DRAFT

Initial Study and Mitigated Negative Declaration

City of Piedmont – Sanitary Sewer Rehabilitation Phase 6 Project

City of Piedmont, Alameda County, California

Lead Agency:

City of Piedmont
120 Vista Avenue
Piedmont, CA 94611

Prepared by:

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October 2024

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DRAFT MITIGATED NEGATIVE DECLARATION

Lead Agency: City of Piedmont

Project Location: The approximately 17,626 linear feet of sanitary sewer collection lines are located in Piedmont, Alameda County, California. The Project is located in various locations within the City of Piedmont.

Project Description Summary: The Project proposes to rehabilitate 17,626 feet of existing sanitary sewer collection pipe utilizing the pipe bursting method (between 6 and 15-inch diameter pipes). The existing pipelines are located within existing paved roads and the front and backyard property lines of private properties in the City of Piedmont in Alameda County, California. The Project is part of the City's Sanitary Sewer Rehabilitation Project.

Public Review Period: October 25, 2024 to November 25, 2024

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

Air Quality

AQ-1: **Adhere to Bay Area Air Quality Management District Basic Construction Best Management Practices.** The Project shall implement the following Bay Area Air Quality Management Construction Best Management Practices:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping 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.
- 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.
- 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.

Cultural Resources

CUL-1: **Archaeological (Spot Checking).** In Project areas with moderate to low archaeological sensitivity, a program of intermittent monitoring (spot-checking) of insertion pit excavation shall be developed and implemented by a qualified archaeologist.

In the event that presently unanticipated prehistoric and/or historic period cultural resources of significance are encountered within excavation activities, all activity in the area of discovery shall cease until the City retains the services of a qualified archaeological consultant who shall examine the findings, assess their significance, and offer proposals for any procedures deemed appropriate to further investigate and/or mitigate adverse impacts to those cultural resources that have been encountered

CUL-2: **Unanticipated Discoveries.** There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Both CEQA and Section 106 of the NHPA require the lead agency to address any unanticipated cultural resource discoveries during Project construction. Therefore, the following procedures shall be implemented:

- If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:
- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined by CEQA or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that

the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.

- If the find represents a Native American or potentially Native American resource that does not include human remains, then he or she shall further notify [tribe]. The agencies shall consult with the tribes on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Preservation in place is the preferred treatment, if feasible. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to their satisfaction.

- If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Alameda County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Paleontological Resources

PALEO-1: Discovery of Unknown Resources

If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until the City is notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. If the City resumes work in a location where paleontological remains have been discovered and

cleared, the City will have a paleontologist onsite to confirm that no additional paleontological resources are in the area.

Noise

NOI-1: The Project improvement and construction plans will include the following requirements for construction activities:

- Construction contacts must specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices.
- A sign, legible at a distance of 50 feet, shall be posted at the Project construction sites providing a contact name and a telephone number where residents can inquire about the construction process and register complaints. This sign shall indicate the dates and duration of construction activities. In conjunction with this required posting, a noise disturbance coordinator will be identified to address construction noise concerns received. The coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the disturbance coordinator shall notify the City within 24 hours of the complaint and determine the cause of the noise complaint (starting too early, malfunctioning muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the City. All signs posted at the construction site shall include the contact name and the telephone number for the noise disturbance coordinator.
- Identification of construction noise reduction methods. These reduction methods may include shutting off idling equipment (5 minutes), installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and using electric air compressors and similar power tools.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Per Piedmont City Code Section 12.8, *Noise Declared Nuisance,* construction and demolition shall be prohibited between the hours of 6:00 p.m. and 8:00 a.m. Sunday evening through Saturday morning and between 6:00 p.m. and 9:00 a.m. Saturday evening through Sunday morning.

NOI-2: In order to reduce construction noise, during the excavation and paving phases, all other portable stationary noise sources (e.g., excavators, compactors, generators, compressors, etc.) will be screened from sensitive receptors in a manner that breaks the line of sight between the construction equipment and these residences. Temporary noise barriers/enclosures shall have a sound transmission class (STC) of 10 or greater in accordance with American Society for Testing and Materials Test Method E90, or at least 2 pounds per square foot to ensure adequate transmission loss characteristics. The temporary noise barrier can consist of a solid plywood fence at least 7/16-inch in thickness and/or

flexible sound curtains, such as an 18-ounce tarp or a 2-inch-thick fiberglass blanket, attached to chain link fencing. The length, height, and location of the temporary noise barrier shall be adequate to assure proper acoustical performance. Specifically, the barrier must completely break the line of sight between the construction site and adjacent residences along the linear Project Site, must be free of degrading holes or gaps and must not be flanked by nearby reflective surfaces. All noise control barrier walls/enclosures shall be designed to preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion.

Transportation

TRANS-1: **Construction Traffic Management Plan**. Prior to commencing construction of the Proposed Project, a construction traffic management plan (Traffic Plan) shall be prepared by the Contractor, in coordination with the City. The management plan shall be detailed and comprehensive to adequately mitigate potential conflicts between baseline and construction-related traffic. The Traffic Plan will include, at a minimum, the following measures:

A. Adequate off-street worker parking shall be provided along the pipeline route.

B. A flagman or signal-controlled one-way traffic-control operation shall be provided where two-way traffic operation is impractical or unsafe.

C. Roadway disturbances shall be minimized during non-working hours; open trenches shall be covered with steel plates or by the use of temporary backfill during non-working hours.

D. Temporary steel plate trench crossings shall be provided as needed to maintain access to homes, farms, and businesses.

E. Construction sites shall be posted with appropriate warning signage at least one week prior to construction to allow local residents to select an alternative travel route.

F. Construction staging areas shall be provided to minimize storage of equipment and materials in the traffic lanes.

G. All paved surfaces disturbed during construction shall be repaved when work is complete.

H. The Contractor shall provide traffic control and diversion plans for review and approval by each appropriate jurisdiction.

I. To minimize delays in emergency response during project construction, emergency providers shall be notified in advance. Police, fire protection, and ambulance services shall be notified in advance of the times, duration, and location of construction activities throughout the project's construction process.

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
µg/m3	Micrograms per cubic meter
˚F	Degrees Fahrenheit
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACDEH	Alameda County Department of Environmental Health
AHPA	Archaeological and Historic Preservation Act
AMIP	Asset Management Implementation Plan
AMI	area median income
amsl	above mean sea level
ANSI	American National Standards Institute
APE	Area of Potential Effects
BAAQMD	Bay Area Air Quality Management District
BRA	Biological Resources Assessment
BSA	Biological Study Area
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CCR	California Code of Regulations
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH_4	Methane
CHP	California Highway Patrol
CIPP	Cured-in-Place Pipe
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CUPA	Certified Unified Program Agency
CWSRF	Clean Water State Revolving Fund
CZMA	Coastal Zone Management Act
DAC	Disadvantaged Community
dB	Decibel
dBA	A-Weighted Decibel
DHS	Department of Health Services
DOC	Department of Conservation
DOF	Department of Finance
DPM	Diesel Particulate Matter

Term	Definition
DPS	Distinct Population Segment
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EBMUD	East Bay Municipal Utility District
EBRPD	East Bay Regional Parks District
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EO	Executive Order
ESA	Endangered Species Acts
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
GHG	Greenhouse Gas
HCD	Housing and Community Development
HDPE	high-density polyethylene
hp	Horsepower
IS	Initial Study
LHMP	Local Hazard Mitigation Plan
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendent
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MWWTP	Main Wastewater Treatment Plant
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIOSH	Occupational Safety and Health
NMFS	National Marine Fisheries Service
N_2O	Nitrous Oxide
NO_x	Oxides of Nitrogen
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
NWSRS	National Wild and Scenic Rivers System
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
PCC	Piedmont City Code
PG&E	Pacific Gas and Electricity Company
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter with a Diameter of 2.5 Microns or Less
PM_{10}	Particulate Matter with a Diameter of 10 Microns or Less
PPD	Piedmont Police Department
PPV	Peak Particle Velocity
PRC	Public Resources Code

Term	Definition
PRD	Piedmont Recreation Department
PUSD	Piedmont Unified School District
RHA	Rivers and Harbors Act of 1899
ROG	Reactive Organic Gases
ROW	Right-of-way
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SDWA	Safe Drinking Water Act of 1974
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act of 1975
SR	State Route
STC	Sound Transmission Class
SWRCB	State Water Resources Control Board
TCRs	Tribal Cultural Resources
UCMP	University of California Museum of Paleontology
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VCP	vitrified clay pipe
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WWTP	Wastewater Treatment Plant

1.0 BACKGROUND

1.1 Summary

Project Title:	City of Piedmont Sanitary Sewer Rehabilitation Project (Phase 6)
Lead Agency Name and Address:	City of Piedmont 120 Vista Avenue Piedmont, CA 94611
Contact Person and Phone Number:	Daniel Gonzales, Director of Public Works (510) 420-3061 dgonzales@piedmont.ca.gov
Project Location:	The Proposed Project is located in various locations within the City of Piedmont, Alameda County
General Plan Designation:	Low-Density Residential
Zoning:	Zone A – Single Family Residential

1.2 Introduction

The City of Piedmont (City) is the Lead Agency for this California Environmental Quality Act (CEQA) Initial Study. This Initial Study has been prepared to identify and assess the anticipated environmental impacts of the City of Piedmont Sanitary Sewer Rehabilitation Project – Phase 6 (Project) to satisfy CEQA (Public Resources Code [PRC], Section 21000 et seq.) and state CEQA Guidelines (Title 14, California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences before approving those projects. The city will use this CEQA Initial Study to determine which CEQA document is appropriate for the Project: Negative Declaration, Mitigated Negative Declaration (MND), or Environmental Impact Report (EIR).

The City of Piedmont is seeking funding for the Proposed Project under the State Water Resources Control Board's (SWRCB) Clean Water State Revolving Fund (CWSRF) Program, which is partially funded through the U.S. Environmental Protection Agency (USEPA). Because of the federal nexus with the USEPA, projects seeking funding through the CWSRF Program are subject to federal laws and regulations (e.g., federal "cross-cutters"). Under the CWSRF Program, SWRCB uses a project's CEQA document along with federal cross-cutting documentation in place of a National Environmental Policy Act (NEPA) document; this document is termed a "CEQA-Plus" document. Section 5 and 6 addresses the Project's compliance with federal laws and regulations to satisfy the CEQA-Plus requirements.

In accordance with CEQA, this Initial Study/Mitigated Negative Declaration (IS/MND) will be circulated for a 30-day public review and comment period. Written comments on the Draft IS/MND should be submitted to:

John Wanger, City Engineer
City of Piedmont
jwanger@piedmont.ca.gov
510-420-3050

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2.0 PROJECT DESCRIPTION

2.1 Project Background

In 2001, the City of Piedmont (City) started the City's Sanitary Sewer Rehabilitation Project with the objective to rehabilitate all 22 sub-basins in order to comply with Regional Water Quality Control Board (RWQCB) and a Consent Decree (entered into on September 22, 2014) requirements to minimize the number and impact of sanitary sewer overflows as well as to take a proactive approach in addressing infiltration/inflow (I/I) into their sewer system. The system consists of nearly 49 miles of sewer mains and portions of the City system have been in service for over 75 years. To date, approximately 79.7% of the City's sewer system has been replaced, primarily with high-density polyethylene (HDPE) pipe via pipe bursting. It is the intent that approximately 40% of the remaining pipes will be replaced in Phase 6, with the remainder of the system rehabilitation to be completed in one or two subsequent phases over the next 5-10 years.

In 2015, an IS/MND was prepared for Phase 5 (State Clearinghouse No. 2015112038). Pursuant to Section 15150 of the California Environmental Quality Act (CEQA) Guidelines, the 2015 IS/MND is incorporated by reference into this IS/MND and is available for review upon request.

2.2 Project Location

The Proposed Project includes segments in various locations within the City of Piedmont, Alameda County. Project location and vicinity map can be found in Figure 2-1.

2.3 Project Characteristics

2.3.1 Existing Facilities

The sanitary sewer system collects sanitary sewer flows from residential, public facilities, mixed use, and recreational areas. There are no industrial users within the city. The city owns and maintains a sanitary sewer collection system which discharges first to the Oakland sanitary sewer collection system and then to the East Bay Municipal Utility District (EBMUD) interceptor. The city's existing sanitary sewer system collects sanitary sewer flows from the city as well as wastewater from Oakland as it makes its way to the EBMUD No. 1 District Interceptor (interceptor). Once the effluent flows into the interceptor it is carried to the EBMUD Wastewater Treatment Plant (EBMUD WWTP) near the east side of the Bay Bridge. At the WWTP, influent undergoes secondary treatment prior to being discharged to the San Francisco Bay.

The City's sanitary sewer collection system is comprised of 22 sub-basins which totals approximately 49 miles of 6 to 21-inch pipes. This includes approximately 8 miles of vitrified clay pipe (VCP), 37 miles of plastic pipe, 0.6 miles of reinforced concrete pipe (RCP), 0.2 miles of ductile iron or cast-iron pipe and 3.2 miles of a combination of asbestos concrete pipe (ACP) and steel pipe. The sanitary sewer pipes and manholes are located in City Right of Way (ROW) and front yards and back yards along property lines of private properties. The City can access and maintain the sanitary sewer facilities on private property. As of 2024, the city has rehabilitated and replaced 79.7% of its sanitary sewer system.

2.3.2 Proposed Project

The Proposed Project (Project) consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method (Figure 2-2, Project Area Map). The project will include the following elements:

- 14,578 linear feet of 6-inch pipe,
- 451 linear feet of 8-inch pipe,
- 28 linear feet of 10-inch pipe,
- 1,267 linear feet of 12-inch pipe,
- 241 linear feet of 15-inch pipe,
- 39 Main cleanout/Lamp hole replacements,
- 280 Lateral reconnection/Two-way cleanout installations,
- 4 manholes; and
- 124,550 sq ft of pavement restoration via grind and overlay
    - Majority of pavement in project will be t-sections and repairs around manholes and sewer lateral reconnections with full street pavement grind and overlay accomplished via the City's pavement rehabilitation schedule subsequent to the sewer rehabilitation project.

It is assumed that the existing manholes will be reused and reconnected to the new pipe. All sewer main cleanouts and lamp holes (which are small vertical pipes or shafts between manholes that allows light to be lowered for inspecting the sewer lines) are assumed to be replaced and two-way cleanouts will be installed at the upstream limit of the rehabilitated lower sewer lateral behind the curb, sidewalk, or backyard. There are 280 assumed lateral reconnections/two-way cleanout installations by estimating adjacent properties of each pipe segment. By the end of the Proposed Project, the city will have rehabilitated/replaced 86% of its sewer mains.

The project will be designed based on the City's Design Standards and Standard Specifications. Fusible HDPE pipe will be installed via pipe bursting in most cases. Pipe bursting will be used when there is sufficient room and access for the equipment, within Public ROW, and within accessible private property via City's "Right of Entry" on front yard and back yard private parcels. In rare cases where pipe bursting equipment cannot be used, Cured-in-Place Pipe (CIPP) will be considered. Open trench will only be utilized when installing two-way cleanouts and reconnecting laterals to the new sanitary sewer pipelines.

Streets identified for partial repaving include:

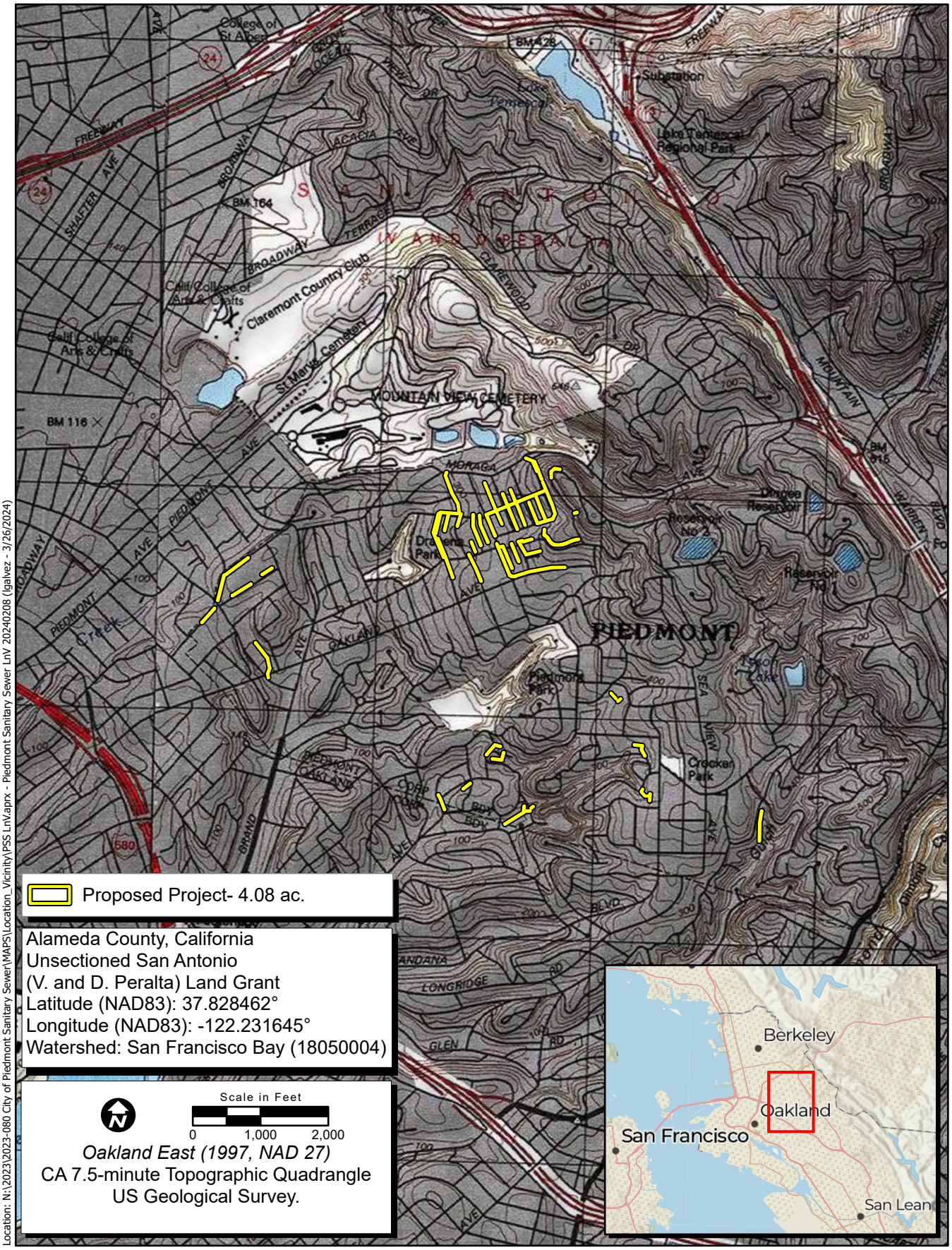
- Bonita Ave.
- Waldo Ave.

- Highland Ave.
- Oakland Ave.
- Hardwick Ave.
- Landon Ct.
- Park Way.
- Highland Ct.
- Kingston Ave.

Sidewalks identified for partial repaving due to lateral reconnection:

- Hillside Ave.
- Blair Ave.
- Mesa Ave.
- Monte Ave.
- Pala Ave.

The pipe bursting construction method will involve replacing the existing pipeline via pneumatic bursting. This requires access pits at either end of the pipe bursting operation and is typically accomplished at existing manholes by excavating around the cone and lid section and removing the lid, rim, riser, and cone of the manhole. The existing pipeline penetrations are also broken out to make room for the new pipe. Pipe bursting for sewer mains requires insertion pits to be dug out due to the size of the new pipe and utilizes manholes as receiving pits using pneumatic percussive blows behind a cutting head, which bursts the existing pipe, and pulls the new pipe through the newly created void. This allows the same diameter or a larger diameter pipe to be installed without excavation of the pipe. Pipe bursting is suitable for bursting VCP, plastic pipe, ductile iron, and cast-iron pipe (USEPA 2019). This method of replacement only requires excavation above the pipeline to re-connect laterals to homes at the mainline.

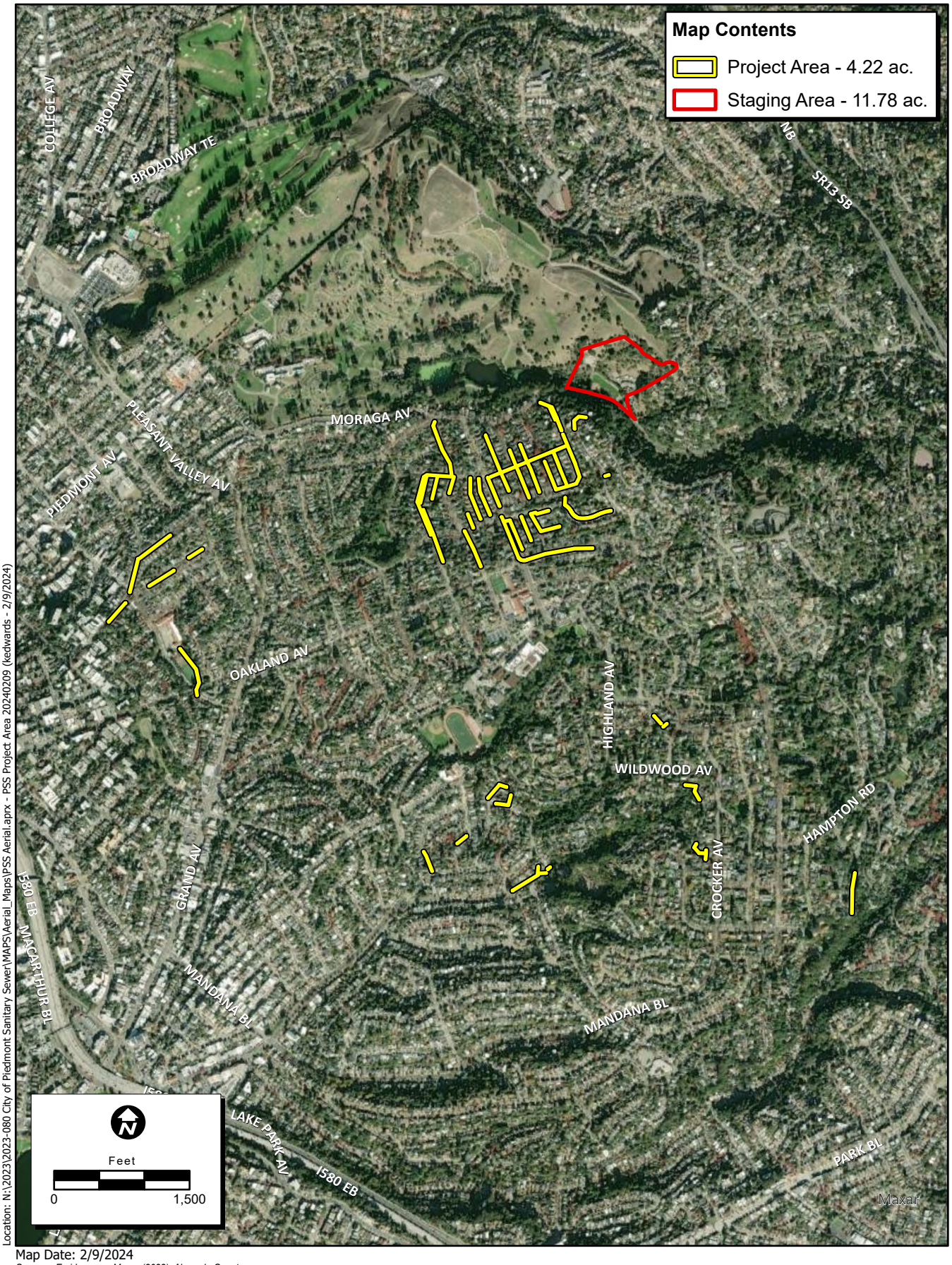


Map Date: 3/26/2024
Sources: ESRI, USGS

Figure 2-1. Project Location and Vicinity

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-080 City of Piedmont Sanitary Sewer Rehab



Location: N:\2023\2023-080 City of Piedmont Sanitary Sewer\MAPS\Aerial_Maps\PSS Aerial.aprx - PSS Project Area 20240209 (kedwards - 2/9/2024)

Map Date: 2/9/2024

Sources: Esri Imagery, Maxar (2022), Alameda County

Figure 2-2. Project Area Map

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-080 City of Piedmont Sanitary Sewer Rehab

A schematic of a pneumatic pipe bursting process is provided in Figure 2-3 and more information about the engineering specifications for the project can be found in Appendix F of this document.

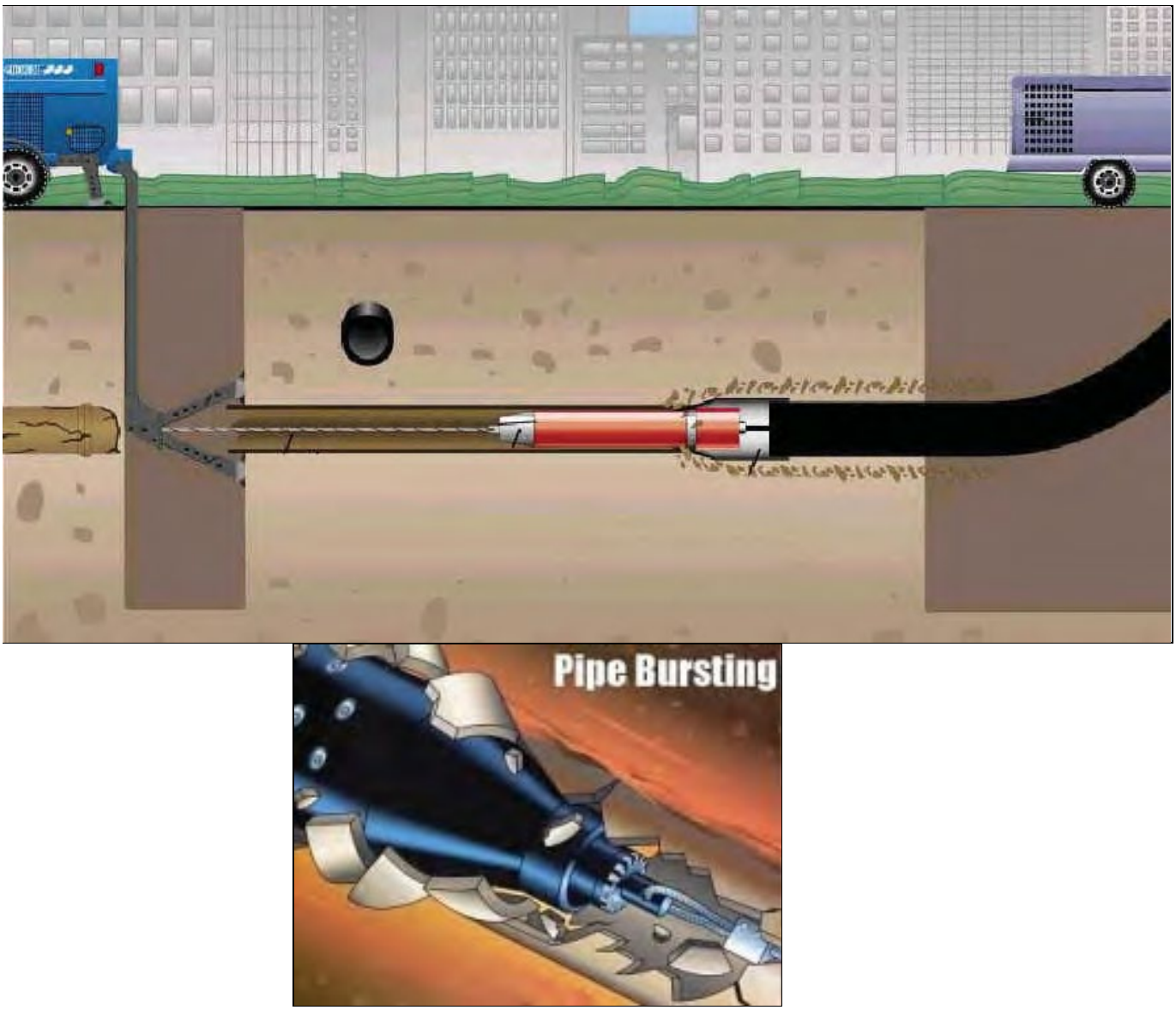


Figure 2-3: Schematic of a Pneumatic Pipe Bursting Process

2.4 Project Staging

Temporary staging would occur at the City's corporation yard located at 898 Red Rock Road, Piedmont, CA 94611. This site is paved, graveled, and currently highly disturbed.

2.5 Project Timing

This schedule may be extended pending approval of the construction contract and issuing a notice of award, and for potential extended supply times for materials. Also, current supply chain issues have increased lead times for some materials (pipe and fittings) and may delay the start date for

groundbreaking. See Table 2-1 for a detailed breakdown of anticipated construction activities and approximate timeframe to completion.

Table 2-1 Construction Operations

Description of Activity	Duration (approximate)
Excavation Operations*	
• Rubber tired backhoe loader(s) (sized up to Cat 450) • Trench excavator(s) (mini X (Cat 303) • Wheel loader(s) (likely no larger than Cat 938), • Trenching machines (not expected) • Rock removal by hydraulic hammer on excavator (not expected to be required or very limited based on geotechnical investigation) • Compaction via in-trench hand compaction (wacker, vibraplate) • Sweeper • Air Compressor(s)	Approximately 4-5 months
Hauling Operations*	
• Rubber tired dump truck(s) • l transfer truck and trailers • Semi bottom and end dumps possible but not likely considering narrow and winding access	Approximately 3 months
Final Paving Operations	
• Roller compactor(s) • Pavers • asphalt grinders • asphalt cutters • concrete saw • Sweeper	Approximately 1 month
Other Equipment*	
• Sprayers, • air compressor, • portable generator	Approximately 3 months
Total Duration:	**5-6 months**

*Note: Some of these activities will be done concurrently

2.6 Regulatory Requirements, Permits, and Approvals

Work for this project is anticipated to occur within the City right-of-way and on private property. According to the Asset Management Implementation Plan, there are various legal means for the City to obtain access to sewers located on private property thus access to private backyards will be coordinated. An encroachment permit is anticipated for work in the Public ROW and temporary construction easements are anticipated for work outside the right-of-way. EBMUD permits are anticipated for temporary water use during construction.

2.7 Consultation With California Native American Tribe(s)

On February 20, 2024, the City sent letters via certified mail and email to the potentially interested tribes that were identified by the Native American Heritage Commission (NAHC). The City sent follow up emails on March 7, 2024. ECORP received a response from the Amah Mutsun Tribal Band of San Juan Bautista, recommending cultural sensitivity training and requested a Native American Monitor be present during earth moving activities. The City received a response from the Confederated Villages of Lisjan Nation, requesting copies of the records search results and the final report. The City received a response from the Ohlone Indian Tribe, requesting a copy of the record search results and the NAHC contact list. One letter to the Ohlone Indian Tribe was undeliverable by email.

The City of Piedmont sent AB52 consultation letters to the following tribes on September 20, 2024: Amah Mutsun Tribal Band of Mission San Juan Bautista, Indian Canyon Mutsun Band of Costanoan, Confederated Villages of Lisjan Nation, Muwekma Ohlone Indian Tribe of the SF Bay Area, Northern Valley Yokut.Ohlone Tribe, the Ohlone Indian Tribe, Costanoan Rumsen Carmel Tribe, and Wuksachi Indian Tribe/Eshom Valley Band. Section 4.18 of this IS/MND provides a summary of the notification process.

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 Environmental Factors Potentially Affected

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

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

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the 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 Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
I find that the 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 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 Project, nothing further is required.	☐

Daniel J Gonzales

Digitally signed by Daniel J Gonzales
DN: C=US, E=dgonzales@piedmont.ca.gov, O="City of Piedmont ", OU="Public Works ", CN=Daniel J Gonzales
Date: 2024.10.25 10:46:29-07'00'

_____ Date: _____

Daniel Gonzales, City of Piedmont

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

4.1.1.1 Visual Character of the Project Site

According to the Design and Preservation Element of Piedmont's General Plan (City of Piedmont 2009a), Piedmont's setting is shaped by its landscapes and its views and vistas, and protecting and enhancing the public realm is top priority. Piedmont's visual image is largely defined by relatively large single-family residences constructed during the early Twentieth Century. This image is characterized by spacious front and rear yards, pedestrian-oriented streets with sidewalks, large street trees, and traditional single-family development scale.

Important local landmarks in the City of Piedmont include the Oakland Avenue Bridge, the Civic Center complex, the Exedra at Piedmont Park, Piedmont Community Hall, the trees along Oakland Avenue, and the City's religious institutions and schools.

The Proposed Project is located in various residential streets and alleys within the existing sewer lines in the City of Piedmont. The pipeline is currently located all underground and will be replaced by using pipe bursting methods to install the new sewer lines. Open trench will be only utilized when installing two-way cleanouts and reconnecting laterals to the new sanitary sewer pipelines. The primary group that would have views of project work include local residents using the neighborhood street system for daily activities.

4.1.1.2 Regional Setting

State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. The California Department of Transportation (Caltrans) can designate a highway as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view.

There are no designated or eligible State Scenic Highways in Piedmont. The closest designated State scenic highway is Interstate 580 (I-580) located 0.3 miles west of Piedmont, and the second closest eligible State Scenic highway is State Route 13 (SR 13), located 0.5 miles east of Piedmont.

