank stabilization.

While maintenance activities would be conducted during the summer and fall season when water level is lowest, there may still be water in the work areas. Therefore, dewatering may be required. As described in Chapter 2, Project Description, a temporary cofferdam(s) would be installed and a pump would be used to dewater the work area. The installation and removal of the dewatering system could result in temporary water quality impacts by disturbing channel bed and banks, which could result in increased turbidity in the water column and migration of sediment to areas downstream. However, these potential impacts would be temporary and minor in nature and scale.

Project construction would include the potential storage, use, transport, and/or disposal of hazardous materials (e.g., fuels, oils, solvents) for construction equipment. All maintenance equipment would be stored in designated staging areas at the top of the bank. As described in Chapter 2, mechanized equipment to remove sediment would likely involve use of a long-reach excavator or telescopic arm excavator operated from the top of the bank where feasible. Accidental spills of these materials or improper material disposal could pose a significant risk to water quality. Potentially significant impacts on water quality due to accidental releases of fuels, lubricants, hydraulic fluids, and other chemicals associated with operating equipment would be minimized by implementing the following BMPs:

- BMP-5 On-site Hazardous Material Management
- BMP-6: Spill Prevention and Control
- BMP-7: Vehicle and Equipment Maintenance

Furthermore, the proposed Project would be required to comply with all applicable federal, state, and local permits, such as the CWA Section 404 Individual Permit (issued by USACE), CWA Section 401 Water Quality Certification (issued by the San Francisco Bay RWQCB), and the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (Storm Water Protection Prevention Plan [SWPPP]). Adherence to the above-listed BMPs and permit requirements would prevent potential violations to water quality standards or waste discharge requirements. Potential impacts of the Proposed Project would be **less than significant**.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the project may impede sustainable groundwater management of the basin

Project-related maintenance activities would not interact with groundwater resources, nor increase impervious surface area. There would be **no impact** to groundwater resources.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

The Proposed Project would involve sediment and vegetation/tree removal in flood control channels and creeks. These activities would temporarily alter drainage patterns during Project implementation and the use of diversion and dewatering systems. However, immediately upon Project completion, existing drainage patterns would resume and the post-Project condition would increase the channel capacity to more effectively convey high flow events. The Project would not create more impervious surface.

i. result in substantial erosion or siltation on- or off-site

The Proposed Project addresses accumulated sediment (siltation) that is negatively impacting existing infrastructure. The Project does not significantly alter sediment dynamics in the creeks and would not result in significant erosion or siltation on- or off-site. Therefore, project impacts would be **less than significant**.

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite

The Proposed Project is intended to increase channel capacity and reduce the potential for flooding. Therefore, project impacts would be beneficial overall and have **no impacts**.

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff

The purpose of the Proposed Project ensures the channels continues to provide the necessary capacity to receive and convey stormwater drainage from the surrounding watershed. The Proposed Project would not contribute runoff water or additional sources of polluted runoff. The Project would benefit the existing stormwater drainage system; there would be **no impact**.

iv. impede or redirect flood flows

The project activities are not expected to impede or redirect flood flows. Therefore, **no impact** is anticipated from the proposed maintenance activities.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

All project sites are outside of a tsunami inundation zone and seiche areas. Project activities occur at areas of documented flooding and lower the risk of flooding at those locations. Therefore, the release of pollutants due to Project inundation are considered **less than significant**.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

The proposed maintenance activities would not obstruct implementation of water quality control plan or sustainable groundwater management plan as the project is not anticipated to change beneficial uses, significantly impact water quality, or impact groundwater. Therefore, **no impacts** are anticipated.

3.10 NOISE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project site to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.10.1 Overview of Noise and Vibration Concepts and Terminology

Noise

In the CEQA context, noise can be defined as unwanted sound. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient sound level, or sound intensity. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary enormously within the range of human hearing, a logarithmic scale is used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all frequencies in the spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive, creating the A-weighted decibel (dBA) scale.

Different types of measurements are used to characterize the time-varying nature of sound. Below are brief definitions of these measurements and other terminology used in this chapter.

Decibel (dB) is a measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.

A-weighted decibel (dBA) is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

Maximum sound level (L_{max}) is the maximum sound level measured during a given measurement period.

Minimum sound level (L_{min}) is the minimum sound level measured during a given measurement period.

Equivalent sound level (Leq) is the equivalent steady-state sound level that, in a given period, would contain the same acoustical energy as a time-varying sound level during that same period.

Percentile-exceeded sound level (L_{xx}) is the sound level exceeded during x percent of a given measurement period. For example, L₁₀ is the sound level exceeded 10 percent of the measurement period.

Community noise equivalent level (CNEL) is the energy average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the A-weighted sound levels between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels between 10:00 p.m. and 7:00 a.m.

In general, human sound perception is such that a change in sound level of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. Table 12 presents approximate noise levels for common noise sources, measured adjacent to the source.

Table 12. Examples of Common Noise Levels

Common Outdoor Activities	Noise Level (dBA)
Jet flyover at 1,000 feet	110
Gas lawnmower at 3 feet	100
Diesel truck at 50 feet traveling 50 miles per hour	90
Noisy urban area, daytime	80
Gas lawnmower at 100 feet, commercial area	70
Heavy traffic at 300 feet	60
Quiet urban area, daytime	50
Quiet urban area, nighttime	40
Quiet suburban area, nighttime	30
Quiet rural area, nighttime	20

Source: Caltrans 2009

Vibration

Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hertz (Hz). Most environmental vibrations consist of a composite, or “spectrum,” of many frequencies. The normal frequency range of most ground-borne vibrations that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration information for this analysis has been described in terms of the peak particle velocity (PPV), measured in inches per second, or of the vibration level measured with respect to root-mean-square vibration velocity in decibels (VdB), with a reference quantity of 1 micro-inch per second.

Vibration energy dissipates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. Soil properties also affect the propagation of vibration. When ground-borne vibration interacts with a building, a ground-to-foundation coupling loss usually results but the vibration also can be amplified by the structural resonances of the walls and floors. Vibration in buildings is typically perceived as rattling of windows, shaking of loose items, or the motion of building surfaces. Ground-borne vibration is generally limited to areas within a few hundred feet of certain types of industrial operations and construction/demolition activities, such as pile driving. Road vehicles rarely create enough ground-borne vibration amplitude to be perceptible to humans unless the receiver is in immediate proximity to the source or the road surface is poorly maintained. Generally, people are more sensitive to low-frequency vibration.

3.10.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies for construction-related noise and vibration apply to the Proposed Project. However, the Federal Transit Administration (FTA) *Guidelines for Construction Vibration in Transit Noise and Vibration Impact Assessment* state that for evaluating daytime construction noise impacts in outdoor areas, a noise threshold of 90 dBA L_{eq} should be used for residential areas (FTA 2006).





For construction vibration impacts, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and a damage threshold of 0.12 inches per second (in/sec) PPV for buildings extremely susceptible to vibration damage (FTA 2006). The groundborne vibration annoyance level is 65 VdB for buildings where vibration would interfere with interior operations, 72 VdB for residences, and 75 VdB for institutional land uses with primarily daytime uses.

State Laws, Regulations, and Policies

California requires each local government entity to implement a noise element as part of its general plan. California Administrative Code, Title 4, presents guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The state land use compatibility guidelines are listed in **Table 13**.

Table 13. State Land Use Compatibility Standards for Community Noise Environment

Land Use Category	Community Noise Exposure - L _{dn} or CNEL (dB)							
	55	60	65	70	75	80		
Residential – Low Density Single Family, Duplex, Mobile Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable
Residential – Multi-Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable
Transient Lodging – Motels, Hotels	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable
Sports Arenas, Outdoor Spectator Sports	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable
Office Buildings, Business Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable
	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable

-  **Normally Acceptable:** Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
-  **Conditionally Acceptable:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
-  **Normally Unacceptable:** New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
-  **Clearly Unacceptable:** New construction or development generally should not be undertaken.

Source: California Governor’s Office of Planning and Research 2017

3.10.3 Environmental Setting

The Proposed Project sites are in urbanized areas with residential structures located within approximately 100 feet of many Proposed Project activities. Project sites are located adjacent to a variety of roadways including Highway 101, 7th Avenue, Arroyo Court, Sem Lane, El Camino Real, and Haven Avenue. The San Bruno Creek site is located within 2,000 feet of the San Francisco International Airport.

3.10.4 Discussion of Checklist Responses

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

Project maintenance activities would be typical for creek management and vegetation removal and would generate noise from activities such as chainsaws, excavators, and material hauling. The San Mateo County Noise Ordinance Code allows construction between 7:00 a.m. and 6:00 p.m. Monday through Friday. During Project implementation, noise from construction activities would temporarily add to the noise environment in the Project vicinity, which is already highly urbanized. As shown in Table 14, activities involved in Project implementation would generate maximum noise levels ranging from 76 to 85 dB at a distance of 50 feet.

Table 14. Typical Construction Equipment Noise

Type of Equipment	Maximum Level, dBA at 50 feet
Backhoe	78
Chainsaw	83
Compressor (air)	78
Dump Truck	76
Excavator	81
Flat Bed Truck	84
Generator	81
Pneumatic Tools	85
Portable Generator	68
Skid Steer	80
Water pump	73

Source: FHWA, 2018.

Multiple types of equipment (trucks, pneumatic tools, etc.) that would be used for construction of the Proposed Project may generate sound levels of 85 dBA at a distance of 50 feet (FHWA, 2018). These would be operating at more than 50 feet from the nearest residences and would therefore not exceed 85 dBA at those properties. Ambient noise at this location includes traffic and noise from adjacent roadways, so hauling trucks would not generate a significant increase in ambient noise levels. Furthermore, maintenance activities occurs at multiple sites would be short (less than 1 week at most locations) and temporary. Thus, impacts from noise generated by Project implementation would be **less than significant**.

b. Generation of excessive groundborne vibration or groundborne noise levels

Common maintenance equipment used may expose people to excessive groundborne vibration or groundborne noise. Caltrans provides guidance regarding construction-related groundborne vibration (Caltrans, 2020). The Caltrans manual states that vibrations with a PPV of 0.1 inches/second begin to cause irritation. Larger, heavier construction vehicles have a PPV of 0.089 inches/second or less at a distance of 25 feet (Caltrans, 2020). At a distance of 250 feet, the PPV would be approximately 0.0028 inches/second. In addition, potential impacts associated with the Proposed Project would be localized and temporary and would not substantially impact nearby residences. Project implementation would require the use of construction equipment, specifically excavators, skid steers, and haul trucks. The Proposed Project would not require pile driving, blasting, or other special construction techniques associated with greater groundborne vibration. Therefore, the expected generation of groundborne vibration associated with the Proposed Project would remain below the 0.1 inch/second annoyance threshold. Accordingly, the Proposed Project impacts related to vibration during implementation would be **less than significant**.

c. For a project located within the vicinity of a private airstrip or an airport land use plan area, or, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project site to excessive noise levels

The nearest Project segment is located within 2,000 feet of the San Francisco International Airport. There are no other airports, either public or private, within the vicinity of the Project sites. Implementation of the Project would not increase exposure of Project users to excessive noise levels associated with the airport. Thus, impacts related to noise exposure to an airport would be **less than significant**.

3.11 PUBLIC SERVICES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 Fire Protection Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to Public Services in relation to the Proposed Project.

State Laws, Regulations, and Policies

No state regulations are applicable to Public Services in relation to the Proposed Project.

3.11.2 Environmental Setting

The Project area is in the vicinity of several public services.

Fire Protection

There is one fire station in proximity to a Project site. The San Mateo Fire Department #24 (SMFD #24) is located approximately 420 feet to the southwest of San Mateo Creek at Highway 101 with the main entrance to the Fire Station is facing away from the Project area.

Police Protection

There are no police services in the vicinity of any of the Project sites. The closest Police Department is the San Bruno Police Department, which is located approximately 0.7 miles away from the San Bruno Creek maintenance location.

Schools

Redwood High School is located approximately 200 feet from the northern end of the Cordilleras Creek at El Camino Real maintenance site. The school main entrance is on the northern side of Stafford Street, on the opposite side to the Project area.

Parks

Walnut Park is approximately 140 feet to the east of 7th Street near the San Bruno Creek maintenance site. This is a small park area with a basketball court and playground. The road running directly to the south of the park, Walnut St, is likely to be used as an access point for maintenance activities at this location.

San Mateo Creek at Arroyo Court is located partly within the small neighborhood De Anza Historical Park (also known as Arroyo Park). It is a small, wooded area with few amenities, and is primarily known as a quiet green space with a short walking path and views of the creek (City of San Mateo; Google Maps, 2023).

3.11.3 Discussion of Checklist Responses

a. Result in adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities

The Proposed Project would not involve the construction of any new facilities or involve any long-term activities that would result in increased demand for police, fire, schools, parks, or other public services. There would be **no impact**.

3.12 RECREATION

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Regulatory Setting

No federal, state, or regional regulations are applicable to Recreation in relation to the Proposed Project.

3.12.2 Environmental Setting

The Proposed Project area largely does not include county or city parks, or regional trails. The exceptions are San Bruno Creek at 7th Avenue which is approximately 140 feet to the east of 7th and Walnut Park, and San Mateo Creek at Arroyo Court which is located partly within the small neighborhood De Anza Historical Park (also known as Arroyo Park).

3.12.3 Discussion of Checklist Responses

a. Increase use of existing parks or recreational facilities

The Proposed Project would involve the use of neighboring roads as access points to staging areas. These creeks and roads may have adjoining trails that are used by pedestrians, such as DeAnza Historical Park and the Bay Trail (at Sem Lane). Project implementation may require temporary closures or interruption of these facilities to accommodate maintenance activities. However, these temporary interruptions would not substantially increase the demand of other recreational facilities such that substantial deterioration would occur. Therefore, this impact would be **less than significant**.

b. Creation of new or altered recreational facilities

The Proposed Project does not include creation or alteration of recreational facilities such that construction or expansion of any recreational facilities would be necessary. Therefore, the Proposed Project would have **no impact**.

3.13 TRANSPORTATION

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.13.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to transportation in relation to the Proposed Project.

State Laws, Regulations, and Policies

California Streets and Highways Code

The California Streets and Highways Code provides the standards for administering the statewide system of streets and highways. Designated state route and interstate highway facilities are under the jurisdiction of California Department of Transportation (Caltrans), except where facility management has been delegated to the county transportation authority.

According to Section 660 of the California Streets and Highways Code, an encroachment permit must be obtained for all proposed activities related to the placement of encroachments within, under, or over the State highway rights of way. Examples of the type of work that may require an encroachment permit include utilities, excavations, vegetation planting or trimming, and surveys (Caltrans 2023a).

California Vehicle Code

Caltrans has discretionary authority with respect to highways under its jurisdiction and may issue a special permit to operate or move a vehicle or combination of vehicles or special mobile

equipment of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code (Caltrans 2023b).

3.13.2 Environmental Setting

San Bruno Creek at 7th Avenue

Vehicle access is available near the corner of 7th Avenue and San Bruno Avenue with equipment staging located at the unpaved area next to the maintenance road. 7th Avenue is a narrow two-way residential street and San Bruno Avenue is a wide four lane road with separated lanes. At the intersection, traffic is not permitted to turn on to 7th Avenue, and traffic leaving 7th Avenue may only turn right at the stop sign controlled intersection. The vehicle access for this site to the east of 7th Avenue, right before the intersection with San Bruno Avenue.

San Mateo Creek at Arroyo Court

Access and staging would occur from Arroyo Court. Access to Arroyo court is through a signal-controlled intersection, or from a right hand turn from N El Camino Real. Arroyo Court itself is a quiet two-way residential street.

San Mateo Creek at Highway 101

The site is accessible from road pullouts and work would occur from upland, ruderal areas adjacent to the channel. These pullouts are located on the interchanges connecting Highway 101 to 3rd Avenue, and the on-ramp to 3rd Avenue from 4th Avenue. Each of these access points are on one-way streets, so access would be limited from certain directions. The site may also be accessed via an unnamed access road that runs parallel to the creek and is accessible from S Norfolk Street, or 3rd Street.

Belmont Creek at Highway 101/Industrial Road

Access and staging would occur off of Industrial Road and the parking lot(s) adjacent to the creek. Access from either direction to the section of Industrial Road near the Project would be through a signalized intersection. Industrial way itself is a four-lane road in an industrial area with lanes separated by double solid yellow lines. Therefore, access and egress to the site would remain in the closest lanes, and would not cross traffic to turn.

Belmont Creek at Sem Lane

Access to the site is available from the end of Sem Lane, via the unpaved areas at the road terminus, and the unpaved pedestrian trail adjacent to the channel. Staging would occur on Sem Lane. Sem Lane is a dead-end two-way street in a commercial area. The area at the end of Sem Lane where the unpaved section begins is adjacent to one of two exits for the City of Belmont Corporation Yard.

Cordilleras Creek at El Camino Real

Maintenance access would occur from El Camino Real with staging available adjacent to the channel from a vacant parking lot at the northeast side of El Camino Real. El Camino Real has a barrier between traffic travelling in opposite directions, therefore access would only be available

from the northern side of the road, heading northwest. To the north of the access point is a traffic light-controlled intersection, and to the south is an uncontrolled intersection with a pedestrian crossing.

Atherton Channel

Vehicle parking and equipment staging would likely occur from business parking lots adjacent to the site. Access to the parking lots would be via Haven Avenue which is a two lane two way road with an almost 90 degree turn in the approximate location of the parking lot entrances.

3.13.3 Discussion of Checklist Responses

a. Conflict with applicable circulation plans, ordinances, or policies and applicable congestion management programs

Proposed Project activities would generate some worker and maintenance vehicle trips.

Project implementation may temporarily increase traffic volumes on Highway 101 and local roads in the vicinity of the Project sites during maintenance activities and the off-hauling of material to a landfill. Construction activities would occur Monday through Friday 7:00 a.m. to 6:00 p.m., or similar daytime hours in accordance. Initial maintenance activities are anticipated to take 8 weeks spread across multiple sites. Annual Average Daily Traffic for points along US 101 in the vicinity of the Project ranges between 163,000 to 218,000 (Caltrans GIS Data, 2023). Other AADT in the vicinity of the Project include 20,600 per day (3rd Avenue), 18,500 per day (Crystal Springs Road), and 18,600 per day (El Camino Real at the Redwood City/San Carlos City boundary) (Caltrans GIS Data, 2023). Based upon an estimated 5 construction workers, any miscellaneous midday trips, and a total of 100 cubic yards of sediment that require off-hauling per day, the estimated increase in trips along local roads would be approximately 17 daily round trips. Based on the above, the increase in daily traffic during initial Project construction would represent a minor increase in annual average daily traffic.

Nonetheless, maintenance vehicles and slow-moving equipment maneuvering on and off roadways may cause temporary traffic slowdowns and localized traffic stoppages. Implementation of **Mitigation Measure TR-1** would require installation of warning signs and flaggers (if necessary) and would address potential traffic safety hazards that could occur when equipment and vehicles travel to and from the maintenance work areas.

Mitigation Measure TR-1. Prepare and Implement a Traffic Management Plan

At maintenance sites that require local road/lane detours or frequent truck travel to and from the site, OneShoreline shall require that the maintenance contractor(s) prepare and implement a traffic management plan to manage traffic flow during maintenance activities, reduce potential interference with local emergency response plans, reduce potential traffic safety hazards, and ensure adequate access for emergency responders. OneShoreline and/or the contractor(s) will ensure that the plan is implemented during maintenance activities. The plan will include, but not be limited to, the following measures:

- Identify truck haul routes and timing to limit conflicts between truck and automobile traffic on nearby roads. The identified routes will be designed to minimize impacts on vehicular and pedestrian traffic, circulation, and safety.
- Provide signage indicating the alternative access routes.
- Evaluate the need to provide flaggers or temporary traffic control to assist trucks in accessing the roadway with minimal disruption of traffic.
- Coordinate activities to ensure that lanes remain open at all times, unless flaggers or temporary traffic controls are in place to provide emergency access.

After initial maintenance activities are complete, additional sediment removal may be necessary in subsequent years. However, estimated dredge amounts for ongoing maintenance will be less than the amounts removed during initial implementation and will generate fewer daily trips.

Based on the minimal amount of Project-related traffic added to the roads and with implementation of Mitigation Measure TR-1, potential conflicts with the performance or safety of motorists, pedestrian or cyclists would be **less than significant with mitigation**.

b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)

Per CEQA guidelines section 15064.3, projects within 0.5 miles of a major transit stop or a high-quality transit corridor can be assumed to result in a less than significant impact to transportation. As most of the sites involved in this Project lie beneath or adjacent to major roadways, this can be considered to apply. Furthermore, the Technical Advisory on Evaluating Transportation Impacts published by the Governor's Office of Planning and Research states that projects which generate fewer than 110 trips per day can generally be thought to result in a less-than-significant transportation impact (Governor's Office of Planning and Research, 2018). The Proposed Project is estimated to generate approximately 17 daily round trips. For these reasons, the Proposed Project would not result in a substantial increase in traffic during maintenance activities and impacts would be **less than significant**.

c. Increased hazards resulting from geometric design features

The Proposed Project would not involve any improvements to public roads nor would it increase hazards due to a design feature or incompatible use. Maintenance worker vehicles and haul trucks associated with the Project would utilize existing public roads. The Proposed Project would have **no impact**.

d. Inadequate emergency access

Vehicle access to and from the Project maintenance sites would occur along local roads. Construction vehicles and equipment would be parked in designated staging areas. Project construction would not generate any substantial impacts on local roads and with implementation of **Mitigation Measure TR-1**, the Project would not cause substantial delays for emergency vehicles. Thus, impacts related to emergency access would be **less than significant**.

3.14 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Proposed Project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.14.1 Regulatory Setting

Federal Laws, Regulations, and Policies

There are no federal laws, regulations, or policies regarding tribal cultural resources that are applicable to the Proposed Project.

State Laws, Regulations, and Policies

Assembly Bill (AB) 52 requires, per Pub. Res. Code 21080.3.1, that CEQA lead agencies consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe, and if the agency intends to release a negative declaration, mitigated negative declaration, or environmental impact report for a project. The bill also specifies, under Pub. Res. Code 21084.2, that a project with an effect

that may cause a substantial adverse change in the significance of a TCR is considered a project that may have a significant effect on the environment.

As defined in Section 21074(a) of the Pub. Res. Code, TCRs are:

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

TCRs are further defined under Section 21074(b) and (c) as follows:

- (b) A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and
- (c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms to the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to the newly chaptered Pub. Res. Code Section 21080.3.2, or according to Pub. Res. Code Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TCRs with culturally appropriate dignity, considering the tribal cultural values and meaning of the resource.

3.14.2 Environmental Setting

Prior to the arrival of the Spanish explorers in northern California in the late 1700s, the area now known as San Mateo was occupied by several different Costanoan tribes, some of which also occupied more southern counties. These tribes included the Urebure, the Ssalson, the Lamchin, the Puichun, the Olpen, and the Quiroste (Milliken et al. 2009:87-89). Many different village locations pertaining to some of the above groups have been identified within San Mateo County (Milliken et al. 2009:4-5).

3.14.3 Discussion of Checklist Responses

a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)

None of the Native American tribes in the Project area have submitted letters of interest to the OneShoreline pursuant to Pub. Res. Code Section 21080.3.1(b)(1). However, in the spirit of compliance with Pub. Res. Code Section 21080.3.1, a list of tribes with a traditional and cultural affiliation with the Project area was requested from the NAHC. The NAHC replied in August of 2023 with a list of thirteen tribal contacts. OneShoreline notified local tribes identified by the NAHC about the Proposed Project via the U.S. Postal Service on November 15th, 2023. The Tribes contacted by OneShoreline are listed in Table 15. The NAHC did report the presence of sacred sites listed in the Sacred Lands File for the Proposed Project area.

Table 15. Native American Consultation

Organization/Tribe	Name of Contact	Letter Date	Comments
Amah Mutsun Tribal Band of Mission San Juan Bautista,	Irene Zwierlein, Chairperson,	November 15, 2023	No response to date.
Costanoan Rumsen Carmel Tribe	Tony Cerda, Chairperson	November 15, 2023	November 15, 2023
Indian Canyon Mutsun Band of Costanoan	Ms. Ann Marie Sayers, Chairperson	November 15, 2023	No response to date.
Indian Canyon Mutsun Band of Costanoan	Kanyon Sayers-Roods, MLD Contact	November 15, 2023	We received a response that letter was not delivered successfully. Individual was emailed.
Muwekma Ohlone Indian Tribe of the SF Bay Area	Monica Arellano, Vice Chairwoman	November 15, 2023	No response to date.
Muwekma Ohlone Indian Tribe of the SF Bay Area	Charlene Nijmeh, Chairperson	November 15, 2023	No response to date.
Tamien Nation	Quirina Luna Geary, Chairperson	November 15, 2023	No response to date.

Organization/Tribe	Name of Contact	Letter Date	Comments
Tamien Nation	Lillian Camarena, Secretary	November 15, 2023	No response to date.
Tamien Nation	Johnathan Wasaka Costillas	November 15, 2023	We received a response that letter was not delivered successfully. Individual was emailed.
The Ohlone Indian Tribe	Vincent Medina, Tribe Consultant	November 15, 2023	No response to date.
The Ohlone Indian Tribe	Desiree Vigil, THPO	November 15, 2023	No response to date.
The Ohlone Indian Tribe	Andrew Galvan, Chairperson	November 15, 2023	No response to date.
Wuksachi Indian Tribe/Eshom Valley Band	Kenneth Woodrow, Chairperson	November 15, 2023	No response to date.

As of March 1, 2024, OneShoreline did not receive requests for formal consultation under Pub. Res. Code Section 21080.3.1(b)(2) from any of those individuals contacted. As stated in Section 3.4, *Cultural Resources*, the prehistoric shellmound at the Arroyo Court Project site is assumed to qualify as a 'historical resource' for listing in the CRHR, given the extent of the site and the burials identified. Project activities would not cause substantial ground disturbance beyond the existing level of disturbance. As a result, the Project would have a less than significant impact on TCR resources that are Listed or eligible for listing in the CRHR or in a local register of historical resources.

- ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

As mentioned above, although OneShoreline notified tribes with a traditional and cultural affiliation with the Project area about the Proposed Project; none of the tribes contacted identified TCRs. Additionally, human remains believed to be of Native American descent were previously discovered near the Arroyo Court Project site. Although in-depth field surveys of the Project area did not identify any human remains, and, Project activities would not cause substantial ground disturbance beyond the existing level of disturbance, it is possible that Native American archaeological remains or Native American human remains that could be TCRs could be discovered during the course of construction. If such resources are identified, they would be treated according to **Mitigation Measure CR-1** or **Mitigation Measure CR-2**, respectively, as described in Section 3.4, *Cultural Resources*. Implementation of these mitigation measures would result in a **less than significant with mitigation**.

3.15 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.15.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to utilities and service systems in relation to the Proposed Project.

State Laws, Regulations, and Policies

No state regulations are applicable to utilities and service systems in relation to the Proposed Project.

3.15.2 Discussion of Checklist Responses

a. Require the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects

The Proposed Project consists of routine maintenance activities for flood risk reduction. No new or expanded water, wastewater treatment, or stormwater drainage facilities, electric power, natural gas, or telecommunications facilities, or expansion of existing facilities, would be constructed or relocated as part of the Project. There would be **no impact**.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years

The Proposed Project consists of routine maintenance activities for flood risk reduction and Project-related water use for dust suppression and such would not meaningfully affect the water basin's existing supplies or inhibit the sustainable management of the basin. Therefore, there would be a **less than significant** impact on water supply.

c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments

The Project does not include septic tanks or alternative wastewater disposal systems. Additionally, the Project does not include the construction of new facilities that would require connection to wastewater facilities. Therefore, there would be **no impact**.

d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals

The Proposed Project involves restoring the capacity of existing channels. The waste generated as part of this project would be natural material in the form of sediment, and not anthropogenic in nature. The Proposed Project would reuse excavated sediment to the extent feasible, however, reuse of all material may not be possible, requiring disposal at a landfill. Given the relatively small volume of solid waste that would be generated by the Proposed Project, the Project would not materially affect the ability to comply with solid waste regulations. Therefore, this impact would be **less than significant**.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste

The Project would not generate anthropogenic solid waste and the Proposed Project would not increase demand for solid waste services. Therefore, Therefore, there would be **no impact**.

3.16 WILDFIRE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to wildfire in relation to the Proposed Project.

State Laws, Regulations, Policies and Regional

2018 Strategic Fire Plan for California

The Strategic Fire Plan, developed by the State Board of Forestry and Fire Protection, provides direction and guidance to the California Department of Forestry and Fire Protection (CAL FIRE) and its 21 field units. The 2018 Plan sets forth a number of goals focused on fire prevention, natural resource management, and fire suppression efforts.

California Public Resources Code

The Public Resources Code (PRC) includes fire safety regulations restricting the use of certain equipment that could produce sparks or flames, and specifies requirements for the safe use of gasoline-powered tools in fire hazard areas. OneShoreline staff and contractors must comply with the following requirements in the PRC during construction activities at any sites with forest-, brush-, or grass-covered land:

- a. Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (PRC Section 4442).
- b. Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (PRC Section 4428).
- c. On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire-suppression equipment (PRC Section 4427).
- d. On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines must not be used within 25 feet of any flammable materials (PRC Section 4431).

3.16.2 Environmental Setting

The Project area is on the eastern side (bayside) of San Mateo County and is highly urbanized. Due to a mix of topography, weather patterns, and the presence of densely forested areas and grasslands, the Bay Area is an ideal location for the presence of wildfires (County of San Mateo, 2021). Large areas to the west of Interstate 280 (I-280) have been identified by CAL FIRE (2023) as being a Very High Fire Hazard Severity Zone (VHFHSZ). CAL FIRE also identifies some VHFHSZ's to the east, however these do not intersect with the Project sites (CAL FIRE, 2023).

3.16.3 Discussion of Checklist Responses

a. Substantially impair an adopted emergency response plan or emergency evacuation plan

The Proposed Project sites where work occurs are located within stream channels. While maintenance-related vehicle trips may result in localized traffic slowdowns in the vicinity of Project, these potential impacts would be temporary and nominal. The Proposed Project would not have long-term impacts on emergency response or evacuation plans. Furthermore, with the Project goal of reducing flood risk in the area, the Project would likely improve access during a flood-related emergencies. Therefore, this impact would be **less than significant**.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire

Proposed maintenance activities occur in stream channels within highly urbanized and developed areas, with maintenance activities focused primarily in the channel center and culvert interiors. However, because maintenance sites are in vegetated riparian corridors, and Proposed Project activities would be conducted during the dry summer months when fire danger is the highest, there is a small potential for an accidental ignition of a wildland fire during Project implementation. Use of vehicles and equipment for maintenance activities could ignite a fire through generation of sparks or heat. Although wildfire ignition is improbable, BMP-5, On-site Hazardous Materials Management, requires on-site fire suppression equipment to be available at the work site at all times. With adherence to requirements of this BMP, the Proposed Project would minimize risk of igniting wildfires during Project construction activities and would therefore not substantially exacerbate fire risk to nearby structures or occupants. This impact would be **less than significant**.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment

The Proposed Project does not require the installation or maintenance of associated infrastructure, such as roads, fuel breaks, emergency water sources, power lines or other utilities, that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Therefore, the Proposed Project would have **no impact**.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

The Proposed Project is focused on mitigating flooding risk by removing accumulated instream sediment, vegetation, and debris, thereby restoring channel and culvert conveyance capacity. This will help to reduce flooding risk, including flooding risk generated by wildfire events in the vicinity of the Proposed Project. The Project does not include construction of structures. Therefore, the Proposed Project would have **no impact**.

3.17 MANDATORY FINDINGS OF SIGNIFICANCE

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

3.17.1 Discussion of Checklist Responses

a. Effects on environmental quality, fish or wildlife, and historic resources

As discussed in the section above, significant but mitigable impacts were identified for Biological Resources, Cultural Resources, and Tribal Cultural Resources. With implementation of BMPs and mitigation measures identified in this IS/MND (refer to Mitigation Measures BIO-1 through BIO-5, and CR-1, CR-2), the proposed Project would not substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory, or impact culturally important tribal resources. With implementation of the above-described mitigation measures, this impact would be **less than significant with mitigation**.

b. Cumulative Impacts

A cumulative impact refers to the combined effect of “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355). As defined by the State of California, cumulative impacts reflect “the change in the environment which results from the incremental impact of the Proposed Project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (CEQA Guidelines Section 15355[b]).

The Proposed Project’s primary effects on the environment are related to Biological Resources and Transportation. Long-term effects on other resource topics considered in this document (e.g., Air Quality, GHG, Noise) are less-than-significant level and would not overlap with cumulative projects in a way that could result in a considerable contribution to a significant cumulative impact.

Based on review of the State Office of Planning and Research’s CEQAnet web portal, planned projects in the general area that may combine with the Proposed Project to produce a cumulative impact include the following:

- The Twin Pines Park Storm Water Detention Basin Project, and the Twin Pines Park Belmont Creek Restoration Project, both located at One Twin Pines Lane, Belmont. These projects will address erosion and bank failure in the segment of Belmont Creek within Twin Pines Park, and will establish a sediment basin to reduce the amount of sediment flowing downstream (City of Belmont, 2023).
- The 1301 Shoreway Project will consist of two commercial buildings, one 7-story and one 8-storey, and approximately 1,626 parking spaces (City of Belmont, 2023b).
- The 601 Harbor Project will develop a 4-story building with approximately 996 parking spaces (City of Belmont, 2023c).
- 604-608-610 Harbor Windy Hill Project proposes an apartment building be developed with approximately 103 living spaces (City of Belmont, 2023d).
- The Harbor Industrial Area Specific Plan will provide a roadmap for how the area enclosed by Highway 101, Belmont Creek, ONeill Ave, and El Camino Real develops in the future, providing for future economic vitality and future annexation into the City of Belmont (City of Belmont, 2023e).
- The Community Flood and Storm Protection Initiative is promoted by the City of San Mateo, with eventual projects funded by this initiative including stormwater system capacity upgrades, and dredging and maintenance of San Mateo Creek and Marina Lagoon (City of San Mateo, 2023).

- The US101/SR 92 Short-Term Interchange Improvements Project will implement a range of improvements including merging, restriping, and widening. Construction is estimated to begin in August 2024 (Caltrans, 2023).

Detailed analysis of a project’s contribution to cumulative impacts is required when (1) a cumulative impact to which a project may contribute is expected to be significant, and (2) the project’s contribution to the cumulative impact is expected to be cumulatively considerable, or significant in the context of the overall (cumulative) level of effect. Table 16 summarizes cumulatively significant impacts and identifies the Proposed Project’s contribution. Additional analysis follows for those impacts to which the Proposed Project would contribute.

Table 16. Summary of Cumulative Significant Impacts and Proposed Project’s Contribution

Resource Topic	Cumulatively Significant Impacts	Proposed Project’s Contribution
Aesthetics	None identified.	No analysis required.
Agricultural Resources	None identified.	No analysis required.
Air Quality	The San Francisco Bay Area Air Basin (SFBAAB) has been designated as being in nonattainment under both federal and State standards for ozone and fine particulate matter (PM2.5); particulate matter (PM10) is also designated as in nonattainment under State standards.	Use of vehicles, hauling trucks, and other equipment would result in emissions of criteria air pollutants. However, because such emissions would be below Bay Area Air Quality Management District (BAAQMD) thresholds, in accordance with BAAQMD guidance, the proposed Project would not make a considerable contribution to cumulative impacts related to air quality.
Biological Resources	Past and present projects could have temporary adverse effects on special-status species and habitat during Project implementation.	Project implementation would overall improve ecological conditions at the maintenance sites and downstream receiving waterbodies by removing trash and debris and improving creek flood conveyance. Further, implementation of Mitigation Measures BIO-1 through BIO-8 would protect special-status species, Accordingly, the Project’s contribution to the cumulative impact would be less than cumulatively considerable.