General Plan

City of Piedmont Design and Preservation Element

Piedmont's Design and Preservation Element addresses the city's setting, appearance, and historic resources. Goals and policies related to scenic views and visual character include:

Policy 27.3: ***View Preservation:*** *Recognize and protect significant views in the city, particularly Piedmont's characteristic views of the San Francisco and Oakland skylines, Lake Merritt and San Francisco Bay, the Bay and Golden Gate Bridges, and surrounding hills, canyons, and geological features. Discourage the obstruction of such views by upper level additions, tall structures, and devices such as communication towers. Similarly, tree planting should avoid species or locations that will lead to the obstruction of desirable views.*

Policy 27.8: ***Utility Undergrounding:*** *Support neighborhood efforts to underground utilities throughout Piedmont, with due consideration given to the level of community support and the financial impacts on the City and its residents. Underground utilities shall be required for any new subdivision.*

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

Less Than Significant Impact.

A scenic vista is a viewpoint that provides a distant view of highly valued natural or manufactured landscape features for the benefit of the general public. Typical scenic vistas are locations where views of rivers, ocean, hillsides, and open space areas can be obtained as well as locations where valued urban landscape features can be viewed in the distance. As previously discussed, per the Design and Preservation Element of Piedmont's General Plan, Piedmont's setting is shaped by its landscapes and its views and vistas, and protecting and enhancing the public realm is top priority. Piedmont's visual image is largely defined by relatively large single-family residences constructed during the early Twentieth Century. This image is characterized by spacious front and rear yards, pedestrian-oriented streets with sidewalks, large street trees, and traditional single-family development scale.

The Proposed Project involves installation of Fusible HDPE pipe via pipe bursting in most cases. Pipe bursting will be used when there is sufficient room and access for the equipment, within Public ROW, and within accessible private property via City's "Right of Entry" on front yard and back yard private parcels. In rare cases where pipe bursting equipment cannot be used, CIPP will be considered. Open trench will be only utilized when installing two-way cleanouts and reconnecting laterals to the new sanitary sewer pipelines.

Any impacts to a scenic vista would be temporary during construction activities. Once the Proposed Project is completed there will be no change in the visual character or quality of public views of the site. Therefore, the Proposed Project would have a less than significant impact to visual scenic vistas.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐

Less Than Significant Impact.

According to Caltrans' list of designated Scenic Highways and the City of Piedmont General Plan, the Proposed Project is not located near or within a state scenic highway and therefore would not damage designated scenic resources, including but not limited to trees, outcroppings, and historic buildings within a state scenic highway. Additionally, at this time, project work does not involve tree removal. Any impacts would be less than significant.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐

Less Than Significant Impact.

The proposed Project is within an urbanized, residential community (see Figure 2-1). Project construction activities would introduce equipment, including light trucks, backhoes, winch, bursting head, generator, and other similar machinery into the viewshed of all viewer groups, creating temporary effects on views of and from the Project Site during construction. Once the Proposed Project is completed there will be no change in the visual character or quality of public views of the site and surroundings and the Project would not conflict with zoning and other regulations governing scenic quality. Any impacts would be less than significant.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

No Impact.

The Proposed Project involves replacing approximately 17,626 linear feet of sanitary sewer collection pipe. No new lighting is proposed as part of the Project and the Project would not create a new source of substantial light or glare. There would be no impact and no mitigation is required.

4.1.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

The City of Piedmont lacks agricultural and forest lands. Neither agriculture nor forestry lands are a General Plan designation, zoning classification, or use within the City of Piedmont (City of Piedmont 2009a).

According to the California Department of Conservation (DOC) online Important Farmland Finder Map (2023a), the Proposed Project Site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, nor is the site zoned for agriculture or forestry use or is under Williamson Act contract (DOC 2023b). The California Important Farmland Finder Map identifies the site as primarily Urban and Built-Up Land.

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

No Impact.

As discussed above, the California Important Farmland Finder Map identifies the Project Site as Urban and Built-Up Land. Thus, the Proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. There would be no impact and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

No Impact.

The Proposed Project Site and surrounding areas are not zoned for agricultural use and no nearby parcels are under Williamson Act contracts (DOC 2023b). The Proposed Project would not conflict with existing zoning for agricultural uses or a Williamson Act contract. Therefore, no impact would occur, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒

No Impact.

As discussed above, the Proposed Project is within public ROW, and within accessible private property via City's "Right of Entry" on front yard and back yard private parcels. The City Zoning Ordinance does not identify the Project Site as forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)). Thus, project implementation would not conflict with or cause the rezoning of any of the above zoning designations and there would be no impact and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

No Impact.

See discussion under item c). No impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

No Impact.

See discussion under item a) and c), the Proposed Project would not result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest. No impact would occur and no mitigation measures are required.

4.2.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.3 Air Quality

The following section is based on information included in The City of Piedmont Sanitary Sewer Rehabilitation Phase 6 Project – Air Quality and Greenhouse Gas Emissions Assessment Memorandum completed by ECORP Consulting, Inc. (2024a). This document is included as Appendix A of this Initial Study.

4.3.1 Environmental Setting

The Project Area is located in the City of Piedmont in Alameda County. The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. The Proposed Project is located in the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB is approximately 5,600 square miles in area and consists of nine counties that surround the San Francisco Bay, including all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties; the southwestern portion of Solano County; and the southern portion of Sonoma County.

Both the U.S. Environmental Protection Agency (USEPA) and CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called criteria pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O_3), Carbon Monoxide (CO), Particulate Matter (PM), Oxides of Nitrogen (NO_x), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas.

4.3.2 Ambient Air Quality

Ambient air quality in the Project Area can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. O_3, coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are the pollutant species most potently affecting the Project region. As described in detail below, the region is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3, $PM_{2.5}$, and PM_{10} (CARB 2022). The Oakland – West air quality monitoring station (1100 21st Street) located approximately 1.88 miles southwest of the Project Area monitors ambient concentrations of O_3, and $PM_{2.5}$. The Concord – 2975 Treat Boulevard air quality monitoring station, located approximately 14.5 miles northeast of the Project Area, monitors ambient concentrations of PM_{10}. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations in the Project Area.

Table 4.3-1 summarizes the published data concerning O_3, PM_{10}, and $PM_{2.5}$ since 2020 for each year that the monitoring data is provided.

Table 4.3-1. Summary of Ambient Air Quality Data

Pollutant Standards	2020	2021	2022
O_3 (Oakland – West Monitoring Station)			
Max 1-hour concentration (ppm)	0.084	0.067	0.054
Max 8-hour concentration (ppm) (state/federal)	0.056/0.056	0.047/0.046	0.041/0.041
Number of days above 1-hour standard (state/federal)	0/0	0/0	0/0
Number of days above 8-hour standard (state/federal)	0/0	0/0	0/0
PM_{10} (Concord – 2975 Treat Boulevard Monitoring Station)			
Max 24-hour concentration (µg/m^3) (state/federal)	167.0/165.4	26.0/25.0	35.0/25.0
Number of days above 24-hour standard (state/federal)	*/11.5	0/0	0/0
$PM_{2.5}$ (Oakland – West Monitoring Station)			
Max 24-hour concentration (µg/m^3) (state/federal)	159.7/159.7	25.4/25.4	33.8/33.8
Number of days above federal 24-hour standard	8.5	0	0

Note: µg/m^3 = micrograms per cubic meter; ppm = parts per million
* = Insufficient data available
Source: California Air Resources Board (CARB) 2023

The USEPA and CARB designate air basins or portions of air basins and counties as being in "attainment" or "nonattainment" for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. Acceptable exceedances of the maximum value vary for the National Ambient Air

Quality Standards (NAAQS) from 4th highest concentration for the 8-hour O_3 standard to 99th percentile to the SO_2 standard. The NAAQS for O_3, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the Alameda County portion of the SFBAAB, which encompasses the Project Area, is included in Table 4.3-2.

Table 4.3-2. Attainment Status of Criteria Pollutants in the Alameda County Portion of the SFBAAB

Pollutant	State Designation	Federal Designation
O_3	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment

Note: CO = Carbon Monoxide; NO_2 = Nitrogen Dioxide; O_3 = Ozone; $PM_{2.5}$ = Fine Particulate Matter; PM_{10} = Coarse Particulate Matter; SFBAAB = San Francisco Bay Area Air Basin; SO_2 = Sulfur dioxide
Source: California Air Resources Board (CARB) 2022

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The portion of Alameda County encompassing the Project Area is designated as a nonattainment area for the state standards for O_3, $PM_{2.5}$, and PM_{10} and is also a nonattainment area for the state standards for O_3 and $PM_{2.5}$ (CARB 2022). It is noted that the Project would not be a source of lead emissions.

4.3.3 Regulatory Setting

4.3.3.1 Bay Area Air Quality Management District

The air quality regulating authority in Alameda County is the Bay Area Air Quality Management District (BAAQMD). The BAAQMD responsibilities include preparing plans for the attainment of ambient air quality standards, adopting and enforcing air pollution rules, issuing permits for and inspecting stationary air pollution sources, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing state and federal programs and regulations. The BAAQMD has also

adopted various rules and regulations that are designed to reduce and control pollutant emissions from a project's construction and operational activities. The following provisions are applicable to the Proposed Project are summarized as follows:

- **Regulation 2, Rule 1, General Permit Requirements:** Includes criteria for issuance or denial of permits, exemptions, appeals against decisions of the Air Pollution Control Officer and BAAQMD actions on applications.
- **Regulation 2, Rule 2, New Source Review:** Applies to new or modified sources and contains requirements for Best Available Control Technology and emission offsets. Rule 2 implements federal New Source Review and Prevention of Significant Deterioration requirements.
- **Regulation 6, Rule 1, General Requirements:** Limits the quantity of particulate matter in the atmosphere by controlling emission rates, concentration, visible emissions and opacity.
- **Regulation 6, Rule 6, Prohibition of Trackout:** Controls trackout of solid material onto public paved roads from three types of sites: large bulk material sites, large construction sites, and large disturbed area sites. Under this regulation, the owners and operators of a construction site are required to clean up trackout on public roadways within four hours of identification and at the conclusion of each workday. The rule also includes requirements regarding the emission of fugitive dust during cleanup of trackout, and requirements for monitoring and reporting trackout at regulated sites.
- **Regulation 7, Odorous Substances:** Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds. A person (or facility) must meet all limitations of this regulation but meeting such limitations shall not exempt such person from any other requirements of BAAQMD, state, or national law. The limitations of this regulation shall not be applicable until BAAQMD receives odor complaints from ten or more complainants within a 90-day period, alleging that a person has caused odors perceived at or beyond the property line of such person and deemed to be objectionable by the complainants in the normal course of their work, travel, or residence. When the limits of this regulation become effective, as a result of citizen complaints described above, the limits shall remain effective until such time as no citizen complaints have been received by BAAQMD for one year. The limits of this Regulation shall become applicable again if BAAQMD receives odor complaints from five or more complainants within a 90-day period. BAAQMD staff investigate and track all odor complaints it receives and make attempts to visit the site and identify the source of the objectionable odor and assist the owner or facility in finding a way to reduce the odor.

4.3.3.2 United States Environmental Protection Agency

General Conformity ensures that the actions taken by federal agencies do not interfere with a state's plans to attain and maintain national standards for air quality. Established under the Clean Air Act (section 176(c)(4)), the General Conformity rule plays an important role in helping states improve air quality in those areas that do not meet the NAAQS. Under the General Conformity rule, federal agencies must work with state and local governments in a nonattainment or maintenance area to ensure that federal actions

conform to the air quality plans established in the applicable state or tribal implementation plan. The overall purpose of the General Conformity rule is to ensure that:

- Federal activities do not cause or contribute to new violations of NAAQS;
- Actions do not worsen existing violations of the NAAQS; and
- Attainment of the NAAQS is not delayed.

The General Conformity process begins with an "applicability analysis," whereby it must be determined how and to what degree the Conformity Rules apply. According to USEPA's General Conformity Guidance: Questions and Answers (1994), before any approval is given for a Federal Action to go forward, the federal agency must apply the applicability requirements found at 40 Code of Federal Regulations (CFR) § 93.153 to the Federal Action and/or determine on a pollutant-by-pollutant basis, whether a determination of General Conformity is required. During the applicability analysis, the federal agency determines the following:

- Whether the action will occur in a nonattainment or maintenance area;
- Whether one or more of the specific exemptions apply to the action;
- Whether the federal agency has included the action on its list of presumed-to-conform actions;
- Whether the total direct and indirect emissions are below or above the de minimis levels; and/or
- Where a facility has an emissions budget approved by the State or Tribe as part of the State Implementation Plan or Tribal Implementation Plan, the federal agency determines that the emissions from the proposed action are within the budget.

The General Conformity Rule allows for exemptions for emissions that are not reasonably foreseeable, will not result in an increase in emissions, are below de minimis limits, are the result of emergency actions, are included in stationary source air permits, are for routine maintenance and repair of existing structures, or are included in a transportation conformity determination undertaken by Federal Highway Administration or Federal Transit Administration (40 CFR 93.153(c)).

4.3.3.3 Thresholds of Significance

Bay Area Air Quality Management District

The significance criteria established by the applicable air quality management or air pollution control district (BAAQMD) may be relied upon to make the impact determination shown below in the Checklist Questions. The BAAQMD has published a guidance document for the preparation of the air quality portions of environmental documents that include thresholds of significance to be used in evaluating land use proposals. Thresholds of significance are based on a source's projected impacts and are a basis from which to apply mitigation measures. BAAQMD's CEQA thresholds have also been used to determine air quality impacts in this analysis. If a project's individual emissions exceed its identified significance

thresholds, the Project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulatively considerable. The BAAQMD's established thresholds of significance for air quality for construction of land use development projects are shown in Table 4.3-3.

Table 4.3-3. BAAQMD Criteria Air Pollutants Significance Thresholds

Construction Related	
Air Pollutant	**Average Daily Emissions (pounds per day)**
ROG	54
NO_x	54
PM_{10} (exhaust)	82
$PM_{2.5}$ (exhaust)	54
PM_{10} (fugitive dust)	Best Management Practices
$PM_{2.5}$ (fugitive dust)	Best Management Practices
Local CO	None

Note: BAAQMD = Bay Area Air Quality Management District; CO = Carbon Monoxide; NOx = Nitric Oxide; $PM_{2.5}$ = Fine Particulate Matter; PM10 = Coarse Particulate Matter; ROG = Reactive Organic Gas
Source: Bay Area Air Quality Management District (BAAQMD) 2023

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulatively considerable.

United States Environmental Protection Agency Conformity Determination

A conformity determination would be required if the annual emissions of non-attainment pollutants generated by the Project were to exceed the General Conformity *de minimis* thresholds. The *de minimis* limits represent an emissions level that the USEPA has determined will have only de minimis impacts to the air quality of an area and are thus exempted from the General Conformity Rule. If the overall predicted increase in emissions of a criteria pollutant due to a federal action in a nonattainment area exceeds the de minimis limits as shown in Table 4.3-4, a conformity determination is required.

Table 4.3-4. Federal General Conformity *De Minimis* Emissions Levels in Alameda County

Pollutant	Attainment Status	Classification	USEPA General Conformity Threshold (tons/year)
Ozone (VOCs or NO_x)	Nonattainment	Marginal	50
PM_{10}	Unclassified	N/A	100
$PM_{2.5}$	Nonattainment	Moderate	100
CO	Unclassified/Attainment	Maintenance	100

Table 4.3-4. Federal General Conformity *De Minimis* Emissions Levels in Alameda County

Pollutant	Attainment Status	Classification	USEPA General Conformity Threshold (tons/year)
NO_2	Unclassified/Attainment	N/A	100
SO_2	Unclassified/Attainment	N/A	100
Lead	Unclassified/Attainment	N/A	25

Note: CO = Carbon Monoxide; NO_2 = Nitrogen Dioxide; $PM_{2.5}$ = Fine Particulate Matter; PM_{10} = Coarse Particulate Matter; SO_2 = Sulfur dioxide; VOC = Volatile Organic Compound
Source: U.S. Environmental Protection Agency (USEPA) 2023

4.3.4 Air Quality (III) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the NAAQS and CAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously mentioned, the Project Area is located within the SFBAAB, which is under the jurisdiction of the BAAQMD. The agency's primary responsibility is ensuring that the NAAQS and CAAQS are attained and maintained in the Bay Area. The BAAQMD attains and maintains air quality conditions in Alameda County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The most recently adopted air quality plan is the BAAQMD's 2017 Clean Air Plan, the primary goals of which are to protect public health and the climate. The 2017 Clean Air Plan includes a wide range of control measures and actions to reduce combustion-related activities, decrease combustion of fossil fuels, improve energy efficiency, and reduce emissions of potent greenhouse gases. Several measures address the reduction of multiple pollutants such as O_3 precursors, PM, air toxics, and Greenhouse Gas (GHG) emissions.

Determination of whether a project supports the goals in the 2017 Clean Air Plan is achieved by a comparison of Project-estimated emissions with BAAQMD thresholds of significance. If project emissions

would not exceed the thresholds of significance after the application of all feasible mitigation measures, the project is consistent with the goals of the 2017 Clean Air Plan. As shown below in Table 4.3-5 and Table 4.3-6, with the implementation of mitigation measure AQ-1, emissions generated during Project construction would not exceed the BAAQMD's or the USEPA's significance thresholds. Therefore, the Project would not conflict with or obstruct reduction measures presented in the 2017 Clean Air Plan or any NAAQS required SIP.

For these reasons, the Project would have a less than significant impact

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

Air quality impacts were assessed in accordance with methodologies recommended by the BAAQMD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Alameda County. The Project would replace approximately 17,626 linear feet of sanitary sewer collection pipe. The existing sewer lines have exceeded their useful life and allow for excessive infiltration/inflow of groundwater in certain areas of the collection system. The Proposed Project would minimize the number and impact of sanitary sewer overflows as well as take a proactive approach in addressing infiltration/inflow into the sewer system.

4.3.4.1 Construction-Generated Emissions

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. The basic sources of short-term emissions that will be generated through Project construction will be from the operation of construction vehicles. The creation of fugitive dust during excavation and grading, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity

taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation. Construction activities would be subject to BAAQMD Regulation 6, Rule 1 (General Requirements) and Regulation 6, Rule 6 (Prohibition of Trackout) which require dust generating operations to limit particulate matter emissions. Rule 6-1 prohibits fugitive emissions onsite and Air District enforcement staff are trained to document visible emissions and fugitive dust using either the opacity or the Ringelmann test methods. For construction sites, the Rule does not prescribe mitigation measures, however operators are expected to utilize standard construction management practices to comply with the fugitive dust emissions prohibition. Rule 6-6 prohibits trackout. For construction sites, the Rule does not prescribe mitigation measures, however construction operators are expected to use common operational measures and suppression techniques (i.e., trackout control devices) to minimize trackout.

Construction-generated emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily emissions attributable to Project construction are summarized in Table 4.3-5. Such emissions are short-term and of temporary duration, lasting only as long as Project construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the BAAQMD's thresholds of significance.

Table 4.3-5. Construction-Related Criteria Air Pollutant Emissions

Description	Pollutant (pounds per day)					
	ROG	**NO_X**	**PM_{10} (exhaust)**	**$PM_{2.5}$ (exhaust)**	**PM_{10} (fugitive dust)**	**PM_{10} (fugitive dust)**
Construction Year One	4.09	28.9	1.32	1.22	0.50	0.12
BAAQMD Significant Impact Threshold	*54 pounds/day*	*54 pounds/day*	*82 pounds/day*	*54 pounds/day*	*Basic Construction Best Management Practices*	*Basic Construction Best Management Practices*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: Emissions estimates account for the quantifiable dust-reduction measures that are also approved methods within the BAAQMD Basic Construction Mitigation Measures, such as watering unpaved portions of the construction site twice daily and limiting off-road equipment to slower speeds.
BAAQMD = Bay Area Air Quality Management District; NO_x = Nitric Oxide; $PM_{2.5}$ = Fine Particulate Matter; PM_{10} = Coarse Particulate Matter; ROG = Reactive Organic Gas

Source: California Emissions Estimator Model (CalEEMod) version 2022.1.1. Refer to Appendix A for Model Data Outputs.

As shown in Table 4.3-5, emissions generated during Project construction would not exceed the BAAQMD's thresholds of significance. It is noted that the BAAQMD thresholds for fugitive dust emissions are not numeric, but instead rely on the implementation of BAAQMD Basic Construction Best Management Practices to be considered less than significant. Thus, the Proposed Project would need to incorporate Basic Construction Best Management Practices in order to be considered less than significant.

With implementation of Mitigation Measure AQ-1, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard, and no health effects from Project criteria pollutants would occur. As such, the Project would have a less than significant impact.

4.3.4.2 USEPA Conformity Determination

As previously described, the Proposed Project is located in the Alameda County region, which is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards. Emissions generated during Project implementation would be short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the Conformity Determination thresholds. Predicted maximum annual construction-generated emissions for the Proposed Project are summarized in Table 4.3-6 and compared against the USEPA Conformity Determination thresholds.

Table 4.3-6. Construction-Related Emissions (USEPA Conformity Determination Analysis)

Construction Year	Pollutant (tons per year)				
	VOC (ROG)	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Construction Year One	0.11	0.75	0.92	0.05	0.03
USEPA Conformity Determination Thresholds (40 CFR 93.153)	*100*	*100*	*100*	*100*	*100*
Exceed USEPA Conformity Determination Thresholds?	**No**	**No**	**No**	**No**	**No**

Note: CFR = Code of Federal Regulations; CO = Carbon Monoxide; NO_x = Nitric Oxide; $PM_{2.5}$ = Fine Particulate Matter; PM_{10} = Coarse Particulate Matter; ROG = Reactive Organic Gas; USEPA = U.S. Environmental Protection Agency; VOC = Volatile Organic Compound

Source: California Emissions Estimator Model (CalEEMod) version 2022.1.1. Refer to Appendix A for Model Data Outputs.

As shown in Table 4.3-6, emissions from construction of the Proposed Project would not exceed the USEPA Conformity Determination thresholds for the region.

4.3.4.3 Project Operational Emissions

The Proposed Project includes the rehabilitation of sanitary sewer mains and their associated lower sewer laterals to minimize the number and impact of sanitary sewer overflows. The amount of effluent pumped Would not increase beyond existing conditions. Therefore, there are no new operational emissions associated with the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Less Than Significant Impact.

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest noise sensitive receptors to the Project Area are single-family residences, which are located at various distances, with the closest residence approximately 30 feet distant.

4.3.4.4 Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Proposed Project-generated emissions of diesel particulate matter (DPM), ROG, NOx, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SFBAAB which encompasses the Project Area is designated as a designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ and is also a nonattainment area for the state standards for O_3, $PM_{2.5}$, and PM_{10} (CARB 2022). Thus, existing O_3, PM_{10}, and $PM_{2.5}$ levels in the SFBAAB are at unhealthy levels during certain periods. However, as shown in Table 4.3-5 and Table 4.3-6, the Project would not exceed the BAAQMD or USEPA significance thresholds for emissions.

The health effects associated with O_3 are generally associated with reduced lung function. O_3 is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of ROG and NOx in the presence of sunlight. The reactivity of O_3 causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O_3 not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O_3 for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term O_3 exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to O_3 may increase the risk of respiratory-related deaths. The concentration of O_3 at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of O_3 and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum O_3 concentration reaches 80 parts per billion. Because the Project would not involve construction activities that would result in O_3 precursor emissions (ROG or NOx) in excess of the BAAQMD thresholds, which are set to be protective of human health and account for cumulative emissions in the SFBAAB, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result in CO emissions in excess of the BAAQMD thresholds, which are set to be protective of human health and account for cumulative emissions in the SFBAAB. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary toxic air contaminant of concern. PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM and it contains $PM_{2.5}$ exhaust as a subset. As with O_3 and NOx, the Project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the BAAQMD's thresholds. The increases of these pollutants generated by the Proposed Project would not on their own generate an increase in the number of days exceeding the NAAQS or CAAQS standards. Therefore, PM_{10} and $PM_{2.5}$ emissions, when combined with the existing PM emitted regionally, would have minimal health effect on people located in the immediate vicinity of the Project Site. Additionally, the Project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects from these pollutants.

In summary, Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Furthermore, the Project has been evaluated against the USEPA Conformity Determination thresholds. Thus, the fact that onsite Project construction emissions would be generated at rates below the thresholds for NO_x, CO, PM_{10}, and $PM_{2.5}$ demonstrates that the Project would not adversely impact vicinity sensitive receptors. A less than significant impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Less Than Significant Impact.

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified as being associated with odors. The replacement sanitary sewer collection pipes would not result in the introduction of any new processes that are considered to have a high odor-

generation potential and would not result in substantial changes to the overall flow rates or treatment processes that are of primary concern with regard to odor generation (i.e., sludge handling or drying practices). Therefore, the Proposed Project would have a less than significant impact when it comes to odors.

4.3.5 Mitigation Measures

AQ-1: Adhere to Bay Area Air Quality Management District Basic Construction Best Management Practices. The Project shall implement the following Bay Area Air Quality Management Construction Best Management Practices:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping 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.
- 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.
- 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.

4.4 Biological Resources

This section is based on the analysis and recommendations presented in the Biological Resources Assessment prepared for the Proposed Project (ECORP 2024b, Appendix B).

4.4.1 Environmental Setting

The Biological Study Area (BSA) includes all areas where Project-related activities may result in impacts to sensitive biological resources. The BSA includes the approximately 4.22-acre Project Area and 11.78-acre Staging Area. The BSA corresponds to the Unsectioned San Antonia (V. and D. Peralta) Land Grant (Mount

Diablo Base and Meridian) of the "Oakland East, California" 7.5-minute quadrangle (U.S. Geological Survey 1997; Figure 1). The approximate center of the BSA is located at latitude 37.828462° and longitude 122.231645° (North American Datum 1983) within the San Francisco Bay watershed (Hydrological Unit Code 18050004; Natural Resources Conservation Service [NRCS] et al. 2016).

The BSA is located in an urban setting, including within existing paved streets, sidewalks, residential yards, and the City's corporation yard at Red Rock Road, which is a paved and developed facility. The City corporation yard portion of the BSA is situated at an elevation of approximately 400 feet above mean sea level (amsl) and the streets portion of the BSA range from approximately 100 feet to 400 feet amsl in the San Francisco Bay Area subregion, Central Western California region of the California floristic province. The average winter temperature is 51.7 degrees Fahrenheit (˚F) and the average summer temperature is 63.7˚F; the average annual precipitation is approximately 26.12 inches at the Berkeley, CA station, which is approximately 3 miles from the BSA.

There are no native or natural vegetation communities located within the BSA. The BSA is located on heavily sloped terrain. The streets are narrow and paved with asphalt with developed sidewalks, curbs, and gutters. Landscaping trees and shrubs are scattered along the sidewalks and residential yards. Trees and shrubs are made up of native and nonnative cultivars.

Land uses surrounding the BSA include urban development.

4.4.1.1 Soils

According to the Web Soil Survey (ECORP 2022b), four soil units have been mapped within the Study Area (Figure 4.4-1):

- 126– Maymen loam, 30 to 75 percent slopes
- 127 – Maymen-Los Gatos complex, 30 to 75 percent slopes
- 151 – Urban land-tierra complex, 5 to 15 percent slopes
- 159 – Xerorthents-Millsholm complex, 30 to 50 percent slopes

4.4.1.2 Vegetation Communities and Land Cover Types

The BSA is completely developed and consists of paved streets, sidewalks, curbs/gutters, and landscaped residential yards. There are no natural or native vegetation communities present.

4.4.1.3 Aquatic Resources

The field reconnaissance conducted on February 15, 2024 confirmed that there are no aquatic resources within the BSA. Review of the National Wetland Inventory (NWI) showed that there are no previously mapped aquatic features within the Proposed Project Area.

4.4.1.4 Wildlife

The developed setting of the BSA provides nesting and foraging habitat for a few common resident and migratory birds that are protected under the Migratory Bird Treaty Act (MBTA), such as Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), and house finch (*Haemorhous mexicanus*), among others. Other wildlife species acclimated to the urban setting in the BSA include Virginia opossum (*Didelphis virginiana*), eastern fox squirrel (*Sciurus niger*), striped skunk (*Mephitis mephitis*), and common racoon (*Procyon lotor*).

Special-Status Species

No special-status species area expected to occur in the Project Area, due to absence of natural vegetation communities, the developed setting, and disturbances caused by the presence of vehicle traffic, pedestrians, and domestic dogs and cats. More information can be found within the Biological Resources Assessment in Appendix B.

4.4.1.5 Critical Habitat or Essential Fish Habitat

There is no designated Critical Habitat within the Project Area. Based on the literature review, the BSA may contain anadromous fish critical habitat for California Central Coast Distinct Population Segment (DPS) steelhead and Southern DPS green sturgeon, and Essential Fish Habitat for coho and Chinook salmon. However, the field reconnaissance site visit on February 15, 2024 confirmed that there is no suitable aquatic habitat in the Project Area.

4.4.1.6 Wildlife Movement Corridors and Nursery Sites

There are no known migratory corridors and none are expected to occur due to the developed setting within the Study Area. The Study Area is not mapped as an area of interest under the California Essential Habitat Connectivity Project (California Department of Fish and Wildlife 2024). There is no suitable habitat for nursery sites (e.g., deer fawning grounds, waterbird rookeries).

4.4.1.7 City of Piedmont Heritage Trees

There are no designated Heritage Trees located in the vicinity of the Project Area.

4.4.2 Biological Resources (IV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐

Less Than Significant Impact.

There are no potentially occurring special-status species in the Proposed Project Area. The Project is not expected to have adverse effects on special-status species. While not considered special-status species as defined, birds protected under the MBTA could potentially nest in close proximity to the Project. It is expected that birds nesting in this developed setting have become acclimated to human presence and disturbances. Consequently, any potential effects to MBTA protected birds would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒

No Impact.

As discussed above, no sensitive natural communities were mapped within the Project Area (ECORP 2024, Appendix B), and none were observed during the February 2024 site visit. Therefore, implementation of the Proposed Project will not have an impact on sensitive natural communities or riparian habitats.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

As discussed above there are no aquatic resources located within the Proposed Project Area. Therefore, implementation of the Proposed Project would not have a substantial adverse effect on state or federally protected wetlands. There would be no impact and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

Since the majority of the Project is restricted to existing roadways, the Project will not impede habitat connectivity any more than the existing roads already affects habitat connectivity. Additionally, there is no fish habitat within the Project Area. Therefore, there will be no impact to migratory fish or wildlife movement within the Project Area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project is within the existing public ROW, and within accessible private property via City's "Right of Entry" on front yard and back yard private parcels. Implementation of the Proposed Project would not conflict with any local policies or ordinances protecting biological resources. Any impacts would be less than significant and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

No Impact.

The Proposed Project will take place within the existing ROW and will not modify habitat or impact natural communities. Therefore, the Project will not conflict with adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other local, regional, or state habitat conservation plan.

4.4.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.5 Cultural Resources

ECORP Consulting, Inc. prepared a Historic Property Identification Report (ECORP 2024b) for the Proposed Project to determine if cultural resources were present in or adjacent to the Project Area and assess the sensitivity of the Project Area for undiscovered or buried cultural resources. Cultural resources include pre-contact archaeological sites, historic archaeological sites, and historic built environment sites. Pre-contact archaeological sites are places that contain the material remains of activities carried out by the native population of the area (i.e., Native Americans) prior to the arrival of Europeans in the Project Area. Places that contain the material remains of activities carried out by people after the arrival of Europeans are considered historic archaeological sites. Historic built environment features include houses, garages, barns, commercial facilities, industrial facilities, community buildings, and other buildings, structures and facilities that are more than 50 years old. Historic built environment features may also have associated archaeological deposits, such as abandoned wells, cellars, privies, refuse deposits, and foundations of former outbuildings.

The information provided below is an abridged version of the Cultural Resources Inventory Report and is included here to provide a brief context of the potential cultural resources in the Project Area. Due to the sensitive nature of cultural resources and their records and documentation, which are restricted from public distribution by state and federal law, the IS/MND appendices do not include the report; however, all pertinent information necessary for impact determinations is included in this section.

4.5.1 Environmental Setting

The Proposed Project lies in the eastern area of the greater San Francisco Bay Area. The Project is located south of the Mountain View Cemetery, northeast of Lake Merritt, and east of the City of San Francisco. Elevations range from 95 to 527 feet above mean sea level across the Project. The Proposed Project is less than 3 miles east of the Pacific Ocean and is 0.5 mile south of Indian Gulch.

The San Francisco Bay region is composed of three Mesozoic to Paleogene basement complexes. These complexes are overlain by Late cretaceous, Tertiary and Quaternary deposits, all of which have been offset by multiple faults along the Neogene San Andres fault system (ECORP 2024b).

To assess the potential for buried archaeological sites, ECORP reviewed reasonably available information regarding hydrology and soils. ECORP used geological data from the U.S. Department of Agriculture's NRCS to characterize the geology of the local area in reference to archaeological history. Certain geological characteristics and formations are more likely to contain buried pre-contact archaeological

materials. The underlying geomorphology of the Project area and immediate vicinity consists of Franciscan Complex (Coast Ranges) which date to 200 to 80 million years ago, and older Quaternary alluvium and marine deposits (ECORP 2024b).

According to the Historic Property Identification Report, the Project area has a low potential for buried pre-contact archaeological sites despite being in close proximity to several water sources, Lake Merritt, Indian Gulch, and the Pacific Ocean. Although alluvium deposits tend to preserve archaeological material and create an increased likelihood of pre-contact archaeological sites, the soils within the Project area are too old to have buried evidence of human occupation.

4.5.1.1 Project Area History

The Proposed Project is located in Alameda County, which was created in 1853 from portions of Contra Costa and Santa Clara counties. The Spanish word Alamo means poplar or cottonwood tree and Alameda means "a place where poplar trees grow" (ECORP 2024b). The county was named after the El Arroyo de la Alameda or Alameda Creek.