Resource Topic	Cumulatively Significant Impacts	Proposed Project's Contribution
Cultural Resources	Throughout California, culturally important sites and traditional cultural practices have been substantially affected by land management practices and urbanization over the past 150 years. While the City General Plans contain policies regarding preservation of important cultural resources, ongoing development could lead to the cumulative loss of significant historic and archeological resources.	While the proposed Project would involve ground-disturbing activities (e.g., sediment removal), it would only interact with previously disturbed soils. Additionally, Mitigation Measures CR-1 and CR-2 would reduce project impacts to buried unknown cultural resources to a less than significant level. Accordingly, the Project's contribution to the cumulative impact would be less than cumulatively considerable.
Energy	None identified.	No analysis required.
Geology, Soils, and Seismicity	None identified.	No analysis required.
Greenhouse Gas Emissions	Anthropogenic emissions of greenhouse gases (GHG) are widely accepted in the scientific community as contributing to global warming.	Vehicle and equipment use would result in emissions of GHGs. However, because such emissions would be below applicable thresholds, in accordance with BAAQMD guidance, the proposed Project would not make a considerable contribution to cumulative impacts related to GHG emissions.
Hazards and Hazardous Materials	None identified.	No analysis required.
Hydrology and Water Quality	The hydrology and water quality of surface and ground waters in the San Francisco Bay Area have been adversely impacted through decades of urban development and other human activities. The San Francisco Bay and surface streams flowing to the Bay continue to be listed as impaired under the Clean Water Act for various pollutants.	The Proposed Project would involve minor ground-disturbing activities and vehicle/equipment use that could result in erosion and discharge of sediment, as well as accidental releases of hazardous materials. However, these impacts are minor and temporary and implementation of BMPs 1 through 7 would reduce these impacts to a level that is less than significant. The Project's contribution to the cumulative impact would be less than cumulatively considerable.
Land Use and Planning	None identified.	No analysis required.
Mineral Resources	None identified.	No analysis required.

Resource Topic	Cumulatively Significant Impacts	Proposed Project's Contribution
Noise	Traffic-related noise associated with reasonably foreseeable future increased growth in traffic volumes in San Mateo County is considered a significant cumulative impact.	Project implementation would create temporary noise associated with equipment usage and vehicles required to complete maintenance activities. However, the scale and duration of those noise impact is nominal compared to existing high level of ambient noise generated from the adjacent industrial, commercial, and transportation uses near the maintenance sites. Therefore, the Proposed Project would not make a considerable contribution to cumulative impacts.
Population and Housing	None identified.	No analysis required.
Public Services	None identified.	No analysis required.
Recreation	None identified.	No analysis required.
Transportation	Present and future projects could have temporary adverse effects relating to traffic. Traffic related impacts associated with increased traffic volumes, slow-moving construction equipment maneuvering on-and-off site, and possible impacts to emergency access are considered a significant cumulative impact.	While the Proposed Project may result in temporary impacts on local roads, Mitigation Measure TR-1 requires the completion of a traffic control plan in order to reduce potential safety and traffic impacts. All potential impacts would be temporary and minor with no long-term repercussions. Therefore, the Proposed Project would not make a considerable contribution to cumulative impacts.
Tribal Cultural Resources	Throughout California, the Native American cultural legacy, which include tribal cultural resources such as sites, features, places, cultural landscapes, sacred places, and objects that hold cultural value to a California Native American Tribe, have been substantially affected by land management practices and urbanization over the past 150 years. While the City General Plans contain policies regarding preservation of important tribal cultural resources, ongoing development could lead to the cumulative loss of significant tribal cultural resources.	While the Proposed Project would involve ground-disturbing activities (e.g., sediment removal), disturbance would be very minor in scale and would only interact with recent sediment deposits which would not contain Tribal Cultural Resources. Additionally, Mitigation Measures CR-1 and CR-2 would consider tribal cultural values and treat tribal cultural resources with appropriate dignity. Accordingly, the Project's contribution to the cumulative impact would be less than cumulatively considerable.

Resource Topic	Cumulatively Significant Impacts	Proposed Project's Contribution
Utilities and Service Systems	None identified.	No analysis required.
Wildfire	None identified.	No analysis required.

Project implementation would overlap with the projects listed above. However, because the implementation duration would be short and minor in size and scale, and because the Project would comply with BMPs identified in Chapter 2, the Project's contribution to existing cumulative impacts would be less than considerable.

c. Effects on Human Beings

Based on the analysis provided in the above resource sections, with incorporation of BMPs (listed in Chapter 2, Table 2), the Proposed Project would result in no impact or less-than-significant impacts for the following resource topics: Aesthetics, Agricultural Resources, Air Quality, Energy, Geology And Soils, Greenhouse Gases, Hydrology and Water Quality, Land Use, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Utilities and Service Systems, and Wildfire. Mitigation measures pertaining to biology, hazards and hazardous materials, cultural and tribal cultural resources, and transportation would reduce Project-related impacts to a less-than-significant level. As such, implementation of BMPs and mitigation measures would ensure that the effects on human beings would be **less than significant with mitigation**.

Chapter 4

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by this Proposed Project, as indicated by the checklist on the preceding pages:

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural / Tribal Resources | <input type="checkbox"/> Geology / Soils / Seismicity |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

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Chapter 5

DETERMINATION

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. These conclusions are based on the evaluation of the Proposed Project in light of existing site conditions, technical studies and resource evaluations conducted for the Project and in the project area; comparison of the Proposed Project conditions to local and regional plans; other references and information sources as listed in Chapter 7, *References*; interviews; and site visits. For further information, see the environmental background information contained in the permanent file on this project. These background documents are available for public review at the San Mateo County Flood and Sea Level Rise Resiliency District (“OneShoreline”) office at 1700 S. El Camino Real, Suite 502, San Mateo, CA 94402.

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Johnathan Perisho
Signature

04/04/2024
Date

Name: Johnathan Perisho

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APPENDICES

January 2024

Appendix A

Regional and Local Laws, Regulations, and Policies

Appendix A

Local Plans and Policies

This appendix includes policies from general plan policies related to OneShoreline Routine Maintenance Project and incorporated jurisdictions in the project area.

General Plans are long-range comprehensive plans developed for cities and counties that govern growth and development. The project area is located in San Mateo County. Although San Mateo County includes many cities and towns, this analysis focuses on those municipalities directly affected by proposed project activities. The following section reviews key policies in the General Plans of San Mateo County as well as the cities of San Bruno, San Mateo, Redwood City, Belmont City, and Menlo Park.

San Mateo County

The following policies contained in the San Mateo County General Plan are applicable to the Proposed Project.

Chapter 1 Vegetative, Water, Fish and Wildlife Resources Policies

1.1 Conserve, Enhance, Protect, Maintain and Manage Vegetative, Water, Fish, and Wildlife Resources

Promote the conservation, enhancement, protection, maintenance, and managed use of the County's Vegetative, Water, Fish, and Wildlife Resources.

1.2 Protect Sensitive Habitats

Protect sensitive habitats from reduction in size or degradation of the conditions necessary for their maintenance.

1.21 Importance of Sensitive Habitats

Consider areas designated as sensitive habitats as a priority resource requiring protection.

1.22 Importance of Economically Valuable Vegetative, Water, Fish and Wildlife Resources

Consider Vegetative, Water, Fish and Wildlife Resources which are economically valuable as a priority resource to be enhanced, utilized, managed and maintained for the needs of present and future generations.

1.28 Regulate Development to Protect Sensitive Habitats

Regulate land uses and development activities within and adjacent to sensitive habitats in order to protect critical vegetative, water, fish and wildlife resources; protect rare, endangered, and unique plants and animals from reduction in their range or degradation of their environment; and protect and maintain the biological productivity of important plant and animal habitats.

1.39 *Control Incompatible Vegetation, Fish and Wildlife*

Encourage and support the control of vegetation, fish and wildlife resources which are harmful to the surrounding environment or pose a threat to public health, safety and welfare.

1.41 *Encourage Coordinated, Countywide Management of Vegetative, Water, Fish and Wildlife Resources*

Encourage all Federal, State, regional, County, and city agencies with jurisdiction in San Mateo County to cooperate and coordinate the management and protection of vegetative, water, fish and wildlife resources.

Chapter 2 Soil Resources Policies

2.2 *Minimize Soil Erosion*

Minimize soil erosion through application of appropriate conservation practices.

2.3 *Prevention of Soil Contamination*

Prevent soil contamination through the appropriate use, storage, and disposal of toxic substances.

2.23 *Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion*

Regulate excavation, grading, filling, and land clearing activities to protect against accelerated soil erosion and sedimentation.

2.29 *Promote and Support Soil Erosion Stabilization and Repair Efforts*

Promote and support efforts aimed at stabilization of ongoing soil erosion and repair of erosion caused land scars.

2.30 *Emergency Creekside Erosion Control*

Assure timely implementation of emergency creekside erosion control activities.

Chapter 5 Historic and Archeological Resources

5.1 *Historic Resource Protection*

Protect historic resources for their historic, cultural, social and educational values and the enjoyment of future generations.

5.3 *Protection of Archaeological/Paleontological Sites*

Protect archaeological/paleontological sites from destruction in order to preserve and interpret them for future scientific research, and public educational programs.

Chapter 6 Park and Recreation Resources Policies

6.29 *Protection, Operation and Maintenance*

Make provisions to protect, operate and maintain park and recreation systems and related easements.

Chapter 15 Natural Hazards Policies

15.45 *Abatement of Flooding Hazards*

Support measures for the abatement of flooding hazards, including but not limited to: (1) removal or relocation of development from flood hazard areas; (2) construction of impoundments or channel diversions provided that adequate mitigation of environmental impacts can be demonstrated; and (3) debris clearance and silt removal programs conducted in a manner so as not to disrupt existing riparian communities.

City of San Bruno

The following policies contained in the City of San Bruno General Plan are applicable to the Proposed Project.

Chapter 5 Open Space and Recreation Element

Guiding Policies

OSR-B Recognize the balance between maintenance and preservation of open space uses and the potential for wildland fires and flooding.

Chapter 6 Environmental Resources and Conservation Element

Guiding Policies

ERC-A Preserve open space essential for the conservation of San Bruno’s natural resources—including vegetation, wildlife, soils, water, and air.

ERC-C Recognize areas of overlapping jurisdiction with respect to open space and environmental resources, and coordinate the City’s actions with efforts of surrounding cities, agencies, and San Mateo County.

ERC-D Reduce pollution levels within the surface water that San Bruno discharges into the San Mateo County Flood Control District, then into San Francisco Bay.

ERC-E Contribute to regional attainment by improving ambient air quality levels within San Bruno.

Implementing Policies

Conservation

ERC-3 Protect natural vegetation in park, open space, and scenic areas as wildlife habitat, to prevent erosion, and to serve as noise and scenic buffers.

ERC-4 Encourage the use of Best Management Practices in conserving the city's valuable water supply sources.

Biological Resources

ERC-5 Preserve critical habitat areas and sensitive species within riparian corridors, hillsides, canyon areas, tree canopies, and wetlands that are within the City's control (Figure 6-1). Protect declining or vulnerable habitat areas from disturbance during design and construction of new development.

ERC-11 Prohibit the use of any new non-native invasive plant species in any landscaped or natural area. Develop a program for abatement of nonnative invasive species in open space or habitat areas.

ERC-13 Through environmental review, assure that all projects affecting resources of regional concern (e.g., the San Francisco garter snake habitat, water and air quality, the San Francisco Fish and Game Reserve) satisfy regional, State and federal laws.

ERC-14 Preserve wetlands habitat and associated species in compliance with the federal "no net loss" policy using mitigation measures such as:

- Avoidance of sensitive habitat areas;
- Clustering of development away from wetlands;
- Transfer of development rights for preservation of existing sensitive lands; and/or
- Compensatory in-kind mitigation, such as restoration or creation.

ERC-15 Consult with the California Department of Fish and Game to determine significant habitat areas. Identify priorities for acquisition or maintenance of open space areas based on biological or environmental concerns.

ERC-16 Conduct presence/absence biological surveys for sensitive plant and animal species in natural areas prior to any construction activities proposed adjacent to or within identified natural areas. If no special status species are detected during these surveys, then construction-related activities may proceed. If listed special status species are found with the construction zone, then avoid these species and their habitat or consult with U.S. Fish and Wildlife Service and/or California Department of Fish and Game.

Water Resources

ERC-20 Require implementation of Best Management Practices to reduce accumulation of non-point source pollutants in the drainage system originating from streets, parking lots, residential areas, businesses, and industrial operations.

Chapter 7 Health and Safety Element

Guiding Policies

- HS-A* Reduce the risk of loss of life, injuries, loss of property, or resources due to natural hazards. Recognize the interrelationship between potential land use plans and land capacity constraints.
- HS-B* Reduce the potential for damage from geologic hazards through appropriate site design and erosion control.
- HS-D* Protect sites subject to flooding hazards by implementing storm drainage improvements, and by requiring building design and engineering that meets or exceeds known flood risk requirements.
- HS-E* Ensure the health, safety, and welfare of San Bruno residents by requiring appropriate use, disposal, and transport of hazardous materials.

Implementing Policies

Geologic and Seismic Hazards

- HS-4* Prevent soil erosion by retaining and replanting vegetation, and by siting development to minimize grading and landform alteration.

Flooding

- HS-13* With cooperation from the San Mateo County HS-13 Flood Control District, continue maintenance, early warning, and cleanup activities for storm drains throughout San Bruno. Upgrade or replace storm drains where needed to reduce potential flooding, particularly in the neighborhoods east of El Camino Real.
- HS-15* Actively engage the San Mateo County Flood HS-15 Control District to address long-term solutions to potential flood hazards; solutions advocated will include but are not limited to: greater pumping capacity, deeper flow channels, or detention ponds.
- HS-19* Maintain ongoing communication and coordination with surrounding cities, San Mateo County, and agencies—primarily the San Mateo County Flood Control District, but also San Francisco International Airport and California Department of Fish and Game—to ensure proper maintenance of storm drain channels and pipes that carry surface water runoff away from San Bruno to the San Francisco Bay.

City of San Mateo

The following goals policies contained in the City of San Mateo General Plan are applicable to the Proposed Project.

Chapter 6

Conservation, Open Space, And Recreation Element

GOAL COS-1 Protect and enhance the City’s natural resource areas that provide plant and animal habitat and benefit human and ecological health and resilience.

Policy COS 1.1 Sensitive Natural Communities. Protect riparian habitat and other sensitive natural communities. When an opportunity arises, restore natural resources, including wetlands.

Policy COS 1.2 Interjurisdictional Coordination. Coordinate with adjacent jurisdictions and regional, State, and federal agencies to protect critical wildlife habitat, including by participating in comprehensive habitat management programs.

Policy COS 1.3 Site Evaluations. Require independent professional evaluation of sites for any public or private development within known or potential habitat of species designated by State and federal agencies as rare, threatened, or endangered. The site evaluation shall determine the presence/absence of these special-status plant and animal species on the site. The surveys associated with the evaluation shall be conducted for proper identification of the species. The evaluation shall consider the potential for significant impacts on special-status plant and animal species and shall include feasible mitigation measures to mitigate such impacts to the satisfaction of the City and appropriate governmental agencies (e.g., US Fish and Wildlife Service and California Department of Fish and Wildlife). The City shall require adequate mitigation measures for ensuring the protection of sensitive resources and achieving “no net loss” of sensitive habitat acreage, values, and functions. In lieu of the site evaluation, presence of special-status plant and animal species may be assumed, and the City may require “no net loss” mitigation of sensitive habitat acreage be applied to the satisfaction of the City and appropriate governmental agencies.

Policy COS 1.4 Avoidance of Nesting Birds. Native bird nests in active use should be avoided in compliance with State and federal regulations. For new development sites where nesting birds may be present, vegetation clearing and construction should be initiated outside the bird nesting season (March 1 through August 31) or preconstruction surveys should be conducted by a qualified biologist in advance of any disturbance. If active nests are encountered, appropriate buffer zones should be established based on recommendations by the qualified biologist and remain in place until any young birds have successfully left the nest.

Policy COS 1.5 Surveys for Sensitive Natural Communities. Require that sites with suitable natural habitat, including creek corridors through urbanized areas, be surveyed for the presence or absence of sensitive natural communities prior to development approval. Such surveys should be conducted by a qualified biologist and occur prior to development-related vegetation removal or other habitat modifications.

Policy COS 1.6 Surveys for Regulated Waters. Require that sites with suitable natural habitat, including creek corridors through urbanized areas, be surveyed for the presence or absence of regulated waters prior to development approval. Such surveys should be conducted by a qualified wetland specialist and occur prior to development-related vegetation removal or other habitat modifications. Policy COS 1.7 Surveys for Wildlife Movement Corridors. Require that sites with suitable natural habitat, including creek corridors through urbanized areas, be surveyed for the presence or absence of important

wildlife corridors prior to development approval. Such surveys should be conducted by a qualified biologist and occur prior to development-related vegetation removal or other habitat modifications.

Action COS 1.13 Environmental Review. Review the environmental documents for projects adjacent to City boundaries regarding impacts and mitigation to species and habitat.

GOAL COS-2 Ensure that current and future generations will enjoy the environmental, social, health, and economic benefits derived from access to our urban forest, parks, and open spaces.

Policy COS 2.1 Preservation of Open Space. Preserve, protect, and enhance open space areas in San Mateo that provide health benefits and access to nature for all residents.

GOAL COS-3 Protect and improve San Mateo's creeks as valuable habitat and components of human and environmental health.

Policy COS 3.1 Aesthetic and Habitat Values – Public Creeks. Preserve and enhance the aesthetic and habitat values of creeks, such as San Mateo, Laurel, and Beresford Creeks, and other City owned channels in all activities affecting these creeks, including revegetation, rewilding, erosion control, and adequate setbacks for structures.

Policy COS 3.2 Aesthetic and Habitat Values – Private Creeks. Encourage preservation and enhance the aesthetic and habitat values of privately owned sections of all other creeks and channels, shown in Figure COS-3.

Chapter 8

Safety Element

Goal 2 Protect the community from unreasonable risk to life and property caused by flood hazards.

Policies

S 2.1 Creek Alteration

Prohibit any reduction of creek channel capacity, impoundment or diversion of creek channel flows which would adversely affect adjacent properties or the degree of flooding. Prevent erosion of creek banks.

S 2.5 Stormwater Drainage System

Implement the improvements identified in the City of San Mateo's seven watershed areas to improve and maintain drainage capacity adequate to convey water during a typical storm event. Include consideration of creek maintenance and an education and/or enforcement program to minimize illegal dumping of debris and chemicals.

City of Redwood City

The following goals and policies contained in the City of Redwood City General Plan are applicable to the Proposed Project.

Built Environment Element

Historic Resources

Goal BE-37 Protect, preserve, rehabilitate, and/or enhance historic resources.

Policy BE-37.1 Enhance, restore, preserve, and protect, as appropriate, historic resources throughout the city.

Policy BE-37.2 Preserve historic landmark structures, landscapes (including trees), trails, and sites that serve additional community needs, such as recreational open space and/or cultural needs.

Natural Resources Element

Natural Habitat and Open Space

Goal NR-5 Protect, restore, and maintain creeks, sloughs, and streams to ensure adequate water flow, prevent erosion, provide for viable riparian plant and wildlife habitat and, where appropriate, allow for recreation opportunities.

Policy NR-5.1 Restore, maintain, and enhance Redwood City's creeks, streams, and sloughs to preserve and protect riparian and wetland plants, wildlife and associated habitats, and where feasible, incorporate public access.

Policy NR-5.2 Limit construction activities to protect water quality in creeks and streams.

Policy NR-5.4 In conjunction with new development located along existing creeks and streams and where appropriate, incorporate daylighting for culverted portions or other bank naturalizing approaches for channeled sections as a means of creek and stream restoration.

Policy NR-5.6 Promote natural stream channel function.

Policy NR-5.7 Preserve and protect riparian vegetation including non-native vegetation that functions to shade the creek and provide wildlife habitat.

Goal NR-6 Preserve and enhance the baylands, natural wetlands, and ecosystem to assist with improved air quality and carbon dioxide sequestration.

Policy NR-6.2 Restore and maintain marshlands including tidal flats, tidal marshes, and salt marshes as appropriate.

Policy NR-6.5 Take steps to reduce urban runoff into creeks and the Bay.

Policy NR-6.6 Consider protection of upland areas adjacent to wetlands as potential habitat.

Goal NR-7 Reduce pollution from stormwater runoff in our creeks and the San Francisco Bay.

Policy NR-7.1 Support appropriate stormwater pollution mitigation measures.

Policy NR-7.2 Encourage the use of site and landscape designs that minimize surface runoff and retain or detain stormwater runoff, minimizing volume and pollutant concentrations.

Policy NR-7.3 Promote continued maintenance, restoration, and daylighting of creeks in Redwood City through ecologically enhancing methods and any future enhancement ordinance.

Goal NR-8 Identify, protect, and restore open spaces, sensitive biological resources, native habitat, and vegetation communities that support wildlife species.

Policy NR-8.1 Pursue efforts to protect sensitive biological resources, including local, State, and federally designated sensitive, rare, threatened, and endangered plant, fish, and wildlife species and their habitats.

Policy NR-8.2 Preserve and create contiguous wildlife habitat and movement corridors.

Policy NR-8.3 Replace and control invasive, non-native vegetation and animals to the extent feasible in parks and open space areas. Encourage restoration of native vegetation.

Policy NR-8.4 Consult with regulatory agencies, nonprofit groups, and other organizations in the conservation, maintenance, acquisition, and restoration of open space lands that include wildlife, plant species, and animal habitat.

Policy NR-8.5 Enhance fisheries habitat and restore access for native fishes in Redwood City's creeks.

Public Safety Element

Hazards Management

Goal PS-7 Provide adequate and appropriately-designed storm drainage and flood control facilities to meet current and future needs and minimize the risk of flooding.

Policy PS-7.3 Strive to maintain the structural and operational integrity of essential public facilities during flooding. Locate, when feasible, new essential public facilities outside of flood hazard zones; identify construction methods or other methods to minimize damage if these facilities are located in flood hazard zones. Essential public facilities include City government operations facilities, police and fire facilities, and hospitals.

Policy PS-7.4 Prioritize improvements to Redwood City's storm drain system in areas that are prone to flooding. Encourage the use of preventive and low-impact measures as well as maintaining, upgrading, and constructing new flood prevention infrastructure to reduce the risk of flooding.

Air Quality

Redwood City adopted in 2020 their 2030 Climate Action Plan with a goal of 50% reduction in 2005 levels by 2030.

City of Menlo Park

The following goals and policies contained in the City of Menlo Park General Plan are applicable to the Proposed Project.

Land Use Element

Goal LU-6 Open Space

Preserve open-space lands for recreation; protect natural resources and air and water quality; and protect and enhance scenic qualities.

Policy LU-6.7 Habitat Preservation

Collaborate with neighboring jurisdictions to preserve and enhance the Bay, shoreline, San Francisquito Creek, and other wildlife habitat and ecologically fragile areas to the maximum extent possible.

Goal LU-7 Sustainable Services

Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.

Policy LU-7.8 Cultural Resource Preservation

Promote preservation of buildings, objects, and sites with historic and/or cultural significance.

Open Space and Conservation Element

Goal OSC1 Maintain, Protect and Enhance Open Space and Natural Resources

Protect, conserve and enhance valuable natural resources, open areas and designated open space lands rich in scenic value, wildlife or of a fragile ecological nature through conservation and restoration efforts.

Policies

OSC1.2 Habitat for Open Space and Conservation Purposes

Preserve, protect, maintain and enhance water, water-related areas, plant and wildlife habitat for open space and conservation purposes.

OSC1.15 Heritage Trees

Protect Heritage Trees, including during construction activities through enforcement of the Heritage Tree Ordinance (Chapter 13.24 of the Municipal Code).

Goal OSC3 Protect and Enhance Historic Resources

OSC3.4 Prehistoric or Historic Cultural Resources Found During Construction

Require that if cultural resources, including archaeological or paleontological resources, are uncovered during grading or other on-site excavation activities, construction shall stop until appropriate mitigation is implemented.

Goal OSC5 Ensure Healthy Air and Water Quality

Enhance and preserve air quality in accord with State and regional standards, and encourage the coordination of total water quality management including both supply and wastewater treatment.

Policies

OSC5.1 Air and Water Quality Standards

Continue to apply standards and policies established by the Bay Area Air Quality Management District (BAAQMD), San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), and City of Menlo Park Climate Action Plan through the California Environmental Quality Act (CEQA) process and other means as applicable.

Noise Element

Goal N1 Achieve Acceptable Noise Levels

It is the goal of Menlo Park to have acceptable noise levels.

Policies

N1.6 Noise Reduction Measures

Encourage the use of construction methods, state-of-the-art noise abating materials and technology and creative site design including, but not limited to, open space, earthen berms, parking, accessory buildings, and landscaping to buffer new and existing development from noise and to reduce potential conflicts between ambient noise levels and noise-sensitive land uses. Use sound walls only when other methods are not practical or when recommended by an acoustical expert.

N1.8 Potential Annoying or Harmful Noise

Preclude the generation of annoying or harmful noise on stationary noise sources, such as construction and property maintenance activity and mechanical equipment.

Implementing Policies

N1.D Minimize Construction Activity Noise

Minimize the exposure of nearby properties to excessive noise levels from construction-related activity through CEQA review, conditions of approval and enforcement of the City's Noise Ordinance.

Safety

Goal S1 Assure a Safe Community

Minimize risk to life and damage to the environment and property from natural and human-caused hazards, and assure community emergency preparedness and a high level of public safety services and facilities.

Hazardous Materials Policies

S1.16 Hazardous Materials Regulations

Review and strengthen, if necessary, regulations for the structural design and/or uses involving hazardous materials to minimize risk to local populations. Enforce compliance with current State and local requirements for the manufacturing, use, storage, transportation and disposal of hazardous materials, and the designation of appropriate truck routes in Menlo Park.

S1.20 Pipeline Safety.

Require, as much as possible, that new pipelines and other channels carrying hazardous materials be placed to avoid residential areas and, in particular, areas where the population is less mobile.

Flood Control, Tsunami and Dam Safety Policies

S1.22 Flood Damage Prevention

Continue to apply standards for any construction projects (new structures and existing structures proposed for substantial improvement) in areas of special flood hazard in accordance with FEMA and the Flood Damage Prevention Ordinance, including the use of flood-resistant construction materials and construction methods that minimize flood damage. Locate new essential public facilities outside of flood zones, such as City operations facilities, police and fire stations, and hospitals, to the extent feasible.

S1.23 Potential Dam Inundation

Consider potential risks from dam inundation in the development approval process.

S1.25 Creeks and Drainage-ways

Seek to retain San Francisquito and Atherton creeks/channels in their natural state in order to prevent undue erosion of creek banks. Protect creek-side habitat and provide maintenance access along creeks where appropriate.

S1.26 Erosion and Sediment Control

Continue to require the use of best management practices for erosion and sediment control measures with proposed development in compliance with applicable regional regulations.

S1.27 Regional Water Quality Control Board (RWQCB) Requirements

Enforce stormwater pollution prevention practices and appropriate watershed management plans in the RWQCB general National Pollutant Discharge Elimination System requirements, the San Mateo County Water Pollution Prevention Program and the City's Stormwater Management Program. Revise, as necessary, City plans so they integrate water quality and watershed protection with water supply, flood control, habitat protection, groundwater recharge, and other sustainable development principles and policies.

Air Quality

The City of Menlo Park's Climate Action Plan has measures and goals aimed at reducing fossil fuel use by encouraging electric buildings, increasing electric vehicles and reducing vehicle miles traveled.

City of Belmont

The following policies contained in the City of Belmont General Plan are applicable to the Proposed Project.

Open Space

GOAL 4.4: Continue to develop and support a balanced and integrated open space system reflecting a variety of considerations, including natural resource conservation, outdoor recreation, and public health and safety, to ensure synergies between various open space components and compatibility with land use planning.

Policy 4.4-1: Continue to designate and protect open space lands for the preservation of scenic areas, natural drainage ways, and plant and wildlife habitats; for outdoor recreation; and for public health and safety. See also policies in the Conservation and Safety elements.

Policy 4.5-2: Protect Belmont Creek from future encroachment through regulation, development review, conservation easements, or other appropriate actions.

Action 4.5-2a: Evaluate the necessity of a stream buffer overlay zone around Belmont Creek and tributaries to facilitate management and protection of the waterway. Such a zone would apply to areas where the creek flows above ground through developed areas and would

ensure that any new development adjacent to the creek is designed and built in such a way that the stream environment is not degraded.

Action 4.5-2b: Consider creek restoration projects that alter the creek corridor to enhance the function of the waterway, including restoration through Twin Pines Park.

Conservation

Goal 5.1-1: Protect and maintain open space for the preservation of natural resources.

Policy 5.1-1: Ensure that any improvements recommended for open space areas are appropriate for the type of open space and the use proposed.

Policy 5.1-2: In portions of Belmont that include significant open space resources, use area plans to address the balance and interface between natural and developed areas.

Policy 5.1-3: Reduce risk of wildland fire, ecological succession, and pathogen threats (such as Sudden Oak Death) through active maintenance of public spaces and education and enforcement of development standards on private property.

Goal 5.2: Protect and preserve open space for public health, safety and recreation in areas that require special management for regulation.

Policy 5.2-1: Encourage the retention of areas that are hazardous to public safety and welfare as undeveloped open space, including steep hillsides unsuitable for development as identified in area plans and other detailed geotechnical studies; hydrological areas of concern; areas of geological instability; and appropriate setback areas on either side of known active fault traces. See also discussion and policies in the Safety Element.

Goal 5.3: Protect and restore biological and ecological resources in Belmont, including sensitive wildlife species and their habitats.

Policy 5.3-1: Support the protection, preservation, restoration, and enhancement of habitats of State or federally listed rare, threatened, endangered and/or other sensitive and special status species, and favor enhancement of contiguous areas over small, segmented remainder parcels.

Policy 5.3-2: Continue to maintain, protect, restore, and enhance Belmont's ecologically important areas and seek to reduce impacts on them, including the creek corridors, the open space, and the wetlands around O'Neill Slough.

Policy 5.3-3: To the greatest extent feasible, ensure that development does not disturb sensitive habitat and special status species by requiring appropriate and feasible mitigation measures.

Action 5.3-3a: Establish guidelines for habitat conservation and mitigation programs when sensitive habitat or special status species would be disturbed by development. These could include, but are not limited to:

- Protocols for the evaluation of a site's environmental setting and proposed design and operating parameters of proposed mitigation measures.
- Methodology for the analysis of land to be acquired or set aside for mitigation activities.
- Parameters for specification of the types and sources of plant material used for any revegetation, irrigation requirements, and post-planting maintenance and other operational measures to ensure successful mitigation by the project proponent.
- Monitoring at an appropriate frequency by qualified personnel and reporting of data collected to permitting agencies, if necessary.

Action 5.3-3b: If Endangered or Threatened Species are discovered prior to or during construction of a development project, require project proponents to consult a qualified biologist for recommended proper action, and incorporate appropriate mitigation measures.

Policy 5.3-4: Maintain functional wildlife corridors and habitat linkage in order to contribute to regional biodiversity and the viability of rare, unique or sensitive biological resources throughout the city and region.

Policy 5.3-7: Encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure the maximum number and variety of well-adapted plants are maintained.

Policy 5.3-8: Use native or drought-resistant vegetation in landscaping on City-owned property, and encourage private property owners to use native or drought-resistant vegetation in landscaping on private property.

Policy 5.3-9: Promote the healthy growth of trees and control the removal of trees within the city.

Action 5.3-9a: Maintain and enforce the City's Tree Ordinance to provide adequate and reasonable tree protection and removal standards and best management practices.

Goal 5.4 Preserve and restore Belmont's waterways and adjacent corridors as valuable community resources that serve as plant and wildlife habitats, groundwater recharge facilities, flood control and irrigation components, and connections between open space areas.

Policy 5.4-1 Restore Belmont Creek to enhance ecological functions, biological resources, hydrology function, and flood control.

Action 5.4-1a: Continue to work in collaboration with the Department of Fish and Wildlife, US Army Corp of Engineers, the San Francisco Bay Regional Water Quality Control Board, the cities of San Carlos and Redwood City, San Mateo County, Caltrans, and other entities as needed, to identify and implement a long-term approach to address ongoing maintenance and creek improvements.

Policy 5.4-2: Preserve, where possible, natural watercourses or provide naturalized drainage channels within the city. Where necessary and feasible, implement restoration and rehabilitation measures.

Policy 5.4-3: Protect, restore, and enhance a continuous corridor of native riparian vegetation and wildlife habitat along Belmont's waterways, water bodies, and wetlands.

Policy 5.4-4: Preserve and enhance the natural riparian environment along waterway corridors, including Belmont Creek, by minimizing environmental and visual impacts. See also Policy 4.5-2 in the Parks, Recreation, and Open Space Element.

Goal 5.5: Preserve water quality by promoting the protection of Belmont's creeks and other natural water bodies from pollution.

Policy 5.5-5: Implement water pollution prevention methods to the maximum extent practicable, supplemented by pollutant source controls and treatment.

Goal 5.9: Maintain and improve the reliability of the City's storm drainage system, and promote best management practices to protect this system from flooding, enhance water quality, and prevent infrastructure deterioration.

Policy 5.9-1: Continue to make improvements and upgrades to the drainage system. Priorities should be to provide curbs and gutters to underserved areas (as feasible), improve facilities in areas that are subject to seasonal flooding, increase capacity of the system, and replace damaged lines in the storm drain system.

Policy 5.9-2: Encourage development projects of all sizes to incorporate site design measures that facilitate groundwater recharge and natural hydrological processes, allowing stormwater to infiltrate the ground on-site and/or be collected for reuse in landscaping and designated to on-site stormwater detention facilities. Such measures may include:

- Canopy trees or shrubs to absorb rainwater;
- Grading that lengthens flow paths over permeable surfaces and increases runoff travel time to reduce the peak hour flow rate;
- Partially removing curbs and gutters from parking areas where appropriate to allow stormwater sheet flow into vegetated areas;
- Installation of green roofs on buildings;
- Use of permeable paving in parking lots and other areas characterized by significant impervious surfaces;
- On-site stormwater detention, use of bioswales and bioretention basins to facilitate infiltration; and
- Integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.

Conservative Element

Energy: Increase municipal, residential, and commercial energy efficiency; renewable energy; efficient water use; and green building practices.

GOAL 5.11 Reduce emissions of greenhouse gases to 15 percent below the 2005 baseline levels by 2020 and to 50 percent below the 2005 baseline levels by 2035.

Policy 5.11-2 Support the Climate Action Plan’s goals and implement the CAP’s reduction measures and strategies to reduce greenhouse gas emissions.

Policy 5.11-3 Support and implement the Climate Action Plan’s adaptation strategies and measures that promote resiliency to climate change impacts, such as sea level rise, extreme heat events, regional drought, and increased flooding.

Policy 5.11-4 Support and participate in regional efforts to reduce greenhouse gas emissions and implement adaptation strategies.

Safety Element

GOAL 6.1 Minimize risks of property damage and personal injury posed by geologic and seismic hazards.

Policy 6.1-11 Support erosion prevention of hillside areas at risk of landslide, by revegetation or other acceptable methods.

GOAL 6.2 Protect the community from risks to life and property posed by flooding.

Policy 6.2-2 Cooperate and coordinate with federal, State, and local jurisdictions and agencies involved in the mitigation of flood hazards from dam inundation, sea level rise, and major flood events.

Policy 6.2-4 Seek to reduce flooding hazards by continuing to implement improvements and upgrades to the storm drainage system.

Policy 6.2-13 Continue to collaborate with regional stakeholders and agencies to identify and implement a long-term approach to address ongoing flooding issues, maintenance, and creek improvements for Belmont Creek, particularly in the lower portions of the creek.

Air Quality

The City of Belmont has an adopted Climate Action Plan from 2017 with the goal of 40% reduction in GHG emissions by 2035.

City of San Carlos

The following policies contained in the City of San Carlos General Plan are applicable to the Proposed Project.

Landuse Element

Policy LU-1.8 As San Carlos' Climate Action Plan is updated over time, continue to include land use goals and measures in the Plan that contributes to a reduction in greenhouse gas emissions.

Policy LU-1.9 To the extent possible, retain the channels, floodplains, riparian corridors (including suitable setbacks from top of bank) and closely associated upland areas of Cordilleras, Brittan and Pulgas Creeks and their tributaries as significant open space areas. These areas should be maintained in their natural state to function as appropriate open space areas, greenbelt and to support a riparian habitat.

Policy LU-1.10 Require that development within the Pulgas, Brittan and Cordilleras Creek watersheds shall preserve watershed integrity, including natural vegetation, soil and slope stability, water quality, scenic values and potential archaeological resources.

POLICY LU-12.5 Treat with respect and dignity any human remains discovered during implementation of public and private projects within the city and fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws.