The beginning of the history of the City of Piedmont varies. One account stated 600 acres of land was purchased by a man named Walter Blair from the Peraltas. Others say the land was purchased by the US government from the Peraltas. The Peraltas family, namely Don Luis Maria Peralta, was granted 43,000 acres of land for his four decades of service. This land included what would become the cities of San Leandro, Oakland, Alameda, Emeryville, Piedmont, Berkeley, and Albany. Don Peralta divided his land between his four sons and the land that would become the City of Piedmont was included in portions belonging to Jose Domingo and Vicente Peralta. With the 1848 Treaty of Gudalupe Hidalgo and California's statehood in 1850, ownership of these lands came into dispute. While the Peraltas retained some holdings, some of the land, including that of the City of Piedmont, would become property of the U.S. government (ECORP 2024).

4.5.1.2 Previous Research and Records

A total of 87 previous cultural resource investigations have been conducted in or within 1 mile of the Proposed Project, covering approximately 35 percent of the total area surrounding the project area within the records search radius. Of the 87 studies, 5 were conducted within the Proposed Project boundaries and the other 82 were within the 1-mile radius. These studies revealed the presence of historic-period sites, including structures and buildings either individually or as elements of a district, a cemetery, and pre-contact sites, including a shell scatter site and a cemetery. The previous studies were conducted between 2000 and 2018.

The results of the records search indicate that only approximately 80 percent of the Project area has been previously surveyed for cultural resources. Therefore, ECORP conducted a pedestrian survey for the Project under current protocols.

The records search also determined that 160 previously recorded pre-contact and historic-era cultural resources are located within 1 mile of the Project site. Of these 160 resources, two are believed to be associated with Native American occupation of the vicinity, and 158 are historic-era sites. These resources

are associated with the Mountain View Cemetery District and are either individual buildings or structures; several are noted as being elements associated with a district in the area. There are no previously recorded resources within the Project site.

The Office of Historic Preservation's (OHP) Built Environment Resource Directory for Alameda County (dated March 3, 2020) included three resources between sections of the Project area. One is the Wetmore House, located south of the Area of Potential Effects (APE) on Oakland Avenue and north of Piedmont Park, 0.14 mile south of the Project section on Bonita Avenue. Another is the Piedmont City Hall and Fire Station, located 158 feet southeast of the Wetmore House and 0.15 mile south of the section of the Project on Highland Avenue. The last one is the Piedmont Community Church, located approximately 500 feet south of the section of the Project on Oakland Avenue. There are no listed resources within the Proposed Project (ECORP 2024b).

The National Register Information System failed to reveal any eligible or listed properties within the APE. The nearest National Register properties are Wetmore House, City Hall and Fire Station and Community Church, as described above.

ECORP reviewed resources listed as *California Historical Landmarks* by the OHP on March 8, 2024. The nearest listed landmark is #986 Piedmont Way. It is the first residential street design for Olmsted in 1865, which is a roadway that follows the natural contours of the landscape and is lined with foliage. It is located along Piedmont Avenue, between Gayley Road and Dwight Way. It is located 2.5 miles north-northwest of the nearest section to the above-mentioned streets of the Proposed Project.

A review of *Historic Spots in California* mentions the City of Piedmont is located on what was once Rancho San Antonio. This vast estate extended along the eastern shore of the San Francisco Bay, from San Leandro Creek to El Cerrito Creek.

The Bureau of Land Management's patent database does not list any historic General Land Office land patent records for the Project area, as this land was a part of the Civil Colonies San Antonio Land Grant, which predates California becoming a state.

The Caltrans Bridge Local Bridge Inventory lists six bridges within 1 mile of the Proposed Project; the Oakland Avenue bridge is located approximately 200 feet to the west of the intersection of Oakland Avenue and Linda Avenue. The MacArthur Sidehill Viaduct is located 0.68 mile to the southwest of the Project site, south of SR-580 and north of MacArthur Boulevard. The Sausal Creek bridge is located 0.42 mile to the southwest of the Project site, southeast of Park Boulevard. The Park Boulevard Sidehill Viaducts #1, 2, and 3 are also approximately 0.4 mile east of the Project site, along Park Boulevard. These local bridges were all evaluated by Caltrans as Category 5 bridges, making them ineligible for inclusion in the National Register of Historic Places (NRHP).

The Caltrans State Inventory lists more than 20 state historic bridges within 1 mile of the Proposed Project. None of these bridges are within or in between any of the sections of the Project site. These state bridges lie along SR-580 to the south of the Proposed Project, along SR-13 (Monterey Boulevard) and SR-24 to the north.

4.5.2 Cultural Resources (V) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐

Less Than Significant Impact.

As mentioned in Section 4.5.1.2 above, the records search did not identify any historic-period or pre-contact cultural resources within the Proposed Project Area. Therefore, no Historic Properties under Section 106 of the National Historic Preservation Act (NHPA) or Historical Resources under CEQA will be impacted with implementation of the Proposed Project. Any impact will be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐

Less Than Significant With Mitigation.

The Proposed Project has a low potential for buried pre-contact archaeological sites despite being in close proximity to several water sources such as Lake Merritt, Indian Gulch, and the Pacific Ocean. Although alluvium deposits tend to preserve archaeological material and create an increased likelihood of buried pre-contact archaeological sites, the soils within the Project area are too old to have buried evidence of human occupation. This potential is further reduced by the presence of the previously built environments within and surrounding the Proposed Project.

As mentioned above, the records search did not identify any historic-period or pre-contact cultural resources within the Proposed Project Area. Therefore, no Historic Properties under Section 106 of the NHPA or Historical Resources under CEQA will be impacted with implementation of the Proposed Project. However, there always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Therefore, with implementation of mitigation measure CUL-1, which requires archeological spot checking, and CUL-2, which outlines procedures in the event of unanticipated discoveries, any impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Less Than Significant With Mitigation Incorporated.

There are no known burial or dedicated cemetery sites within the Project Area; however, as stated above in b) there always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources or human remains; therefore, with implementation of CUL-2, impacts to human remains will remain less than significant.

4.5.3 Mitigation Measures

CUL-1: **Archaeological (Spot Checking).** In Project areas with moderate to low archaeological sensitivity, a program of intermittent monitoring (spot-checking) of insertion pit excavation shall be developed and implemented by a qualified archaeologist.

In the event that presently unanticipated prehistoric and/or historic period cultural resources of significance are encountered within excavation activities, all activity in the area of discovery shall cease until the City retains the services of a qualified archaeological consultant who shall examine the findings, assess their significance, and offer proposals for any procedures deemed appropriate to further investigate and/or mitigate adverse impacts to those cultural resources that have been encountered

CUL-2: **Unanticipated Discoveries.** There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Both CEQA and Section 106 of the NHPA require the lead agency to address any unanticipated cultural resource discoveries during Project construction. Therefore, the following procedures shall be implemented:

- If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:
- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined by CEQA or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property

under Section 106; or 2) that the treatment measures have been completed to their satisfaction.

- If the find represents a Native American or potentially Native American resource that does not include human remains, then he or she shall further notify [tribe]. The agencies shall consult with the tribes on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Preservation in place is the preferred treatment, if feasible. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to their satisfaction.

- If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Alameda County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

4.6 Energy

This IS/MND analyzes energy consumption due to the potential direct and indirect environmental impacts associated with the Project. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal) and emissions of pollutants during the construction phase. As the Project is proposing the replacement of sanitary sewer collection pipes, the impact analysis focuses on the sole source of energy that is relevant to the Proposed Project: the equipment-fuel necessary for Project construction.

4.6.1 Environmental Setting

4.6.1.1 Electricity Services and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity followed by renewables, large hydroelectric and nuclear. Pacific Gas and Electricity Company (PG&E) provides electricity and natural gas to Alameda County. It generates or buys electricity from hydroelectric, nuclear, renewable, natural gas, and coal facilities. PG&E provides natural gas and electricity to most of the northern two-thirds of California, from Bakersfield and Barstow to near the Oregon, Nevada, and Arizona State Line. It provides 5.2 million people with electricity and natural gas across 70,000 square miles. In 2022, approximately 40 percent of PG&E's electricity came from renewable resources including biopower, geothermal, small hydroelectric, solar, and wind power. Overall 95 percent of the company's delivered electricity comes from greenhouse gas emission-free sources, including renewables, nuclear, and hydropower (PG&E 2024).

The California Public Utilities Commission (CPUC) regulates PG&E. The CPUC has developed energy efficiency programs such as smart meters, low-income programs, distribution generation programs, self-generation incentive programs, and a California solar initiative. Additionally, the California Energy Commission maintains a power plant database that describes all the operating power plants in the state by county.

4.6.1.2 Fuel Consumption

Vehicle fuel use is typically measured in gallons (e.g., of gasoline or diesel fuel), although energy use for electric vehicles is measured in kWh. CARB's EMFAC Emissions Inventory extracts emissions from EMFAC2021, software that provides emissions from on- and off-road mobile sources in California (CARB 2021). Total automotive fuel consumption in Alameda County from 2019 to 2023 is shown in Table 4.6-1. As shown, automotive consumption has decreased since 2019.

Table 4.6-1. Automotive Fuel Consumption in Alameda County from 2019 to 2023

Year	Fuel Consumption (gallons)
2023	667,543,990
2022	670,489,751
2021	670,206,836
2020	604,228,941
2019	686,892,098

Source: California Air Resources Board (CARB) 2021

4.6.2 Energy (VI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	☐	☐	☒	☐

Less Than Significant Impact.

The one source of energy associated with the Project includes the equipment fuel necessary for construction. For the purpose of this analysis, Project increases in construction fuel consumption are compared with the county-wide fuel consumption in 2023, the most recent full year of data (Table 4.6-2). The amount of total construction-related fuel used was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1 (2016).

Table 4.6-2. Proposed Fuel Consumption

Energy Type	Annual Fuel Consumed	Percentage Increase Countywide
Project Construction	15,172 gallons	0.002

Notes: The Project increase construction-related fuel consumption is compared with the countywide construction-related fuel consumption in 2023, the most recent full year of data.
Source: ECORP Consulting, Inc. using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1 (2016). See Appendix C.

As shown in Table 4.6-2, the Project's gasoline fuel consumption during the construction period is estimated to be 15,172 gallons of fuel, which would increase the annual construction-related gasoline fuel use in the county by 0.002 percent during Project construction. As such, Project construction would have a nominal effect on local and regional energy supplies, especially over the long term. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and require recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

Operations of the Project would not generate any fuel consumption as it would not be contributing to any mobile sources. The Proposed Project includes the rehabilitation of sanitary sewer mains and their associated lower sewer laterals to minimize the number and impact of sanitary sewer overflows. The pipeline would not increase service capacity or extend service to areas that do not currently have service. Additionally, the amount of effluent pumped would not increase as a result of the Project. Therefore, there are no operational emissions.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

No Impact.

The Project proposes the replacement of approximately 17,626 linear feet of sanitary sewer collection pipe to minimize the number and impact of sanitary sewer overflows as well as to take a proactive approach in addressing infiltration/inflow into the City's sewer system. Overflows to the system occur because the City's existing sanitary sewer system collects sanitary sewer flows from the city as well as wastewater from Oakland as it makes its way to the EBMUD No. 1 District Interceptor.

The City's Climate Action Plan (CAP) 2.0 includes goals, policies, and strategies to reduce the City's GHG emissions and support statewide climate efforts. Measure WW-2.1 promotes infrastructure improvements by repairing and maintaining existing water lines to prevent leaks. The Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. It does not conflict with or obstruct a plan for renewable energy or energy efficiency. Therefore, there would be no impact.

4.6.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.7 Geology and Soils

The Geology and Soils chapter of this document describes the geologic and soil characteristics of the Proposed Project Sites and evaluates the extent to which implementation of the Project could be affected by seismic-related ground failure and soil stability. Information sources for this evaluation include the City of Piedmont General Plan's Environmental Hazards Element, and the NRCS.

4.7.1 Environmental Setting

4.7.1.1 Geomorphic Setting

Piedmont is located on the East Bay Plain (the Plain), a relatively flat area that extends 50 miles from Richmond in the north to San Jose in the south. The Plain is part of the larger Coast Ranges geomorphic province, one of the eleven geomorphic provinces in California. The Coast Ranges extend along the majority of California's coast from the California-Oregon border to Point Arguello in Santa Barbara County in the south and consists of northwest-trending mountain ranges and valleys. The Coast Ranges are composed of Mesozoic and Cenozoic sedimentary, igneous, and metamorphic strata. The eastern side is characterized by strike-ridges and valleys in the Upper Mesozoic strata (Graymer, R.W. 2000).

4.7.1.2 Regional Seismicity and Fault Zones

Classifying and Identifying Faults

Geologists have determined that the greatest potential for surface fault rupture and strong seismic ground shaking is from active faults, that is, faults with evidence of activity during the Holocene epoch (the last 11,700 years). Faults classified as *potentially active* (where there is evidence that movement has occurred during the last 1.6 million years), have a lower potential for surface fault rupture and strong seismic ground shaking. Pre-Quaternary faults have exhibited evidence of movement more than 1.6 million years Before Present, and therefore are not considered active. Pre-Quaternary faults are generally not considered to represent a surface fault rupture or strong seismic ground shaking hazard (unless those faults are influenced by human-caused activity such as construction of a large water-storage reservoir directly over a fault zone).

The City of Piedmont Local Hazard Mitigation Plan (LHMP) and the City of Piedmont Environmental Hazards Element noted that in the Central Bay Area, most earthquakes are associated with the San Andreas, Calaveras, and Hayward Faults. The San Andreas Fault traverses San Mateo County, about 15 miles west of Piedmont. The Calaveras Fault lies on the edge of the Diablo Range, about 15 miles to the east. The main trace of the Hayward Fault runs about 0.25 miles east of Piedmont, along an alignment that roughly parallels State Highway 13 (City of Piedmont 2009b, 2019).

Surface Fault Rupture

The 1972 Alquist-Priolo Earthquake Fault Zoning Act required the State Geologist to establish regulatory *Earthquake Fault Zones* around the surface traces of active faults, to mitigate the hazard of surface fault rupture to structures for human occupancy. For the purposes of the Act, an active fault is one that has ruptured in the last 11,000 years. The act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The City of Piedmont is not located within the Alquist-Priolo Zone of the Hayward Fault, thus the potential for surface rupture is low.

Seismic Ground Shaking

Ground shaking – motion that occurs as a result of energy released during faulting – could potentially result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion. Other important factors to be considered are the characteristics of the underlying soil and rock and, where structures exist, the building materials used and the workmanship of the structures.

The U.S. Geological Survey and Association of Bay Area Governments (ABAG) have worked together to map the likely intensity of ground-shaking throughout the Bay Area under various earthquake scenarios. The most intense ground-shaking scenario mapped in Piedmont assumes a magnitude 6.9 earthquake on the Hayward Fault. The predicted ground-shaking from such an earthquake would be “very violent” or “violent” throughout Piedmont (ABAG 2021).

Liquefaction

Liquefaction is the sudden temporary loss of shear strength in saturated, loose to medium-dense, granular sediments to ground shaking. Liquefaction generally occurs when seismically induced ground shaking causes soil pore water pressure to increase to a point equal to the overburden pressure.

Liquefaction causes foundation failure of buildings and other structures due to the reduction of foundation bearing strength. The potential for liquefaction depends on the duration and intensity of earthquake shaking, particle size distribution of the soil, density of the soil, and elevation of the groundwater. Areas at risk due to the effects of liquefaction are typically those with a high groundwater table and underlying loose to medium-dense, granular sediments, particularly younger alluvium, and artificial fill. Piedmont is in an area identified by ABAG as having very low to low susceptibility to liquefaction except for a small portion of the city southeast of the intersection at Grand Avenue and Oakland Avenue, which is located in an area with high liquefaction risk. In addition, there may be areas of uncompacted fill, such as within Moraga Canyon.

The majority of the Proposed Project is within a very low liquefaction susceptibility area, with small portions being within a low liquefaction susceptibility area. (ABAG 2021).

Landslides

Ground failure including landslides is dependent on slope and geology as well as the amount of rainfall, excavation, or seismic activities. A landslide is a mass of rock, soil, and debris displaced down a slope by sliding, flowing, or falling. Steep slope sand downslope creep of surface materials characterize landslide-susceptible areas. Debris flows consist of a loose mass of rocks and other granular material that, if present on a steep slope and saturated, can move down slope. The rate of rock and soil movements can vary from a slow creep over many years to sudden mass movements.

Landslides occur throughout the State of California, but the density of incidents increases in zones of active faulting. Because of Piedmont's varying topography, most the area is within moderate to very high landslide susceptibility zones. The western part of Piedmont generally has high landslide susceptibility, and the eastern part of the city generally has very high landslide susceptibility (City of Piedmont 2009b).

Seismic Seiches

Earthquakes may affect open bodies of water by creating seismic sea waves and seiches. Seismic sea waves (often called *tidal waves*) are caused by abrupt ground movements (usually vertical) on the ocean floor in connection with a major earthquake. Because of the Proposed Project's long distance from the Pacific Ocean, seismic sea waves do not represent a hazard. A seiche is the sloshing of water in an enclosed or restricted water body, such as a basin, river, or lake, which is caused by earthquake motion; the sloshing can occur for a few minutes or several hours. There are no large water bodies in the Proposed Project Area where seiches would represent a hazard. There are no Federal Emergency Management Agency- (FEMA) designated 100-year Flood Hazard Areas in the City and is not susceptible to seiches and tsunamis in the San Francsico Bay. (City of Piedmont 2009b).

4.7.1.3 Soils

ECORP staff obtained soil survey mapping for the BSA from the NRCS *Web Soil Survey* accessed on February 20, 2024. Table 4.7-1 provides an overview of the soil series mapped within the BSA and key features of the soil series:

Table 4.7-1. Soil Series Mapped in the Proposed Project Area

Map Unit Symbol	Map Unit Name	Rating	Hydric Soil Rating
126	Maymen loam, 30 to 75 percent slopes	Residuum weathered from sedimentary rock	No
127	Maymen-Los Gatos complex, 30 to 75 percent slopes	Residuum weathered from sedimentary rock	No
151	Urban land-tierra complex, 5 to 15 percent slopes	Alluvium	No
159	Xerorthents-Millsholm complex, 30 to 50 percent slopes	Residuum weathered from sandstone and shale	No

4.7.1.4 Paleontological Resources

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both fossilized remains of ancient plants and animals and the traces thereof) e.g., trackways, imprints, burrows, etc.). Paleontological resources occur within bedrock geologic deposits that may or may not underly the soil layer and are almost exclusively preserved in sedimentary rocks; however, in rare cases, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions. The Society of Vertebrate Paleontology has defined fossils as being remains or traces of plants and animals that are greater than 5,000 years old (i.e., older than middle Holocene in age).

ECORP performed a database search of the paleontology locality and specimen collection records for Alameda County from the University of California Museum of Paleontology (UCMP) in December 2023. None of the specimen localities listed resources within the City of Piedmont. Additional information from a query from the Paleobiology Database did not show any resources within the City of Piedmont.

4.7.2 Geology and Soils (VII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐

Less Than Significant Impact.

i) The Hayward Fault runs east of Piedmont, but no part of the City of Piedmont is within or directly adjacent to the Hayward Fault's Alquist-Priolo Zone. The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. Implementation of the Proposed Project would not directly or indirectly cause substantial adverse effects to rupture a known earthquake fault. Any impacts would be less than significant and no mitigation is required.

ii) The City of Piedmont is located in a seismically active region of California and is subject to potential ground shaking associated with seismic activities. All construction associated with the Proposed Project would be consistent with City and County policies, in addition to the California Building Code (CBC). Installation of the proposed piping would be reviewed by City engineers to ensure that Proposed Project components are consistent with standard engineering practices and requirements which are specifically designed to prevent structural damage during seismic ground shaking. These standards are in place to reduce damage associated with ground-shaking as a result of potential earthquakes. Thus, the implementation of the Proposed Project would result in a less than significant impact and no mitigation is required.

iii) Liquefaction occurs when loose sand and silt saturated with water behaves like a liquid when shaken by an earthquake. Liquefaction potential has been found to be greatest where the groundwater level and loose sands occur within a depth of about 50 feet or less. According to ABAG, the Proposed Project is located in zones that would be considered very low or low risk for liquefaction. Therefore, it is unlikely

that liquefaction would pose a hazard for the planned Project Area. Any impacts would be less than significant and no mitigation is required.

iv) Steep slopes, in conjunction with certain soil types, can be prone to soil erosion and landslides. Landslides occur as a result of topographical and soil conditions, where loose soils move down steep slopes. Some of the natural causes of this instability are earthquakes, week soils, erosion, and heavy rainfall. Human activities such as poor grading that undercuts steep slopes or overloads them with fill, excessive irrigation, and removal of vegetation can also contribute to ground failure.

According to the City of Piedmont's Environmental Hazards Element and the DOC, the City generally has high landslide susceptibility in the western area of town and very high landslide susceptibility in the eastern side of town, with moderate to low susceptibility in the center of the city. The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. The Project would be in compliance with all Piedmont General Plan policies, Piedmont City Code, and CBC requirements, which would ensure that impacts associated with landslides would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project involves installation of Fusible HDPE pipe via pipe bursting in most cases. Pipe bursting will be used when there is sufficient room and access for the equipment, within Public ROW, and within accessible private property via City's "Right of Entry" on front yard and back yard private parcels. Potential excavation activities would include those for pipe bursting entry pits, lateral disconnection and reconnection, point repair, manhole replacement, and other improvements. The depth of excavation for these activities is limited, generally ranging from 6 to 8 feet below ground surface, though in some areas excavations of up to 15 feet may be necessary due to the depth of the existing manholes. Any impacts to topsoil erosion or the loss of topsoil would be less than significant impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

Less Than Significant Impact.

Lateral spreading is a form of horizontal displacement of soil toward an open channel or other free face, such as excavation boundary. Lateral spreading can result from either the slump of low cohesion and unconsolidated material or, more commonly, by liquefaction of either the soil layer or a subsurface layer underlying soil material on a slope, resulting in gravitationally driven movement.

The Proposed Project involves installation of Fusible HDPE pipe via pipe bursting in most cases. Pipe bursting will be used when there is sufficient room and access for the equipment, within Public ROW, and within accessible private property via City's "Right of Entry" on front yard and back yard private parcels. Potential excavation activities would include those for pipe bursting entry pits, lateral disconnection and reconnection, point repair, manhole replacement, and other improvements. The depth of excavation for these activities is limited, generally ranging from 6 to 8 feet below ground surface, though in some areas excavations of up to 15 feet may be necessary due to the depth of the existing manholes.

Compliance with City of Piedmont requirements, CBC Code seismic mitigation standards, and the distance from active faults, the potential for settlement or collapse at the site is considered unlikely. Any impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less Than Significant Impact.

Expansive soils are characterized by high clay content which expands when saturated with water and shrinks when dry, potentially threatening the integrity of buildings and infrastructure foundations. Soils within the Project area have "low" to "moderate" potential for shrink-swell behavior, or expansiveness. The Proposed Project is required to comply with existing State of California and local laws and regulations, such as CBC Section R401.4.3, Piedmont City Code (PCC) Sections 802.020.S, and General Plan Environmental Hazards Element polices 18.1 and 18.4, which ensure that the impacts from development associated with implementation of the Proposed Project on expansive soil are minimized by requiring the submittal and review of detailed soils and geologic reports prior to construction.

The Proposed Project would be constructed using the pipe burst method to an already existing sewer lateral system and within accessible private property via City's "Right of Entry" on front yard and back yard private parcels. No new development, structures, or grading will be necessary, therefore reducing the potential for hazards from unstable and expansive soils to less than significant. Thus, the Proposed Project would result in a less than significant impact and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. Implementation of the Proposed Project would enhance the City of Piedmont's existing wastewater disposal system. Any impact would be less than significant and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Less Than Significant With Mitigation Incorporated.

A paleontological record search was queried by ECORP through the UCMP and Paleobiology Database. Two nearby Pleistocene-aged sites suggest the possibility of subsurface finds in the Quaternary alluvium. The first was UCMP locality V3933 in the Montclair Playground (now Montclair Park) at 6226 Moraga Avenue, found in 1939. The original locality description states: "yellow sandy clay below heavy black loam, some of which (loam) was graded out of the lake near at hand. Many pieces of large bones (fragmentary) were found in this member" The fossils retained in the museum were UCMP 34807, a Mammuthus lower molar, and UCMP 34839, a camelid foot bone. The second UCMP locality 168 is a well that was excavated in 1922 at the corner of 30th and Telegraph. Here a fossil pinecone (UCMP 20540) was found in the solid clay subsoil at 42 feet below the surface. This find was published by Metcalf in 1923 [Metcalf, W. 1923. American Forestry v. 29, p172.]

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. In rare cases where pipe bursting equipment cannot be used, CIPP will be considered. Open trench will be only utilized when installing two-way cleanouts and reconnecting laterals to the new sanitary sewer pipelines. Therefore, given the type of construction that the project is proposing, it is unlikely that implementation of the Proposed Project would directly or indirectly destroy a unique paleontological resource. However, there is always a possibility and therefore, implementation of Mitigation Measure PALEO-1, it would ensure that impacts would remain at a less than significant level.

4.7.3 Mitigation Measures

PALEO-1: **Discovery of Unknown Resources.** If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until the City is notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. If the City resumes work in a location where paleontological remains have been discovered and cleared, the City will have a paleontologist onsite to confirm that no additional paleontological resources are in the area.

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

GHG emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as CO_2, CH_4, N_2O, and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps more than 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in Carbon Dioxide Equivalents (CO_2e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

4.8.2 Regulatory Setting

4.8.2.1 Bay Area Air Quality Management District

The Project Area is located in Alameda County, which is regulated by the BAAQMD. To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, BAAQMD CEQA Guidelines include guidance on assessing GHGs and climate change impacts as required under CEQA Section 15183.5(b). On April 20, 2023, the BAAQMD 2022 CEQA Guidelines were adopted. These guidelines present a project-level operational threshold of significance for GHG emissions based on adherence to a suite of BAAQMD performance standards for land uses projects directly related to building design, transportation and consistency with the CEQA Guidelines Section 15183.5(b) or compliance with a Qualified GHG Reduction Strategy. BAAQMD has developed GHG-reducing performance standards for land uses projects based on typical residential and commercial land use projects and typical long-term communitywide planning documents such as general plans and similar long-range development plans.

According to the BAAQMD, these performance standards may not be appropriate for other types of projects that do not fit into the mold of a typical residential or commercial project or general plan update (BAAQMD 2023). The BAAQMD states that lead agencies should keep this point in mind when evaluating other types of projects (BAAQMD 2023). Additionally, the BAAQMD performance standards are intended for new land use development projects to achieve California's long-term climate goal of carbon neutrality by 2045. The Proposed Project is not a typical residential or commercial project and does not involve new land use. Therefore, the BAAQMD performance standards for land uses projects based on typical new residential and new commercial land use projects are not appropriate for use in this analysis.

4.8.2.2 California Air Pollution Control Officers Association

The California Air Pollution Control Officers Association (CAPCOA) is an association of air pollution control officers representing all 35 local air quality agencies across California, including the BAAQMD. Established in 1976, CAPCOA's primary objectives include the advancement of clean air initiatives and to provide a platform for the exchange of knowledge, experience, and information among air quality regulatory bodies statewide. The association is dedicated to fostering unity and efficiency, aiming to promote consistency in methods and practices pertaining to air pollution control. CAPCOA convenes regularly with federal and state air quality officials to formulate statewide regulations and ensure uniform adherence to established rules. CAPCOA has instituted a GHG significance threshold of 900 metric tons of CO_2e annually for the evaluation of proposed land use development projects. This threshold, indicating a 90 percent capture rate, encompasses projects representing approximately 90 percent of GHG emissions from new sources. The 900 metric tons of CO_2e per year threshold is typically utilized to classify small projects within California as inconsequential, as it accounts for less than one percent of the future 2050 statewide GHG emissions target. CAPCOA considers the 900 metric ton threshold sufficiently low to capture a significant portion of future residential and nonresidential development necessary for accommodating statewide population and economic growth. Simultaneously, it establishes the emission threshold at a level that excludes small projects contributing a relatively minor fraction of cumulative statewide GHG emissions. The Project is compared to the CAPCOA significance threshold of 900 metric tons annually.

4.8.2.3 City of Piedmont Climate Action Plan 2.0

The City's current CAP program is an update to the City's Climate Action Plan and was adopted in March 2018. The CAP includes goals, policies, and strategies to reduce the City's GHG emissions and support statewide climate efforts. The City established a goal to reduce GHG emissions 40 percent from the 2005 baseline by 2030 to achieve an 80 percent GHG reduction by 2050; however, in July 2023 the GHG reduction goals were updated. The updated goals are to reduce GHG emissions 50 percent by 2030 and to achieve carbon neutrality no later than 2045. GHG reduction strategies identified in the CAP include several measures that promote GHG reduction strategies in several sectors including transportation, buildings and energy, adaptation, municipal, solid waste, water, and consumption (City of Piedmont 2024). The overarching goal of the CAP is to identify strategies to direct the City's GHG reduction efforts, provide guidance for residents and businesses, and to support current statewide climate efforts (City of Piedmont 2018).

4.8.3 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Less Than Significant Impact.

The Project has been compared to the CAPCOA GHG significance thresholds for construction since the BAAQMD performance standards for land uses projects based on typical new residential and new commercial land use projects are not appropriate for use in this analysis.

4.8.3.1 Construction-Related GHG Emissions

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project Area, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 4.8-1 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction is complete, the generation of these GHG emissions would cease.

Table 4.8-1. Construction-Related Greenhouse Gas Emissions

Emission Source	CO_2e (Metric Tons/Year)
Construction	154
CAPCOA Significance Threshold	*900*
Exceed Significant Impact Threshold?	**No**

Note: CAPCOA = California Air Pollution Control Officers Association; CO_2e = Carbon Dioxide Equivalent
Source: California Emissions Estimator Model (CalEEMod) version 2022.1.1. Refer to Appendix A for Model Data Outputs.

As shown in Table 4.8-1, Project construction would result in the generation of approximately 154 metric tons of CO_2e over the course of construction, which is below the significance threshold of 900 metric tons of CO_2e. Once construction is complete, the generation of these GHG emissions would cease. Furthermore, GHG emissions generated by the construction sector have been declining in recent years. For instance, construction equipment engine efficiency has continued to improve year after year. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower (hp) and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the USEPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the USEPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 hp and

increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards. Tier 3 engine standards reduce precursor and subset GHG emissions such as nitrogen oxide by as much as 60 percent. On May 11, 2004, the USEPA signed the final rule introducing Tier 4 emission standards, which were phased in over the period of 2008-2015. The Tier 4 standards require that emissions of nitrogen oxide be further reduced by about 90 percent. All off-road, diesel-fueled construction equipment manufactured in 2015 or later will be manufactured to Tier 4 standards.

4.8.3.2 Operational GHG Emissions

The Proposed Project includes the rehabilitation of sanitary sewer mains and their associated lower sewer laterals to minimize the number and impact of sanitary sewer overflows. The amount of effluent pumped would not increase. Therefore, there are no operational emissions.

For these reasons, the Proposed Project's construction GHG emissions would have a less than a significant impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

No Impact.

The City of Piedmont has developed a CAP to provide a framework for reducing GHG emissions. The measures in the CAP are projected to accomplish the goal to reduce GHG emissions 40 percent from the 2005 baseline by 2030 to achieve an 80 percent GHG reduction by 2050. In July 2023, the City updated the GHG reduction goals to reduce GHG emissions 50 percent by 2030 and to achieve carbon neutrality no later than 2045 (City of Piedmont 2018, 2024). CAP Measure WW-2.1 promotes infrastructure improvements by repairing and maintaining existing water lines to prevent leaks. The Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. It does not conflict with or obstruct a plan for renewable energy or energy efficiency.

As previously described, the State of California promulgates several mandates and goals to reduce statewide GHG emissions, including the goals to reduce statewide GHG emissions to 40 percent below 1990 levels by the year 2030 (Senate Bill [SB] 32) and 80 percent below 1990 levels by 2050 (Executive Order [EO] S-03-05). The Proposed Project would comply with CAPCOA's threshold of 900 metric tons of CO_2e per year, which was developed in consideration of statewide GHG reduction goals. CAPCOA considers the 900 metric ton threshold sufficiently low to capture a significant portion of future residential and nonresidential development necessary for accommodating statewide population and economic growth. Simultaneously, it establishes the emission threshold at a level that excludes small projects

contributing a relatively minor fraction of cumulative statewide GHG emissions. Furthermore, the Project would not include new permanent sources of GHG emissions and would not generate new or unplanned permanent GHG emissions. Therefore, the Project would not interfere with the state's goals of reducing GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, as established in SB 32 and EO S-03-05.

During construction, the Project would utilize equipment in compliance with CARB requirements. Mobile sources during construction would be subject to the requirements of California Assembly Bill 1493 (Pavley Standards), the Advanced Clean Cars Program, and the Low Carbon Fuel Standard Regulation. These regulations require projects to comply with specific standards related to energy efficiency construction practices.

For these reasons, the Project would not conflict with any applicable plan, policy, or regulation related to the reduction in GHG emissions. There is no impact.

4.8.4 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code, Section 25501 as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

A hazardous material is defined in 22 CCR Section 662601.10 as follows:

> A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

Transporters of hazardous waste in California are subject to several federal and state regulations. They must register with the California Department of Health Services (DHS) and ensure that vehicle and waste container operators have been trained in the proper handling of hazardous waste. Vehicles used for the transportation of hazardous waste must pass an annual inspection by the California Highway Patrol (CHP).

Transporters must allow the CHP or DHS to inspect its vehicles and must make certain required inspection records available to both agencies. The transport of hazardous materials that are not wastes is regulated by the U.S. Department of Transportation through national safety standards.