POLICY LU-12.1 Evaluate historical and cultural resources early in the development review process through consultation with interested parties.

ACTION LU-12.1 Ensure thorough compliance with the provisions of the California Environmental Quality Act (CEQA) relating to potential impacts to cultural and historical resources.

Environmental Management Element

POLICY EM-1.1 Ensure that potential impacts to biological resources and sensitive habitat are carefully evaluated when considering development project applications.

POLICY EM-1.2 Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.

POLICY EM-1.3 Work to manage or eliminate nonnative invasive species from City owned property and open space.

POLICY EM-1.4 Protect and preserve the circadian cycle (the cycle of night and day) by limiting sources of light during nighttime hours.

POLICY EM-1.5 Promote the preservation of native species, habitat and vegetation types and overall natural diversity.

ACTION EM-1.1 Continue to cooperate with local, regional and State agencies involved in protecting critical habitat.

ACTION EM-1.3 Use native plants wherever possible on City-owned and controlled property.

Policy EM- 2.1 Preserve and enhance riparian areas.

Policy EM-2.4 Restore culverted or buried channels to their natural state wherever feasible.

Policy EM-2.5 Promote the establishment of native vegetation and the removal of nonnative invasive plants in riparian areas.

Policy EM-5.1 Reduce the discharge of toxic materials into the city's sanitary sewer and stormwater collection system by promoting the use of Best Management Practices (BMPs).

Policy EM-6.1 Support and comply with the Bay Area Air Quality Management District, State and federal standards and policies that improve air quality in the Bay Area.

Policy EM-6.4 Implement Bay Area Air Quality Management District (BAAQMD) guidelines that establish minimum screening or buffer distances between emissions sources and sensitive receptors. Exceptions may be made for projects that do not meet the distance requirements, but can be determined compatible with adjacent uses through a project-specific study that determines potential health risk. Mitigation measures shall be required to reduce these risks to acceptable levels.

Policy EM-6.5 Consider potential impacts from land uses that may emit pollution and/or odors when locating air pollution sources near sensitive receptors. Air pollution sources could include freeways, industrial uses, hazardous materials storage, waste disposal/transfer stations and other similar uses.

Policy EM-6.6 BAAQMD recommended measures to reduce PM10 and exhaust emissions associated with construction shall be applied to new development in San Carlos.

Community Safety and Services Element

POLICY CSS-2.1 Improve and maintain City storm drainage infrastructure in a manner that reduces flood hazards.

POLICY CSS-2.2 Maintain a healthy riparian corridor in City-maintained flood control channels to reduce the risk of flooding due to erosion, siltation, blockage and heavy undergrowth.

POLICY CSS-2.9 Continue to work with appropriate local, State and federal agencies (particularly FEMA) to maintain the most current flood hazard and flood-plain information and use it as a basis for project review and to guide development in accordance with federal, State and local standards.

POLICY CSS-4.2 Require producers of and users of hazardous materials in San Carlos to conform to all local, State and federal regulations regarding the production, disposal and transportation of these materials.

POLICY CSS-4.7 Require the preparation of emergency response plans as part of use applications for all large generators of hazardous waste as required by federal law.

Noise Element

POLICY NOI-1.2 Minimize noise impacts on noise sensitive land uses. Noise-sensitive land uses include residential uses, retirement homes, hotel/motels, schools, libraries, community centers, places of public assembly, daycare facilities, churches and hospitals.

POLICY NOI-1.3 Limit noise impacts on noise-sensitive uses to noise level standards as indicated in Table 9-1.

POLICY NOI-1.8 During all phases of construction activity, reasonable noise reduction measures shall be utilized to minimize the exposure of neighboring properties to excessive noise levels. a. Construction activities shall comply with the City's noise ordinance.

Other Local Policies

San Mateo County Community Climate Action Plan

Through the San Mateo County Community Climate Action Plan, the unincorporated area of San Mateo County set a GHG emissions reduction target of 45 percent below 1990 levels by 2030 and demonstrate carbon neutrality within unincorporated San Mateo County by 2040.

The Community Climate Action Plan (CCAP) outlines priority actions to achieve a 45% reduction of greenhouse gas emissions over 1990 levels by 2030 and carbon neutrality by 2040.

The City of San Mateo 2020 Climate Action Plan established per capita GHG emission targets of 4.3 metric tonnes carbon dioxide equivalents in 2030 and 1.2 metric tonnes carbon dioxide equivalents in 2050.

San Mateo-Santa Cruz County Community Wildfire Protection Plan (CWPP)

The San Mateo-Santa Cruz County Community Wildfire Protection Plan (CWPP), updated in 2018, identifies the hazards and risks associated with wildfires in both San Mateo and Santa Cruz Counties and proposes strategies to mitigate those risks. Developed by CAL FIRE and the Resource Conservation District for San Mateo County and Santa Cruz County, the CWPP reflects community and agency stakeholder input from the two counties following the Summit Fire in 2008, and recommends projects to reduce the potential for catastrophic wildfire. The CWPP also serves as a mechanism to obtain state grant funding to implement those projects.

San Mateo-Santa Cruz Unit 2023 Strategic Fire Plan

The San Mateo-Santa Cruz Unit 2023 Strategic Fire Plan, developed by CAL FIRE San Mateo-Santa Cruz Unit, identifies fire management strategies and tactics intended to reduce the hazards associated with wildfires and recommends preventative measures to make homes,

neighborhoods, and communities within the Unit area’s approximate 894 square miles more defensible from wildfire.

2021 Multijurisdictional Local Hazard Mitigation Plan

The 2021 Multijurisdictional Local Hazard Mitigation Plan is developed by San Mateo County in partnership with 35 local governments. The plan aims to identify and reduce risks from natural disasters within the County. It identifies and assesses ten major hazards of concern, including wildfire, flooding, and landslides, and also provides a high-level profile for other potential hazards such as pandemics, aircraft incidents, and cyber threats. Major issues regarding wildfires within the County are identified and include the management of growth in interface areas, that there are CAL FIRE hazard mapping gaps for the cities of Millbrae, Pacifica and San Bruno, and a need for regional consistency with regard to elements such as sprinklers and combustible roof standards.

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Appendix B

Air Quality and GHG Emissions Estimates

One Shoreline Custom Report

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5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	One Shoreline
Construction Start Date	6/15/2024
Lead Agency	San Mateo County Resiliency District
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.60
Precipitation (days)	37.8
Location	37.633810342070234, -122.40531985475945
County	San Mateo
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1230
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	1.00	User Defined Unit	1.00	0.00	1.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.08	1.72	13.6	15.7	0.04	0.54	0.30	0.74	0.50	0.08	0.55	—	4,302	4,302	0.22	0.16	2.04	4,327
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.05	0.49	0.54	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	173	173	0.01	0.01	0.04	176
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.01	0.09	0.10	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	28.7	28.7	< 0.005	< 0.005	0.01	29.1

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.08	1.72	13.6	15.7	0.04	0.54	0.30	0.74	0.50	0.08	0.55	—	4,302	4,302	0.22	0.16	2.04	4,327
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.07	0.05	0.49	0.54	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	173	173	0.01	0.01	0.04	176
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.01	0.01	0.09	0.10	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	28.7	28.7	< 0.005	< 0.005	0.01	29.1

3. Construction Emissions Details

3.1. San Bruno At 7th Avenue (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.94	0.79	6.52	7.23	0.02	0.30	—	0.30	0.27	—	0.27	—	1,948	1,948	0.08	0.02	—	1,954
Dust From Material Movement:	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.7	26.7	< 0.005	< 0.005	—	26.8

Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.42	4.42	< 0.005	< 0.005	—	4.43
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.2	84.2	< 0.005	< 0.005	0.31	85.5
Vendor	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	0.00
Hauling	0.13	0.02	1.12	0.73	0.01	0.01	0.16	0.17	0.01	0.04	0.05	—	708	708	0.11	0.12	1.39	746
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.69	9.69	< 0.005	< 0.005	0.01	10.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
Vendor	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	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	< 0.005	1.69
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3.3. San Mateo Creek at Arroyo Court (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.99	1.67	13.3	14.9	0.04	0.54	—	0.54	0.49	—	0.49	—	3,973	3,973	0.16	0.03	—	3,986
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.8	21.8	< 0.005	< 0.005	—	21.8
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.60	3.60	< 0.005	< 0.005	—	3.62

Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.68	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	168	168	< 0.005	0.01	0.62	171
Vendor	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	0.00
Hauling	0.03	< 0.005	0.25	0.17	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	161	161	0.02	0.03	0.32	170
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.89
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.93
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	< 0.005	0.15

3.5. San Mateo Creek at Hi-101 (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.81	6.66	7.41	0.02	0.30	—	0.30	0.28	—	0.28	—	2,038	2,038	0.08	0.02	—	2,045
Dust From Material Movement:	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	—	22.4
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.70	3.70	< 0.005	< 0.005	—	3.71
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.2	84.2	< 0.005	< 0.005	0.31	85.5
Vendor	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	0.00
Hauling	0.16	0.02	1.40	0.92	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	884	884	0.14	0.14	1.73	932
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.89
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.69	9.69	< 0.005	< 0.005	0.01	10.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	< 0.005	1.69

3.7. Belmont Creek at Hi-101 and Industrial Road (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93	0.78	6.47	7.17	0.02	0.29	—	0.29	0.27	—	0.27	—	1,918	1,918	0.08	0.02	—	1,924

Dust From Material Movement:	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.3	26.3	< 0.005	< 0.005	—	26.4
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.35	4.35	< 0.005	< 0.005	—	4.36
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.2	84.2	< 0.005	< 0.005	0.31	85.5
Vendor	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	0.00
Hauling	0.15	0.02	1.32	0.87	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	836	836	0.13	0.14	1.64	882

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.90	1.90	< 0.005	< 0.005	< 0.005	2.00

3.9. Belmont Creek at Sem Lane (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.94	0.79	6.52	7.23	0.02	0.30	—	0.30	0.27	—	0.27	—	1,948	1,948	0.08	0.02	—	1,954
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.34	5.34	< 0.005	< 0.005	—	5.35
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.88	0.88	< 0.005	< 0.005	—	0.89
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.2	84.2	< 0.005	< 0.005	0.31	85.5
Vendor	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	0.00
Hauling	0.01	< 0.005	0.13	0.08	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.4	80.4	0.01	0.01	0.16	84.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.22
Vendor	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	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04

3.11. Cordilleras Creek at El Camino Real (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.33	2.67	3.77	0.01	0.09	—	0.09	0.08	—	0.08	—	1,382	1,382	0.06	0.01	—	1,387
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.57	7.57	< 0.005	< 0.005	—	7.60

Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.26
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	42.1	42.1	< 0.005	< 0.005	0.15	42.8
Vendor	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	0.00
Hauling	0.14	0.02	1.21	0.79	0.01	0.01	0.18	0.18	0.01	0.05	0.06	—	764	764	0.12	0.12	1.50	805
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.22

Vendor	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	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.19	4.19	< 0.005	< 0.005	< 0.005	4.41
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04	
Vendor	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	0.00	
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.69	0.69	< 0.005	< 0.005	< 0.005	0.73	

3.13. Atherton Channel (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.99	1.67	13.3	14.9	0.04	0.54	—	0.54	0.49	—	0.49	—	3,973	3,973	0.16	0.03	—	3,986
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.8	21.8	< 0.005	< 0.005	—	21.8

Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.60	3.60	< 0.005	< 0.005	—	3.62
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.68	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	168	168	< 0.005	0.01	0.62	171
Vendor	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	0.00
Hauling	0.01	< 0.005	0.06	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	40.2	40.2	0.01	0.01	0.08	42.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.89
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Vendor	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	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
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5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
San Bruno At 7th Avenue	Site Preparation	6/15/2024	6/21/2024	5.00	5.00	San Bruno At 7th Avenue
San Mateo Creek at Arroyo Court	Site Preparation	6/22/2024	6/25/2024	5.00	2.00	San Mateo Creek at Arroyo Court
San Mateo Creek at Hi-101	Site Preparation	6/26/2024	7/1/2024	5.00	4.00	San Mateo Creek at Hi-101
Belmont Creek at Hi-101 and Industrial Road	Site Preparation	7/2/2024	7/8/2024	5.00	5.00	Belmont Creek at Hi-101 and Industrial Road
Belmont Creek at Sem Lane	Site Preparation	7/9/2024	7/9/2024	5.00	1.00	Belmont Creek at Sem Lane
Cordilleras Creek at El Camino Real	Site Preparation	7/10/2024	7/11/2024	5.00	2.00	Cordilleras Creek at El Camino Real
Atherton Channel	Site Preparation	7/12/2024	7/15/2024	5.00	2.00	Atherton Channel

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
San Bruno At 7th Avenue	Excavators	Diesel	Average	1.00	8.00	322	0.38
San Bruno At 7th Avenue	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
San Bruno At 7th Avenue	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
San Bruno At 7th Avenue	Pumps	Diesel	Average	1.00	24.0	11.0	0.74

San Mateo Creek at Arroyo Court	Excavators	Diesel	Average	1.00	8.00	322	0.38
San Mateo Creek at Arroyo Court	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
San Mateo Creek at Arroyo Court	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
San Mateo Creek at Arroyo Court	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
San Mateo Creek at Arroyo Court	Other Material Handling Equipment	Diesel	Average	1.00	8.00	93.0	0.40
San Mateo Creek at Arroyo Court	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
San Mateo Creek at Arroyo Court	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
San Mateo Creek at Arroyo Court	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
San Mateo Creek at Hi-101	Excavators	Diesel	Average	1.00	8.00	322	0.41
San Mateo Creek at Hi-101	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
San Mateo Creek at Hi-101	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
San Mateo Creek at Hi-101	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
Belmont Creek at Hi-101 and Industrial Road	Excavators	Diesel	Average	1.00	8.00	322	0.37
Belmont Creek at Hi-101 and Industrial Road	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Belmont Creek at Hi-101 and Industrial Road	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42

Belmont Creek at Hi-101 and Industrial Road	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
Belmont Creek at Sem Lane	Excavators	Diesel	Average	1.00	8.00	322	0.38
Belmont Creek at Sem Lane	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Belmont Creek at Sem Lane	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Belmont Creek at Sem Lane	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
Cordilleras Creek at El Camino Real	Excavators	Diesel	Average	1.00	8.00	322	0.38
Cordilleras Creek at El Camino Real	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Atherton Channel	Excavators	Diesel	Average	1.00	8.00	322	0.38
Atherton Channel	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Atherton Channel	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Atherton Channel	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
Atherton Channel	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Atherton Channel	Other Material Handling Equipment	Diesel	Average	1.00	8.00	93.0	0.40
Atherton Channel	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Atherton Channel	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
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San Bruno At 7th Avenue	—	—	—	—
San Bruno At 7th Avenue	Worker	10.0	11.7	LDA,LDT1,LDT2
San Bruno At 7th Avenue	Vendor	—	8.40	HHDT,MHDT
San Bruno At 7th Avenue	Hauling	8.80	20.0	HHDT
San Bruno At 7th Avenue	Onsite truck	—	—	HHDT
San Mateo Creek at Arroyo Court	—	—	—	—
San Mateo Creek at Arroyo Court	Worker	20.0	11.7	LDA,LDT1,LDT2
San Mateo Creek at Arroyo Court	Vendor	—	8.40	HHDT,MHDT
San Mateo Creek at Arroyo Court	Hauling	2.00	20.0	HHDT
San Mateo Creek at Arroyo Court	Onsite truck	—	—	HHDT
San Mateo Creek at Hi-101	—	—	—	—
San Mateo Creek at Hi-101	Worker	10.0	11.7	LDA,LDT1,LDT2
San Mateo Creek at Hi-101	Vendor	—	8.40	HHDT,MHDT
San Mateo Creek at Hi-101	Hauling	11.0	20.0	HHDT
San Mateo Creek at Hi-101	Onsite truck	—	—	HHDT
Belmont Creek at Hi-101 and Industrial Road	—	—	—	—
Belmont Creek at Hi-101 and Industrial Road	Worker	10.0	11.7	LDA,LDT1,LDT2
Belmont Creek at Hi-101 and Industrial Road	Vendor	—	8.40	HHDT,MHDT
Belmont Creek at Hi-101 and Industrial Road	Hauling	10.4	20.0	HHDT
Belmont Creek at Hi-101 and Industrial Road	Onsite truck	—	—	HHDT
Belmont Creek at Sem Lane	—	—	—	—
Belmont Creek at Sem Lane	Worker	10.0	11.7	LDA,LDT1,LDT2
Belmont Creek at Sem Lane	Vendor	—	8.40	HHDT,MHDT
Belmont Creek at Sem Lane	Hauling	1.00	20.0	HHDT

Belmont Creek at Sem Lane	Onsite truck	—	—	HHDT
Cordilleras Creek at El Camino Real	—	—	—	—
Cordilleras Creek at El Camino Real	Worker	5.00	11.7	LDA,LDT1,LDT2
Cordilleras Creek at El Camino Real	Vendor	—	8.40	HHDT,MHDT
Cordilleras Creek at El Camino Real	Hauling	9.50	20.0	HHDT
Cordilleras Creek at El Camino Real	Onsite truck	—	—	HHDT
Atherton Channel	—	—	—	—
Atherton Channel	Worker	20.0	11.7	LDA,LDT1,LDT2
Atherton Channel	Vendor	—	8.40	HHDT,MHDT
Atherton Channel	Hauling	0.50	20.0	HHDT
Atherton Channel	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Cordilleras Creek at El Camino Real	0.00	0.00	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
San Bruno At 7th Avenue	—	350	0.00	0.00	—

San Mateo Creek at Arroyo Court	—	25.0	0.00	0.00	—
San Mateo Creek at Hi-101	—	350	0.00	0.00	—
Belmont Creek at Hi-101 and Industrial Road	—	410	0.00	0.00	—
Belmont Creek at Sem Lane	—	7.00	0.00	0.00	—
Cordilleras Creek at El Camino Real	—	149	0.00	0.00	—
Atherton Channel	—	6.00	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Land Use	Only doing site-specific construction schedule and equipment
Construction: Construction Phases	Site specific construction schedule for each reach
Construction: Off-Road Equipment	site specific construction list

One Shoreline Operation as Construction Custom Report

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5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	One Shoreline Operation as Construction
Construction Start Date	6/15/2025
Lead Agency	San Mateo County Resiliency District
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.60
Precipitation (days)	37.8
Location	37.63322947331292, -122.40498064771208
County	San Mateo
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1230
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	1.00	User Defined Unit	1.00	0.00	1.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.99	0.77	6.68	7.92	0.02	0.27	0.18	0.45	0.25	0.05	0.29	—	2,443	2,443	0.14	0.09	1.09	2,472
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.04	0.32	0.39	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	118	118	0.01	< 0.005	0.02	120
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.01	0.06	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	19.6	19.6	< 0.005	< 0.005	< 0.005	19.8

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.99	0.77	6.68	7.92	0.02	0.27	0.18	0.45	0.25	0.05	0.29	—	2,443	2,443	0.14	0.09	1.09	2,472
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.05	0.04	0.32	0.39	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	118	118	0.01	< 0.005	0.02	120
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.01	0.01	0.06	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	19.6	19.6	< 0.005	< 0.005	< 0.005	19.8

3. Construction Emissions Details

3.1. San Bruno @ 7th (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.74	6.03	7.18	0.02	0.26	—	0.26	0.24	—	0.24	—	1,947	1,947	0.08	0.02	—	1,954
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.7	26.7	< 0.005	< 0.005	—	26.8

Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.42	4.42	< 0.005	< 0.005	—	4.43
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	82.4	82.4	< 0.005	< 0.005	0.27	82.9
Vendor	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	0.00
Hauling	0.04	0.01	0.36	0.25	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	236	236	0.04	0.04	0.47	249
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.08
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.23	3.23	< 0.005	< 0.005	< 0.005	3.40
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
Vendor	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	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.56
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3.3. San Mateo @Arroyo (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.74	6.03	7.18	0.02	0.26	—	0.26	0.24	—	0.24	—	1,947	1,947	0.08	0.02	—	1,954
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.34	5.34	< 0.005	< 0.005	—	5.35
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.88	0.88	< 0.005	< 0.005	—	0.89

Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	82.4	82.4	< 0.005	< 0.005	0.27	82.9
Vendor	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	0.00
Hauling	0.03	< 0.005	0.24	0.16	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	157	157	0.02	0.03	0.31	166
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.22
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.08

3.5. San Mateo @101 (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.74	6.03	7.18	0.02	0.26	—	0.26	0.24	—	0.24	—	1,947	1,947	0.08	0.02	—	1,954
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.4
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.53	3.53	< 0.005	< 0.005	—	3.55
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	82.4	82.4	< 0.005	< 0.005	0.27	82.9
Vendor	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	0.00
Hauling	0.07	0.01	0.63	0.43	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	413	413	0.06	0.07	0.82	435
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.87
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.52	4.52	< 0.005	< 0.005	< 0.005	4.76
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.14
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.79

3.7. Belmont Creek @101 (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.74	6.03	7.18	0.02	0.26	—	0.26	0.24	—	0.24	—	1,947	1,947	0.08	0.02	—	1,954

Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.7	26.7	< 0.005	< 0.005	—	26.8
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.42	4.42	< 0.005	< 0.005	—	4.43
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	82.4	82.4	< 0.005	< 0.005	0.27	82.9
Vendor	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	0.00
Hauling	0.07	0.01	0.58	0.39	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	377	377	0.06	0.06	0.75	398

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.08
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.17	5.17	< 0.005	< 0.005	< 0.005	5.44
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.90

3.9. Belmont @Sem (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.74	6.03	7.18	0.02	0.26	—	0.26	0.24	—	0.24	—	1,947	1,947	0.08	0.02	—	1,954
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.34	5.34	< 0.005	< 0.005	—	5.35
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.88	0.88	< 0.005	< 0.005	—	0.89
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	82.4	82.4	< 0.005	< 0.005	0.27	82.9
Vendor	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	0.00
Hauling	0.01	< 0.005	0.12	0.08	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.6	78.6	0.01	0.01	0.16	82.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.22
Vendor	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	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04

3.11. Cordileras @ El Camino (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.40	3.76	0.01	0.08	—	0.08	0.07	—	0.07	—	1,382	1,382	0.06	0.01	—	1,387
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.57	7.57	< 0.005	< 0.005	—	7.60

Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.26
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.2	41.2	< 0.005	< 0.005	0.14	41.4
Vendor	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	0.00
Hauling	0.09	0.01	0.73	0.49	0.01	0.01	0.11	0.12	0.01	0.03	0.04	—	472	472	0.07	0.08	0.93	497
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.22

Vendor	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	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.59	2.59	< 0.005	< 0.005	< 0.005	2.72
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04	0.04
Vendor	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	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45	0.45

3.13. Atherton Channel (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.74	6.03	7.18	0.02	0.26	—	0.26	0.24	—	0.24	—	1,947	1,947	0.08	0.02	—	1,954
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.34	5.34	< 0.005	< 0.005	—	5.35

Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.88	0.88	< 0.005	< 0.005	—	0.89
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	82.4	82.4	< 0.005	< 0.005	0.27	82.9
Vendor	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	0.00
Hauling	0.01	< 0.005	0.12	0.08	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.6	78.6	0.01	0.01	0.16	82.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.22
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Vendor	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	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
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5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
San Bruno @ 7th	Site Preparation	6/15/2025	6/20/2025	5.00	5.00	—
San Mateo @Arroyo	Site Preparation	6/21/2025	6/23/2025	5.00	1.00	—
San Mateo @101	Site Preparation	6/24/2025	6/28/2025	5.00	4.00	—
Belmont Creek @101	Site Preparation	6/29/2025	7/4/2025	5.00	5.00	—
Belmont @Sem	Site Preparation	7/5/2025	7/7/2025	5.00	1.00	—
Cordilleras @ El Camino	Site Preparation	7/8/2025	7/9/2025	5.00	2.00	—
Atherton Channel	Site Preparation	7/10/2025	7/10/2025	5.00	1.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
San Bruno @ 7th	Excavators	Diesel	Average	1.00	8.00	322	0.38
San Bruno @ 7th	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
San Bruno @ 7th	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
San Bruno @ 7th	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
San Mateo @Arroyo	Excavators	Diesel	Average	1.00	8.00	322	0.38
San Mateo @Arroyo	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
San Mateo @Arroyo	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42

San Mateo @Arroyo	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
San Mateo @101	Excavators	Diesel	Average	1.00	8.00	322	0.38
San Mateo @101	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
San Mateo @101	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
San Mateo @101	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
Belmont Creek @101	Excavators	Diesel	Average	1.00	8.00	322	0.38
Belmont Creek @101	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Belmont Creek @101	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Belmont Creek @101	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
Belmont @Sem	Excavators	Diesel	Average	1.00	8.00	322	0.38
Belmont @Sem	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Belmont @Sem	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Belmont @Sem	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
Cordileras @ El Camino	Excavators	Diesel	Average	1.00	8.00	322	0.38
Cordileras @ El Camino	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Atherton Channel	Excavators	Diesel	Average	1.00	8.00	322	0.38
Atherton Channel	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Atherton Channel	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Atherton Channel	Pumps	Diesel	Average	1.00	24.0	11.0	0.74

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
San Bruno @ 7th	—	—	—	—

San Bruno @ 7th	Worker	10.0	11.7	LDA,LDT1,LDT2
San Bruno @ 7th	Vendor	—	8.40	HHDT,MHDT
San Bruno @ 7th	Hauling	3.00	20.0	HHDT
San Bruno @ 7th	Onsite truck	—	—	HHDT
San Mateo @Arroyo	—	—	—	—
San Mateo @Arroyo	Worker	10.0	11.7	LDA,LDT1,LDT2
San Mateo @Arroyo	Vendor	—	8.40	HHDT,MHDT
San Mateo @Arroyo	Hauling	2.00	20.0	HHDT
San Mateo @Arroyo	Onsite truck	—	—	HHDT
San Mateo @101	—	—	—	—
San Mateo @101	Worker	10.0	11.7	LDA,LDT1,LDT2
San Mateo @101	Vendor	—	8.40	HHDT,MHDT
San Mateo @101	Hauling	5.25	20.0	HHDT
San Mateo @101	Onsite truck	—	—	HHDT
Belmont Creek @101	—	—	—	—
Belmont Creek @101	Worker	10.0	11.7	LDA,LDT1,LDT2
Belmont Creek @101	Vendor	—	8.40	HHDT,MHDT
Belmont Creek @101	Hauling	4.80	20.0	HHDT
Belmont Creek @101	Onsite truck	—	—	HHDT
Belmont @Sem	—	—	—	—
Belmont @Sem	Worker	10.0	11.7	LDA,LDT1,LDT2
Belmont @Sem	Vendor	—	8.40	HHDT,MHDT
Belmont @Sem	Hauling	1.00	20.0	HHDT
Belmont @Sem	Onsite truck	—	—	HHDT
Cordileras @ El Camino	—	—	—	—
Cordileras @ El Camino	Worker	5.00	11.7	LDA,LDT1,LDT2
Cordileras @ El Camino	Vendor	—	8.40	HHDT,MHDT

Cordileras @ El Camino	Hauling	6.00	20.0	HHDT
Cordileras @ El Camino	Onsite truck	—	—	HHDT
Atherton Channel	—	—	—	—
Atherton Channel	Worker	10.0	11.7	LDA,LDT1,LDT2
Atherton Channel	Vendor	—	8.40	HHDT,MHDT
Atherton Channel	Hauling	1.00	20.0	HHDT
Atherton Channel	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Cordileras @ El Camino	0.00	0.00	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
San Bruno @ 7th	—	120	0.00	0.00	—
San Mateo @Arroyo	—	10.0	0.00	0.00	—
San Mateo @101	0.00	162	0.00	0.00	—
Belmont Creek @101	—	190	0.00	0.00	—
Belmont @Sem	—	7.00	0.00	0.00	—
Cordileras @ El Camino	—	90.0	0.00	0.00	—

Atherton Channel	—	4.00	0.00	0.00	—
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5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Land Use	Only need construction equipment as working in water channels
Construction: Construction Phases	This simulates if all reaches need maintenance in the same year.
Construction: Off-Road Equipment	Site specific list of equipment for maintenance activities

Maintenance Fuel Consumption	Gasoline	Diesel
Maintenance On-Road Vehicles	79	479
Maintenance Off-Road Equipment		2,196
Total For Maintenance	79	2,674

	Phase	Vehicle Type	Construction Phase Days	Trips Per Day	Total Trips	Miles Per Trip	Total Miles	Fuel Type	Gasoline		Diesel	
									Weighted Fuel Economy (miles/gallon)	Fuel Consumption (gallons)	Weighted Fuel Economy (miles/gallon)	Fuel Consumption (gallons)
On-Road	San Bruno at 7th	Worker	5	10	50	11.7	585	LDA,LDT1, LDT2	26.70118167	21.86	34.81870119	0.04
		Vendor	0	0	0	20	-	HHDT, MHDT			7.364676622	-
		Hauling			44	20	880	HHDT			6.018149872	146
	San Mateo Creek at Arro	Worker	2	20	40	11.7	468	LDA,LDT1, LDT2	26.70118167	17.49	34.81870119	0.03
		Vendor	0	0	0	20	-	HHDT, MHDT			7.364676622	-
		Hauling			4	20	80	HHDT			6.018149872	13
	San Mateo Creek at 10	Worker	4	10	40	11.7	468	LDA,LDT1, LDT2	26.70118167	17.49	34.81870119	0.03
		Vendor	0	0	0	20	-	HHDT, MHDT			7.364676622	-
		Hauling			44	20	880	HHDT			6.018149872	146
	Belmont Creek at 101	Worker	5	10	50	11.7	585	LDA,LDT1, LDT2	26.70118167	21.86	34.81870119	0.04
		Vendor	0	0	0	20	-	HHDT, MHDT			7.364676622	-
		Hauling			52	20	1,040	HHDT			6.018149872	173
	Imont Creek at Sem La	Worker	1	10	10	11.7	117	LDA,LDT1, LDT2	26.70118167	4.37	34.81870119	0.01
		Vendor	0	0	0	20	-	HHDT, MHDT			7.364676622	-
		Hauling			2	20	40	HHDT			6.018149872	7
	eras Creek at El Camin	Worker	2	5	10	11.7	117	LDA,LDT1, LDT2	26.70118167	4.37	34.81870119	0.01
		Vendor	0	0	0	20	-	HHDT, MHDT			7.364676622	-
		Hauling			19	20	380	HHDT			6.018149872	63
Atherton Channel	Worker	2	20	40	11.7	468	LDA,LDT1, LDT2	26.70118167	17.49	34.81870119	0.03	
	Vendor	0	0	0	20	-	HHDT, MHDT			7.364676622	-	
	Hauling			1	20	20	HHDT			6.018149872	3	
Total Fuel Consumption (Gallons)									78.69			478.69

Notes:

1. Fuel Consumption is total miles multiplied by the percent gasoline or diesel respectively and then divided by fuel economy. It was assumed all MHDT and HHDT are diesel. LDA, LDT1, and LDT2 were assumed to be a mix of gasoline and diesel as ratioed by their VMT.

	LDA,LDT1,LDT2	MHDT	HHDT
Gasoline %	99.77%	0	0
Diesel %	0.23%	1	1

Phase name	Offroad Equipment Type	Amount	Days in Phase	Usage Hours	Horse Power	Load Factor	Fuel Consumption Rate lb/hp-hr	Diesel Fuel Consumption (gallons)
San Bruno at 7th	Excavators	1	5	8	322	0.38	0.367	253
San Bruno at 7th	Skid Steer Loaders	1	5	8	71	0.37	0.408	60
San Bruno at 7th	Other Construction Equipmer	1	5	8	82	0.42	0.408	79
San Bruno at 7th	Pumps	1	5	24	11	0.74	0.408	56
San Mateo Creek at A	Excavators	1	2	8	322	0.38	0.367	101
San Mateo Creek at A	Skid Steer Loaders	1	2	8	71	0.37	0.408	24
San Mateo Creek at A	Other Construction Equipmer	1	2	8	82	0.42	0.408	32
San Mateo Creek at A	Pumps	1	2	24	11	0.74	0.408	22
San Mateo Creek at A	Other Material Handling Equip	1	2	8	93	0.4	0.408	34
San Mateo Creek at A	Concrete/Industrial Saws	1	2	8	33	0.73	0.408	22
San Mateo Creek at A	Off-Highway Trucks	1	2	8	376	0.38	0.367	118
San Mateo Creek at A	Generator Sets	1	2	8	14	0.74	0.408	10
San Mateo Creek at 1	Excavators	1	4	8	322	0.38	0.367	202
San Mateo Creek at 1	Skid Steer Loaders	1	4	8	71	0.37	0.408	48
San Mateo Creek at 1	Other Construction Equipmer	1	4	8	82	0.42	0.408	63
San Mateo Creek at 1	Pumps	1	4	24	11	0.74	0.408	45
Belmont Creek at 101	Excavators	1	5	8	322	0.38	0.367	253
Belmont Creek at 101	Skid Steer Loaders	1	5	8	71	0.37	0.408	60
Belmont Creek at 101	Other Construction Equipmer	1	5	8	82	0.42	0.408	79
Belmont Creek at 101	Pumps	1	5	24	11	0.74	0.408	56
Belmont Creek at Sen	Excavators	1	1	8	322	0.38	0.367	51
Belmont Creek at Sen	Skid Steer Loaders	1	1	8	71	0.37	0.408	12
Belmont Creek at Sen	Other Construction Equipmer	1	1	8	82	0.42	0.408	16
Belmont Creek at Sen	Pumps	1	1	24	11	0.74	0.408	11
Cordileras Creek at El	Excavators	1	2	8	322	0.38	0.367	101
Cordileras Creek at El	Skid Steer Loaders	1	2	8	71	0.37	0.408	24
Atherton Channel	Excavators	1	2	8	322	0.38	0.367	101
Atherton Channel	Skid Steer Loaders	1	2	8	71	0.37	0.408	24
Atherton Channel	Other Construction Equipmer	1	2	8	82	0.42	0.408	32
Atherton Channel	Pumps	1	2	24	11	0.74	0.408	22
Atherton Channel	Other Material Handling Equip	1	2	8	93	0.4	0.408	34
Atherton Channel	Concrete/Industrial Saws	1	2	8	33	0.73	0.408	22
Atherton Channel	Off-Highway Trucks	1	2	8	376	0.38	0.367	118
Atherton Channel	Generator Sets	1	2	8	14	0.74	0.408	10
Total Diesel Fuel Use from Construction Off-Road								2,196

1. Equipment list is from CalEEMod.
2. Fuel Consumption is 0.408 for less than 100 hp and .367 if greater than or equal to 100 hp based on CARB Off-Road Diesel Engine Emission Factors
3. To convert to gallons the conversion factor of 7.1089 lb/fallon is used
4. Fuel consumption is amount multiplied by usage hours, days in phase, horsepower, loadfactor, and fuel consumption rate divided by conversion factor.

		LDA	Weighting				LDA	Fuel Economy				Weighted Fuel Economy Miles per Gallon
			LDT1	LDT2	MHDT	HHDT		LDT1	LDT2	MHDT	HHDT	
Worker	LDA, LDT1,LDT2	0.5	0.25	0.25	0	0	29.33817	24.30993	23.81847			26.70118167
Vendor	HHDT,MHDT	0	0	0	0.5	0.5						0
Gasoline	Hauling	0	0	0	0	1						0
Worker	LDA, LDT1,LDT2	0.5	0.25	0.25	0	0	41.79647	23.7491	31.93276	8.711203	6.01815	34.81870119
Vendor	HHDT,MHDT	0	0	0	0.5	0.5				8.711203	6.01815	7.364676622
Diesel	Hauling	0	0	0	0	1				8.711203	6.01815	6.018149872

Notes:

1. It was assumed all MHDT and HHDT are diesel. LDA, LDT1, and LDT2 were assumed to be a mix of gasoline and diesel as ratioed by their VMT.
2. EMFAC 2014 was used to estimate fuel economy based on VMT and fuel consumption.

Appendix C
**List of Special-Status Species Known to Occur in the
Project Area**

IPaC Information for Planning and Consultation U.S. Fish & Wildlife Service

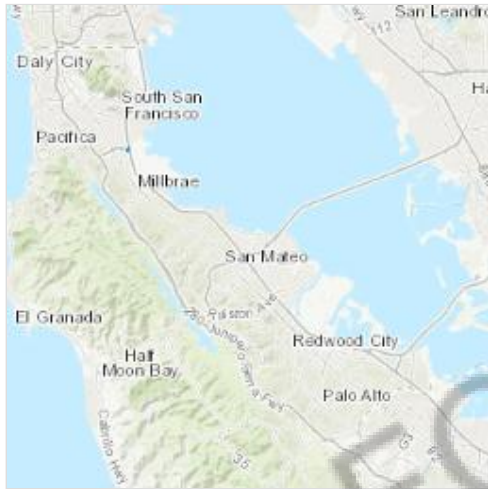
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.