The Alameda County Department of Environmental Health (ACDEH) includes a Hazardous Materials Division which regulates clean water, Certified Unified Program Agency (CUPA), and waste tires within Alameda County. The ACDEH, through the Clean Water Program, helps: reduce or eliminate the pollution of receiving waters, including creeks and the San Francisco Bay; and protect and enhance the water quality in county water bodies, including watercourses, wetlands, creeks, and flood control facilities. The ACDEH is also the CUPA that coordinates and enforces numerous local, State, and federal hazardous materials management and environmental protection programs in the county, including in the City of Piedmont. The ACDEH was granted waste tire enforcement activity authority by CalRecycle for all of Alameda County which allows them to enforce requirements for the storage and disposal of waste tires.

Under Government Code Section 65962.5, both the Department of Toxic Substances Control (DTSC) and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. The Proposed Project sites are not listed by the DTSC as a hazardous substances site on the list of hazardous waste sites compiled pursuant to Government Code Section 65962.5 (Cortese List) (DTSC 2023). Per the SWRCB Cortese List, there is a site that had naturally occurring asbestos at the Frank C. Havens Elementary School, but the case was closed in 2010.

4.9.2 Hazards and Hazardous Materials (IX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project involves installation of Fusible HDPE pipe via pipe bursting in most cases. Pipe bursting will be used when there is sufficient room and access for the equipment, within Public ROW, and within accessible private property via City's "Right of Entry" on front yard and back yard private parcels. In rare cases where pipe bursting equipment cannot be used, CIPP will be considered. Open trench will only be utilized when installing two-way cleanouts and reconnecting laterals to the new sanitary sewer pipelines.

Construction may include the use of hazardous materials, given that construction activities involve the use of heavy equipment, which uses small and incidental amounts of oils and fuels and other potentially flammable substances. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials used during construction. The construction contractor would be required to use standard construction controls

and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, state and federal law. The transport of hazardous materials by truck is regulated by federal safety standards under the jurisdiction of the U.S. Department of Transportation. The use of such materials would not create a significant hazard to the public and impacts would be less than significant. No mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less Than Significant Impact.

Onsite storage and/or use of large quantities of hazardous materials capable of affecting soil and groundwater are not proposed; therefore, the potential risk associated with accidental discharge associated with use and storage of equipment-related hazardous materials during pipe construction is considered low. The Proposed Project is an infrastructure project that would not require the long-term use or storage of hazardous substances. No potential for the release of hazardous materials into the environment is expected. Furthermore, as indicated in the Project Description, the Proposed Project is a sewer rehabilitation project in the City's service area. The existing sewer lines were previously installed before 1920 and have exceeded their useful life and allow for excessive infiltration/inflow of groundwater in certain areas of the collection system. Due to the existing pipes' age and condition, there is an existing high risk due to pipeline failure. Implementation of the Proposed project would have a beneficial impact by reducing the risk of failure and any associated risk to public health and environment. A less than significant impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

Less Than Significant Impact.

Portions of the Proposed Project are within one-quarter mile of Wildwood Elementary School, Piedmont Middle School, and Piedmont High School. The use of hazardous materials would be limited during construction activities and would include traditional materials typically associated with public works construction projects such as gasoline, diesel, oil, paint, resin and epoxy concrete. All hazardous materials,

substances, or waste would be handled consistent with federal, state, and local regulations. Any impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

No Impact.

Under Government Code Section 65962.5, both DTSC and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the of the DTSC and SWRCB lists identified that the Proposed Project Sites are not located on a hazardous material site. However, a portion of the project is adjacent to Frank C. Havens Elementary School, which had Naturally Occurring Asbestos. The case was closed in 2010. No impact would occur and no mitigation is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project Area?	☐	☐	☐	☒

No Impact.

There are no airport or airstrip facilities in Piedmont. The nearest airport is Oakland International Airport, which is located 7.8 miles south of Piedmont. Therefore, no safety hazards to people residing or working in the Project Area would result due to the proximity to a public or public use airport. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐

Less Than Significant With Mitigation Incorporated.

The City of Piedmont adopted the LHMP in 2019 and is considered the primary document when discussing how disasters will be managed by the city. Most of the Project construction would occur within the ROW, which could be utilized during an emergency evacuation. Construction activities could impede the use of surrounding roadways. Therefore, the Proposed Project would require implementation of Mitigation Measure TRANS-1 (Section 4.17) that requires preparation and implementation of a Construction Traffic Management Plan. This mitigation measure would assist in maintaining traffic flow along roadways during construction activities. After construction of the Project is completed, the Project site would be restored to the existing condition. Therefore, implementation of the Proposed Project would not obstruct evacuation routes or access to critical emergency facilities. Once construction is completed, the Proposed Project would not interfere with the LHMP or any evacuation. This impact is less than significant with mitigation.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project is located within the City of Piedmont, which has an elevated risk of wildfires; Section 4.20 provides further discussion. The City of Piedmont is outside of a State Responsibility Area (California Department of Forestry and Fire Protection [CAL FIRE] 2024). Eastern portions of the City are considered to be at a very high risk for fires as recommended by CAL FIRE (2008), however, the Proposed Project is outside of these locations. The Proposed Project includes the rehabilitation of the existing sewer pipeline infrastructure, and no habitable structures are proposed as part of the Proposed Project.

The Proposed Project would be required to comply with existing City standards to provide adequate access, fire flows, and other facilities to maintain an appropriate level of fire protection. Additionally, the Project would be required to comply with the *California Building Code* and *California Fire Code*. Therefore, the Proposed Project would not exacerbate the existing conditions and would not expose people or structures to a significant risk of loss, injury or death involving wildfires. Therefore, impacts would be less than significant. No mitigation is required.

4.9.3 Mitigation Measures

Implement Mitigation Measure TRANS-1.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

4.10.1.1 Regional Hydrology

Watersheds

The California Department of Water Resources divides surface watersheds in California into 10 hydrologic regions. Piedmont lies in San Francisco Bay Hydrologic Region (Bay Region), which contains 33 alluvial groundwater basins, covers approximately 4,500 square miles, and includes all of San Francisco County and portions of Marin, Sonoma, Napa, Solano, San Mateo, Santa Clara, Contra Costa, and Alameda counties. The Bay Region comprises numerous watersheds that drain directly into San Francisco Bay, downstream of other watersheds such as the Sacramento San-Joaquin River Delta and coastal creek watersheds in Marin and San Mateo counties that drain directly to the Pacific Ocean.

Piedmont is located on the eastern portion of the San Francisco Bay Area and is surrounded by the City of Oakland. There is one primary watershed within the city limits. The Indian Gulch/Pleasant Valley Creek Watershed covers about three-square miles, draining much of the City of Piedmont and parts of the Lower Hills District in the City of Oakland (Alameda County Flood Control & Water Conservation District 2023). The watershed in Piedmont utilizes five small creeks that converge downstream and flow into eastern Lake Merritt, and from there into the San Francisco Bay.

Surface Water

According to the City of Piedmont's Natural Resources and Sustainability Element, there are several creeks, lakes and reservoirs within and adjacent to Piedmont. Within Piedmont, there is one reservoir (EBMUD Reservoir Number 2) and one privately-owned, man-made lake near LaSalle Avenue. There are a few lakes that slightly cross over the northern boundary of the city limits, but those are under the jurisdiction of the Mountain View Cemetery (City of Piedmont 2009d).

Groundwater

Piedmont lies within the East Bay Plain Subbasin for which the East Bay Municipal Utility District (EBMUD) serves as the Groundwater Sustainability Agency. Water supply in Piedmont is also provided by EBMUD. The majority of the water delivered by EBMUD originates from the Mokelumne River watershed, and the remaining water originates as runoff from the protected watershed lands and reservoirs in the East Bay Hills.

4.10.1.2 Regional Water Quality

The San Francisco Bay region's immediate watershed is highly urbanized, resulting in contaminant loads from point and nonpoint sources. Stormwater runoff pollutants vary with land use, topography, and the amount of impervious surface, as well as the amount and frequency of rainfall and irrigation practices. Typically, runoff in developed areas contains oil, grease, litter, and metals accumulated in streets,

driveways, parking lots, and rooftop. It also contains pollutants applied to landscaped areas. Other contaminants can include chemicals, dust, and smoke pollution that settles or settled out of the air, such as residual lead from leaded gasoline. Stormwater runoff generated in Piedmont eventually discharges into San Francisco Bay. The runoff is conveyed by storm drains, open channel creeks, and culverted creeks to the Bay. The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) is the primary agency charged with protecting and enhancing surface and ground water quality in the region (City of Piedmont 2009a).

The SFBRWQCB monitors surface water quality through implementation of the Basin Plan and designates beneficial uses for surface water bodies and groundwater. Four of the waterways within the Indian Gulch/Watershed are aboveground and have been assigned some beneficial uses by the San Francisco Bay RWQCB (SFBRWQCB 2023).

4.10.1.3 Site Hydrology and Onsite Drainage

The Proposed Project (Project) consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method (Figure 2-2). The project will include the following elements:

- 15,166 linear feet of 6-inch pipe,
- 949 linear feet of 8-inch pipe,
- 458 linear feet of 10-inch pipe,
- 1,267 linear feet of 12-inch pipe,
- 241 linear feet of 15-inch pipe,
- 39 Main cleanout/Lamp hole replacements,
- 280 Lateral reconnection/Two-way cleanout installations; and
- 4 manholes

It is assumed that the existing manholes will be reused and reconnected to the new pipe. All sewer main cleanouts and lamp holes are assumed to be replaced and two-way cleanouts will be installed at the upstream limit of the rehabilitated lower sewer lateral behind the curb, sidewalk, or backyard. There are 280 assumed lateral reconnections/two-way cleanout installations by estimating adjacent properties of each pipe segment. By the end of the Proposed Project, the city will have rehabilitated/replaced 73% of its sewer mains.

A Biological Resources Assessment report was prepared for the Proposed Project by ECORP Consulting, Inc. (ECORP 2024b, Appendix B). The report identified that the Project is within an urban setting, including within existing paved streets, sidewalks, residential yards, and the City's corporation yard at Red Rock Road, which is a paved and developed facility. The field reconnaissance conducted on February 15, 2024 confirmed that there are no aquatic resources within the Project Area. Review of the NWI showed that there are no previously mapped aquatic features within the Proposed Project Area.

4.10.2 Hydrology and Water Quality (X) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. The existing sewer lines are in poor condition and are showing signs of structural failure. Implementation of the Proposed Project would actually protect against potential hazards to water quality standards because if the existing sewer lines fail, it would enable wastewater to migrate to underlying groundwater, or cause overflow, which would discharge to the storm drains or creeks. Additionally, the pipeline wouldn't increase service capacity or extend service to areas that do not currently have service. As such, long-term operation of the Proposed Project will have less than significant impact on existing water quality standards or waste discharge requirements.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project would utilize the pipe bursting method for the replacement sanitary sewer collection when there would be sufficient room and access for the equipment and would be within the Public ROW, and within accessible private property via City's "Right of Entry" on front yard and back yard private parcels. In rare cases where pipe bursting equipment cannot be used, CIPP will be considered. Open trench construction will only be utilized when installing two-way cleanouts and reconnecting laterals to the new sanitary sewer pipelines. The pipeline wouldn't increase service capacity or extend service to areas that do not currently have service. Due to the linear nature of the proposed pipeline and proposed restoration of any construction staging areas, any localized effects of the Proposed Project on groundwater recharge would be unsubstantial.

However, past projects that were part of the City's Sanitary Rehabilitation Project, required limited dewatering due to encountering shallow groundwater. If necessary for the Proposed Project, the amount of dewatering is expected to be minimal as it would be limited to a small, localized area. Therefore, any impact to groundwater supplies is expected to be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 that would:				
i) result in substantial erosion or siltation onsite or offsite;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	☐	☐	☒	☐
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	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project does not involve substantial alteration of the existing drainage pattern along the pipeline alignment. The Proposed Project involves replacing approximately 17,626 linear feet of sanitary sewer collection utilizing the pipe burst method. As mentioned previously in this document, pipe bursting is a trenchless method of replacing buried pipelines without the need for traditional construction trenching. Pipe bursting has substantially less construction work and surface disturbance than traditional dig-and-replace methods. Open trench construction will only be utilized when installing two-way cleanouts and reconnecting laterals to the new sanitary sewer pipelines.

The Proposed Project would be required to obtain an EBMUD permit and adhere to the PCC Sections 1805.4.3, 8.12.030, 30.10, and 30.11, which would control stormwater runoff and protect water quality. Any impacts to stormwater and drainage would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	☐	☐	☐	☒

No Impact.

The Proposed Project is not located in an area that is at risk of flood hazard, tsunami, or seiche zones. Therefore, there is not a risk of pollutant release during these events as a result of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Less Than Significant Impact.

As discussed above, the sewer pipe replacement would be constructed with the pipe bursting method. The Proposed Project would be required to obtain an EBMUD permit and adhere to the PCC Sections 1805.4.3, 8.12.030, 30.10, and 30.11, which would control stormwater runoff and protect water quality. The Proposed Project is part of the City's Sanitary Sewer Rehabilitation Project, which is to rehabilitate all 22 sub-basins in order to comply with RWQCB and a Consent Decree requirement to minimize the number and impact of sanitary sewer overflows as well as to take a proactive approach in addressing infiltration/inflow into the sewer system. Implementation of the Proposed Project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan and would actually be consistent with the City's Sanitary Sewer Rehabilitation Project. Any impacts would be less than significant and no mitigation is required.

4.10.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.11 Land Use and Planning

4.11.1 Environmental Setting

Within the Project limits, the proposed sewer pipeline would be located within the existing road ROW and the front and backyards of private properties. It would be in residential areas off of Park Way, Oakland Avenue, and Scenic Avenue. The extent of the Project construction would occur on land designated as ROW by the City of Piedmont General Plan Land Use Element. The parcels immediately surrounding the Proposed Project Area have Low Density Residential and Public Facilities land use designations. No land use designations will be altered with implementation of the Proposed Project.

4.11.2 Land Use and Planning (XI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒

No Impact.

The Proposed Project involves rehabilitation of existing sewer lines, primarily within land designated as Public ROW. In some cases, the project includes land designated as residential, and would be accessed via the City's "Right of Entry" on front yard and back yard private residences. The Proposed Project would not physically divide an established community and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

No Impact.

The Proposed Project is consistent with the City of Piedmont's adopted General Plan policy. The Proposed Project is part of a phased program to systematically replace the wastewater lines that are almost a century old. Thus, Project implementation would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. There would be no impact and no mitigation is required.

4.11.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.12 Mineral Resources

4.12.1 Environmental Setting

Minerals are defined as any naturally occurring chemical elements or compounds formed by inorganic processes and organic substances. Minable minerals are defined as a deposit of ore or minerals having a value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the Project Area. The conservation, extraction, and processing of mineral resources is essential to meeting the needs of society.

The Surface Mining and Reclamation Act of 1975 (SMARA) states that cities and counties shall adopt ordinances "...that establish procedures for the review and approval of reclamation plans and financial assurances and the issuance of a permit to conduct surface mining operations..." (PRC Section 2774). The intent of this legislation is to ensure the prevention or mitigation of the adverse environmental impacts of mining, the reclamation of mined lands, and the production and conservation of mineral resources are consistent with recreation, watershed, wildlife, and public safety objectives (PRC Section 2712).

SMARA requires the State Geologist to classify land into Mineral Resource Zones (MRZs) according to the known or inferred mineral potential of that land. The process is based solely on geology, without regard

to existing land use or land ownership. The primary goal of mineral land classification is to ensure that the mineral potential of land is recognized by local government decision makers and considered before land use decisions, which could preclude mining, are made. Areas subject to California mineral land classification studies are divided into the following Mineral Resource Zone (MRZ) categories that reflect varying degrees of mineral potential:

- MRZ-1: Areas of no mineral resource significance
- MRZ-2: Areas of identified mineral resource significance
- MRZ-3: Areas of undetermined mineral resource significance
- MRZ-4: Areas of unknown mineral resource significance

According to the Department of Conservation mapping software, the Project Area is listed as MRZ-2b (Stinson, Manson, and Plappert 1987). MRZ-2b are areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. However, the City of Piedmont General Plan stated that the city does not have significant mineral resources or active mining sites. The City's main mineral resources are volcanic rocks, and two sandstone aggregate quarries that once existed. The City's quarries were converted to other uses through urbanization and are not expected to resume operation due to the City's built up residential character and the lack of suitable sites. Piedmont contains no known oil, gas, or geothermal resources suitable for extraction (City of Piedmont 2009d).

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

No Impact.

The Proposed Project alignment is not within an area identified as having the potential for mineral resources by the County and is in a fully urbanized community. Therefore, implementation of the Proposed Project would not result in the loss of availability of a known mineral resource. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

No Impact.

The Proposed Project alignment is not within an area identified as having the potential for mineral resources by the City (City of Piedmont 2009d). Therefore, implementation of the Proposed Project would not result in the loss of availability of a known mineral resource. No impact would occur.

4.12.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.13 Noise

4.13.1 Environmental Setting

4.13.1.1 Noise Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn}/CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA *weighting* added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations.

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often

referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed (Federal Highway Administration 2011).

The manner in which older structures in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer structures is generally 30 dBA or more (Harris Miller & Hanson Inc. 2006).

4.13.1.2 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high, above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1.0 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3.0-dBA change is considered a just-perceivable difference.
- A change in level of at least 5.0 dBA is required before any noticeable change in community response would be expected. An increase of 5.0 dBA is typically considered substantial.

A 10.0-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

4.13.1.3 Sensitive Noise Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and

prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The Project Area is linear and traverses many different locations throughout the City of Piedmont in northwestern Alameda County. According to the City's General Plan, the City is generally quiet thus domestic noise sources, such as noise from construction, are a concern in some neighborhoods. However, the General Plan acknowledges that ambient noise in the western portion of the City tends to be higher than the eastern portion due to greater population density and proximity to I-580 (City of Piedmont 2009a).

The nearest noise sensitive receptors to the Project Area are single-family residences, which are located at various distances, with the closest residence approximately 30 feet distant.

4.13.1.4 Vibration Fundamentals

Ground vibration can be measured several ways to quantify the amplitude of vibration produced, including through peak particle velocity (PPV) or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.1.5 Existing Ambient Noise Environment

The Project Area, which is located throughout the City of Piedmont, is impacted by noise sources typical of a small city. It is subject to typical neighborhood noise such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities. Mobile sources of noise, especially cars and trucks, are the most common source of noise in the community.

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 *Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present* provides a table of approximate background sound levels in L_{dn}, daytime L_{eq}, and nighttime L_{eq}, based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in Table 4.13-1. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, "*95% prediction interval [confidence interval] is on the order of ±10 dB*." The majority of the Project Area would be considered ambient noise Category 4.

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Land Use	Land Use	Land Use	Land Use	Land Use		
				Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67	66	58
2	Moderate Commercial & Industrial Areas and Noisy Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62	61	54
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass-transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic, compose this category.	6,384	57	55	49
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52	50	44
5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small wooded valley.	638	47	45	39
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42	40	34

Note: ANSI = American National Standards Institute; L_{dn} = Day-Night Average Sound Level; L_{eq} = Equivalent Noise Level

Source: ECORP Consulting, Inc. 2024f

4.13.2 Noise (XIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in 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?	☐	☒	☐	☐

Less Than Significant Impact with Mitigation Incorporated.

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise sensitive and may warrant unique measures for protection from intruding noise. The Project Area spans many different locations throughout the City of Piedmont in northwestern Alameda County, which is primarily made up of noise-sensitive residential receptors. Virtually all aspects of Project implementation would involve construction activity occurring adjacent to these land uses.

4.13.2.1 Onsite Project Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the specific nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, excavation, paving). Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

The Piedmont City Code Section 12.8, *Noise Declared Nuisance,* states that loud, unnecessary, and unusual noise which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable resident of normal sensitivity is a nuisance and is unlawful. The City Code prohibits construction and demolition between the hours of 6:00 p.m. and 8:00 a.m. Sunday evening through Saturday morning and between 6:00 p.m. and 9:00 a.m. Saturday evening through Sunday morning. Therefore, the Project would be required to limit construction to the daytime hours as specified in the City Code.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptors and in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, the construction equipment noise levels were calculated using the Roadway Construction Noise Model and compared against the construction-related noise level threshold established in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998 by the National Institute for Occupational Safety and Health (NIOSH). A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors.

It is acknowledged that the majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout the Project Area and at various distances from sensitive receptors. Table 4.13-2 presents the anticipated short-term construction noise levels generated for the necessary equipment for each construction phase.

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Receptors (30 Feet Distant)

Equipment	Estimated Exterior Construction Noise Level @ Closest Noise Sensitive Receptor (dBA L_{eq})	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Excavation	91.4	*85*	**Yes**
Hauling	82.3	*85*	**No**
Final Paving	92.2	*85*	**Yes**

Notes: L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
Source: Federal Highway Administration 2008. Refer to Appendix F for Model Data Outputs.

As shown in Table 4.13-2, Project onsite excavation and paving activities would exceed the NIOSH threshold of 85 dBA L_{eq} at the nearest noise-sensitive receptors. Implementation of Mitigation Measures NOI-1 and NOI-2 would substantially reduce construction-generated noise levels. Noise barriers or enclosures such as that recommended in Mitigation Measure NOI-2 can provide a sound reduction of 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. 2021), which would be a reduction robust enough to maintain construction noise levels less than 85 dBA. Temporary noise barriers can consist of a solid plywood fence and/or flexible sound curtains, such as an 18-ounce tarp or a 2-inch-thick fiberglass blanket attached to chain link fencing. Therefore, Project construction activities would not expose persons to and generate noise levels in excess of NIOSH health protective standards with implementation of Mitigation Measure NOI-1 and Mitigation Measure NOI-2.

4.13.2.2 Offsite Project Construction Traffic Noise

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to CalEEMod, which is used to predict the number of construction-related automotive trips, the maximum number of Project construction trips traveling to and from the Project Area during a single construction phase would not be expected to exceed 62 daily trips in total (60 construction worker trips and 2 vendor trips). According to Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol, a doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference) (Caltrans 2013). While Project construction workers would instigate their trip to the Project Area from differing locations, the addition of 62 daily trips spread over the various roadway facilities that would be used to reach the Project Area would not result in a doubling of traffic on any of these roadway facilities, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and construction-related trips would cease upon completion of construction.

4.13.2.3 Project Operational Noise

The Project proposes necessary upgrades to the City's sanitary sewer system including the rehabilitation of sanitary sewer mains and their associated lower sewer laterals. The Project would not expand its capacity in a manner that would induce population or employment growth. Once upgrades are complete, the sanitary sewer system would not be a greater source of operational noise beyond current conditions.

For the reasons listed above, this impact is less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐

Less Than Significant Impact.

4.13.2.4 Construction Vibration Analysis

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Proposed Project would be primarily associated with short-term, construction-related activities. Construction in the Project Area would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Vibration decreases rapidly with distance, and it is acknowledged that construction activities would occur

throughout the Project Area and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 4.13-3.

Table 4.13-3. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Pile Driver	0.170
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Federal Transit Administration (FTA) 2018

The Piedmont City Code does not have an ordinance for vibration associated with temporary construction or demolition. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, Caltrans recommended standard of 0.3 inches per second peak particle velocity (PPV) with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings (Caltrans 2020).

Based on the representative vibration levels presented for various construction equipment types in Table 4.13-3 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential project construction vibration levels. The FTA provides the following equation:

$$[PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}]$$

Table 4.13-4 presents the expected Project related vibration levels at a distance of 30 feet.

Table 4.13-4. Construction Vibration Levels at 30 Feet

Receiver PPV Levels (in/sec)[1]					Peak Vibration	Threshold	Exceed Threshold
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Pile Driver	Vibratory Roller			
0.0677	0.0578	0.0266	0.1293	0.1598	0.1598	*0.3*	**No**

Note: in/sec = inches per second; PPV = Peak Particle Velocity
Source: California Department of Transportation (Caltrans) 2020; Federal Transit Administration (FTA) 2018

As shown in Table 4.13-3, vibration as a result of construction activities would not exceed 0.3 PPV. Thus, Project construction would not exceed the recommended threshold. This impact is less than significant.

4.13.2.5 Project Operational Vibration

Project operations would not include the use of any stationary equipment that would result in excessive groundborne vibration levels. Therefore, the Project would result in no groundborne vibration impacts during operations. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project Area to excessive noise levels?	☐	☐	☐	☒

No Impact.

The Project Area is located approximately 5.5 miles northwest of Oakland International Airport. The Project Area is located outside of the noise contours of this airport facility (Oakland Airport 2006). Aircraft noise does not significantly impact the City of Piedmont and the Proposed Project would not expose people visiting or working on the Project Area to excess airport noise levels. Therefore, no impact would occur.

4.13.3 Mitigation Measures

NOI-1: The Project improvement and construction plans will include the following requirements for construction activities:

- Construction contacts must specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices.
- A sign, legible at a distance of 50 feet, shall be posted at the Project construction site providing a contact name and a telephone number where residents can inquire about the construction process and register complaints. This sign shall indicate the dates and duration of construction activities. In conjunction with this required posting, a noise disturbance coordinator will be identified to address construction noise concerns received. The coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the disturbance coordinator shall notify the City within 24 hours of the complaint and determine the cause of the noise complaint (starting too early, malfunctioning

muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the City. All signs posted at the construction site shall include the contact name and the telephone number for the noise disturbance coordinator.

- Identification of construction noise reduction methods. These reduction methods may include shutting off idling equipment (5 minutes), installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and using electric air compressors and similar power tools.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Per Piedmont City Code Section 12.8, Noise Declared Nuisance, construction and demolition shall be prohibited between the hours of 6:00 p.m. and 8:00 a.m. Sunday evening through Saturday morning and between 6:00 p.m. and 9:00 a.m. Saturday evening through Sunday morning.

NOI-2: In order to reduce construction noise, during the excavation and paving phases, all other portable stationary noise sources (e.g., excavators, compactors, generators, compressors, etc.) will be screened from sensitive receptors in a manner that breaks the line of sight between the construction equipment and these residences. Temporary noise barriers/enclosures shall have a sound transmission class (STC) of 10 or greater in accordance with American Society for Testing and Materials Test Method E90, or at least 2 pounds per square foot to ensure adequate transmission loss characteristics. The temporary noise barrier can consist of a solid plywood fence at least 7/16-inch in thickness and/or flexible sound curtains, such as an 18-ounce tarp or a 2-inch-thick fiberglass blanket, attached to chain link fencing. The length, height, and location of the temporary noise barrier shall be adequate to assure proper acoustical performance. Specifically, the barrier must completely break the line of sight between the construction site and adjacent residences along the linear Project Site, must be free of degrading holes or gaps and must not be flanked by nearby reflective surfaces. All noise control barrier walls/enclosures shall be designed to preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion.

4.14 Population and Housing

4.14.1 Environmental Setting

The Proposed Project alignment spans a distance of approximately 17,626 linear feet, among various sewer lines within the City of Piedmont, California. U.S. Census data reports that population growth in the City of Piedmont, has decreased 4.1 percent from 11,277 in 2020 to 10,811 in 2022 (US Census Bureau 2022). According to the Department of Finance (DOF), in 2023 there are 3,979 houses available with a vacancy rate of 3.2% (DOF 2023).

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒

No Impact.

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. The pipeline wouldn't increase service capacity or extend service to areas that do not currently have service. Upon completion of the Proposed Project, the Project Area would be returned to existing conditions. Implementation of the Proposed Project would not induce substantial population growth in the area. Furthermore, minimal operation and maintenance of the pipeline would be required and no permanent employees would be hired as a result of the Proposed Project. No impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No Impact.

As described above, the Proposed Project will replace the existing pipeline within the roadway alignment and would not involve land outside the roadway ROW. The Proposed Project alignment would not displace any existing housing and therefore, no impact would occur and no mitigation is required.

4.14.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.15 Public Services

4.15.1 Environmental Setting

4.15.1.1 Police Services

The Piedmont Police Department (PPD) provides police protection services to Piedmont. The PPD's only police station is located at 403 Highland Avenue.

The Piedmont General Plan Community Services and Facilities Element indicates the PPD has a response time goal of three minutes or less for ninety percent of calls (City of Piedmont 2009e).

4.15.1.2 Fire Services

The Piedmont Fire Department (PFD) provides fire protection and emergency medical services for the City of Piedmont. The PFD operates a single fire station including two Type 1 engines, one Type 6 engine, one 65-foot aerial ladder truck, two ambulances, one utility truck, and one command vehicle. The PFD is organized into two divisions: Fire Prevention Bureau and Operations and Training. Both divisions are under the Office of the Fire Chief. The PFD's only fire station is located at 120 Vista Avenue.

The Piedmont General Plan Community Services and Facilities Element indicates the PFD has a response time goal of three minutes or less for ninety percent of calls (City of Piedmont 2009e).

4.15.1.3 Schools

The Piedmont Unified School District (PUSD) operates three elementary schools (grades K-5), one middle school (grades 6-8), one traditional high school, one alternative high school, and one adult education (PUSD 2023).

4.15.1.4 Parks

The City of Piedmont Recreation Department (PRD) administers recreation centers and programs and maintains some of the parks within city limits. According to the General Plan Parks, Recreation, and Open Space Element, Piedmont has approximately 59 acres of parkland, of which approximately 44 acres are city-owned and operated parks, approximately 6 acres are operated by the City of Oakland but are within the city limits, and approximately 8.5 acres are school recreational facilities (Piedmont 2009e).

4.15.2 Public Services (XV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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:	☐	☒	☐	☐
Fire Protection?	☐	☒	☐	☐
Police Protection?	☐	☒	☐	☐

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other Public Facilities?	☐	☐	☐	☒

Less Than Significant Impact With Mitigation Incorporated.

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. The proposed pipeline would be maintained by the City and would not require public services beyond existing conditions. During construction, partial roadway closures would be required. The City would consult with affected property owners as to what specific requirements could apply to the use of their property during construction. TRANS-1 requires preparation and implementation of a traffic management plan to ensure access along the project roadways is maintained for both emergency and residential use during construction. With implementation of TRANS-1 the Proposed Project would have a less than significant impact on public services.

Mitigation Measures

See Section 4.17, *Transportation*, for Mitigation Measure TRANS-1.

4.16 Recreation

4.16.1 Environmental Setting

As mentioned above in Section 4.15.1.4, *Public Services-Parks*, the PRD administers recreation centers and programs and maintains some of the parks within the city limits. According to General Plan Parks, Recreation, and Open Space Element, Piedmont has approximately 59 acres of parkland, of which approximately 44 acres are city-owned and operated parks, approximately 6 acres are operated by the City of Oakland but are within the city limits, and approximately 8.5 acres are school recreational facilities (Piedmont 2009c).

There are no regional parks within Piedmont. However, Piedmont is within the East Bay Regional Parks District (EBRPD), a special district that owns and manages 55 parks encompassing 91,000 acres in Alameda and Contra Costa Counties. The EBRPD facilities in the vicinity of Piedmont include Lake Temescal, Anthony Chabot Regional Park, and Redwood Regional Park (in Oakland), and Tilden Regional Park (in Berkeley). In addition, Piedmont residents may also recreate at Lake Merritt, Joaquin Miller, and Knowland parks, which are facilities owned and operated by the City of Oakland (City of Piedmont 2009e).

4.16.2 Recreation (XVI) Materials Checklist

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

No Impact.

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. The Proposed Project would not increase city population and would be implemented consistent with all adopted General Plan policies and implementation measures. Thus, the Proposed Project would not 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. There would be no impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

No Impact.

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. The Proposed Project would not increase city population and would be implemented consistent with all adopted General Plan policies and implementation measures. Thus, the Proposed Project would not 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. There would be no impact.

4.16.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.17 Transportation

4.17.1 Environmental Setting

The City of Piedmont is in northwest Alameda County. The city has a land area of about 1.7 square miles with mostly hilly terrain throughout. The Project area is west of SR 13, north of I-580, south of Moraga Avenue, and east of Broadway Avenue. The Project includes rehabilitation of the sewer mains in several

areas of the City of Piedmont. The Proposed Project is not intended to increase service capacity in the City of Piedmont system and, as such, would not directly or indirectly result in future growth and development not served by existing facilities.

4.17.2 Transportation (XVII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. No long-term modifications to roadway features are Proposed that would conflict with adopted policies, plans, or programs regarding alternative transportation. Traffic disruption during project construction, however, may adversely impact access to roadways for alternative transportation. This is considered short-term but potentially significant impact. Implementation of Mitigation Measure TRANS-1 will reduce this impact to less than significant with mitigation incorporated.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☐	☒

No Impact.

CEQA Guidelines Section 15064.3 subdivision (b) addresses the criteria for analyzing transportation impacts and establishes the Vehicle Miles Traveled (VMT) metric as the most appropriate measure of transportation impacts in a CEQA document. The Proposed Project is a pipeline infrastructure project and will not result in a permanent increase in VMT. Consequently, there would be no impact and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

No Impact.

The Proposed Project involves installation of a below-ground sewer pipeline. After Project installation, the site would return to existing conditions above-ground. No modifications to roadway features are proposed as part of the Project. The Project would not introduce transportation hazards and related impacts. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

Traffic disruption during Project construction would be short-term but may adversely affect access to roadways within the Proposed Project Area. This is considered a short-term but potentially significant impact. Implementation of Mitigation Measure TRANS-1 will reduce this impact to less than significant with mitigation incorporated.

4.17.3 Mitigation Measures

TRANS-1: **Construction Traffic Management Plan**. Prior to commencing construction of the Proposed Project, a construction traffic management plan (Traffic Plan) shall be prepared by the Contractor, in coordination with the City. The management plan shall be detailed and comprehensive to adequately mitigate potential conflicts between baseline and construction-related traffic. The Traffic Plan will include, at a minimum, the following measures:

A. Adequate off-street worker parking shall be provided along the pipeline route.

B. A flagman or signal-controlled one-way traffic-control operation shall be provided where two-way traffic operation is impractical or unsafe.