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

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

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 from either the Regulatory Review section in IPaC (see directions below) 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 doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

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. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern <i>Sterna antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Marbled Murrelet <i>Brachyramphus marmoratus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4467	Threatened

Western Snowy Plover *Charadrius nivosus nivosus*

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/8035>

Yellow-billed Cuckoo *Coccyzus americanus*

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/3911>

Reptiles

NAME

STATUS

Green Sea Turtle *Chelonia mydas*

Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6199>

San Francisco Garter Snake *Thamnophis sirtalis tetrataenia*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5956>

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

California Tiger Salamander *Ambystoma californiense*

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/2076>

Foothill Yellow-legged Frog *Rana boylii*

Proposed Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5133>

Fishes

NAME	STATUS
<p>Tidewater Goby <i>Eucyclogobius newberryi</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>https://ecos.fws.gov/ecp/species/57</p>	Endangered

Insects

NAME	STATUS
<p>Monarch Butterfly <i>Danaus plexippus</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species.</p> <p>https://ecos.fws.gov/ecp/species/9743</p>	Candidate

Flowering Plants

NAME	STATUS
<p>California Seablite <i>Suaeda californica</i></p> <p>No critical habitat has been designated for this species.</p> <p>https://ecos.fws.gov/ecp/species/6310</p>	Endangered
<p>Fountain Thistle <i>Cirsium fontinale</i> var. <i>fontinale</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species.</p> <p>https://ecos.fws.gov/ecp/species/7939</p>	Endangered

Franciscan Manzanita <i>Arctostaphylos franciscana</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5350	Endangered
Marin Dwarf-flax <i>Hesperolinon congestum</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5363	Threatened
Presidio Manzanita <i>Arctostaphylos hookeri</i> var. <i>ravenii</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7216	Endangered
Robust Spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9287	Endangered
San Francisco Lessingia <i>Lessingia germanorum</i> (=L.g. var. <i>germanorum</i>) Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8174	Endangered
San Mateo Thornmint <i>Acanthomintha obovata</i> ssp. <i>duttonii</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2038	Endangered
San Mateo Woolly Sunflower <i>Eriophyllum latilobum</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7791	Endangered

Showy Indian Clover *Trifolium amoenum*

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6459>

Endangered

White-rayed Pentachaeta *Pentachaeta bellidiflora*

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7782>

Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>

- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

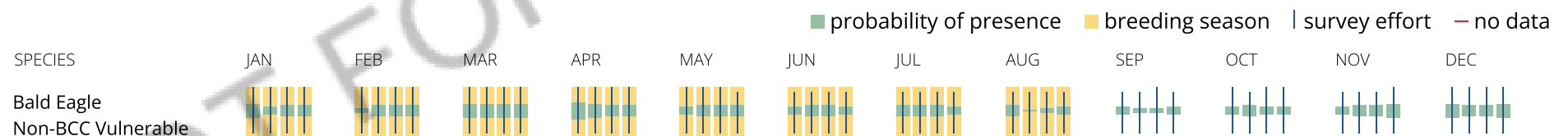
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Golden Eagle
Non-BCC Vulnerable



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>Allen's Hummingbird <i>Selasphorus sasin</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637</p>	Breeds Feb 1 to Jul 15
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Jan 1 to Aug 31

Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Black Oystercatcher <i>Haematopus bachmani</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9591	Breeds Apr 15 to Oct 31
Black Skimmer <i>Rynchops niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Black Turnstone <i>Arenaria melanocephala</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bullock's Oriole <i>Icterus bullockii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25

California Gull *Larus californicus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Mar 1 to Jul 31

California Thrasher *Toxostoma redivivum*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Jul 31

Cassin's Finch *Carpodacus cassinii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Breeds May 15 to Jul 15

Clark's Grebe *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jun 1 to Aug 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Golden Eagle *Aquila chrysaetos*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Breeds Jan 1 to Aug 31

Lawrence's Goldfinch *Carduelis lawrencei*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Breeds Mar 20 to Sep 20

Long-eared Owl *asio otus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3631>

Breeds Mar 1 to Jul 15

Marbled Godwit *Limosa fedoa*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Breeds elsewhere

Nuttall's Woodpecker *Picoides nuttallii*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Breeds Apr 1 to Jul 20

Oak Titmouse *Baeolophus inornatus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Breeds Mar 15 to Jul 15

Olive-sided Flycatcher *Contopus cooperi*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Breeds May 20 to Aug 31

Short-billed Dowitcher *Limnodromus griseus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Breeds elsewhere

Tricolored Blackbird *Agelaius tricolor*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Breeds Mar 15 to Aug 10

Western Grebe *aechmophorus occidentalis*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Breeds Jun 1 to Aug 31

Willet *Tringa semipalmata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Wrentit *Chamaea fasciata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Mar 15 to Aug 10

Yellow-billed Magpie *Pica nuttalli*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Breeds Apr 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and

the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

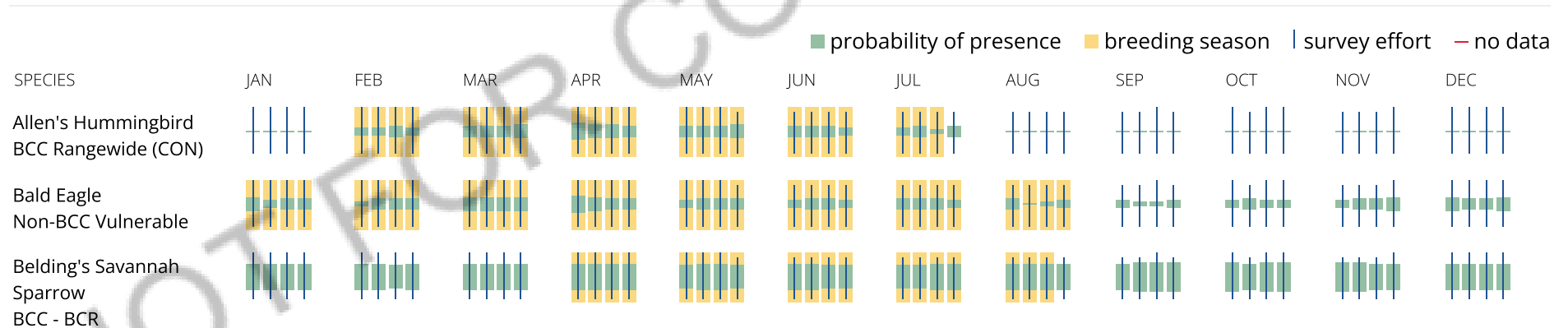
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

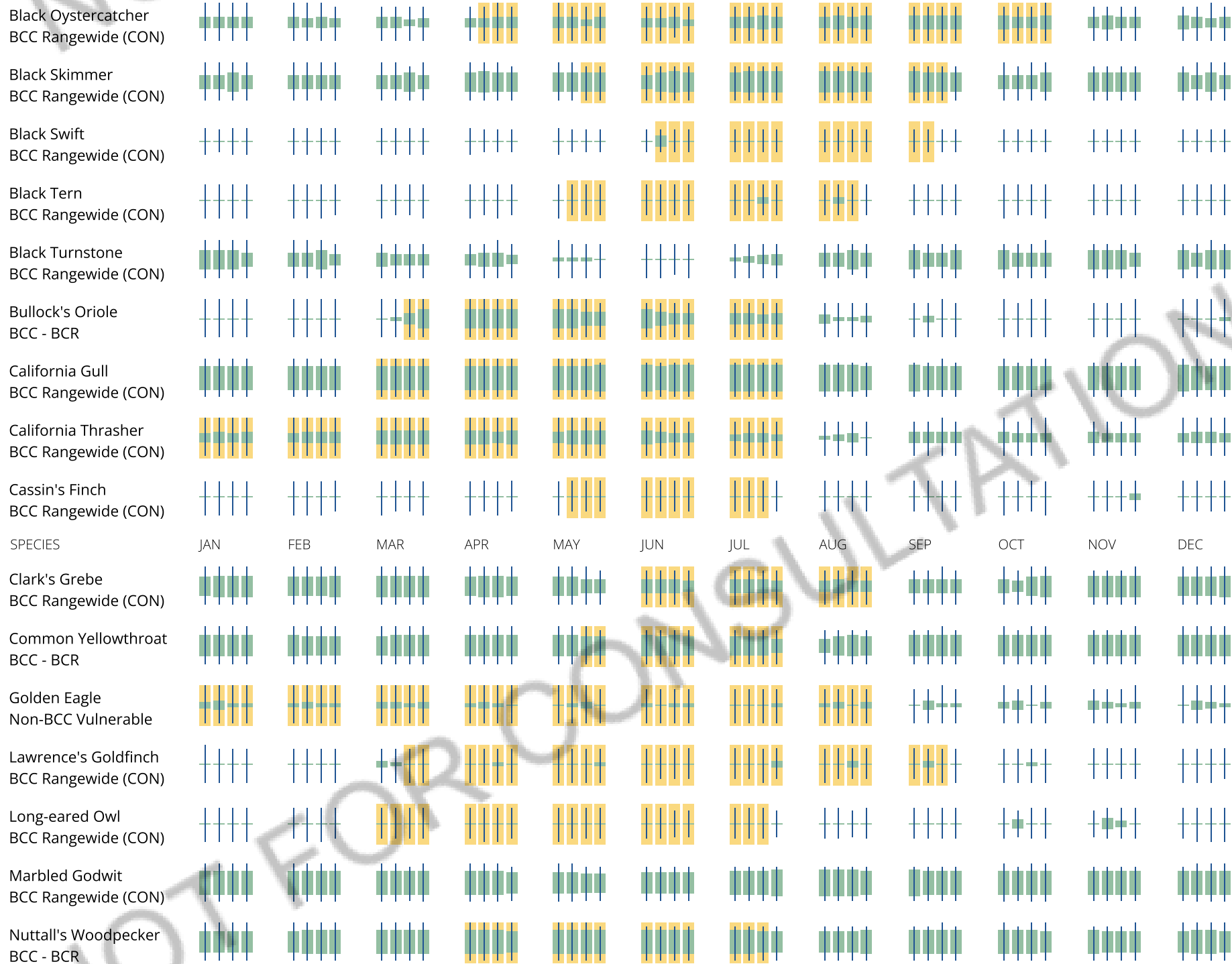
No Data (-)

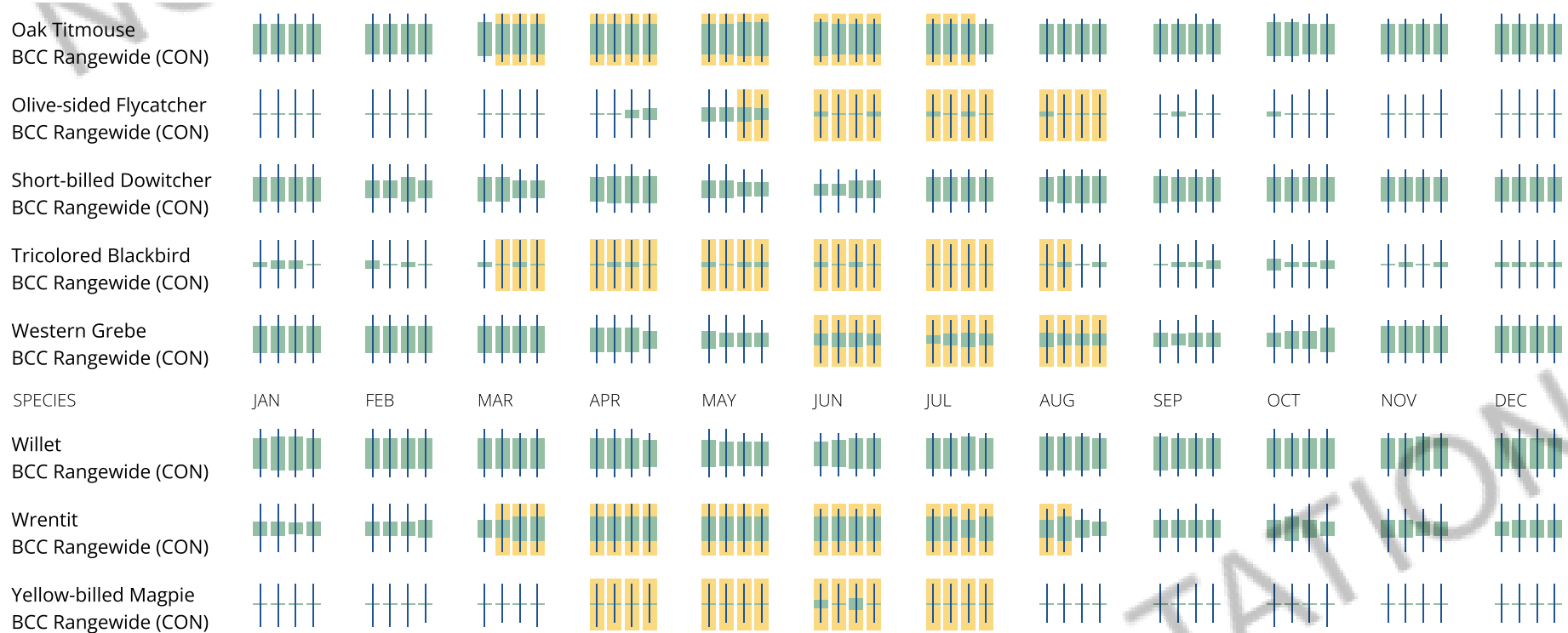
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

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.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

ESTUARINE AND MARINE WETLAND

[E2EM1N](#)

[E2SBNx](#)

RIVERINE

[R3UBF](#)

[R4SBAx](#)

[R2UBHx](#)

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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.



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (San Mateo (3712253) OR Palo Alto (3712242) OR Hayward (3712261))

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>Accipiter striatus</i> sharp-shinned hawk	ABNKC12020	None	None	G5	S4	WL
<i>Acipenser medirostris pop. 1</i> green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
<i>Allium peninsulare var. franciscanum</i> Franciscan onion	PMLIL021R1	None	None	G4G5T2	S2	1B.2
<i>Ambystoma californiense pop. 1</i> California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
<i>Aneides niger</i> Santa Cruz black salamander	AAAAD01070	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Astragalus pycnostachyus var. pycnostachyus</i> coastal marsh milk-vetch	PDFAB0F7B2	None	None	G2T2	S2	1B.2
<i>Astragalus tener var. tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S2	SSC
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
<i>Calicina minor</i> Edgewood blind harvestman	ILARA13020	None	None	G1	S1	
<i>Centromadia parryi ssp. 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>Charadrius nivosus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
<i>Chloropyron maritimum ssp. palustre</i> Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
<i>Cirsium fontinale var. fontinale</i> fountain thistle	PDAST2E161	Endangered	Endangered	G2T1	S1	1B.1
<i>Cirsium praeteriens</i> lost thistle	PDAST2E2B0	None	None	GX	SX	1A
<i>Collinsia corymbosa</i> round-headed collinsia	PDSCR0H060	None	None	G1	S1	1B.2
<i>Collinsia multicolor</i> San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S2	SSC
<i>Danaus plexippus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	Candidate	None	G4T1T2Q	S2	
<i>Dicamptodon ensatus</i> California giant salamander	AAAAH01020	None	None	G2G3	S2S3	SSC
<i>Dipodomys venustus venustus</i> Santa Cruz kangaroo rat	AMAFD03042	None	None	G4T1	S1	
<i>Dirca occidentalis</i> western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
<i>Emys marmorata</i> western pond turtle	ARAAD02030	Proposed Threatened	None	G3G4	S3	SSC
<i>Eriophyllum latilobum</i> San Mateo woolly sunflower	PDAST3N060	Endangered	Endangered	G1	S1	1B.1
<i>Eryngium aristulatum var. hooveri</i> Hoover's button-celery	PDAPI0Z043	None	None	G5T1	S1	1B.1
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	PDAPI0Z130	None	None	G2	S2	1B.2
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S3	
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
<i>Fritillaria biflora var. ineziana</i> Hillsborough chocolate lily	PMLIL0V0M1	None	None	G3G4T1	S1	1B.1
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2



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>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<i>Helianthella castanea</i> Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
<i>Hesperevax sparsiflora var. brevifolia</i> short-leaved evax	PDASTE5011	None	None	G4T3	S3	1B.2
<i>Hesperolinon congestum</i> Marin western flax	PDLIN01060	Threatened	Threatened	G1	S1	1B.1
<i>Hoita strobilina</i> Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
<i>Holocarpha macradenia</i> Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Ischnura gemina</i> San Francisco forktail damselfly	IIODO72010	None	None	G2	S2	
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
<i>Lessingia arachnoidea</i> Crystal Springs lessingia	PDAST5S0C0	None	None	G2	S2	1B.2
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Malacothamnus arcuatus</i> arcuate bush-mallow	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S	None	None	G5T2T3	S2	SSC
<i>Microcina lumi</i> Lum's micro-blind harvestman	ILARA47050	None	None	G1	S1	
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Nannopterum auritum</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	



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>Pentachaeta bellidiflora</i> white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
<i>Plagiobothrys chorisianus var. chorisianus</i> Choris' popcornflower	PDBOR0V061	None	None	G3T1Q	S1	1B.2
<i>Plagiobothrys glaber</i> hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
<i>Pomatiopsis californica</i> Pacific walker	IMGASJ9020	None	None	G1	S1	
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S2	FP
<i>Rana boylei pop. 4</i> foothill yellow-legged frog - central coast DPS	AAABH01054	Threatened	Endangered	G3T2	S2	
<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	S3	FP
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
<i>Serpentine Bunchgrass</i> Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
<i>Setophaga petechia</i> yellow warbler	ABPBX03010	None	None	G5	S3	SSC
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
<i>Speyeria zerene myrtleae</i> Myrtle's silverspot butterfly	IILEPJ608C	Endangered	None	G5T1	S1	
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
<i>Sternula antillarum browni</i> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
<i>Streptanthus albidus ssp. peramoenus</i> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<i>Stuckenia filiformis ssp. alpina</i> northern slender pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
<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>Trifolium amoenum</i> two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1