C. Roadway disturbances shall be minimized during non-working hours; open trenches shall be covered with steel plates or by the use of temporary backfill during non-working hours.

D. Temporary steel plate trench crossings shall be provided as needed to maintain access to homes, farms, and businesses.

E. Construction sites shall be posted with appropriate warning signage at least one week prior to construction to allow local residents to select an alternative travel route.

F. Construction staging areas shall be provided to minimize storage of equipment and materials in the traffic lanes.

G. All paved surfaces disturbed during construction shall be repaved when work is complete.

H. The Contractor shall provide traffic control and diversion plans for review and approval by each appropriate jurisdiction.

I. To minimize delays in emergency response during project construction, emergency providers shall be notified in advance. Police, fire protection, and ambulance services shall be notified in advance of the times, duration, and location of construction activities throughout the project's construction process.

4.18 Tribal Cultural Resources

ECORP Consulting, Inc. was retained to conduct a cultural resources inventory of the Proposed Project and assisted with tribal coordination efforts. The information provided below is an abridged version of the Cultural Resources Inventory Report and is included here to provide a brief context of the potential cultural resources in the Project Area. Due to the sensitive nature of cultural resources and their records and documentation, which are restricted from public distribution by state and federal law, the IS/MND appendices do not include the report; however, all pertinent information necessary for impact determinations is included in this section.

4.18.1 Environmental Setting

Ethnographically, the Project area is in the southern portion of the northern half of the Costanoan territory. The territory extended from the Carquinez Strait from the north down to Carmel in the south. Native Californians settled in the Menlo Park area, approximately 21 miles northwest of the Project area, between 14,000 and 6,000 years ago. Subsequent Penutian peoples migrated into central California around 4,500 years ago and were firmly settled around San Francisco Bay by 1,500 years ago. The people who lived between the Carquinez Strait and the Monterey area when Europeans first arrived were referred to as the Ohlone by ethnographers, although they are often referred to by the name of their linguistic group, Costanoan, which was a name incorrectly bestowed by the Spanish.

The word Costanoan comes from the Spanish word *Costanos* meaning *coast people* which was given to the tribes in 1770 when the first mission was established in their territory. The *Costanoan* represented a group of people who spoke eight separate languages, but whose dialects were most similar to their geographic neighbors. In all, the Costanoan consisted of approximately 50 different tribelets or politically autonomous nations, each having their own village with an average of 200 inhabitants. Today, the Ohlone are represented by autonomous tribes like the Muwekma, Amah Mutsun, and Tamien Nation.

The Ohlone and neighboring Miwok to the east were placed within the Penutian stock since the two languages were more similar than to any of the other surrounding languages. The City of Piedmont is located on the ethnolinguistic boundary of Tamyen/Chochenyo language group.

Tamyen (also written as *Thámien* in earlier documents or, today, as *Tamien*), or the Santa Clara language group, is traditionally spoken in the area at the southern end of San Francisco Bay and within the lower Santa Clara Valley. They descended from those who resided at Mission Santa Clara, Mission Santa Cruz,

and Mission San Juan Bautista. Contemporary Tamien are direct descendants of Chief Tulum and Yaayaye and others who were taken to Mission Santa Clara. The typical Ohlone household consisted of approximately 15 individuals, and these households would group together, forming villages. Ethnographic studies have documented approximately 40 discrete Ohlone groups, with each typically consisting of 200 to 250 people. The group consisted of a principal village that was occupied year-round; smaller hamlets and resource gathering, and processing locations were occupied intermittently or seasonally. Each group consisted of one or two main villages with smaller surrounding camps. According to early Spanish explorers, the inhabitants were not willing to go outside of their territory because of hostility from neighboring groups. Groups were headed by a single chief who may have been a man or woman, but the responsibility was usually passed down from father to son. The title was usually passed down to the daughter or sister of the chief if there were no male heirs.

The Ohlone villages and temporary campsites within the San Jose area were located near sources of fresh water, and adjacent to the marshlands that once bordered the San Francisco Bay. As with many Native Americans in California, the Ohlone relied on the acorn as a dietary stable. Poles were used to knock acorns from the trees; the acorns were leached with water to remove bitter tannins and then eaten as mush or turned into bread. Other plant resources utilized by the Ohlone included the toyon berries, goose berries, Manzanita berries, elderberries, strawberries, buckeye, California laurel, wild carrots, wild grapes, wild onion, cattail, amole, clover, and chuchupate. Game animals that the Ohlone hunted included antelope, black-tailed deer, Roosevelt elk, and marine mammals, as well as smaller animals like waterfowl, fish, mollusks, skunk, rabbit, raccoon, squirrel, and dog. The Bay Area's natural resources provided sustenance and raw materials for clothing, shelter, medicine, cordage, twined basketry, bone tools, and boats, the latter of which was also used to obtain foodstuffs.

Based on archaeological evidence, between 2,500 and 1,000 years ago, many of the bay shore midden sites grew into mounds and were inhabited off and on until the Spanish arrived. These midden mounds supported stable villages with mortuaries. Flexed burials with occasional cremations were the main interment custom during this time period. A shift in village and burial practices occurred approximately 1,500 years ago, as cemeteries were established away from the main village site and involved extended burials. There were more frequent seasonal shifts between villages during this time.

Traditional oral narratives throughout west-central California regarding the nature and creation of the universe share a common over-arching theme. They relay how modern events occurred and places in nature gained importance through the actions of a prehuman race of supernatural beings from a former mythological age. The specific narratives state that each group is linked to their local landscape, which served as a charter establishing that group's origins and provided them with rights of ownership to their territory. Other stories discuss how flooding or wildfires were a consequence of rule breaking or greed.

Seven Spanish missions were founded in Ohlone territory between 1776 and 1797. While living within the mission system, the Ohlone commingled with other groups, including the Yokuts, Miwok, and Patwin. Members of the Puichon tribelet went to Mission San Francisco between 1781 and 1794 and Mission Santa Clara from 1781 to as late as 1805. Mission life was devastating to the Ohlone population. When the first mission was established in Ohlone territory in 1776, the Ohlone population was estimated to be 10,000. By 1832, and because of introduced disease, harsh living conditions, and reduced birth rates, the

Ohlone numbered less than 2,000. The Mexican government began to earnestly secularize the mission lands in 1834 and divided the former mission land among loyal Mexican subjects. The Ohlone opted to remain in their ancestral territory and were considered squatters. This led to several multi-ethnic Native American communities comprised of Northern Valley Yokuts, Plains Miwok, Coast Miwok, Patwin, and Chochenyo individuals within the Ohlone territory.

Ohlone recognition and assertion began to move to the forefront during the early 20th century. This movement was enforced by legal suits brought against the U.S. Government by the Indians of California between 1928 to 1964 for reparations due to them for the loss of traditional lands. The Ohlone participated in the formation of political advocacy groups, which brought attention to the community and resulted in a re-evaluation of the rights due to its member. In recent years, the Ohlone have become increasingly organized as a political unit and developed an active interest in preserving their ancestral heritage. Many Ohlone are active in maintaining their traditions and advocating for Native American issues.

4.18.2 Regulatory Setting

4.18.2.1 Assembly Bill 52

Effective July 1, 2015, AB 52 amended CEQA to require that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include Tribal Cultural Resources (TCRs), the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the PRC defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

1) Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    a. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or

    b. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or

    c. a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the

purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as an Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, AB 52 requires that CEQA lead agencies provide tribes that requested notification an opportunity to consult at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

4.18.3 SWRCB Tribal Consultation

Per SWRCB requirements, ECORP sent letters on February 20, 2024 via certified mail to each of the contacts provided by the NAHC. The letters provided a Project description and a map depicting the Project Area. ECORP, through experience with projects in the vicinity, learned that the Confederated Villages of Lisjan Nation had a new address. ECORP sent a letter via certified mail to this new address.

On February 20, 2024, ECORP sent letters via certified mail and email to the potentially interested tribes that were identified by the NAHC. ECORP sent follow up emails on March 7, 2024. ECORP received a response from the Amah Mutsun Tribal Band of San Juan Bautista, recommending cultural sensitivity training and requested a Native American Monitor be present during earth moving activities. ECORP received a response from the Confederated Villages of Lisjan Nation, requesting copies of the records search results and the final report. ECORP received a response from the Ohlone Indian Tribe, requesting a copy of the record search results and the NAHC contact list. One letter to the Ohlone Indian Tribe was undeliverable by email

4.18.4 Summary of Consultation Under AB 52

Consultation letters under AB 52 were provided to interested tribes on September 20, 2024 addressing their initial requests for information. Contacts included the Amah Mutsun Tribal Band of Mission San Juan Bautista, Indian Canyon Mutsun Band of Costanoan, Confederated Villages of Lisjan Nation, Muwekma Ohlone Indian Tribe of the SF Bay Area, Northern Valley Yokut.Ohlone Tribe, the Ohlone Indian Tribe, Costanoan Rumsen Carmel Tribe, and Wuksachi Indian Tribe/Eshom Valley Band. The City of Piedmont did not receive a response from any of the listed tribes. .

4.18.5 Tribal Cultural Resources (XVIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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), or	☐	☒	☐	☐
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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☒	☐	☐

Less Than Significant With Mitigation Incorporated.

As conveyed in the *Historic Property Identification Report* conducted by ECORP Consulting, Inc., the record search determined that 160 previously recorded pre-contact and historic-era cultural resources are located within 1 mile of the Project Area. Of these 160 resources, two are believed to be associated with Native American occupation of the vicinity, and 158 are historic-era sites. There are no previously recorded resources within the Project site. The Project Site has not been identified as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe. However, unanticipated, and accidental discovery of California Native American TCRs are possible during Project implementation, especially during excavation, and have the potential to impact unique cultural resources.

As mentioned above, per SWRCB requirements, ECORP sent letters on February 20, 2024 via certified mail to each of the contacts provided by the NAHC. The Amah Mutsun Tribal Band of San Juan Bautista responded by recommending cultural sensitivity training and requested a Native American Monitor be present during earth moving activities. Additionally, a response came from the Confederated Villages of Lisjan Nation, requesting copies of the records search results and the final report. ECORP also received a

response from the Ohlone Indian Tribe, requesting a copy of the record search results and the NAHC contact list.

Consultation letters under AB 52 were provided to interested tribes on September 20, 2024 addressing their initial requests for information. Contacts included the Amah Mutsun Tribal Band of Mission San Juan Bautista, Indian Canyon Mutsun Band of Costanoan, Confederated Villages of Lisjan Nation, Muwekma Ohlone Indian Tribe of the SF Bay Area, Northern Valley Yokut.Ohlone Tribe, the Ohlone Indian Tribe, Costanoan Rumsen Carmel Tribe, and Wuksachi Indian Tribe/Eshom Valley Band. The City of Piedmont did not receive a response from any of the listed tribes.

Therefore, with implementation of mitigation measure CUL-1 and CUL-2, impacts to tribal cultural resources to a less than significant level.

4.18.6 Mitigation Measures

Implement Mitigation Measures CUL-1 and CUL-2.

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

4.19.1.1 Water Service

Water service to the City of Piedmont is provided by EBMUD, a privately owned utility. EBMUD is responsible for service connections and water delivery to most of Alameda County and much of Contra Costa County. Approximately 1.4 million people are currently served by EBMUD's water system in a 332-square mile area extending from Crockett on the north, southward to San Lorenzo and portions of Hayward (encompassing the major cities of Oakland and Berkeley), eastward from San Francisco Bay to Walnut Creek, and south through the San Ramon Valley (including Alamo, Danville, and San Ramon) (EBMUD 2020).

4.19.1.2 Wastewater

As described in Section 2.1 Project Background, the City of Piedmont owns and maintains its own sewerage collection system. The system was developed by the Piedmont Sanitary District shortly after the City's incorporation. There are 47 miles of collection pipes, ranging in size from 6 inches to 21 inches in diameter built mainly between the years of 1900 to 1940. Wastewater collected from Piedmont is discharged through the City of Oakland to EBMUD Special District No. 1 interceptor, where the interceptor transports the flows to the EBMUD Main Wastewater Treatment Plant (MWWTP). After providing secondary treatment, the MWWTP discharges through a submerged outfall to the San Francisco Bay (EBMUD 2023).

Solid Waste

The City of Piedmont contracts with Republic Services which is a waste disposal company whose services include non-hazardous solid waste collection, waste transfer, and waste disposal, recycling and energy services.

4.19.1.3 Electricity and Natural Gas

Telecommunication services in Piedmont are provided by private companies, including AT&T and Comcast Cable which provides Internet, phone, and television.

AVA, formerly East Bay Community Energy, supplies electricity to Piedmont using transmission infrastructure operated and maintained by Pacific Gas & Electric (PG&E). PG&E also provides natural gas service to Piedmont.

4.19.2 Utilities and Service Systems (XIX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method and would not require new or expanded water or wastewater facilities. Therefore, a less than significant impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒

No Impact.

The Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. The Proposed Project would be operated by the City and no new or expanded water demand is associated with the Proposed Project. Therefore, no impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

As discussed previously, the Proposed Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe bursting method. The Proposed Project would actually enhance the wastewater capacity to better serve the community of Piedmont. Any impact would be less than significant and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project would be installed using the pipe bursting method. This process involves leaving the existing sewer mains and laterals in place, thus minimizing waste generation. Construction activities will generate limited amounts of green waste, asphalt, concrete, and miscellaneous construction debris. No recycling or solid waste disposal would be required for operation and maintenance of the Proposed Projects. Contractors would be responsible for disposing of construction-related debris in local construction-material dumpsters. A less than significant impact would occur. No mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

No Impact.

As previously described above the Proposed Project would be installed via the pipe bursting method, and no recycling or waste disposal would be required for operation and maintenance of the Proposed Project. The City's contractors would be responsible for disposing of construction-related debris in local

construction-material dumpsters and insuring compliance with all federal, state, and local statues and regulations related to solid waste. Therefore, no impact would occur and no mitigation is required.

4.19.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.20 Wildfire

4.20.1 Environmental Setting

Typically, the California fire season extends from spring to late fall. Fire conditions arise from a combination of hot weather, an accumulation of vegetation, and low moisture content in the air. These conditions, when combined with high winds and years of drought, increase the potential for wildfire to occur.

The southeastern area of the City of Piedmont is in a Very High Fire Hazard Severity Zone (VHFHSZ) in a Local Responsibility Area (LRA). There is no land in a State Responsibility Area within the City. A portion of the Proposed Project on La Salle Avenue borders portions of the VHFHSZ in the City.

4.20.2 Wildfire (XX) Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation.

A portion of the Proposed Project Area is designated as Very High fire severity zone. However, the project will be constructed entirely within ROW, front or rear property lines to improve sewer infrastructure. While the Project Area is within fire severity designated zone, construction activities will not occur on vegetated areas prone to fire. As an infrastructure improvement project located underneath roadways, the site will return to its preconstruction state after project completion. Therefore, there will be no change to the local population or development.

Additionally, according to the City of Piedmont's Environmental Hazards Element, there are no formally designated evacuation routes in Piedmont. In the event of an emergency, the evacuation routes are designated by the Police Chief and the Public Works Director based on the nature of the emergency and the direction or movement of the threat. The project will however implement Mitigation Measure TRANS-1 which requires a Traffic Management Plan to be prepared by the contractor. Therefore, with implementation of Mitigation Measure TRANS-1, this impact would be less then significant.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

Although the Proposed Project borders an area that is in an LRA classified Very High, the Proposed Project does not exacerbate an existing condition by the addition of structures, machinery, people, or recreational opportunities that would encourage the use of flammable materials or create situations that could lead to increase fire risk. The pipeline will be entirely underground, and as an infrastructure improvement project underneath roadway, the site will be returned to its pre-construction state after project completion. There will be no change to the local population or increase in development associated with the Project that would increase fire risk to the local community. Consequently, the Project would not exacerbate wildfire risks or expose people to pollutant concentrations. No impact would occur, and no mitigation is required.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

As discussed in item b), the Proposed Project does not exacerbate fire risk under existing conditions. The Proposed Project does not include installation or maintenance of associated structures (i.e., 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. There would be no impact and no mitigation would be required.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	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?	☐	☐	☐	☒

No Impact.

See discussion in items b) and c). The Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, because of runoff, post-fire slope instability, or drainage changes. Therefore, there would be no new impact as a result of the Proposed Project.

4.21 Mandatory Findings of Significance

4.21.1 Mandatory Findings of Significance (XXI) Environmental Checklist and Discussion

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

As stated previously in Section 4.4, Biological Resources, no significant impacts were identified to the habitat of wildlife species or population, on any plant or animal community, and would not restrict the range of a rare or endangered plant or animal. Furthermore, as stated above in Section 4.5, Cultural Resources, with the implementation of proposed Mitigation Measures CUL-1 and CUL-2, development of the Proposed Project would not result in significant impacts to Cultural Resources.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐

Less Than Significant Impact.

Project impacts would not be cumulatively considerable. No mitigation is required relevant to potential cumulative impacts.

For natural resource subjects (Aesthetics, Agriculture and Forest Resources, Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, and Mineral Resources), there would be no cumulative effects because all impacts would be less than significant or would be reduced to less than significant with mitigation incorporated. The Proposed Project involves the rehabilitation of existing sewer pipeline to increase flow and improve the distribution system reliability. The Project Area would be returned to pre-project conditions after completion of construction. In addition, the project would temporarily involve minimal hazardous materials use associated with construction and would not result in a cumulative effect on the environment.

The nature of the Proposed Project would not induce population growth or result in the development of new housing or employment-generating uses. Therefore, the Proposed Project would not result in a cumulative effect regarding increased demand or expansion for services or utilities. Furthermore, there are no approved or planned projects within proximity to the Proposed Project that would contribute to cumulative effects.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

Direct and indirect impacts to human beings would be less than significant with the implementation of mitigation measures listed in this Initial Study.

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5.0 COMPLIANCE WITH FEDERAL REGULATIONS

City of Piedmont is seeking funding for the Proposed Project under the SWRCB's Clean Water State Revolving Fund (CWSRF) Program, which is partially funded through the USEPA. Because of the federal nexus with the USEPA, projects seeking funding through the CWSRF Program are subject to federal laws and regulations (e.g., federal "cross-cutters"). Under the CWSRF Program, SWRCB uses a project's CEQA document along with federal cross-cutting documentation in place of a NEPA document; this document is termed a "CEQA-Plus" document. This section addresses the Project's compliance with federal laws and regulations to satisfy the CEQA-Plus requirements.

5.1 Federal Regulations Evaluation

5.1.1 Archaeological and Historic Preservation Act

The Archaeological and Historic Preservation Act (AHPA) is a salvage bill that provides for the preservation of historical and archaeological materials and data that might be lost or destroyed through federally funded or licensed activities or programs (54 U.S. Code [USC] sections 312501-312508). This includes flooding, the construction of access roads, relocation of railroads and highways, or any other federally funded activity that is associated with the construction of a dam or reservoir. The AHPA authorizes federal agencies to transfer up to 1 percent of the total amount authorized for the project to the Secretary of the Interior for archeological salvage. Under this law, historical and archaeological resources do not have to be eligible, or considered eligible, in the National Register of Historic Properties for an impact to occur.

Pursuant to the terms of the Programmatic Agreement on Historic Preservation for the CWSRF, the USEPA requires that the State Water Board carry out the requirements of federal regulation 36 CFR Section 800.4 through 800.6, and other applicable sections of 36 CFR Part 800. The USEPA retains the responsibility for compliance with AHPA requirements.

The records search conducted for the project determined that 160 previously recorded pre-contact and historic-era cultural resources are located within 1 mile of the Project site. Of these 160 resources, two are believed to be associated with Native American occupation of the vicinity, and 158 are historic-era sites. These resources are associated with the Mountain View Cemetery District and are either individual buildings or structures; several are noted as being elements associated with a district in the area. There are no previously recorded resources within the Project site. No resources were observed during the field survey.

There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Implementation of Mitigation Measures CUL-1 and CUL-2 would reduce impacts to cultural resources to less than significant.

5.1.2 Clean Air Act

General Conformity ensures that the actions taken by federal agencies do not interfere with a state's plans to attain and maintain national standards for air quality.

Established under the Clean Air Act (section 176(c)(4)), the General Conformity rule plays an important role in helping states improve air quality in those areas that do not meet the NAAQS. Under the General Conformity rule, federal agencies must work with state and local governments in a nonattainment or maintenance area to ensure that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan. The overall purpose of the General Conformity rule is to ensure that:

- Federal activities do not cause or contribute to new violations of NAAQS;
- Actions do not worsen existing violations of the NAAQS; and
- Attainment of the NAAQS is not delayed.

Predicted annual construction-generated emissions for the Proposed Project are summarized in Table 4.3-1. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, and would not be considered a significant air quality impact since the volume of pollutants generated does not exceed the Conformity Determination thresholds.

5.1.3 Coastal Barriers Resources Act

The Coastal Barrier Resources Act (CBRA) of 1982 designated various undeveloped coastal barriers for inclusion in the Coastal Barrier Resources System (CBRS). The CBRA encourages the conservation of storm-prone and dynamic coastal barriers by withdrawing the availability of federal funding and financial assistance within the CBRS (U.S. Fish and Wildlife Service [USFWS] 2024c).

The Proposed Project is not within the CBRS, as it is in the State of California. The CBRS encompasses areas along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts but not the Pacific Coast. Therefore, the Coastal Barriers Resources Act does not apply to the Project.

5.1.4 Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) was passed by Congress to encourage coastal states to develop and implement a Coastal Zone Management Program. The intents of CZMPs are to: protect natural resources; manage development in high hazard areas; give development priority to coastal-dependent uses; provide public access for recreation; prioritize water-dependent uses; and coordinate state and federal actions (National Oceanic and Atmospheric Administration 2024). The federal government certified the California Coastal Management Program in 1977, the enforceable policies of which are found in Chapter 3 of the California Coastal Act of 1976, as amended (California Coastal Commission 2024).

The Project would be located in the City of Piedmont within Alameda County, approximately 13 miles east of the Pacific Coast. None of the Project's components would be located within the coastal zone, thus the CZMA does not apply to the Project.

5.1.5 Endangered Species Act, Section 7

This section is based on the analysis and recommendations presented in the Biological Resources Assessment (BRA) prepared for the Proposed Project (ECORP 2024b, Appendix B).

The federal Endangered Species Act (ESA, 16 USC 1531 et seq.) and subsequent amendments establish legal requirements for the conservation of endangered and threatened species and the ecosystems upon which they depend. The ESA is administered by the USFWS for terrestrial species, and by the National Marine Fisheries Service (NMFS) for marine species and anadromous fish. Under the ESA, species may be listed as either endangered or threatened. Section 7(a)(2) of the ESA requires that for actions authorized, funded, or carried out by a federal agency, that the agency shall consult with USFWS and/or NMFS to ensure that their actions are not likely to jeopardize the continued existence of any threatened or endangered species, or result in the destruction or adverse modification of critical habitat of the endangered or threatened species.

There are no potentially occurring special-status species in the Project Area and the Proposed Project is not anticipated to have any adverse effects on special-status species. Therefore, the Project would not have the potential to violate the ESA.

5.1.6 Environmental Justice

In 1994, President Clinton issued the Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities (USEPA 2024a). EO 12898 directs federal agencies to:

- Identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law
- Develop a strategy for implementing environmental justice
- Promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

The Council on Environmental Quality (CEQ) oversees federal compliance with EO 12898 (CEQ 1997). According to the CEQ environmental justice guidelines, minority populations should be identified if:

- A minority population percentage either exceeds 50 percent of the population of the affected area, or
- If the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (e.g., a governing body's jurisdiction, neighborhood census tract, or other similar unit).

A project may involve an environmental justice concern if the project could create new disproportionate impacts on minority, low-income, or indigenous populations; exacerbate existing disproportionate impacts on minority, low-income, or indigenous populations; or present opportunities to address existing disproportionate impacts on minority, low-income, or indigenous populations that are addressable through the project (SWRCB 2017).

The City's 6th Cycle Housing Element (2023-2031) provides race and ethnicity characteristics and income information for City of Piedmont based on the U.S. Census 2020 American Community Survey (City of Piedmont 2023). In 2020, the population of Piedmont was estimated to be 11,453. Piedmont has a higher share of residents identifying as White, Non-Hispanic than the county and region, and a smaller share of residents identifying as American Indian or Alaska Native, Asian/Asian Pacific Islander, Non-Hispanic, Black or African American, and Hispanic or Latinx than compared to the county and region. The breakdown by race and ethnicity is as follows:

- American Indian or Alaska Native, Non-Hispanic-less than 1%
- Black or African American, Non-Hispanic- less than 1%
- Other Race or Multiple Races, Non-Hispanic-6%
- Asian/Asian Pacific Islander, Non-Hispanic-18%
- White, Non-Hispanic- 71%
- Hispanic or Latinx – 4%

The California Department of Housing and Community Development (HCD) identifies income categories based on the area median income (AMI) of City of Piedmont. The AMI for City of Piedmont in 2021 was $125,600 for a hypothetical family of four. HCD's categories include the following:

- Extremely low-income: household earning up to 30 percent of the AMI
- Very low-income: households earning between 31 to 50 percent of the AMI
- Low-income: households earning between 51 to 80 percent of the AMI
- Moderate-income: households earning between 81 to 120 percent of the AMI
- Above moderate-income: households earning over 120 percent of the AMI

The homeownership rate is about 88 percent in Piedmont compared to about 54 percent in Alameda County. However, not all racial and ethnic groups have a similar probability of owning a home. Table 5.1.6-1 shows the Housing Tenure by Race/Ethnicity in Piedmont below:

Table 5.1.6-1 Housing Tenure by Race/Ethnicity in Piedmont

Race/Ethnicity	Renters		Owners		Total Occupied Units
	Number	%	Number	%	
White alone, not Latino	399	85.8%	2,780	82.4%	3,179
Black or African American alone	24	5.2%	22	0.7%	46
American Indian and Alaska Native alone	0	0.0%	0	0.0%	0
Asian alone	33	7.1%	539	16.0%	572
Native Hawaiian/Other Pacific Islander alone	0	0.0%	0	0.0%	0
Some other race alone	9	1.9%	0	0.0%	9
Two or more races	0	0.0%	32	0.9%	32
Hispanic or Latino origin	9	1.9%	89	2.6%	98
Total:	474	100.0%	3,462	100.0%	3,936

Source: City of Piedmont 2023

The established requirements under SB 535 (2012) for minimum funding levels to disadvantaged communities (DACs) and made CalEPA responsible for identifying DACs based on "geographic, socioeconomic, public health, and environmental hazard criteria." Additionally, AB 1550 (2016) directed CalEPA to identify DACs and establish minimum funding levels. In May 2022, CalEPA updated the DAC designation to formally designate the following four categories of disadvantaged geographic areas (California Office of Environmental Health Hazard Assessment [OEHHA] 2024):

- Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0 (1,984 tracts);
- Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores (19 tracts);
- Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0 (307 tracts); and
- Lands under the control of federally recognized Tribes.

CalEPA's SB 535 Disadvantage Communities Map tool shows the DACs census tracts and tribal areas as of 2022. The Project Area does not fall within the overlay area and therefore does not contain any DACs (OEHHA 2024).

The California Department of Water Resources (DWR) Disadvantaged Communities Mapping Tool is designed to assist in the evaluation of DACs throughout the state, as defined within the various grants programs that are the responsibility of DWR's Financial Assistance Branch. Based on this mapping tool, is not within any census tracts, places, or block groups of Disadvantage Communities (DWR 2024).

On February 20, 2024, ECORP sent letters via certified mail and email to the potentially interested tribes that were identified by the NAHC. ECORP sent follow up emails on March 7, 2024. ECORP received a response from the Amah Mutsun Tribal Band of San Juan Bautista, recommending cultural sensitivity training and requested a Native American Monitor be present during earth moving activities. ECORP received a response from the Confederated Villages of Lisjan Nation, requesting copies of the records search results and the final report. ECORP received a response from the Ohlone Indian Tribe, requesting a copy of the record search results and the NAHC contact list. One letter to the Ohlone Indian Tribe was undeliverable by email.

Searches of the Sacred Lands File by the NAHC failed to indicate the presence of Tribal Cultural Resources in the Project Area. If no tribal cultural resources are identified during the consultation process, a potentially significant impact to known tribal cultural resources would not occur. However, subsurface construction disturbances (e.g., trenching, excavation, grading) associated with the Proposed Project would have the potential to impact unknown tribal cultural resources. To ensure proper protection of any unknown resources, should they be encountered during project-related ground disturbance activities, Mitigation Measures CUL-1 and CUL-2 discussed in Section 4.5.5 and Section 4.18.4 of this report would reduce potential impacts to cultural resources and TCRs to a less than significant level. Therefore, the Project would not have a disproportionate impact upon indigenous populations or tribes.

5.1.7 Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) is intended to minimize the contribution of federal programs to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. It does not authorize the federal government to regulate the use of private or nonfederal land, or in any way affect the rights of property owners. Under the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land (DOC 2023a).

The California Important Farmland Finder Map identifies the site as primarily Urban and Built-Up Land (DOC 2023b). The Project Area is not currently used for agriculture and no Prime or Unique Farmlands or Farmland of Statewide Importance is located within the Project Area. As such, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

5.1.8 Fish and Wildlife Coordination Act

This section is based on the analysis and recommendations presented in the BRA prepared for the Proposed Project (ECORP 2024b, Appendix B).

The Fish and Wildlife Coordination Act (16 USC 661-666(e)), approved in 1934 and amended in 2020, directs USFWS to investigate and report on proposed federal actions that affect any stream or other body of water and to provide recommendations to minimize impacts on fish and wildlife resources. The provisions of Section 662(a) and Section 663(a) do not apply to those projects for the impoundment of water where the maximum surface area of such impoundments is less than ten acres, nor to activities for

or in connection with programs primarily for land management and use carried out by federal lands under their jurisdiction (SWRCB 2017).

There is no designated Critical Habitat within the Biological Study Area. Based on the literature review, the Biological Study Area may contain anadromous fish critical habitat for California Central Coast DPS steelhead and Southern DPS green sturgeon, and Essential Fish Habitat for coho and Chinook salmon. However, the field reconnaissance site visit on February 15, 2024 confirmed that there is no suitable aquatic habitat in the BSA.

5.1.9 Floodplain Management

EO 13690, The Federal Flood Risk Management Standard (January 30, 2015) revises EO 11988, Floodplain Management (May 24, 1977), and directs federal agencies to take the appropriate actions to reduce risk to federal investments, specifically to update their flood-risk reduction standards. The goal of this directive is to improve the resilience of communities and federal assets against the impacts of flooding. These impacts are anticipated to increase over time due to the effects of climate change and other threats. FEMA's FIRMs are official community maps that shows special flood hazard areas and risk premium zones.

The City of Piedmont has not been included in the FEMA Flood Map Service Center (060011), and has not been designated as being within a flood hazard zone (FEMA 2024). Project implementation would not redirect or impede flood waters. Therefore, no impacts related to flood hazards or flood water flows would occur.

5.1.10 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) (Public Law 104-267) passed in 1976 and was amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297) and the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act in 2007. The MSA, as amended, governs marine fisheries management in U.S. federal waters out to 200 nautical miles from shore and encourages "long-term biological and economic sustainability of our nation's marine fisheries." The goals of the MSA are to prevent overfishing, to rebuild overfished stocks, to increase long-term economic and social benefits, and to ensure a safe and sustainable supply of seafood. The act is in place to protect our natural resources, to maximize the possible use of these resources, and to make sure the use of marine resources is done in a safe manner. Amendments to the 1996 MSA require the identification of Essential Fish Habitat (EFH) for federally managed species and the implementation of measures to conserve and enhance this habitat. Any project requiring federal authorization is required to complete and submit an EFH Assessment with the application and either show that no significant impacts to the essential habitat of managed species are expected or identify mitigations to reduce those impacts. Under the MSA, Congress defined EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC § 1802(10)). The EFH provisions of the MSA offer resource managers a means to heighten consideration of fish habitat in resource management. Pursuant to section 305(b)(2), federal agencies shall consult with the National Marine Fisheries Service regarding any action they authorize, fund, or undertake that might adversely affect EFH. The Proposed Project is within an urban area and would not affect any fisheries or EFH. Therefore, the MSA does not apply to the Project.

5.1.11 Migratory Bird Treaty Act of 1918

The MBTA of 1918 (16 USC 703-712) prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species, including eggs or active nests, except as permitted by regulation (e.g., licensed hunting of waterfowl or upland game species) by the USFWS. The MBTA states that it applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes.

The developed setting of the BSA provides nesting and foraging habitat for a few common resident and migratory birds that are protected under the MBTA, such as Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), and house finch (*Haemorhous mexicanus*), among others.

There are no potentially occurring special-status species within the Project Area. Birds protected under the MBTA could potentially nest in close proximity to the Project. However, it is expected that birds nesting in this developed setting have become acclimated to human presence and disturbances. Therefore, implementation of the Proposed Project would not have an impact to migratory bird species. .

5.1.12 National Historic Preservation Act, Section 106

The National Historic Preservation Act (NHPA) of 1966, as amended sets forth the responsibilities that federal agencies must meet in regard to cultural resources, especially in regard to Section 106 as set forth in the regulations (36 CFR Part 800). The NHPA establishes a national preservation program and a system of procedural protections, which encourage both the identification and protection of historic resources, including archeological resources, at the federal level and indirectly at the state and local level. Federal agencies must conduct the necessary studies and consultations to identify cultural resources that may be affected by an undertaking, evaluate cultural resources that may be affected to determine if they are eligible for the NRHP (that is, whether identified resources constitute historic properties), and assess whether such historic properties would be adversely affected. Historic properties are resources listed on or eligible for listing on the NRHP (36 CFR 800.16[l][1]). A property may be listed in the NRHP if it meets criteria provided in the NRHP regulations (36 CFR 60.4). Typically, such properties must also be 50 years or older (36 CFR 60.4[d]). The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, or association and: (A) That are associated with events that have made a significant contribution to the broad patterns of our history; or (B) That are associated with the lives of persons significant in our past; or (C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (D) That have yielded, or may be likely to yield, information important in prehistory or history. Section 106 defines an adverse effect as an effect that alters, directly or indirectly, the qualities that make a resource eligible for listing in the NRHP (36 CFR 800.5[a][1]). Consideration must be given to the property's location, design, setting, materials, workmanship, feeling, and association, to the extent that these qualities contribute to the integrity and significance of the resource. Adverse effects

may be direct and reasonably foreseeable or may be more remote in time or distance (36 CFR 8010.5[a][1]).

As discussed in Section 4.5 (Cultural Resources) of this IS/MND, the Historic Property Identification Report completed by ECORP (2023), analyzed the APE based on the provisions for the treatment of cultural resources contained within Section 106 of the NHPA. A record search was conducted in order to determine the potential for the Project to adversely affect cultural resources eligible for listing on the NRHP. As part of this process, the horizontal APE consists of all areas where activities associated with a project are proposed and, in the case of this Project, equals the Project Area subject to environmental review under the National Environmental Policy Act and CEQA. This includes areas proposed for excavation, pipe bursting, and other elements described in the Project Description.

The vertical APE is described as the maximum depth below the surface to which excavations for project foundations and facilities will extend. Therefore, the vertical APE for this Project includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the Project Areas. The maximum depth is assumed to extend as deep as 15 feet below the current surface, which is typically the greatest depth for buried utilities; therefore, a review of geologic and soils maps was necessary to determine the potential for buried archaeological sites that cannot be seen on the surface.

The vertical APE also is described as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. For this Project, all above ground impacts will be temporary and consist of the equipment needed to complete the project.

The records search yielded 160 previously recorded cultural resources within the records search radius. However, the records search and the 2024 field survey did not identify any historic-period or pre-contact cultural resources in the APE. Therefore, no Historic Properties under Section 106 of the NHPA or Historical Resources under CEQA will be affected by the Proposed Project.

5.1.13 Protection of Wetlands

The purpose of EO 11990 (May 24, 1977) is to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities; and (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities. To meet these objectives, EO 11990 requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided (USEPA 2024b).

As described in Section 4.4 (Biological Resources) of this Initial Study, the field reconnaissance conduction on February 15, 2024 confirmed that there are no aquatic resources within the Project Area. Review of the NWI showed that there are no previously mapped aquatic features within the Project Area.

5.1.14 Rivers and Harbors Act, Section 10

The Rivers and Harbors Act of 1899 (RHA) (33 USC Section 401 et seq.) is the initial authority for the U.S. Army Corps of Engineers (USACE) regulatory permit program to protect navigable waters in the development of harbors and other construction and excavation. Section 10 of the RHA requires authorization from the Secretary of the Army, acting through USACE, for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, rechannelization, or any other modification of a navigable water of the United States, and applies to all structures. It includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction.

The Project does not include the construction of any structure in or over any navigable water of the United States and would not require a Section 10 permit. The RHA does not apply to the Project.

5.1.15 Safe Drinking Water Act

The Safe Drinking Water Act of 1974 (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designated for drinking use, whether from above ground or underground sources. The SDWA authorizes USEPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The USEPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids. Under this SDWA, Congress emphasizes preventing contamination of aquifers that are the sole source of drinking water for a community under the SDWA (USEPA 2024c).

The Proposed Project is located in the City of Piedmont, within the Alameda County. Designated sole source aquifers in California are located in Fresno County, Scotts Valley, and on the California/Mexico border, none of which would be in the vicinity of the Proposed Project (USEPA 2024d). Therefore, the SDWA does not apply to the Project.

5.1.16 Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (16 USC Section 1271 et seq.) establishes the National Wild and Scenic Rivers System (NWSRS) for the protection of certain selected rivers with important scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. These rivers shall be preserved in free-flowing conditions and they and their immediate environments shall be protected. Rivers are classified as wild, scenic, or recreational. The Act designates specific rivers for inclusion in the NWSRS and prescribes the methods and standards by which additional rivers may be added. Regardless of classification, each river in the NWSRS is administered with the goal of protecting and enhancing the values that caused it to be designated. Designation neither prohibits development nor gives the federal government control over

private property. Recreation, agricultural practices, residential development, and other uses may continue. The Act purposefully strives to balance dam and other construction at appropriate sections of rivers with permanent protection for some of the country's most outstanding free-flowing rivers. To accomplish this, it prohibits federal support for actions such as the construction of dams or other instream activities that would harm the river's free-flowing condition, water quality, or outstanding resource values.

There are no wild and scenic rivers within the vicinity of the Proposed Project. The nearest designated wild and scenic river in the National Wild and Scenic Rivers System is American (Lower) River within Sacramento County, located approximately 92 miles northeast of the City of Piedmont (NWSRS 2024). Therefore, no portion of the Project is located within or near a designated wild and scenic river.

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6.0 ALTERNATIVES DESCRIPTIONS AND ANALYSIS

CWSRF projects must undergo an alternatives analysis except for projects that are statutorily or categorically exempt.

The alternatives analysis is included in the CWSRF Grant Funding Project Environmental Report submitted as part of the CWSRF technical package. Please refer to Appendix F.

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Appendix C – Historic Property Identification Report for the City of Piedmont Sanitary Sewer Rehabilitation Phase 6 Project. ECORP, 2024

Appendix D – Energy Consumption Analysis Memorandum, ECORP 2024

Appendix E –Noise Impact Memorandum, ECORP, 2024

Appendix F –City of Piedmont Sanitary Sewer Rehabilitation Phase 6 Project Report, Bennett Engineering, 2024

APPENDIX A

Air Quality and Greenhouse Gas Emissions Assessment Memorandum, ECORP 2024

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Piedmont Sanitary Sewer Rehab Project
Construction Start Date	7/1/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	41.0
Location	37.822884936876804, -122.23119954743467
County	Alameda
City	Piedmont
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1504
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
Road Construction	3.34	Mile	10.1	0.00	0.00	—	—	Pipeline Replacement

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.	4.87	4.09	28.9	35.6	0.06	1.32	0.50	1.82	1.22	0.12	1.33	—	6,241	6,241	0.24	0.07	2.33	6,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.85	4.08	28.9	35.3	0.06	1.32	0.50	1.82	1.22	0.12	1.33	—	6,203	6,203	0.24	0.07	0.06	6,230
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.70	0.59	4.09	5.02	0.01	0.18	0.08	0.25	0.16	0.02	0.18	—	925	925	0.04	0.01	0.16	930
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.13	0.11	0.75	0.92	< 0.005	0.03	0.01	0.05	0.03	< 0.005	0.03	—	153	153	0.01	< 0.005	0.03	154

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	4.87	4.09	28.9	35.6	0.06	1.32	0.50	1.82	1.22	0.12	1.33	—	6,241	6,241	0.24	0.07	2.33	6,271
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.85	4.08	28.9	35.3	0.06	1.32	0.50	1.82	1.22	0.12	1.33	—	6,203	6,203	0.24	0.07	0.06	6,230
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.70	0.59	4.09	5.02	0.01	0.18	0.08	0.25	0.16	0.02	0.18	—	925	925	0.04	0.01	0.16	930
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.13	0.11	0.75	0.92	< 0.005	0.03	0.01	0.05	0.03	< 0.005	0.03	—	153	153	0.01	< 0.005	0.03	154

3. Construction Emissions Details

3.1. Excavation (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	2.02	1.69	12.4	15.1	0.02	0.55	—	0.55	0.50	—	0.50	—	2,263	2,263	0.09	0.02	—	2,271
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.02	1.69	12.4	15.1	0.02	0.55	—	0.55	0.50	—	0.50	—	2,263	2,263	0.09	0.02	—	2,271
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.37	2.71	3.32	0.01	0.12	—	0.12	0.11	—	0.11	—	496	496	0.02	< 0.005	—	498
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	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	0.08	0.07	0.49	0.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.1	82.1	< 0.005	< 0.005	—	82.4
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	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	0.12	0.11	0.07	1.24	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	265	265	0.01	0.01	1.13	269
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.1	27.1	< 0.005	< 0.005	0.07	28.4
Hauling	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.09	1.10	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	246	246	0.01	0.01	0.03	249
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.1	27.1	< 0.005	< 0.005	< 0.005	28.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.23	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	54.2	54.2	< 0.005	< 0.005	0.11	55.0
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.93	5.93	< 0.005	< 0.005	0.01	6.21
Hauling	0.00	0.00	0.00	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.98	8.98	< 0.005	< 0.005	0.02	9.11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	1.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Hauling (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	0.70	0.58	4.05	3.52	0.01	0.15	—	0.15	0.13	—	0.13	—	1,453	1,453	0.06	0.01	—	1,458
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	0.58	4.05	3.52	0.01	0.15	—	0.15	0.13	—	0.13	—	1,453	1,453	0.06	0.01	—	1,458
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.10	0.67	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	239	239	0.01	< 0.005	—	240
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	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	0.02	0.02	0.12	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	39.5	39.5	< 0.005	< 0.005	—	39.7
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	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	0.04	0.04	0.02	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	88.3	88.3	< 0.005	< 0.005	0.38	89.7

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	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.37	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	81.9	81.9	< 0.005	< 0.005	0.01	83.0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.6	13.6	< 0.005	< 0.005	0.03	13.8
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	0.00	0.00	0.00	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.24	2.24	< 0.005	< 0.005	< 0.005	2.28
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Paving (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	1.91	1.60	12.3	14.4	0.02	0.63	—	0.63	0.58	—	0.58	—	1,968	1,968	0.08	0.02	—	1,975
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.91	1.60	12.3	14.4	0.02	0.63	—	0.63	0.58	—	0.58	—	1,968	1,968	0.08	0.02	—	1,975
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.67	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	108	108	< 0.005	< 0.005	—	108
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	0.02	0.02	0.12	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	17.9	17.9	< 0.005	< 0.005	—	17.9
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	0.08	0.07	0.05	0.83	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	177	177	< 0.005	0.01	0.75	179
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	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.06	0.73	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	164	164	< 0.005	0.01	0.02	166
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.04	9.04	< 0.005	< 0.005	0.02	9.17
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	0.00	0.00	0.00	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.50	1.50	< 0.005	< 0.005	< 0.005	1.52
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Excavation	Linear, Grading & Excavation	7/1/2024	10/18/2024	5.00	80.0	—
Hauling	Linear, Drainage, Utilities, & Sub-Grade	8/1/2024	10/23/2024	5.00	60.0	—
Paving	Linear, Paving	9/26/2024	10/23/2024	5.00	20.0	—

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
Excavation	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Excavation	Rubber Tired Loaders	Diesel	Average	2.00	8.00	150	0.36
Excavation	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Excavation	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Excavation	Generator Sets	Diesel	Average	4.00	8.00	14.0	0.74
Excavation	Air Compressors	Diesel	Average	2.00	8.00	37.0	0.48
Hauling	Dumpers/Tenders	Diesel	Average	2.00	8.00	16.0	0.38
Hauling	Off-Highway Trucks	Diesel	Average	2.00	4.00	376	0.38
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Air Compressors	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Other Construction Equipment	Diesel	Average	2.00	8.00	82.0	0.42
Paving	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Paving	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Excavation	—	—	—	—
Excavation	Worker	30.0	11.7	LDA,LDT1,LDT2
Excavation	Vendor	1.00	8.40	HHDT,MHDT

Excavation	Hauling	0.00	20.0	HHDT
Excavation	Onsite truck	—	—	HHDT
Hauling	—	—	—	—
Hauling	Worker	10.0	11.7	LDA,LDT1,LDT2
Hauling	Vendor	0.00	8.40	HHDT,MHDT
Hauling	Hauling	0.00	20.0	HHDT
Hauling	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	0.00	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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)

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)
Excavation	—	—	10.1	0.00	—
Hauling	—	—	10.1	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Road Construction	10.1	100%

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

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.03	annual days of extreme heat
Extreme Precipitation	9.40	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	15.0	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	3	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	3	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	3.12
AQ-PM	40.7
AQ-DPM	29.1
Drinking Water	4.21
Lead Risk Housing	61.2
Pesticides	0.00
Toxic Releases	52.3
Traffic	4.65
Effect Indicators	—
CleanUp Sites	11.8
Groundwater	61.5
Haz Waste Facilities/Generators	76.0
Impaired Water Bodies	12.5
Solid Waste	52.9
Sensitive Population	—
Asthma	21.5
Cardio-vascular	5.96
Low Birth Weights	0.60
Socioeconomic Factor Indicators	—

Education	0.00
Housing	4.74
Linguistic	1.81
Poverty	0.04
Unemployment	10.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	96.57384833
Employed	60.23354292
Median HI	99.84601566
Education	—
Bachelor's or higher	99.83318363
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	70.20402926
Active commuting	69.35711536
Social	—
2-parent households	97.60041062
Voting	93.35300911
Neighborhood	—
Alcohol availability	75.18285641
Park access	81.35506224
Retail density	55.01090722

Supermarket access	16.70730142
Tree canopy	97.8570512
Housing	—
Homeownership	98.42166046
Housing habitability	94.39240344
Low-inc homeowner severe housing cost burden	93.54548954
Low-inc renter severe housing cost burden	54.20248941
Uncrowded housing	88.2586937
Health Outcomes	—
Insured adults	99.92300783
Arthritis	0.0
Asthma ER Admissions	78.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	95.8
Cognitively Disabled	95.5
Physically Disabled	74.5
Heart Attack ER Admissions	96.0
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0

Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	13.5
SLR Inundation Area	0.0
Children	78.7
Elderly	21.4
English Speaking	78.3
Foreign-born	26.3
Outdoor Workers	74.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	86.3
Traffic Density	9.6
Traffic Access	63.4
Other Indices	—
Hardship	0.7
Other Decision Support	—
2016 Voting	93.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	0.00
Healthy Places Index Score for Project Location (b)	100
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Phases adjusted per information provided by project proponent.
Construction: Off-Road Equipment	Equipment based on list provided by project proponent

APPENDIX B

Biological Resources Assessment

Biological Resources Assessment
for the
City of Piedmont Sanitary Sewer Rehabilitation Phase 6 Project

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City of Piedmont, Alameda County, California

Prepared For:

Bennett Engineering Services

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
2525 Warren Drive
Rocklin, California 95677

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
°F	Degrees Fahrenheit
amsl	Above mean sea level
ARD	Aquatic Resources Delineation
BCC	Birds of Conservation Concern
BRA	Biological Resources Assessment
BSA	Biological Study Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of Piedmont
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Ranks
CWA	Clean Water Act
DPS	Distinct Population Segment
ESA	Endangered Species Act
HCP	Habitat Conservation Plan
LSAA	Lake or Streambed Alteration Agreement

Term	Definition
MBTA	Migratory Bird Treaty Act
MCV	*Manual of California Vegetation Online*
NCCP	Natural Community Conservation Plan
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary High Water Mark
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service

1.0 INTRODUCTION

ECORP Consulting, Inc. conducted a Biological Resources Assessment (BRA) at the request of Bennett Engineering Services, for the proposed City of Piedmont Sanitary Sewer Rehabilitation Project, Phase 6 (Project) located in the City of Piedmont, Alameda County, California. The results of this assessment will support environmental review of the Project in accordance with the California Environmental Quality Act (CEQA) and provide the basis for identifying appropriate measures to lessen or avoid significant impacts to biological resources.

1.1 Project Location and Description

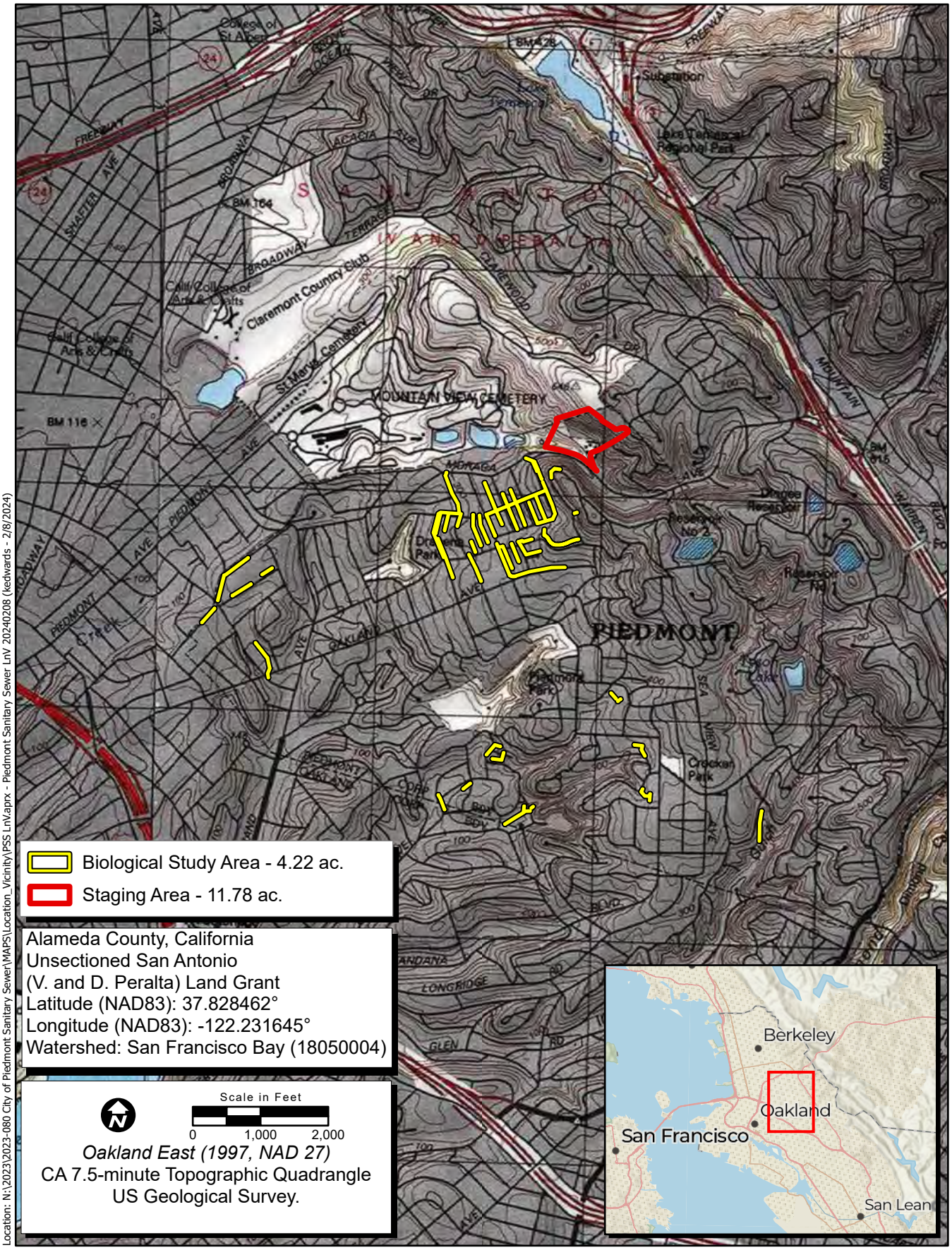
The Project includes segments in various locations within the City of Piedmont, Alameda County (Figure 1).

The Project consists of replacing approximately 17,626 linear feet of sanitary sewer collection pipe utilizing the pipe-bursting method. The Project will include the following elements:

- 15,166 linear feet of 6-inch pipe,
- 949 linear feet of 8-inch pipe,
- 458 linear feet of 10-inch pipe,
- 1,267 linear feet of 12-inch pipe,
- 241 linear feet of 15-inch pipe,
- 39 Main cleanout/Lamphole replacements,
- 280 Lateral reconnection/Two-way cleanout installations; and
- Four manholes

It is assumed that the existing manholes will be reused and reconnected to the new pipe. All sewer main cleanouts and lampholes are assumed to be replaced, and two-way cleanouts will be installed at the upstream limit of the rehabilitated lower sewer lateral behind the curb or sidewalk. There are 280 assumed lateral reconnections/two-way cleanout installations by estimating adjacent properties of each pipe segment. By the end of the Proposed Project, the City of Piedmont (City) will have rehabilitated/replaced 73 percent of its sewer mains.

The Project will be designed based on the City and County of Alameda Design Standards and Standard Specifications. Fusible high-density polyethylene pipe will be installed via pipe bursting in most cases. Pipe bursting will be used when there is sufficient room and access for the equipment, within public right-of-way, and within accessible private property via the City's "Right of Entry" on front yard and back yard private parcels. In rare cases where pipe-bursting equipment cannot be used, Cured-in-Place Pipe will be considered. Open trench will be only utilized when installing two-way cleanouts and reconnecting laterals to the new sanitary sewer pipelines.



Location: N:\2023\2023-080 City of Piedmont Sanitary Sewer\MAPS\Location_Vicinity\PSS LnV.aprx - Piedmont Sanitary Sewer LnV 20240208 (kedwards - 2/8/2024)

Map Date: 2/8/2024
Sources: ESRI, USGS

Figure 1. Project Location and Vicinity

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-080 City of Piedmont Sanitary Sewer Rehab

Temporary staging would occur at the City's corporation yard located at 898 Red Rock Road, Piedmont, California 94611. This site is paved, graveled, and currently highly disturbed.

1.2 Biological Study Area

The Biological Study Area (BSA) includes all areas where Project-related activities may result in impacts to sensitive biological resources. The BSA includes the approximately 4.22-acre Project Area and 11.78-acre Staging Area. The BSA corresponds to the Unsectioned San Antonia (V. and D. Peralta) Land Grant (Mount Diablo Base and Meridian) of the "Oakland East, California" 7.5-minute quadrangle (U.S. Geological Survey 1997; Figure 1). The approximate center of the BSA is located at latitude 37.828462° and longitude -122.231645° (North American Datum 1983) within the San Francisco Bay watershed (Hydrological Unit Code 18050004; Natural Resources Conservation Service [NRCS] et al. 2016).

1.3 Purpose of this Biological Resources Assessment

The purpose of this BRA is to assess the potential for occurrence of special-status plant and animal species or their habitats, and other sensitive or protected resources such as migratory birds, sensitive natural communities, riparian habitat, oak woodlands, and potential Waters of the U.S. or State, including wetlands, within the BSA. This assessment does not include determinate field surveys conducted according to agency-promulgated protocols. The conclusions and recommendations presented in this report are based upon a review of available literature and the results of a site reconnaissance field survey.

For the purposes of this assessment, special-status species are defined as plants or animals that:

- are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act (ESA);
- are listed or candidates for future listing as threatened or endangered under the California ESA;
- meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- are identified as a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- are birds identified as Birds of Conservation Concern (BCC) by the U.S. Fish and Wildlife Service (USFWS);
- are plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" or "rare, threatened, or endangered in California but more common elsewhere" (California Rare Plant Ranks [CRPR] 1 and 2);
- are plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.); or
- are fully protected in California in accordance with the California Fish and Game Code, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes).

2.0 REGULATORY SETTING

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The federal ESA protects plants and animals that are listed as endangered or threatened by the USFWS or the National Marine Fisheries Service (NMFS). Section 9 of the ESA prohibits the taking of listed wildlife, where take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, the ESA prohibits removing or possessing any listed plant on federal land, maliciously damaging or destroying any listed plant in any area, or removing, cutting, digging up, damaging, or destroying any such species in knowing violation of state law (16 U.S. Code [USC] 1538). Under Section 7 of ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its designated Critical Habitat. Through consultation and the issuance of a Biological Opinion, the USFWS may issue an incidental take statement allowing take of a listed species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The protections of the MBTA extend to disturbances that result in abandonment of a nest with eggs or young. The USFWS may issue permits to qualified applicants as authorized by the MBTA for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits.

2.1.3 Federal Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas:

> "…that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a

prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b).

The U.S. Environmental Protection Agency also has authority over wetlands and may override a USACE permit.

Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

2.2 State or Local Regulations

2.2.1 California Fish and Game Code

2.2.1.1 California Endangered Species Act

The California ESA (California Fish and Game Code Sections 2050-2116) generally parallels the main provisions of the federal ESA, but unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. *Take* is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 2081 allows CDFW to authorize incidental take permits if species-specific minimization and avoidance measures are incorporated to fully mitigate the impacts of the project.

2.2.1.2 Fully Protected Species

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the state and/or federal ESAs. Previously, the regulations that implement the Fully Protected Species Statute (California Fish and Game Code Sections 4700 for mammals, 3511 for birds, 5050 for reptiles and amphibians, and 5515 for fish) provided that fully protected species may not be taken or possessed at any time. However, on July 10, 2023, Senate Bill 147 was signed into law, authorizing CDFW to issue take permits under the California ESA for fully protected species for qualifying projects through 2033. Qualifying projects include:

- a maintenance, repair, or improvement project to the State Water Project, including existing infrastructure, undertaken by the Department of Water Resources;
- a maintenance, repair, or improvement project to critical regional or local water agency infrastructure;

- a transportation project, including any associated habitat connectivity and wildlife crossing project, undertaken by a state, regional, or local agency, that does not increase highway or street capacity for automobile or truck travel;
- a wind project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the state to a point of junction with any California based balancing authority; or
- a solar photovoltaic project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the state to a point of junction with any California-based balancing authority.

CDFW may also issue licenses or permits for take of these species for necessary scientific research or live capture and relocation, and may allow incidental take for lawful activities carried out under an approved Natural Community Conservation Plan (NCCP) within which such species are covered.

2.2.1.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW and provided in California Fish and Game Code Sections 1900-1913. The Fish and Wildlife Commission has the authority to designate native plants as *endangered* or *rare* and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code Sections 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.1.4 California Fish and Game Code Special Protections for Birds

Sections 3503, 3513, and 3800 of the California Fish and Game Code specifically protect birds. Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 prohibits the take, possession, or destruction of any birds in the orders Strigiformes (owls) or Falconiformes (hawks and eagles), as well as their nests and eggs. Section 3513 prohibits the take or possession of any migratory nongame bird as designated in the MBTA. Section 3800 states that, with limited exceptions, it is unlawful to take any nongame bird, defined as all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds. These provisions, along with the federal MBTA, serve to protect all nongame birds and their nests and eggs, except as otherwise provided in the code.

2.2.1.5 Lake or Streambed Alteration Agreements

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The notification must incorporate proposed measures to protect affected fish and wildlife resources. CDFW may suggest additional protective measures during their review. A Lake or Streambed Alteration Agreement (LSAA) is the final proposal mutually agreed upon by CDFW and the applicant. Projects that require an LSAA often

also require a permit from the USACE under Section 404 of the CWA. The conditions of the Section 404 permit and the LSAA frequently overlap in these instances.

2.2.2 Porter-Cologne Water Quality Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb 1 or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Water Quality Act, the RWQCB also regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (Water Code 13260(a)). Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, that are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

2.2.3 California Environmental Quality Act

Per CEQA Guidelines Section 15380, a species not protected on a federal or state list may be considered rare or endangered if the species meets certain specified criteria. These criteria follow the definitions in the federal and California ESAs, and Sections 1900-1913 of the California Fish and Game Code, which deal with rare or endangered plants or animals. Section 15380 was included in the CEQA Guidelines primarily to deal with situations where a project under review may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

2.2.3.1 CEQA Significance Criteria

Sections 15063-15065 of the CEQA Guidelines address how an impact is identified as significant. Generally, impacts to listed (i.e., rare, threatened, or endangered) species are considered significant. Assessment of *impact significance* to populations of non-listed species (e.g., SSC) usually considers the proportion of the species' range that will be affected by a project, impacts to habitat, and the regional and population level effects.

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Pursuant to Appendix G, impacts to biological resources would normally be considered significant if the project would:

- 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 CDFW or USFWS;

- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on federally protected Waters of the U.S. including wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA because although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

2.2.3.2 Species of Special Concern

SSC are defined by the CDFW as a species, subspecies, or distinct population of an animal native to California that are not legally protected under the ESA, the California ESA or the California Fish and Game Code, but currently satisfy one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role.
- The species is listed as federally (but not state) threatened or endangered, and meets the state definition of threatened or endangered but has not formally been listed.
- The species has or is experiencing serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.

SSC are typically associated with threatened habitats. Projects that result in substantial impacts to SSC may be considered significant under CEQA.

2.2.3.3 USFWS Bird of Conservation Concern

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the USFWS "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under ESA." To meet this requirement, the USFWS published a list of BCC (USFWS 2021) for the U.S. The list identifies the migratory and nonmigratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS' highest conservation priorities. Depending on the policy of the lead agency, projects that result in substantial impacts to BCC may be considered significant under CEQA.

2.2.3.4 California Rare Plant Ranks

The CNPS maintains the Rare Plant Inventory (CNPS 2024b), which provides a list of plant species native to California that are threatened with extinction, have limited distributions, or low populations. Plant species meeting one of these criteria are assigned to one of six CRPRs. The rank system was developed in collaboration with government, academic, non-governmental organizations, and private sector botanists, and is jointly managed by CDFW and the CNPS. The CRPRs are currently recognized in the California Natural Diversity Database (CNDDB). The following are definitions of the CNPS CRPRs:

- Rare Plant Rank 1A – presumed extirpated in California and either rare or extinct elsewhere
- Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere
- Rare Plant Rank 2A – presumed extirpated in California, but more common elsewhere
- Rare Plant Rank 2B – rare, threatened, or endangered in California but more common elsewhere
- Rare Plant Rank 3 – a review list of plants about which more information is needed
- Rare Plant Rank 4 – a watch list of plants of limited distribution

Additionally, the CNPS has defined Threat Ranks that are added to the CRPR as an extension. Threat Ranks designate the level of threat on a scale of 0.1 through 0.3, with 0.1 being the most threatened and 0.3 being the least threatened. Threat Ranks are generally present for all plants ranked 1B, 2B, or 4, and for the majority of plants ranked 3. Plant species ranked 1A and 2A (presumed extirpated in California), and some species ranked 3, which lack threat information, do not typically have a Threat Rank extension. The following are definitions of the CNPS Threat Ranks:

- Threat Rank 0.1 – Seriously threatened in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat)
- Threat Rank 0.2 – Moderately threatened in California (20 to 80 percent occurrences threatened/moderate degree and immediacy of threat)
- Threat Rank 0.3 – Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Rank; and differences in Threat Ranks do not constitute additional or different protection (CNPS 2024b). Depending on the policy of the lead agency, substantial impacts to plants ranked 1A, 1B, 2A, or 2B are typically considered significant under CEQA Guidelines Section 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 3 or 4.

2.2.3.5 Sensitive Natural Communities

Sensitive natural communities are vegetation communities that are imperiled or vulnerable to environmental effects of projects. CDFW maintains the California Natural Community List (CDFW 2023), which provides a list of vegetation alliances, associations, and special stands as defined in *A Manual of California Vegetation Online* (MCV; CNPS 2024a), along with their respective state and global rarity ranks, if applicable. Natural communities with a state rarity rank of S1, S2, or S3 are considered sensitive natural communities. Depending on the policy of the lead agency, impacts to sensitive natural communities may be considered significant under CEQA.

2.2.3.6 Wildlife Movement Corridors and Nursery Sites

Impacts to wildlife movement corridors or nursery sites may be considered significant under CEQA. As part of the California Essential Habitat Connectivity Project, the CDFW and California Department of Transportation maintain data on Essential Habitat Connectivity areas. This data is available in the CNDDB. The goal of this project is to map large intact habitat or natural landscapes and potential linkages that could provide corridors for wildlife. In urban settings, riparian vegetated stream corridors can also serve as wildlife movement corridors. Nursery sites include but are not limited to concentrations of nest or den sites such as heron rookeries, bat maternity roosts, and mule deer critical fawning areas. These data are available through CDFW's Biogeographic Information and Observation System database or as occurrence records in the CNDDB and are supplemented with the results of the field reconnaissance.

2.2.4 City of Piedmont General Plan

The General Plan contains the City's official policies on land use, transportation, housing, natural resources, sustainability, environmental hazards, public services, parks, and community design (City of Piedmont 2009, amended 2020). The Natural Resources and Sustainability Element of the General Plan addresses the protection and management of Piedmont's earth, water, air, and biological resources. The following General Plan goals, policies and actions are pertinent to this biological assessment report:

Goal 13: Natural Features – Protect and enhance Piedmont's natural features, including its hillsides, creeks, and woodlands.

Policy 13.3 – Creek Protection

Policy 13.4 – Conserving Native Vegetation

Policy 13.5 – Protection of Special Status Species

Action 13.A – Biological Assessment Requirements

2.2.5 City of Piedmont Heritage Tree Program

The Piedmont Heritage Tree Program was created by the City Council, acting upon a recommendation from the Park Commission, on January 16, 2018. The overall intent of the Heritage Tree Policy is to:

- Recognize and identify special and distinctive trees that are noteworthy by their size, unique species, prominent location or historical context in our parks or open spaces.
- Encourage residents to visit City parks and open spaces to find trees eligible for heritage tree designation.
- Promote the study of nature through the use, enjoyment, and greater awareness of our public parks, streets, and medians.

Since its inception, the Park Commission has designated 19 trees (or groups of trees) as City of Piedmont Heritage Trees.