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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Triphysaria floribunda</i> San Francisco owl's-clover	PDSCR2T010	None	None	G2?	S2?	1B.2
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Valley Oak Woodland Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	

Record Count: 86






CNPS Rare Plant Inventory








Search Results



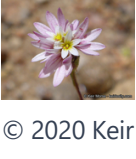


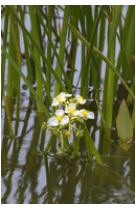
47 matches found. Click on scientific name for details



Search Criteria: County or Island is one of [SMT], Quad is one of [3712253:3712242]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
<i>Acanthomintha duttonii</i>	San Mateo thorn-mint	Lamiaceae	annual herb	Apr-Jun	FE	CE	G1	S1	1B.1	Yes	1974-01-01	 © 2011 Aaron Schusteff
<i>Allium peninsulare</i> var. <i>franciscanum</i>	Franciscan onion	Alliaceae	perennial bulbiferous herb	(Apr)May-Jun	None	None	G4G5T2	S2	1B.2	Yes	2001-01-01	 © 2019 Aaron Arthur
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	 © 2011 Neal Kramer
<i>Androsace elongata</i> ssp. <i>acuta</i>	California androsace	Primulaceae	annual herb	Mar-Jun	None	None	G5? T3T4	S3S4	4.2		1994-01-01	 © 2008 Aaron Schusteff
<i>Arctostaphylos regismontana</i>	Kings Mountain manzanita	Ericaceae	perennial evergreen shrub	Dec-Apr	None	None	G2	S2	1B.2	Yes	1994-01-01	No Photo Available
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	Fabaceae	perennial herb	(Apr)Jun-Oct	None	None	G2T2	S2	1B.2	Yes	2001-01-01	 ©2009 Neal Kramer
<i>Calandrinia breweri</i>	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2		1994-01-01	No Photo Available
<i>Calochortus umbellatus</i>	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G3?	S3?	4.2	Yes	1980-01-01	No Photo Available

<u><i>Calochortus uniflorus</i></u>	pink star-tulip	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G4	S4	4.2		2010-03-04	 © 2021 Scot Loring
<u><i>Castilleja ambigua</i> var. <i>ambigua</i></u>	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	None	None	G4T4	S3S4	4.2		2009-02-04	 ©2011 Dylan Neubauer
<u><i>Centromadia parryi</i> ssp. <i>congdonii</i></u>	Congdon's tarplant	Asteraceae	annual herb	May-Oct(Nov)	None	None	G3T2	S2	1B.1	Yes	1994-01-01	No Photo Available
<u><i>Chloropyron maritimum</i> ssp. <i>palustre</i></u>	Point Reyes salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	None	None	G4?T2	S2	1B.2		1974-01-01	 ©2017 John Doyen
<u><i>Cirsium fontinale</i> var. <i>fontinale</i></u>	fountain thistle	Asteraceae	perennial herb	(Apr)May-Oct	FE	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
<u><i>Cirsium praeteriens</i></u>	lost thistle	Asteraceae	perennial herb	Jun-Jul	None	None	GX	SX	1A	Yes	2001-01-01	No Photo Available
<u><i>Collinsia corymbosa</i></u>	round-headed collinsia	Plantaginaceae	annual herb	Apr-Jun	None	None	G1	S1	1B.2	Yes	1994-01-01	 ©2007 Steve Matson
<u><i>Collinsia multicolor</i></u>	San Francisco collinsia	Plantaginaceae	annual herb	(Feb)Mar-May	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
<u><i>Dirca occidentalis</i></u>	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar(Apr)	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2017 Steve Matson
<u><i>Elymus californicus</i></u>	California bottle-brush grass	Poaceae	perennial herb	May-Aug(Nov)	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
<u><i>Eriophyllum latilobum</i></u>	San Mateo woolly sunflower	Asteraceae	perennial herb	May-Jun	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
<u><i>Eryngium aristulatum</i> var. <i>hooveri</i></u>	Hoover's button-celery	Apiaceae	annual/perennial herb	(Jun)Jul(Aug)	None	None	G5T1	S1	1B.1	Yes	1984-01-01	No Photo Available
<u><i>Eryngium jepsonii</i></u>	Jepson's coyote-thistle	Apiaceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	2016-09-13	No Photo Available

<u><i>Erysimum franciscanum</i></u>	San Francisco wallflower	Brassicaceae	perennial herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
<u><i>Fritillaria biflora</i> var. <i>ineziana</i></u>	Hillsborough chocolate lily	Liliaceae	perennial bulbiferous herb	Mar-Apr	None	None	G3G4T1	S1	1B.1	Yes	1994-01-01	 © 2012 Toni Corelli
<u><i>Fritillaria liliacea</i></u>	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2004 Carol W. Witham
<u><i>Hesper-evax sparsiflora</i> var. <i>brevifolia</i></u>	short-leaved evax	Asteraceae	annual herb	Mar-Jun	None	None	G4T3	S3	1B.2		1994-01-01	 © 2006 Doreen L. Smith
<u><i>Hesperolinon congestum</i></u>	Marin western flax	Linaceae	annual herb	Apr-Jul	FT	CT	G1	S1	1B.1	Yes	1974-01-01	 © 2009 Neal Kramer
<u><i>Hosackia gracilis</i></u>	harlequin lotus	Fabaceae	perennial rhizomatous herb	Mar-Jul	None	None	G3G4	S3	4.2		2004-01-01	 © 2015 John Doyen
<u><i>Iris longipetala</i></u>	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May(Jun)	None	None	G3	S3	4.2	Yes	2006-10-12	 © 2014 Aaron Schusteff
<u><i>Leptosiphon ambiguus</i></u>	serpentine leptosiphon	Polemoniaceae	annual herb	Mar-Jun	None	None	G4	S4	4.2	Yes	1994-01-01	 © 2010 Aaron Schusteff
<u><i>Leptosiphon aureus</i></u>	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G4?	S4?	4.2	Yes	1994-01-01	 © 2007 Len Blumin
<u><i>Leptosiphon latisectus</i></u>	broad-lobed leptosiphon	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	2001-01-01	 © 2015 Steve Matson

<u><i>Lessingia arachnoidea</i></u>	Crystal Springs lessingia	Asteraceae	annual herb	Jul-Oct	None	None	G2	S2	1B.2	Yes	1994-01-01	 © 2008 Neal Kramer
<u><i>Lessingia hololeuca</i></u>	woolly-headed lessingia	Asteraceae	annual herb	Jun-Oct	None	None	G2G3	S2S3	3	Yes	1994-01-01	 © 2015 Aaron Schusteff
<u><i>Lessingia tenuis</i></u>	spring lessingia	Asteraceae	annual herb	May-Jul	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2020 Keir Morse
<u><i>Malacothamnus arcuatus</i></u>	arcuate bush-mallow	Malvaceae	perennial deciduous shrub	Apr-Sep	None	None	G2Q	S2	1B.2	Yes	1974-01-01	 © 2017 Keir Morse
<u><i>Monolopia gracilens</i></u>	woodland woollythreads	Asteraceae	annual herb	(Feb)Mar-Jul	None	None	G3	S3	1B.2	Yes	2010-04-06	 © 2016 Richard Spellenberg
<u><i>Pentachaeta bellidiflora</i></u>	white-rayed pentachaeta	Asteraceae	annual herb	Mar-May	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
<u><i>Piperia michaelii</i></u>	Michael's rein orchid	Orchidaceae	perennial herb	Apr-Aug	None	None	G3	S3	4.2	Yes	1984-01-01	No Photo Available
<u><i>Plagiobothrys chorisianus</i></u> var. <i>chorisianus</i>	Choris' popcornflower	Boraginaceae	annual herb	Mar-Jun	None	None	G3T1Q	S1	1B.2	Yes	1984-01-01	No Photo Available
<u><i>Plagiobothrys chorisianus</i></u> var. <i>hickmanii</i>	Hickman's popcornflower	Boraginaceae	annual herb	Apr-Jun	None	None	G3T3Q	S3	4.2	Yes	2001-01-01	No Photo Available
<u><i>Ranunculus lobbii</i></u>	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	None	None	G4	S3	4.2		1974-01-01	No Photo Available
<u><i>Sagittaria sanfordii</i></u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May- Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
<u><i>Senecio aphanactis</i></u>	chaparral ragwort	Asteraceae	annual herb	Jan- Apr(May)	None	None	G3	S2	2B.2		1994-01-01	No Photo Available

<i>Stuckenia filiformis ssp. alpina</i>	northern slender pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	None	None	G5T5	S2S3	2B.2		1994- 01-01	 Dana York (2016)
<i>Trifolium amoenum</i>	two-fork clover	Fabaceae	annual herb	Apr-Jun	FE	None	G1	S1	1B.1	Yes	1974- 01-01	No Photo Available
<i>Trifolium hydrophilum</i>	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001- 01-01	 © 2005 Dean Wm Taylor
<i>Triphysaria floribunda</i>	San Francisco owl's-clover	Orobanchaceae	annual herb	Apr-Jun	None	None	G2?	S2?	1B.2	Yes	1974- 01-01	No Photo Available

Showing 1 to 47 of 47 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 1 December 2023].

Appendix D

Mitigation Monitoring and Reporting Program

Appendix D. Mitigation Monitoring and Reporting Program

Introduction

This Mitigation and Monitoring and Reporting Program (MMRP) has been prepared for the Initial Study/Mitigated Negative Declaration for the Routine Maintenance on Bayside Creeks Project. All IS/MND sections and impacts which include mitigation measures are listed below, along with specific implementation procedures to ensure compliance. The MMRP describes monitoring actions, monitoring responsibilities, and monitoring schedules for each implementation procedure.

Mitigation Measure		Monitoring and Reporting Action	Monitoring Responsibility	Duration/Schedule
	<p>the likelihood of stranding aquatic life up- and downstream of the Project site. Flows shall be maintained downstream of the diversion.</p> <ul style="list-style-type: none"> If pumps are used as part of the dewatering process, all pump intakes will be fitted with ¼ inch mesh screens to prevent aquatic species injury, mortality, or impingement. 			
BIO-4	<p><i>Special-status Bat Survey</i></p> <p>To minimize impacts on bat maternity colonies during the maternity season (March 15 – July 31) or non-reproductive roosting bats during the non-maternity season (August 1 – March 14), a qualified biologist will conduct a pre-construction survey for roosting bats prior to the onset of ground-disturbing or tree removal activities. The biologist will inspect for evidence of bat use within suitable habitat, such as guano, urine staining, or oil staining. If evidence of use is observed, or if high-quality roost sites are present in areas where evidence of bat use might not be detectable (such as a tree cavity), an evening emergence survey and/or a nocturnal acoustic survey may be necessary to determine if a bat colony is present and to identify the specific location of the bat colony.</p> <ul style="list-style-type: none"> If no active maternity colony or non-breeding bat roost is located, Project work can continue as planned. If an active maternity colony or non-breeding roost is located, the Project work will be modified to avoid disturbance of the roosts, if feasible. If an active maternity colony is located and Project work cannot be modified to avoid removal or disturbance of the colony location, disturbance will be scheduled to take place outside the maternity roost season (March 15– July 31), and a non-disturbance buffer zone (determined by a qualified biologist) will be implemented during the maternity roost season. If an active non-breeding bat roost is located and Project work cannot be modified to avoid removal of the occupied tree, the tree will be removed using a two-day phased method as follows: Day 1, under supervision of a qualified biologist, tree limbs not containing suitable bat roosting habitat will be removed; then, Day 2, the rest of the tree can be removed. 	Survey results memorandum	OneShoreline or Consulting Biologist	Prior to and during construction
BIO-5	<p><i>Special-Status Mammals at Belmont Creek</i></p> <ul style="list-style-type: none"> A biologist will be onsite to monitor ground disturbance activities and/or vegetation removal within salt marsh habitat in the maintenance work area at Belmont Creek at Sem Lane and downstream of Highway 101 for special- 	Survey results memorandum	OneShoreline or Consulting Biologist	Prior to and during construction

Mitigation Measure	Monitoring and Reporting Action	Monitoring Responsibility	Duration/Schedule
<p>status salt marsh mammal species. Ground disturbance to special-status salt marsh mammal species habitat (including, but not limited to, pickleweed and emergent salt marsh vegetation, including bulrush and cattails) will be avoided to the extent feasible. Where special-status salt marsh mammal species cannot be avoided.</p> <ul style="list-style-type: none"> ▪ All vegetation within potential habitat for the special-status salt marsh habitat mammal species within the Project site and within a 2-foot buffer around the Project work area shall be removed by hand using only nonmechanized hand tools (i.e., trowel, hoe, rake, and shovel) prior to the initiation of work within these areas. Pickleweed stands will be removed by hand or weedwhacker. Vegetation height will be maintained at or below 5 inches above ground. Vegetation shall be removed under the supervision of biologist. Vegetation removal may begin when no mice are observed and shall start at the edge farthest from the salt marsh or the poorest habitat and work its way towards better salt marsh habitat, and from center of project outward. ▪ Silt fences would be erected adjacent to construction areas to define and isolate potential special-status species in marsh habitat. ▪ Prior to the initiation of work each day, the biologist shall thoroughly inspect the work area and adjacent habitat areas to determine if special-status salt marsh mammal species are present. Any necessary repairs to the fencing shall be completed within 24 hours of the initial observance of the damage. Work shall not continue within 300 feet of the damaged exclusion fencing until the fences are repaired and the site is surveyed by a biologist to ensure that special-status salt marsh species has not entered the work area. In the event special-status salt marsh mammal species have entered the work area, the animal would be given space to leave the work area on its own volition and the biologist would contact CDFW and USFWS for guidance. ▪ No work will occur within 50 feet of suitable tidal marsh habitat within two hours before and after an extreme high tide event (6.5 feet or higher measured at the Golden Gate Bridge and adjusted to the timing of local high tides) unless special-status salt marsh mammal species- proof exclusion fencing has been installed around the work area. 			

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	<ul style="list-style-type: none"> Anyone accessing salt marsh habitat will walk carefully through the marsh, avoiding high pickleweed cover and wrack where special-status mammals are likely to nest or find cover. 			
Cultural Resources				
CR-1	<p><i>NRHP/CRHR and Implement Appropriate Mitigation Measures for Eligible Resources.</i></p> <p>OneShoreline will include this measure in construction plans and specifications. If any cultural resources, such as structural features, unusual amounts of bone or shell, flaked or ground stone artifacts, historic-era artifacts, human remains, or architectural remains, are encountered during any project construction activities, work shall be suspended immediately at the location of the find and within a radius of at least 50 feet and the OneShoreline will be contacted.</p> <p>All cultural resources accidentally uncovered during construction within the Project site and restoration area will be evaluated for eligibility for inclusion in the NRHP/CRHR. Resource evaluations will be conducted by individuals who meet the U.S. Secretary of the Interior’s professional standards in archaeology, history, or architectural history, as appropriate. If any of the resources meet the eligibility criteria identified in Pub. Res. Code Section 5024.1 or Pub. Res. Code Section 21083.2(g), mitigation measures will be developed and implemented in accordance with CEQA Guidelines Section 15126.4(b) before construction resumes.</p> <p>For resources eligible for listing in the NRHP/CRHR that would be rendered ineligible by the effects of project construction, additional mitigation measures will be implemented. Mitigation measures for archaeological resources may include (but are not limited to) avoidance; incorporation of sites within parks, greenspace, or other open space; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Mitigation measures for archaeological resources will be developed in consultation with responsible agencies and, as appropriate, interested parties such as Native American tribes. Native American consultation is required if an archaeological site is determined to be a TCR. Implementation of the approved mitigation will be required before resuming any construction activities with potential to affect identified eligible resources at the site.</p>	<p>Confirm that measure is included in plans and specifications.</p> <p>Memorandum documenting discovery and action(s), if needed</p>	<p>OneShoreline or Consulting Archeologist</p>	<p>During construction</p>
CR-2	<p><i>Immediately Halt Construction if Human Remains Are Discovered and Implement Applicable Provisions of the California Health and Safety Code.</i></p> <p>OneShoreline will include this measure in construction plans and specifications. If human remains are accidentally discovered during project construction activities, the</p>	<p>Confirm that measure is included in plans and specifications.</p>	<p>OneShoreline or Consulting Archeologist</p>	<p>During construction</p>

Mitigation Measure		Monitoring and Reporting Action	Monitoring Responsibility	Duration/Schedule
	<p>requirements of California Health and Human Safety Code Section 7050.5 will be followed. Potentially damaging excavation will halt in the vicinity of the remains, with a minimum radius of 100 feet, and the County Coroner will be notified. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (California Health and Safety Code Section 7050.5[b]). If the Coroner determines that the remains are those of a Native American, they must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). Pursuant to the provisions of Pub. Res. Code Section 5097.98, the NAHC will identify a Most Likely Descendent (MLD). The MLD designated by the NAHC will have at least 48 hours to inspect the site, once access is granted, and propose treatment and disposition of the remains and any associated grave goods. OneShoreline will work with the MLD to ensure that the remains are removed to a protected location and treated with dignity and respect.</p>	<p>Memorandum documenting discovery and action(s), if needed</p>		
Transportation and Traffic				
TR-1	<p>Prepare and Implement Traffic Control Plan</p> <p>At maintenance sites that require local road/lane detours or frequent truck travel to and from the site, OneShoreline shall require that the maintenance contractor(s) prepare and implement a traffic management plan to manage traffic flow during maintenance activities, reduce potential interference with local emergency response plans, reduce potential traffic safety hazards, and ensure adequate access for emergency responders. OneShoreline and/or the contractor(s) will ensure that the plan is implemented during maintenance activities. The plan will include, but not be limited to, the following measures:</p> <ul style="list-style-type: none"> ▪ Identify truck haul routes and timing to limit conflicts between truck and automobile traffic on nearby roads. The identified routes will be designed to minimize impacts on vehicular and pedestrian traffic, circulation, and safety. ▪ Provide signage indicating the alternative access routes. ▪ Evaluate the need to provide flaggers or temporary traffic control to assist trucks in accessing the roadway with minimal disruption of traffic. ▪ Coordinate activities to ensure that lanes remain open at all times, unless flaggers or temporary traffic controls are in place to provide emergency access. 	<p>Traffic control plan</p>	<p>OneShoreline or Construction Contractor</p>	<p>Prior to start of construction</p>