3.0 METHODS

3.1 Literature Review

ECORP biologists performed a review of existing available information for the BSA. Literature sources included current and historical aerial imagery, any previous biological studies conducted for the area, topographic mapping, soil survey mapping available from the NRCS *Web Soil Survey*, USFWS National Wetlands Inventory (NWI) mapping, USFWS Critical Habitat Mapper, NMFS Essential Fish Habitat Mapper, and other relevant literature as cited throughout this document. ECORP reviewed the following resources to identify special-status plant and wildlife species that have been documented in or near the BSA:

- The CDFW CNDDB for the "Oakland East, California" 7.5-minute quadrangle and the surrounding eight quadrangles (CDFW 2024);
- The CNPS Rare Plant Inventory data for the "Oakland East, California" 7.5-minute quadrangle and the surrounding eight quadrangles (CNPS 2024b);
- The USFWS Information for Planning and Consultation Resource Report List for the BSA (USFWS 2024);
- The NMFS Resources data for the "Oakland East, California" 7.5-minute quadrangle (NOAA 2022).

The results of the database queries are provided in Appendix A. Each special-status species identified in the literature review is evaluated for its potential to occur in the BSA in Section 4 based on available information concerning species habitat requirements and distribution, occurrence data, and the findings of the site reconnaissance.

3.2 Site Reconnaissance

ECORP Senior Biologist Keith Kwan conducted the site reconnaissance visit on February 15, 2024. The biologist visually assessed the BSA while walking meandering transects through all portions of the site, using binoculars to scan inaccessible areas. The biologist collected the following biological resource information:

- Characteristics and approximate boundaries of vegetation communities and other land cover types; and
- Plant and animal species or their sign directly observed.

The biologist qualitatively assessed and mapped vegetation communities, if present, based on dominant plant composition. There were no vegetation communities in the BSA, as the entire BSA is developed. Data were recorded on a Global Positioning System unit, field notebooks, and/or maps.

4.0 RESULTS

4.1 Site Characteristics and Land Use

The BSA is located in an urban setting, including within existing paved streets, sidewalks, residential yards, and the City's corporation yard at Red Rock Road, which is a paved and developed facility. The City corporation yard portion of the BSA is situated at an elevation of approximately 400 feet above mean sea level (amsl) and the streets portion of the BSA range from approximately 100 feet to 400 feet amsl in the San Francisco Bay Area subregion, Central Western California region of the California floristic province (Jepson eFlora 2024). The average winter temperature is 51.7 degrees Fahrenheit (˚F) and the average summer temperature is 63.7˚F; the average annual precipitation is approximately 26.12 inches at the Berkeley, CA station, which is approximately 3 miles from the BSA (NOAA 2024a).

There are no native or natural vegetation communities located within the BSA. The BSA is located on heavily sloped terrain. The streets are narrow and paved with asphalt with developed sidewalks, curbs, and gutters. Landscaping trees and shrubs are scattered along the sidewalks and residential yards. Trees and shrubs are made up of native and nonnative cultivars.

Land uses surrounding the BSA include urban development.

4.2 Soils and Geology

ECORP staff obtained soil survey mapping for the BSA from the NRCS *Web Soil Survey* accessed on February 20, 2024 (Figure 2). Table 1 provides an overview of the soil series mapped within the BSA and key features of the soil series.

Table 1. Soil Series Mapped in the BSA

Map Unit Symbol	Map Unit Name	Rating	Hydric Soil Rating
126	Maymen loam, 30 to 75 percent slopes	Residuum weathered from sedimentary rock	No
127	Maymen-Los Gatos complex, 30 to 75 percent slopes	Residuum weathered from sedimentary rock	No
151	Urban land-tierra complex, 5 to 15 percent slopes	Alluvium	No
159	Xerorthents-Millsholm complex, 30 to 50 percent slopes	Residuum weathered from sandstone and shale	No



Map Features

Project Area - 4.22 ac.

Staging Area - 11.78 ac.

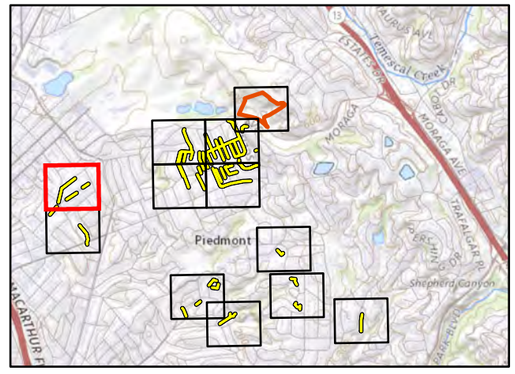
NRCS Soil Type

Series Number - Series Name

151 - Urban land-Tierra complex, 5 to 15 percent slopes

Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for Alameda County, CA

Sources: Esri Imagery, Maxar (2022), Alameda County



Location: N:\2023\2023-080 City of Piedmont Sanitary Sewer\MAPS\Soils_and_Geology\PSS Soils and Geology.aprx - PSS Soils 20240208 (kedwards - 2/8/2024)

Map Date: 2/8/2024

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Scale in Feet
0 60 120

Figure 2. Soils

2023-080 City of Piedmont Sanitary Sewer Rehab

4.3 Vegetation Communities and Land Cover Types

The BSA is completely developed and consists of paved streets, sidewalks, curbs/gutters, and landscaped residential yards. There are no natural or native vegetation communities present.

4.4 Aquatic Resources

The field reconnaissance conducted on February 15, 2024 confirmed that there are no aquatic resources within the BSA. Review of the NWI showed that there are no previously mapped aquatic features within the BSA (Figure 3).

4.5 Wildlife

The developed setting of the BSA provides nesting and foraging habitat for a few common resident and migratory birds that are protected under the MBTA, such as Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), and house finch (*Haemorhous mexicanus*), among others. Other wildlife species acclimated to the urban setting in the BSA include Virginia opossum (*Didelphis virginiana*), eastern fox squirrel (*Sciurius niger*), striped skunk (*Mephitis mephitis*), and common racoon (*Procyon lotor*).

4.6 Special-Status Species

Table 2 presents the list of special-status plant and animal species identified through the literature review. For each species, the table provides the listing status, a brief description of habitat requirements and/or species ecology, a determination of the potential to occur within the BSA, and the rationale for that determination. The potential for each species to occur onsite was assessed using the following criteria:

- **Present** – Species was observed during the site visit or is known to occur within the BSA based on recent documented occurrences within the CNDDB or other literature.
- **Potential to Occur** – Suitable habitat (including soils and elevation requirements) occurs in the BSA and the species is known or expected to occur in the Project vicinity based on available data sources or professional knowledge/experience.
- **Low Potential to Occur** – Marginal or limited amounts of habitat occur or the species is not known to occur in the vicinity of the Project based on CNDDB records and other available information.
- **Absent** – No suitable habitat (including soils and elevation requirements) and the species is not known to occur within the vicinity of the Project based on CNDDB records and other documentation.



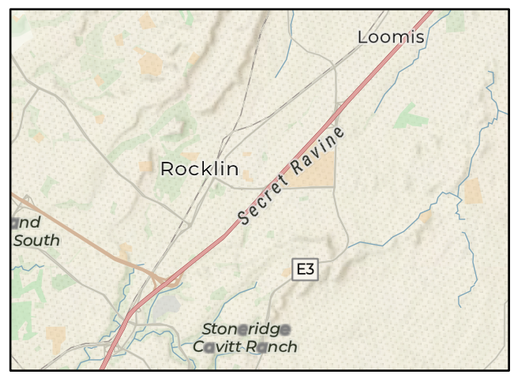
Map Contents

- Project Area - 4.22 ac.
- Staging Area - 11.78 ac.

NWI Features

- Freshwater Pond
- Riverine

Sources: Esri Imagery, Maxar (2022), Alameda County, USFWS



Location: N:\2023\2023-080 City of Piedmont Sanitary Sewer\MAPS\Aquatic_Resources\PSS Aquatic Resources.aprx - PSS NWI 20240209 (kedwards - 2/9/2024)

Map Date: 2/9/2024

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Scale in Feet
0 400 800

Figure 3. NWI Mapping

2023-080 City of Piedmont Sanitary Sewer Rehab

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Plants					
Bent-flowered fiddleneck (*Amsinckia lunaris*)	–	–	1B.2	Cismontane woodland, coastal bluff scrub, and valley and foothill grasslands. Elevation: 10'–1,640' Bloom Period: March–June	Absent. There is no suitable habitat in the BSA.
California androsace (*Androsace elongate* ssp. *acuta*)	–	–	4.2	Chaparral, cismontane woodland, coastal scrub, meadow and seeps, pinyon and juniper woodland, and valley and foothill grasslands. Elevation: 490'-4,280'. Bloom period: March-June.	Absent. There is no suitable habitat in the BSA.
Pallid manzanita (*Arctostaphylos pallida*)	FT	CE	1B.1	Siliceous shale, sandy, or gravelly areas of broadleaved upland forest, chaparral, closed–cone coniferous forest, cismontane woodland, and coastal scrub. Elevation: 605'–1,525' Bloom Period: December–March	Absent. There is no suitable habitat in the BSA.
Alkali milk-vetch *(Astragalus tener* var. *tener)*	–	–	1B.2	Alkaline playas and vernal pools, and alkaline adobe clay soils in valley and foothill grasslands. Elevation: 5'–195' Bloom Period: March–June	Absent. There is no suitable habitat in the BSA.
Big-scale balsamroot *(Balsamorhiza macrolepis)*	–	–	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils. Elevation: 150'–5,100' Bloom Period: March–June	Absent. There is no suitable habitat in the BSA.
Big tarplant *(Blepharizonia plumosa* ssp. *plumosa)*	–	–	1B.1	Valley and foothill grassland. Elevation: 100'–1,655' Bloom Period: July–October	Absent. There is no suitable habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Mt. Diablo fairy-lantern (*Calochortus pulchellus*)	–	–	1B.2	Chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland. Elevation: 100'–2,755' Bloom Period: April–June	Absent. There is no suitable habitat in the BSA.
Coastal bluff morning-glory (*Calystegia purpurata* ssp. *saxicola*)	–	–	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, and North Coast coniferous forest. Elevation: 0'–345' Bloom Period: April–September	Absent. There is no suitable habitat in the BSA.
Bristly sedge *(Carex comosa)*	–	–	2B.1	Mesic (Jepson eFlora) valley and foothill grassland, coastal prairie, and lake margins of marshes and swamps. Elevation: 0'–2,050' Bloom Period: May–September	Absent. There is no suitable habitat in the BSA.
Congdon's tarplant *(Centromadia parryi* ssp. *congdonii)*	–	–	1B.1	Valley and foothill grassland with alkaline soils. Elevation: 0'–755' Bloom Period: May–October	Absent. There is no suitable habitat in the BSA.
Point Reyes bird's-beak (*Chloropyron maritimum* ssp. *palustre*)	–	–	1B.2	Coastal salt marshes and swamps. Elevation: 0'–35' Bloom Period: June–October	Absent. There is no suitable habitat in the BSA.
Soft salty bird's-beak *(Chloropyron molle* ssp. *molle)*	FE	CR	1B.2	Coastal salt marshes and swamps. Elevation: 0'–10' Bloom Period: July–November	Absent. There is no suitable habitat in the BSA.
San Francisco Bay spineflower *(Chorizanthe cuspidata* var. *cuspidata)*	–	–	1B.2	In sandy substrate coastal bluff scrub, coastal dunes, coastal prairie, and coastal scrub. Elevation: 10'–705' Bloom Period: April–July	Absent. There is no suitable habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Robust spineflower *(Chorizanthe robusta* var. *robusta)*	FE	–	1B.1	Sandy or gravelly soils within maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub. Elevation: 10'–985' Bloom Period: April–September	Absent. There is no suitable habitat in the BSA.
Bolander's water-hemlock *(Cicuta maculata* var. *bolanderi)*	–	–	2B.1	Coastal, fresh, or brackish marshes and swamps. Elevation: 0'–655' Bloom Period: July–September	Absent. There is no suitable habitat in the BSA.
Franciscan thistle (*Cirsium andrewsii*)	–	–	1B.2	Mesic, sometimes serpentine soils in broadleafed upland forest, coastal bluff scrub, coastal prairie, and coastal scrub. Elevation: 0'–490' Bloom Period: March–July	Absent. There is no suitable habitat in the BSA.
Presidio clarkia (*Clarkia franciscana*)	FE	CE	1B.1	Coastal scrub and serpentine soils on valley/foothill grasslands. Elevation: 80'–1,100' Bloom Period: May–July	Absent. There is no suitable habitat in the BSA.
Western leatherwood (*Dirca occidentalis*)	–	–	1B.2	Mesic areas in broadleaf upland forest, closed–cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, and riparian woodland. Elevation: 80'–1,395' Bloom Period: January–March	Absent. There is no suitable habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*)	–	–	1B.2	Serpentine, sandy to gravelly areas of chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation: 0'–2,295' Bloom Period: May–September	Absent. There is no suitable habitat in the BSA.
Jepson's coyote thistle (*Eryngium jepsonii*)	–	–	1B.2	Clay soils of valley and foothill grassland, and vernal pools. Elevation: 10'–985' Bloom Period: April–August	Absent. There is no suitable habitat in the BSA.
San Joaquin spearscale (*Extriplex joaquinana*)	–	–	1B.2	Occurs in alkaline areas within chenopod scrub, meadows and seeps, playas, and valley and foothill grassland. Elevation: 5'–2,740' Bloom Period: April–October	Absent. There is no suitable habitat in the BSA.
Minute pocket moss (*Fissidens pauperculus*)	–	–	1B.2	Damp soil, dry streambeds, and stream banks in north coast coniferous forest and redwood communities. Elevation: 35'–3,360' Bloom Period: N/A	Absent. There is no suitable habitat in the BSA.
Fragrant fritillary *(Fritillaria liliacea)*	–	–	1B.2	Cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland, often on serpentine substrates. Elevation: 10'–1,345' Bloom Period: February–April	Absent. There is no suitable habitat in the BSA.
Blue coast gilia (*Gilia capitata* ssp. *chamissonis*)	–	–	1B.1	Coastal dunes and coastal scrub. Elevation: 5'–655' Bloom Period: April–July	Absent. There is no suitable habitat in the BSA.
Dark-eyed gilia (*Gilia millefoliata*)	–	–	1B.2	Coastal dunes. Elevation: 5'–100' Bloom Period: April–July	Absent. There is no suitable habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Diablo helianthella *(Helianthella castanea)*	–	–	1B.2	Usually rocky, axonal soils in broadleaf upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland, often in partial shade. Elevation: 195'–4,265' Bloom Period: March–June	Absent. There is no suitable habitat in the BSA.
Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*)	–	–	1B.2	Valley and foothill grassland and sometimes roadsides. Elevation: 65'–1,835' Bloom Period: April–November	Absent. There is no suitable habitat in the BSA.
Water star-grass (*Heteranthera dubia*)	–	–	2B.2	Alkaline (pH of 7 of higher), still or slow–moving, and usually slightly eutrophic waters of marshes and swamps. Elevation: 100'–4,905' Bloom Period: July–October	Absent. There is no suitable habitat in the BSA.
Loma Prieta hoita *(Hoita strobilina)*	–	–	1B.1	Mesic areas in chaparral, cismontane woodland, and riparian woodland, usually on serpentine substrates. Elevation: 100'–2,820' Bloom Period: May–July	Absent. There is no suitable habitat in the BSA.
Santa Cruz tarplant (*Holocarpha macradenia*)	FT	CE	1B.1	coastal prairie, coastal scrub, and valley and foothill grassland, often on clay or sandy substrates. Elevation: 35'–720' Bloom Period: June–October	Absent. There is no suitable habitat in the BSA.
Kellogg's horkelia *(Horkelia cuneata* var. *sericea)*	–	–	1B.1	Sandy or gravelly openings within closed–cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub. Elevation: 35'–655' Bloom Period: April–September	Absent. There is no suitable habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Carquinez goldenbush *(Isocoma arguta)*	–	–	1B.1	Alkaline soils in valley and foothill grasslands. Elevation: 5'–65' Bloom Period: August–December	Absent. There is no suitable habitat in the BSA.
Contra Costa goldfields *(Lasthenia conjugens)*	FE	–	1B.1	Mesic sites within cismontane woodland, playas with alkaline soils, valley and foothill grassland and vernal pools. Elevation: 0'–1,540' Bloom Period: March–June	Absent. There is no suitable habitat in the BSA.
Beach layia (*Layia carnosa*)	FT	CE	1B.1	Coastal dunes and coastal scrub. Elevation: 0'–195' Bloom Period: March–July	Absent. There is no suitable habitat in the BSA.
Rose leptosiphon (*Leptosiphon rosaceus*)	–	–	1B.1	Coastal bluff scrub. Elevation: 0'–330' Bloom Period: April–July	Absent. There is no suitable habitat in the BSA.
Hall's bush-mallow (*Malacothamnus hallii*)	–	–	1B.2	Chaparral and coastal scrub. Elevation: 30'–2,495' Bloom Period: May–September	Absent. There is no suitable habitat in the BSA.
Oregon meconella *(Meconella oregana*)	–	–	1B.1	Coastal prairie and coastal scrub. Elevation: 820'–2,035' Bloom Period: March–April	Absent. There is no suitable habitat in the BSA.
Woodland woollythreads *(Monolopia gracilens)*	–	–	1B.2	Serpentine substrates in openings in broadleaf upland forest and chaparral, cismontane woodland, openings in North Coast coniferous forest, and valley and foothill grassland. Elevation: 330'–3,935' Bloom Period: March–July	Absent. There is no suitable habitat in the BSA.
Antioch Dunes evening-primrose *(Oenothera deltoides* ssp. *howellii)*	FE	CE	1B.1	Inland dunes. Elevation: 0'–100' Bloom Period: March–September	Absent. There is no suitable habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Choris' popcornflower *(Plagiobothrys chorisianus* var. *chorisianus)*	–	–	1B.2	Mesic areas in chaparral, coastal prairie, and coastal scrub. Elevation: 10'–525' Bloom Period: March–June	Absent. There is no suitable habitat in the BSA.
San Francisco popcornflower *(Plagiobothrys diffusus)*	–	CE	1B.1	Coastal prairie and valley and foothill grassland. Elevation: 195'–1,180' Bloom Period: March–June	Absent. There is no suitable habitat in the BSA.
Hairless popcornflower (*Plagiobothrys glaber*)	–	–	1A	Alkaline meadows and seeps; coastal salt marshes and swamps. Elevation: 50'–590' Bloom Period: March–May	Absent. There is no suitable habitat in the BSA.
Marin knotweed (*Polygonum marinense*)	–	–	3.1	Coastal salt or brackish marshes and swamps. Elevation: 0'–35' Bloom Period: May–August	Absent. There is no suitable habitat in the BSA.
Adobe sanicle (*Sanicula maritima*)	–	CR	1B.1	Clay or serpentine soils within chaparral, coastal prairie, meadows and seeps, and valley and foothill grassland. Elevation: 100'–785' Bloom Period: February–May	Absent. There is no suitable habitat in the BSA.
Long-styled sand-spurrey (*Spergularia macrotheca* var. *longistyla*)	–	–	1B.2	Alkaline meadows, seeps, marshes, and swamps. Elevation: 0'–835' Bloom Period: February–May	Absent. There is no suitable habitat in the BSA.
Most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*)	–	–	1B.2	Serpentine soils in chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 310'–3,280' Bloom Period: April–September	Absent. There is no suitable habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Northern slender pondweed (*Stuckenia filiformis* ssp. *alpina*)	–	–	2B.2	Assorted shallow freshwater marshes and swamps. Elevation: 985'–7,055' Bloom Period: May–July	Absent. There is no suitable habitat in the BSA.
California seablite (*Suaeda californica*)	FE	–	1B.1	Coastal salt marshes and swamps. Elevation: 0'–50' Bloom Period: July–October	Absent. There is no suitable habitat in the BSA.
Suisun Marsh aster (*Symphyotrichum lentum*)	–	–	1B.2	Brackish and freshwater marshes and swamps. Elevation: 0'–10' Bloom Period: May–November	Absent. There is no suitable habitat in the BSA.
Saline clover *(Trifolium hydrophilum)*	–	–	1B.2	Marshes and swamps, mesic and alkaline areas in valley and foothill grassland, and vernal pools. Elevation: 0'–985' Bloom Period: April–June	Absent. There is no suitable habitat in the BSA.
San Francisco owl's-clover (*Triphysaria floribunda*)	–	–	1B.2	Usually serpentine soils in coastal prairie, coastal scrub, and valley and foothill grassland. Elevation: 35'–525' Bloom Period: April–June	Absent. There is no suitable habitat in the BSA.
Oval-leaved viburnum *(Viburnum ellipticum)*	–	–	2B.3	Chaparral, cismontane woodland, and lower montane coniferous forest communities. Elevation: 705'–4,595' Bloom Period: May–June	Absent. There is no suitable habitat in the BSA.
Invertebrates					
Crotch's bumble bee *(Bombus crotchii)*	–	CC	–	Primarily nests underground in open grassland and scrub habitats from the California coast east to the Sierra Cascade and south to Mexico. Survey Period: March-September	Absent. There is no suitable habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Western bumble bee *(Bombus occidentalis)*	–	CC	–	Meadows and grasslands with abundant floral resources. Primarily nests underground. Largely restricted to high elevation sites in the Sierra Nevada, although rarely detected on the California coast. Survey Period: April-November	Absent. There is no suitable habitat in the BSA.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	–	–	Vernal pools/wetlands. Survey Period: November–April when surface water is present.	Absent. There is no suitable habitat in the BSA.
Monarch butterfly – California overwintering population (*Danaus plexippus*)	FC	–	–	Overwinters along coastal California in wind-protected groves of eucalyptus, Monterey pine and cypress with nearby nectar and water sources; disperses in spring throughout California. Adults breed and lay eggs during the spring and summer, feeding on a variety of nectar sources; eggs are laid exclusively on milkweed plants.	Absent. There is no suitable overwintering habitat in the BSA.
Bay checkerspot butterfly *(Euphydryas editha bayensis*)	FT	–	–	All suitable habitats are on shallow, serpentine-derived or similar soils that support the two host plants the larvae are dependent on; dwarf plantain (*Plantago erecta*) and purple owl's clover (*Castilleja exserta* spp. *exserta*).	Absent. There is no suitable habitat in the BSA.
Fish					
Green sturgeon (*Acipenser medirostris*)	FT	–	SSC	Anadromous; undammed cold-water rivers having relatively deep pools with large substrates. Survey Period: N/A	Absent. There is no suitable aquatic habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species					
Common Name *(Scientific Name)*	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	FESA	**CESA/ NPPA**	**Other**		
Sacramento perch *(Archoplites interruptus)*	–	–	SSC	Ponds, rivers, backwaters, reservoirs, and lakes in the Central Valley. Survey Period: N/A	Absent. There is no suitable aquatic habitat in the BSA.
Tidewater goby (*Eucyclogobius newberryi*)	FE	–	–	Relatively still, shallow, brackish waters of Coastal lagoons, estuaries, and marshes from Tillas Slough in Del Norte County to Agua Hedionda Lagoon in northern San Diego County. Survey Period: N/A	Absent. There is no suitable aquatic habitat in the BSA.
Steelhead (CA Central California Coast Distinct Population Segment [DPS]) (*Oncorhynchus mykiss irideus*)	FT	–	–	Fast-flowing, well-oxygenated rivers and streams. This DPS includes naturally spawned anadromous steelhead originating below natural and manmade impassable barriers from the Russian River to and including Aptos Creek, and all drainages of San Francisco and San Pablo Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers. Survey Period: N/A	Absent. There is no suitable aquatic habitat in the BSA.
Longfin smelt (*Spirinchus thaleichthys*)	FC	CT	SSC	Freshwater and coastal estuaries. Survey Period: N/A	Absent. There is no suitable aquatic habitat in the BSA.
Amphibians					

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
California red-legged frog (*Rana draytonii*)	FT	–	SSC	Lowlands and foothills of the northern and southern Coast Ranges and Sierra Nevada. Found in deep standing or flowing water with dense shrubby or emergent riparian vegetation; requires 11-20 weeks of permanent water for larval development. Adults require aestivation habitat to endure summer dry down. Survey Period: January – Sept.	Absent. There is no suitable aquatic habitat in and no suitable upland habitat adjacent to the BSA.
Foothill yellow-legged frog West/Central Coast Clade (*Rana boylii*)	FT	CE	SSC	Partly shaded shallow streams and riffles in variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of permanent water to attain metamorphosis. Can be active all year in warmer locations; become inactive or hibernate in colder climates. San Francisco Peninsula and Diablo Range to southern inner Coast Ranges. Survey Period: May–October.	Absent. There is no suitable aquatic habitat in and no suitable upland habitat adjacent to the BSA.
California tiger salamander (Central California DPS) (*Ambystoma californiense*)	FT	CT	CDFW WL	Breeds in vernal pools and seasonal wetlands in grassland or oak woodland habitats; adults are terrestrial using underground refuges such as ground squirrel or gopher burrows. Central Valley and Inner Coast Range. Survey Period: Winter-Spring.	Absent. There is no suitable aquatic habitat in and no suitable upland habitat adjacent to the BSA.
Reptiles					

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Northern California legless lizard (*Anniella pulchra*)	–	–	SSC	The most widespread of California's *Anniella* species. Occurs in sandy or loose soils under sparse vegetation from Antioch south coastally to Ventura. Bush lupine is often an indicator plant, and two melanistic populations are known. Survey Period: Generally spring, but depends on location and conditions	Absent. There is no suitable habitat within or around the BSA.
Northwestern pond turtle (*Actinemys marmorata*)	FPT	–	SSC	Requires basking sites and upland habitats up to 0.5 km from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches. Survey Period: April-September	Absent. There is no suitable habitat within or around the BSA.
Green sea turtle (*Chelonia mydas*)	FT	–	–	Found in fairly shallow waters (except when migrating) inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae. Open beaches with a sloping platform and minimal disturbance are required for nesting. Survey Period: N/A	Absent. There is no suitable habitat within or around the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Alameda whipsnake (*Coluber lateralis euryxanthus*)	FT	CT	–	Occurs in coastal scrub and chaparral communities, but also forages in a variety of other communities in the inner Coast Range, including grasslands and open woodlands. Rock outcrops with deep crevices or abundant rodent burrows are important habitat components. Survey Period: March – October	Absent. There is no suitable habitat within or around the BSA.
Birds					
Aleutian cackling goose *(Branta hutchinsii leucopareia)*	De-listed	–	CDFW WL	Overwintering habitat includes mudflats, shallow tidal waters, salt marsh, wet grasslands, freshwater marsh, lakes, reservoirs and rivers (breeds in Alaska on various Aleutian Islands; winters in California's Central Valley, with a small wintering population in southwestern Oregon, and migration staging areas around Humboldt Bay and Crescent City in California and New River bottoms in Oregon. Wintering: October-March	Absent. There is no suitable wintering habitat in or adjacent to the BSA.
Yellow rail *(Coturnicops noveboracensis)*	–	–	BCC, SSC	Found in sedge meadows, dense stands of bulrush, high marshlands dominated by sedges and grasses (in California, found in Lassen, Plumas, Siskiyou, Modoc counties, and San Francisco Bay and Tomales Bay regions). Nesting: May-September	Absent. There is no suitable habitat in or adjacent to the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
California black rail (*Laterallus jamaicensis coturniculus*)	–	CT	CFP	Salt marsh, shallow freshwater marsh, wet meadows, and flooded grassy vegetation. In California, primarily found in coastal and Bay-Delta communities, but also in Sierran foothills (Butte, Yuba, Nevada, Placer, El Dorado counties). Nesting: March-September	Absent. There is no suitable habitat in or adjacent to the BSA.
Ridgway's rail (California Ridgway's rail) *(Rallus obsoletus obsoletus)*	FE	CE	CFP	Occur within a range of tidal and brackish waters along the perimeter of San Francisco and San Pablo Bay in tidal marshes, sloughs, with pickleweed *(Salicornia* spp.), cordgrass *(Spartina* spp.), and gum plant *(Grindelia* spp.). Nesting: February-August	Absent. There is no suitable habitat in or adjacent to the BSA.
Western snowy plover (Coastal population) *(Charadrius nivosus nivosus)*	FT	–	SSC	Nests on the ground, on open sandy coastal beaches and barrier islands. Nesting: March-September	Absent. There is no suitable breeding habitat in or adjacent to the BSA.
California least tern *(Sternula antillarum browni)*	FE	CE	CFP	Nests along Pacific Coast from San Francisco Bay south the Mexico; nests colonially, on sand or dried mudflats, sand or shell islands, and gravel and sand pits and rarely in agricultural fields, parking lots, airports, and flat/graveled rooftops. Nesting: April-August	Absent. There is no suitable breeding habitat in or adjacent to the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Black skimmer (*Rynchops niger*)	–	–	BCC, SSC	Coastal beaches and islands near oceans or Gulf of Mexico; occasionally seen inland, particularly sites such as Salton Sea. Nests on sparsely vegetated beaches, dredge-spoiled islands, and salt marshes. Nesting: April-September	Absent. There is no suitable breeding habitat in or adjacent to the BSA.
Double-crested cormorant *(Nannopterum auritum)*	–	–	CDFW WL	Nests near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines and typically forages in shallow water. Non-nesters are found in many coastal and inland waters. Nesting: April-August	Absent. There is no suitable breeding habitat in or adjacent to the BSA.
White-tailed kite (*Elanus leucurus*)	–	–	CFP	Nesting occurs within trees in low elevation grassland, agricultural, wetland, oak woodland, riparian, savannah, and urban habitats. Nesting: March-August	Absent. There is no suitable breeding habitat in or adjacent to the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Golden eagle (*Aquila chrysaetos*)	–	–	CFP, CDFW WL	Nesting habitat includes mountainous canyon land, rimrock terrain of open desert and grasslands, riparian, oak woodland/ savannah, and chaparral. Nesting occurs on cliff ledges, river banks, trees, and human-made structures (e.g. windmills, platforms, and transmission towers). Breeding occurs throughout California, except the immediate coast, Central Valley floor, Salton Sea region, and the Colorado River region, where they can be found during Winter. Nesting: February-August	Absent. There is no suitable breeding or foraging habitat in or adjacent to the BSA.
Northern harrier (*Circus hudsonius*)	–	–	BCC, SSC	Nests on the ground in open wetlands, marshy meadows, wet/lightly grazed pastures, (rarely) freshwater/brackish marshes, tundra, grasslands, prairies, croplands, desert, shrub-steppe, and (rarely) riparian woodland communities. Nesting: April-September	Absent. There is no suitable breeding habitat in or adjacent to the BSA.
Sharp-shinned hawk *(Accipiter striatus)*	–	–	CDFW WL	Nests in trees in most forest types with at least some conifers. In California, nesting occurs in Sierra Nevada and Cascade Ranges (foothills to tree line) and northwestern coastal range. Nesting: April-August	Absent. There is no suitable breeding habitat in or adjacent to the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Cooper's hawk *(Accipiter cooperii)*	–	–	CDFW WL	Nests in trees in riparian woodlands in deciduous, mixed and evergreen forests, as well as urban landscapes (Rosenfield et al. 2020). Nesting: March-July	Absent. There is no suitable nesting or foraging habitat in or adjacent to the BSA.
Bald eagle (*Haliaeetus leucocephalus*)	De-listed	CE	CFP	Typically nests in forested areas near large bodies of water in the northern half of California; nest in trees and rarely on cliffs; wintering habitat includes forest and woodland communities near water bodies (e.g., rivers, lakes), wetlands, flooded agricultural fields, open grasslands. Nesting: February-September Wintering: October-March	Absent. There is no suitable breeding or foraging habitat in or adjacent to the BSA.
Burrowing owl *(Athene cunicularia)*	–	–	BCC, SSC	Nests in burrows or burrow surrogates in open, treeless, areas within grassland, steppe, and desert biomes. Often with other burrowing mammals (e.g., prairie dogs, California ground squirrels). May also use human-made habitat such as agricultural fields, golf courses, cemeteries, roadside, airports, vacant urban lots, and fairgrounds. Nesting: February-August	Absent. There is no suitable breeding or foraging habitat in or adjacent to the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
American peregrine falcon *(Falco peregrinus anatum)*	De-listed	De-listed	CFP	In California, breeds in coastal region, northern California, and Sierra Nevada. Nesting habitat includes cliff ledges and human-made ledges on towers and buildings. Wintering habitat includes areas where there are large concentrations of shorebirds, waterfowl, pigeons or doves. CA Residents nest in February-June	Absent. There is no suitable breeding or foraging habitat in the BSA.
Suisun song sparrow (*Melospiza melodia maxillaris*)	–	–	SSC	Resident of brackish marshes of Suisun Bay. Year-round resident; nests March-July	Absent. There is no suitable breeding habitat in or adjacent to the BSA.
Alameda song sparrow (*Melospiza melodia pusillula*)	–	–	BCC, SSC	Resident of salt marshes skirting south San Francisco Bay. Year-round resident; nests February-August	Absent. There is no suitable breeding habitat in or adjacent to the BSA.
San Pablo song sparrow (*Melospiza melodia samuelis*)	–	–	BCC, SSC	Resident of salt marshes of San Francisco and San Pablo bays. Year-round resident; nests March-July	Absent. There is no suitable breeding habitat in or adjacent to the BSA.
Yellow-headed blackbird (*Xanthocephalus xanthocephalus*)	–	–	BCC, SSC	In California, breeds in the Great Basin region, along Colorado River south to Baja California, Salton Sea, Kern, Ventura, Riverside, San Diego and possibly Orange, Lake counties and locally in the Central Valley, Nests are constructed over deep water in emergent vegetation of prairie wetlands, quaking aspen parklands, mountain meadows, forest edges, large lakes. Nesting: April-July	Absent. There is no suitable breeding habitat in or adjacent to the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*)	–	–	BCC, SSC	Breeds in salt marshes of San Francisco Bay; winters San Francisco south along coast to San Diego County. Nesting: March-July	Absent. There is no suitable breeding habitat in or adjacent to the BSA.
Yellow warbler (*Setophaga petechia*)	–	–	SSC	Breeding range includes most of California, except Central Valley (isolated breeding locales on Valley floor, Stanislaus, Colusa, and Butte counties), Sierra Nevada range above tree line, and southeastern deserts. Nesting habitat includes riparian vegetation near streams and meadows. Winters in Mexico south to South America. Nesting: May-August	Absent. There is no suitable breeding habitat in or adjacent to the BSA.
Mammals					
Pallid bat *(Antrozous pallidus)*	–	–	SSC	Crevices in rocky outcrops and cliffs, caves, mines, trees (e.g. basal hollows of redwoods, cavities of oaks, exfoliating pine and oak bark, deciduous trees in riparian areas, and fruit trees in orchards). Also roosts in various human structures such as bridges, barns, porches, bat boxes, and human occupied as well as vacant buildings (WBWG 2024). Survey Period: April-September	Absent. There is no suitable roosting habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Townsend's big-eared bat *(Corynorhinus townsendii)*	–	–	SSC	It has been reported in a wide variety of habitat types ranging from sea level to 3,300 meters. Habitat associations include: coniferous forests, mixed meso-phytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Roosting can occur within caves, mines, buildings, rock crevices, trees. Survey Period: April-September	Absent. There is no suitable roosting habitat in the BSA.
Western mastiff bat (*Eumops perotis californicus*)	–	–	SSC	Maternity roosts found in exfoliating rock on cliffs, and less frequently in similar crevices in large boulders and buildings (WBWG 2024). Survey Period: April-September	Absent. There is no suitable roosting habitat in the BSA.
San Pablo vole (*Microtus californicus sanpabloensis*)	–	–	SSC	Salt marshes of San Pablo Creek, on the south shore of San Pablo Bay. Survey Period: any season	Absent. There is no suitable habitat in the BSA.
San Francisco dusky-footed woodrat *(Neotoma fuscipes annectens)*	–	–	SSC	Dense chaparral, mixed deciduous forest with thick understory, coniferous forest, and coastal sage scrub (Reid 2006). Builds large houses that are made of twigs, leaves, and other debris (Reid 2006). Survey Period: Any Season	Absent. There is no suitable habitat in the BSA.

Table 2. Potentially Occurring Special–Status Species

Common Name *(Scientific Name)*	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	FESA	CESA/ NPPA	Other		
Big free-tailed bat (*Nyctinomops macrotis*)	–	–	SSC	It roosts mainly in the crevices of rocks in cliff situations, although there is some documentation of roosting in buildings, caves, and tree cavities (WBWG 2024). Survey Period: April-September	Absent. There is no suitable roosting habitat in the BSA.
Salt-marsh harvest mouse *(Reithrodontomys raviventris)*	FE	CE	CFP	Saline emergent marsh. Survey Period: Any season	Absent. There is no suitable habitat in the BSA.
Alameda Island mole (*Scapanus latimanus parvus*)	–	–	SSC	Only known from Alameda Island. Found in annual and perennial grassland.	Absent. There is no suitable habitat in the BSA.
Salt-marsh wandering shrew (*Sorex vagrans halicoetes*)	–	–	SSC	Salt marshes of the south arm of San Francisco Bay. Survey Period: Any season	Absent. There is no suitable habitat in the BSA.
American badger *(Taxidea taxus)*	–	–	SSC	Drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Survey Period: Any season	Absent. There is no suitable habitat in the BSA.

Status Codes

FESA	Federal Endangered Species Act
CESA	California Endangered Species Act
FE	FESA listed, Endangered
FT	FESA listed, Threatened
FPT	Formally Proposed for FESA listing as Threatened
FC	Candidate for FESA listing as Threatened or Endangered
BCC	USFWS Bird of Conservation Concern (USFWS 2021)
CE	CESA- or NPPA listed, Endangered
CT	CESA- or NPPA-listed, Threatened
CR	CESA- or NPPA-listed, Rare
CC	Candidate for CESA listing as Endangered or Threatened
CFP	California Fish and Game Code Fully Protected Species (§ 3511-birds, § 4700-mammals, §5050-reptiles/amphibians)
SSC	CDFW Species of Special Concern
CDFW WL	CDFW Watch List
1A	CRPR/Presumed extinct

Table 2. Potentially Occurring Special–Status Species					
	Status				
Common Name ***(Scientific Name)***	**FESA**	**CESA/ NPPA**	**Other**	**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**

1B	CRPR/Rare or Endangered in California and elsewhere
2B	CRPR/Plants rare, threatened, or endangered in California but more common elsewhere
0.1	Threat Rank/Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2	Threat Rank/Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3	Threat Rank/Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)
Delisted	Formally Delisted

No special-status species area expected to occur in the BSA, due to absence of natural vegetation communities, the developed setting, and disturbances caused by the presence of vehicle traffic, pedestrians, and domestic dogs and cats.

4.7 Critical Habitat or Essential Fish Habitat

There is no designated Critical Habitat within the BSA (USFWS 2024b). Based on the literature review, the BSA may contain anadromous fish critical habitat for California Central Coast Distinct Population Segment (DPS) steelhead and Southern DPS green sturgeon, and Essential Fish Habitat for coho and Chinook salmon (NOAA 2024b). However, the field reconnaissance site visit on February 15, 2024 confirmed that there is no suitable aquatic habitat in the BSA.

4.8 Wildlife Movement Corridors and Nursery Sites

There are no known migratory corridors and none are expected to occur due to the developed setting within the BSA. The BSA is not mapped as an area of interest under the California Essential Habitat Connectivity Project (CDFW 2024). There is no suitable habitat for nursery sites (e.g., deer fawning grounds, waterbird rookeries).

4.9 City of Piedmont Heritage Trees

There are no designated Heritage Trees located in the vicinity of the BSA.

5.0 IMPACT ASSESSMENT AND RECOMMENDATIONS

This section specifically addresses questions raised by the Biological Resources section of the Environmental Checklist Form in Appendix G of the CEQA Guidelines.

5.1 California Environmental Quality Act Checklist Criteria IV(a) – Special-Status Species

Would the Project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

There are no potentially occurring special-status species in the BSA. The Project is not expected to have adverse effects on special-status species. While not considered special-status species as defined, birds protected under the MBTA could potentially nest in close proximity to the Project. It is expected that birds nesting in this developed setting have become acclimated to human presence and disturbances. Consequently, any potential effects to MBTA protected birds should be less than significant.

5.2 California Environmental Quality Act Checklist Criteria IV(b) – Sensitive Natural Communities

Would the Project:

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

There are no riparian habitats or sensitive natural communities in the BSA. The Project is not expected to have adverse effects on riparian habitat or sensitive natural communities.

5.3 California Environmental Quality Act Checklist Criteria IV(c) – Aquatic Resources

Would the Project:

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?

There are no aquatic resources in the BSA. The Project is not expected to have adverse effects on aquatic resources.

5.4 CEQA Checklist Criteria IV(d) – Movement Corridors and Nursery Sites

Would the Project:

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?

There are no migratory corridors or nursery sites in the BSA. The Project is not expected to have adverse effects on migratory corridors or nursery sites.

5.5 California Environmental Quality Act Checklist Criteria IV(e) – Conflicts with Local Policies or Ordinances

Would the Project:

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project is not expected to conflict with local policies or ordinances.

5.6 California Environmental Quality Act Checklist Criteria IV(f) – Conflicts with Conservation Plans

Would the Project:

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

The Project is not subject to provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

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LIST OF APPENDICES

Appendix A – Results of Database Queries

APPENDIX A

Results of Database Queries

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

67 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3712272:3712282:3712281:3712283:3712262:3712271:3712261:3712273:3712263**]

▲ 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
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	 © 2011 Neal Kramer
Androsace elongata ssp. *acuta*	California androsace	Primulaceae	annual herb	Mar-Jun	None	None	G5? T3T4	S3S4	4.2		1994-01-01	 © 2008 Aaron Schusteff
Anomobryum julaceum	slender silver moss	Bryaceae	moss		None	None	G5?	S2	4.2		2001-01-01	 © 2013 Scot Loring
Arctostaphylos pallida	pallid manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	FT	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Astragalus tener var. *tener*	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G2T1	S1	1B.2	Yes	1994-01-01	No Photo Available
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©1998 Dean Wm. Taylor
Blepharizonia plumosa	big tarplant	Asteraceae	annual herb	Jul-Oct	None	None	G1G2	S1S2	1B.1	Yes	1994-01-01	No Photo Available
Calochortus pulchellus	Mt. Diablo fairy-lantern	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Calochortus umbellatus	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G3?	S3?	4.2	Yes	1980-01-01	No Photo Available
Calystegia purpurata ssp. *saxicola*	coastal bluff morning-glory	Convolvulaceae	perennial herb	(Mar)Apr-Sep	None	None	G4T2T3	S2S3	1B.2	Yes	2001-01-01	No Photo Available

Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	None	None	G5	S2	2B.1		1994-01-01	 Dean Wm. Taylor 1997
Castilleja ambigua var. *ambigua*	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	None	None	G4T4	S3S4	4.2		2009-02-04	 ©2011 Dylan Neubauer
Centromadia parryi ssp. *congdonii*	Congdon's tarplant	Asteraceae	annual herb	May-Oct(Nov)	None	None	G3T2	S2	1B.1	Yes	1994-01-01	No Photo Available
Chloropyron maritimum ssp. *palustre*	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
Chloropyron molle ssp. *molle*	soft salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Nov	FE	CR	G2T1	S1	1B.2	Yes	1974-01-01	 © 2014 John Doyen
Chorizanthe cuspidata var. *cuspidata*	San Francisco Bay spineflower	Polygonaceae	annual herb	Apr-Jul(Aug)	None	None	G2T1	S1	1B.2	Yes	1994-01-01	No Photo Available
Chorizanthe robusta var. *robusta*	robust spineflower	Polygonaceae	annual herb	Apr-Sep	FE	None	G2T1	S1	1B.1	Yes	1980-01-01	No Photo Available
Cicuta maculata var. *bolanderi*	Bolander's water-hemlock	Apiaceae	perennial herb	Jul-Sep	None	None	G5T4T5	S2?	2B.1		1974-01-01	 © 2007 Doreen L Smith
Cirsium andrewsii	Franciscan thistle	Asteraceae	perennial herb	Mar-Jul	None	None	G3	S3	1B.2	Yes	1974-01-01	No Photo Available
Clarkia concinna ssp. *automixa*	Santa Clara red ribbons	Onagraceae	annual herb	(Apr)May-Jun(Jul)	None	None	G5?T3	S3	4.3	Yes	1994-01-01	No Photo Available
Clarkia franciscana	Presidio clarkia	Onagraceae	annual herb	May-Jul	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Dirca occidentalis	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar(Apr)	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2017 Steve Matson
Eriogonum luteolum var. *caninum*	Tiburon buckwheat	Polygonaceae	annual herb	May-Sep	None	None	G5T2	S2	1B.2	Yes	1974-01-01	No Photo Available
Eryngium jepsonii	Jepson's coyote-thistle	Apiaceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	2016-09-13	No Photo Available

Erythranthe laciniata	cut-leaved monkeyflower	Phrymaceae	annual herb	Apr-Jul	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2017 Steven Perry
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G2	S2	1B.2	Yes	1988-01-01	No Photo Available
Fissidens pauperculus	minute pocket moss	Fissidentaceae	moss		None	None	G3?	S2	1B.2		2001-01-01	 ©2021 Scot Loring
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2004 Carol W. Witham
Gilia capitata ssp. *chamissonis*	blue coast gilia	Polemoniaceae	annual herb	Apr-Jul	None	None	G5T2	S2	1B.1	Yes	2001-01-01	 © 2017 John Doyen
Gilia millefoliata	dark-eyed gilia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2		2001-01-01	 © 2017 John Doyen
Helianthella castanea	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2013 Christopher Bronny
Hemizonia congesta ssp. *congesta*	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	None	None	G5T2	S2	1B.2	Yes	1988-01-01	 © 2015 Vernon Smith
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2017 John Doyen
Heteranthera dubia	water star-grass	Pontederiaceae	perennial herb (aquatic)	Jul-Oct	None	None	G5	S2	2B.2		2013-10-10	 ©2010 Louis-M. Landry

Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	1974-01-01	 © 2020 Steven Perry
Hoita strobilina	Loma Prieta hoita	Fabaceae	perennial herb	May-Jul(Aug-Oct)	None	None	G2?	S2?	1B.1	Yes	2001-01-01	 © 2004 Janell Hillman
Holocarpha macradenia	Santa Cruz tarplant	Asteraceae	annual herb	Jun-Oct	FT	CE	G1	S1	1B.1	Yes	1974-01-01	 © 2011 Dylan Neubauer
Horkelia cuneata var. *sericea*	Kellogg's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G4T1?	S1?	1B.1	Yes	1988-01-01	 © 2018 Neal Kramer
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May(Jun)	None	None	G3	S3	4.2	Yes	2006-10-12	 © 2014 Aaron Schusteff
Isocoma arguta	Carquinez goldenbush	Asteraceae	perennial shrub	Aug-Dec	None	None	G1	S1	1B.1	Yes	1994-01-01	No Photo Available
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	None	None	G4	S4	4.2	Yes	1994-01-01	 © 2020 Zoya Akulova
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	FE	None	G1	S1	1B.1	Yes	1974-01-01	 © 2013 Neal Kramer
Layia carnosa	beach layia	Asteraceae	annual herb	Mar-Jul	FT	CE	G2	S2	1B.1		1988-01-01	 © 2007 Aaron Schusteff
Leptosiphon aureus	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G4?	S4?	4.2	Yes	1994-01-01	 © 2007 Len Blumin
Leptosiphon grandiflorus	large-flowered leptosiphon	Polemoniaceae	annual herb	Apr-Aug	None	None	G3G4	S3S4	4.2	Yes	1994-01-01	 © 2003 Doreen L. Smith

Leptosiphon rosaceus	rose leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G1	S1	1B.1	Yes	2001-01-01	 © 2013 Aaron Schusteff
Lessingia hololeuca	woolly-headed lessingia	Asteraceae	annual herb	Jun-Oct	None	None	G2G3	S2S3	3	Yes	1994-01-01	 © 2015 Aaron Schusteff
Malacothamnus hallii	Hall's bush-mallow	Malvaceae	perennial deciduous shrub	(Apr)May-Sep(Oct)	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2017 Keir Morse
Meconella oregana	Oregon meconella	Papaveraceae	annual herb	Mar-Apr	None	None	G2G3	S2	1B.1		1974-01-01	 © 2021 Scot Loring
Monolopia gracilens	woodland woollythreads	Asteraceae	annual herb	(Feb)Mar-Jul	None	None	G3	S3	1B.2	Yes	2010-04-06	 © 2016 Richard Spellenberg
Oenothera deltoides ssp. *howellii*	Antioch Dunes evening-primrose	Onagraceae	perennial herb	Mar-Sep	FE	CE	G5T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Piperia michaelii	Michael's rein orchid	Orchidaceae	perennial herb	Apr-Aug	None	None	G3	S3	4.2	Yes	1984-01-01	No Photo Available
Plagiobothrys chorisianus var. *chorisianus*	Choris' popcornflower	Boraginaceae	annual herb	Mar-Jun	None	None	G3T1Q	S1	1B.2	Yes	1984-01-01	No Photo Available
Plagiobothrys diffusus	San Francisco popcornflower	Boraginaceae	annual herb	Mar-Jun	None	CE	G1Q	S1	1B.1	Yes	1974-01-01	No Photo Available
Plagiobothrys glaber	hairless popcornflower	Boraginaceae	annual herb	Mar-May	None	None	GX	SX	1A	Yes	1974-01-01	No Photo Available
Polygonum marinense	Marin knotweed	Polygonaceae	annual herb	(Apr)May-Aug(Oct)	None	None	G2Q	S2	3.1	Yes	1974-01-01	No Photo Available
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	None	None	G4	S3	4.2		1974-01-01	No Photo Available
Sanicula maritima	adobe sanicle	Apiaceae	perennial herb	Feb-May	None	CR	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
Spergularia macrotheca var. *longistyla*	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May	None	None	G5T2	S2	1B.2	Yes	2017-06-16	No Photo Available

Streptanthus albidus ssp. *peramoenus*	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	None	None	G2T2	S2	1B.2	Yes	1988-01-01	 © 1994 Robert E. Preston, Ph.D.
Stuckenia filiformis ssp. *alpina*	northern slender pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	None	None	G5T5	S2S3	2B.2		1994-01-01	 Dana York (2016)
Suaeda californica	California seablite	Chenopodiaceae	perennial evergreen shrub	Jul-Oct	FE	None	G1	S1	1B.1	Yes	1988-01-01	No Photo Available
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001-01-01	 © 2005 Dean Wm Taylor
Triphysaria floribunda	San Francisco owl's-clover	Orobanchaceae	annual herb	Apr-Jun	None	None	G2?	S2?	1B.2	Yes	1974-01-01	No Photo Available
Viburnum ellipticum	oval-leaved viburnum	Viburnaceae	perennial deciduous shrub	May-Jun	None	None	G4G5	S3?	2B.3		1974-01-01	 © 2006 Tom Engstrom

Showing 1 to 67 of 67 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 12 February 2024].

Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Oakland East (3712272) OR Briones Valley (3712282) OR Walnut Creek (3712281) OR Richmond (3712283) OR San Leandro (3712262) OR Las Trampas Ridge (3712271) OR Hayward (3712261) OR Oakland West (3712273) OR Hunters Point (3712263))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAAAA01181	***Ambystoma californiense pop. 1*** California tiger salamander - central California DPS	Threatened	Threatened	G2G3T3	S3	WL
AAABH01022	***Rana draytonii*** California red-legged frog	Threatened	None	G2G3	S2S3	SSC
AAABH01054	***Rana boylii pop. 4*** foothill yellow-legged frog - central coast DPS	Threatened	Endangered	G3T2	S2	
ABNFD01020	***Nannopterum auritum*** double-crested cormorant	None	None	G5	S4	WL
ABNGA04010	***Ardea herodias*** great blue heron	None	None	G5	S4	
ABNGA06030	***Egretta thula*** snowy egret	None	None	G5	S4	
ABNGA11010	***Nycticorax nycticorax*** black-crowned night heron	None	None	G5	S4	
ABNJB05035	***Branta hutchinsii leucopareia*** cackling (=Aleutian Canada) goose	Delisted	None	G5T3	S3	WL
ABNKC06010	***Elanus leucurus*** white-tailed kite	None	None	G5	S3S4	FP
ABNKC10010	***Haliaeetus leucocephalus*** bald eagle	Delisted	Endangered	G5	S3	FP
ABNKC11011	***Circus hudsonius*** northern harrier	None	None	G5	S3	SSC
ABNKC12020	***Accipiter striatus*** sharp-shinned hawk	None	None	G5	S4	WL
ABNKC12040	***Accipiter cooperii*** Cooper's hawk	None	None	G5	S4	WL
ABNKC22010	***Aquila chrysaetos*** golden eagle	None	None	G5	S3	FP
ABNKD06071	***Falco peregrinus anatum*** American peregrine falcon	Delisted	Delisted	G4T4	S3S4	
ABNME01010	***Coturnicops noveboracensis*** yellow rail	None	None	G4	S2	SSC
ABNME03041	***Laterallus jamaicensis coturniculus*** California black rail	None	Threatened	G3T1	S2	FP
ABNME05011	***Rallus obsoletus obsoletus*** California Ridgway's rail	Endangered	Endangered	G3T1	S2	FP
ABNNB03031	***Charadrius nivosus nivosus*** western snowy plover	Threatened	None	G3T3	S3	SSC

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ABNNM08020	***Hydroprogne caspia*** Caspian tern	None	None	G5	S4	
ABNNM08103	***Sternula antillarum browni*** California least tern	Endangered	Endangered	G4T2T3Q	S2	FP
ABNNM14010	***Rynchops niger*** black skimmer	None	None	G5	S2	SSC
ABNSB10010	***Athene cunicularia*** burrowing owl	None	None	G4	S2	SSC
ABPBX03010	***Setophaga petechia*** yellow warbler	None	None	G5	S3	SSC
ABPBX1201A	***Geothlypis trichas sinuosa*** saltmarsh common yellowthroat	None	None	G5T3	S3	SSC
ABPBXA301K	***Melospiza melodia maxillaris*** Suisun song sparrow	None	None	G5T3	S2	SSC
ABPBXA301S	***Melospiza melodia pusillula*** Alameda song sparrow	None	None	G5T2T3	S2	SSC
ABPBXA301W	***Melospiza melodia samuelis*** San Pablo song sparrow	None	None	G5T2	S2	SSC
ABPBXB3010	***Xanthocephalus xanthocephalus*** yellow-headed blackbird	None	None	G5	S3	SSC
AFCAA01031	***Acipenser medirostris pop. 1*** green sturgeon - southern DPS	Threatened	None	G2T1	S1	
AFCHB03010	***Spirinchus thaleichthys*** longfin smelt	Proposed Endangered	Threatened	G5	S1	
AFCQB07010	***Archoplites interruptus*** Sacramento perch	None	None	G1	S1	SSC
AFCQN04010	***Eucyclogobius newberryi*** tidewater goby	Endangered	None	G3	S3	
AMABA01071	***Sorex vagrans halicoetes*** salt-marsh wandering shrew	None	None	G5T1	S1	SSC
AMABB02031	***Scapanus latimanus parvus*** Alameda Island mole	None	None	G5T1Q	SH	SSC
AMACC02010	***Lasionycteris noctivagans*** silver-haired bat	None	None	G3G4	S3S4	
AMACC05032	***Lasiurus cinereus*** hoary bat	None	None	G3G4	S4	
AMACC08010	***Corynorhinus townsendii*** Townsend's big-eared bat	None	None	G4	S2	SSC
AMACC10010	***Antrozous pallidus*** pallid bat	None	None	G4	S3	SSC
AMACD02011	***Eumops perotis californicus*** western mastiff bat	None	None	G4G5T4	S3S4	SSC

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AMACD04020	***Nyctinomops macrotis*** big free-tailed bat	None	None	G5	S3	SSC
AMAFD03061	***Dipodomys heermanni berkeleyensis*** Berkeley kangaroo rat	None	None	G4T1	S2	
AMAFF02040	***Reithrodontomys raviventris*** salt-marsh harvest mouse	Endangered	Endangered	G1G2	S3	FP
AMAFF08082	***Neotoma fuscipes annectens*** San Francisco dusky-footed woodrat	None	None	G5T2T3	S2S3	SSC
AMAFF11034	***Microtus californicus sanpabloensis*** San Pablo vole	None	None	G5T1T2	S1S2	SSC
AMAJF04010	***Taxidea taxus*** American badger	None	None	G5	S3	SSC
ARAAD02030	***Emys marmorata*** western pond turtle	Proposed Threatened	None	G3G4	S3	SSC
ARACC01020	***Anniella pulchra*** Northern California legless lizard	None	None	G3	S2S3	SSC
ARADB21031	***Masticophis lateralis euryxanthus*** Alameda whipsnake	Threatened	Threatened	G4T2	S2	
CTT37C10CA	***Northern Maritime Chaparral*** Northern Maritime Chaparral	None	None	G1	S1.2	
CTT42110CA	***Valley Needlegrass Grassland*** Valley Needlegrass Grassland	None	None	G3	S3.1	
CTT42130CA	***Serpentine Bunchgrass*** Serpentine Bunchgrass	None	None	G2	S2.2	
CTT52110CA	***Northern Coastal Salt Marsh*** Northern Coastal Salt Marsh	None	None	G3	S3.2	
IICOL02101	***Cicindela hirticollis gravida*** sandy beach tiger beetle	None	None	G5T2	S2	
IIDIP07010	***Efferia antiochi*** Antioch efferian robberfly	None	None	G1G2	S1S2	
IIHYM24252	***Bombus occidentalis*** western bumble bee	None	Candidate Endangered	G3	S1	
IIHYM24380	***Bombus caliginosus*** obscure bumble bee	None	None	G2G3	S1S2	
IIHYM24480	***Bombus crotchii*** Crotch bumble bee	None	Candidate Endangered	G2	S2	
IILEPK4055	***Euphydryas editha bayensis*** Bay checkerspot butterfly	Threatened	None	G5T1	S3	
IILEPP2012	***Danaus plexippus plexippus pop. 1*** monarch - California overwintering population	Candidate	None	G4T1T2Q	S2	
ILARA47040	***Microcina leei*** Lee's micro-blind harvestman	None	None	G1	S1	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ILARA47050	***Microcina lumi*** Lum's micro-blind harvestman	None	None	G1	S1	
IMGASC2362	***Helminthoglypta nickliniana bridgesi*** Bridges' coast range shoulderband	None	None	G3T1	S1S2	
IMGASJ7040	***Tryonia imitator*** mimic tryonia (=California brackishwater snail)	None	None	G2	S2	
IMGASJ9020	***Pomatiopsis californica*** Pacific walker	None	None	G1	S1	
NBMUS2W0U0	***Fissidens pauperculus*** minute pocket moss	None	None	G3?	S2	1B.2
NBMUS80010	***Anomobryum julaceum*** slender silver moss	None	None	G5?	S2	4.2
PDAPI0M051	***Cicuta maculata var. bolanderi*** Bolander's water-hemlock	None	None	G5T4T5	S2?	2B.1
PDAPI0Z130	***Eryngium jepsonii*** Jepson's coyote-thistle	None	None	G2	S2	1B.2
PDAPI1Z0D0	***Sanicula maritima*** adobe sanicle	None	Rare	G2	S2	1B.1
PDAST11061	***Balsamorhiza macrolepis*** big-scale balsamroot	None	None	G2	S2	1B.2
PDAST1C011	***Blepharizonia plumosa*** big tarplant	None	None	G1G2	S1S2	1B.1
PDAST2E050	***Cirsium andrewsii*** Franciscan thistle	None	None	G3	S3	1B.2
PDAST4M020	***Helianthella castanea*** Diablo helianthella	None	None	G2	S2	1B.2
PDAST4R0P1	***Centromadia parryi ssp. congdonii*** Congdon's tarplant	None	None	G3T2	S2	1B.1
PDAST4R0W1	***Hemizonia congesta ssp. congesta*** congested-headed hayfield tarplant	None	None	G5T2	S2	1B.2
PDAST4X020	***Holocarpha macradenia*** Santa Cruz tarplant	Threatened	Endangered	G1	S1	1B.1
PDAST57050	***Isocoma arguta*** Carquinez goldenbush	None	None	G1	S1	1B.1
PDAST5L040	***Lasthenia conjugens*** Contra Costa goldfields	Endangered	None	G1	S1	1B.1
PDAST5N010	***Layia carnosa*** beach layia	Threatened	Endangered	G2	S2	1B.1
PDAST6G010	***Monolopia gracilens*** woodland woollythreads	None	None	G3	S3	1B.2
PDBOR01070	***Amsinckia lunaris*** bent-flowered fiddleneck	None	None	G3	S3	1B.2

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDBOR0V061	***Plagiobothrys chorisianus var. chorisianus*** Choris' popcornflower	None	None	G3T1Q	S1	1B.2
PDBOR0V080	***Plagiobothrys diffusus*** San Francisco popcornflower	None	Endangered	G1Q	S1	1B.1
PDBOR0V0B0	***Plagiobothrys glaber*** hairless popcornflower	None	None	GX	SX	1A
PDBRA2G012	***Streptanthus albidus ssp. peramoenus*** most beautiful jewelflower	None	None	G2T2	S2	1B.2
PDCAR0W062	***Spergularia macrotheca var. longistyla*** long-styled sand-spurrey	None	None	G5T2	S2	1B.2
PDCHE041F3	***Extriplex joaquinana*** San Joaquin spearscale	None	None	G2	S2	1B.2
PDCHE0P020	***Suaeda californica*** California seablite	Endangered	None	G1	S1	1B.1
PDCON040D2	***Calystegia purpurata ssp. saxicola*** coastal bluff morning-glory	None	None	G4T2T3	S2S3	1B.2
PDCPR07080	***Viburnum ellipticum*** oval-leaved viburnum	None	None	G4G5	S3?	2B.3
PDERI04110	***Arctostaphylos pallida*** pallid manzanita	Threatened	Endangered	G1	S1	1B.1
PDFAB0F8R1	***Astragalus tener var. tener*** alkali milk-vetch	None	None	G2T1	S1	1B.2
PDFAB400R5	***Trifolium hydrophilum*** saline clover	None	None	G2	S2	1B.2
PDFAB5Z030	***Hoita strobilina*** Loma Prieta hoita	None	None	G2?	S2?	1B.1
PDONA050A1	***Clarkia concinna ssp. automixa*** Santa Clara red ribbons	None	None	G5?T3	S3	4.3
PDONA050H0	***Clarkia franciscana*** Presidio clarkia	Endangered	Endangered	G1	S1	1B.1
PDONA0C0B4	***Oenothera deltoides ssp. howellii*** Antioch Dunes evening-primrose	Endangered	Endangered	G5T1	S1	1B.1
PDPAP0G030	***Meconella oregana*** Oregon meconella	None	None	G2G3	S2	1B.1
PDPGN04081	***Chorizanthe cuspidata var. cuspidata*** San Francisco Bay spineflower	None	None	G2T1	S1	1B.2
PDPGN040Q2	***Chorizanthe robusta var. robusta*** robust spineflower	Endangered	None	G2T1	S1	1B.1
PDPGN083S1	***Eriogonum luteolum var. caninum*** Tiburon buckwheat	None	None	G5T2	S2	1B.2
PDPGN0L1C0	***Polygonum marinense*** Marin knotweed	None	None	G2Q	S2	3.1

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDPLM040B3	***Gilia capitata ssp. chamissonis*** blue coast gilia	None	None	G5T2	S2	1B.1
PDPLM04130	***Gilia millefoliata*** dark-eyed gilia	None	None	G2	S2	1B.2
PDPLM09180	***Leptosiphon rosaceus*** rose leptosiphon	None	None	G1	S1	1B.1
PDROS0W043	***Horkelia cuneata var. sericea*** Kellogg's horkelia	None	None	G4T1?	S1?	1B.1
PDSCR0J0C3	***Chloropyron maritimum ssp. palustre*** Point Reyes salty bird's-beak	None	None	G4?T2	S2	1B.2
PDSCR2T010	***Triphysaria floribunda*** San Francisco owl's-clover	None	None	G2?	S2?	1B.2
PDTHY03010	***Dirca occidentalis*** western leatherwood	None	None	G2	S2	1B.2
PMCYP032Y0	***Carex comosa*** bristly sedge	None	None	G5	S2	2B.1
PMLIL0D160	***Calochortus pulchellus*** Mt. Diablo fairy-lantern	None	None	G2	S2	1B.2
PMLIL0V0C0	***Fritillaria liliacea*** fragrant fritillary	None	None	G2	S2	1B.2
PMPON03010	***Heteranthera dubia*** water star-grass	None	None	G5	S2	2B.2
PMPOT03091	***Stuckenia filiformis ssp. alpina*** northern slender pondweed	None	None	G5T5	S2S3	2B.2

Record Count: 115

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.

NOT FOR CONSULTATION

Location

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and 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 species[1] 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 Fisheries[2]).

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.

NOT FOR CONSULTATION

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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

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Least Tern Sternula antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
California Ridgway''s Rail Rallus obsoletus obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5524	Threatened
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii 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	Threatened

NOT FOR CONSULTATION

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 — Threatened

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/5133

Fishes

NAME	STATUS
Tidewater Goby Eucyclogobius newberryi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Pallid Manzanita Arctostaphylos pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8292	Threatened
Presidio Clarkia Clarkia franciscana Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3890	Endangered

NOT FOR CONSULTATION

Robust Spineflower Chorizanthe robusta var. robusta — Endangered

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

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 Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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-incidental-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, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON

NOT FOR CONSULTATION

Bald Eagle Haliaeetus leucocephalus — Breeds Jan 1 to Aug 31

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.

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "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 (|)

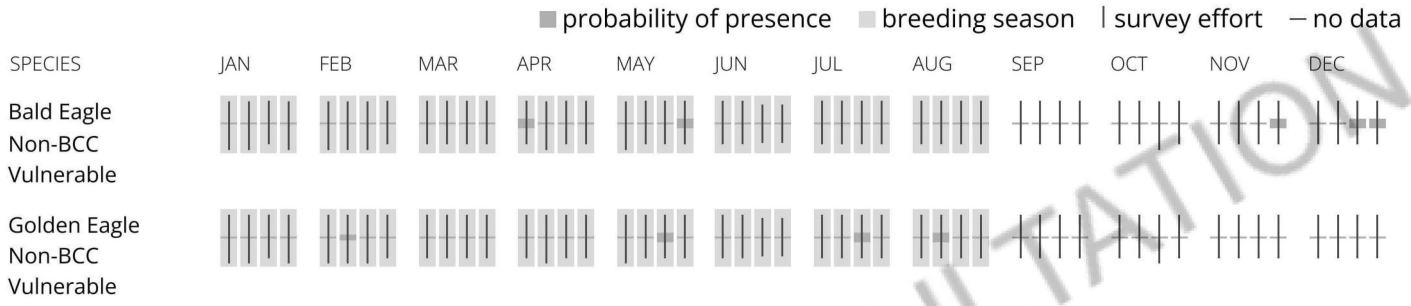
NOT FOR CONSULTATION

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.



NOT FOR CONSULTATION

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 Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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-incidental-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, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird *Selasphorus sasin* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15

NOT FOR CONSULTATION

Bald Eagle *Haliaeetus leucocephalus* 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
Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* 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 *Haematopus bachmani* 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 *Rynchops niger* 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 Turnstone *Arenaria melanocephala* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bullock's Oriole *Icterus bullockii* 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
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

NOT FOR CONSULTATION

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

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

Gull-billed Tern Gelochelidon nilotica — Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9501

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Marbled Godwit Limosa fedoa — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20

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

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

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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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "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.

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To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

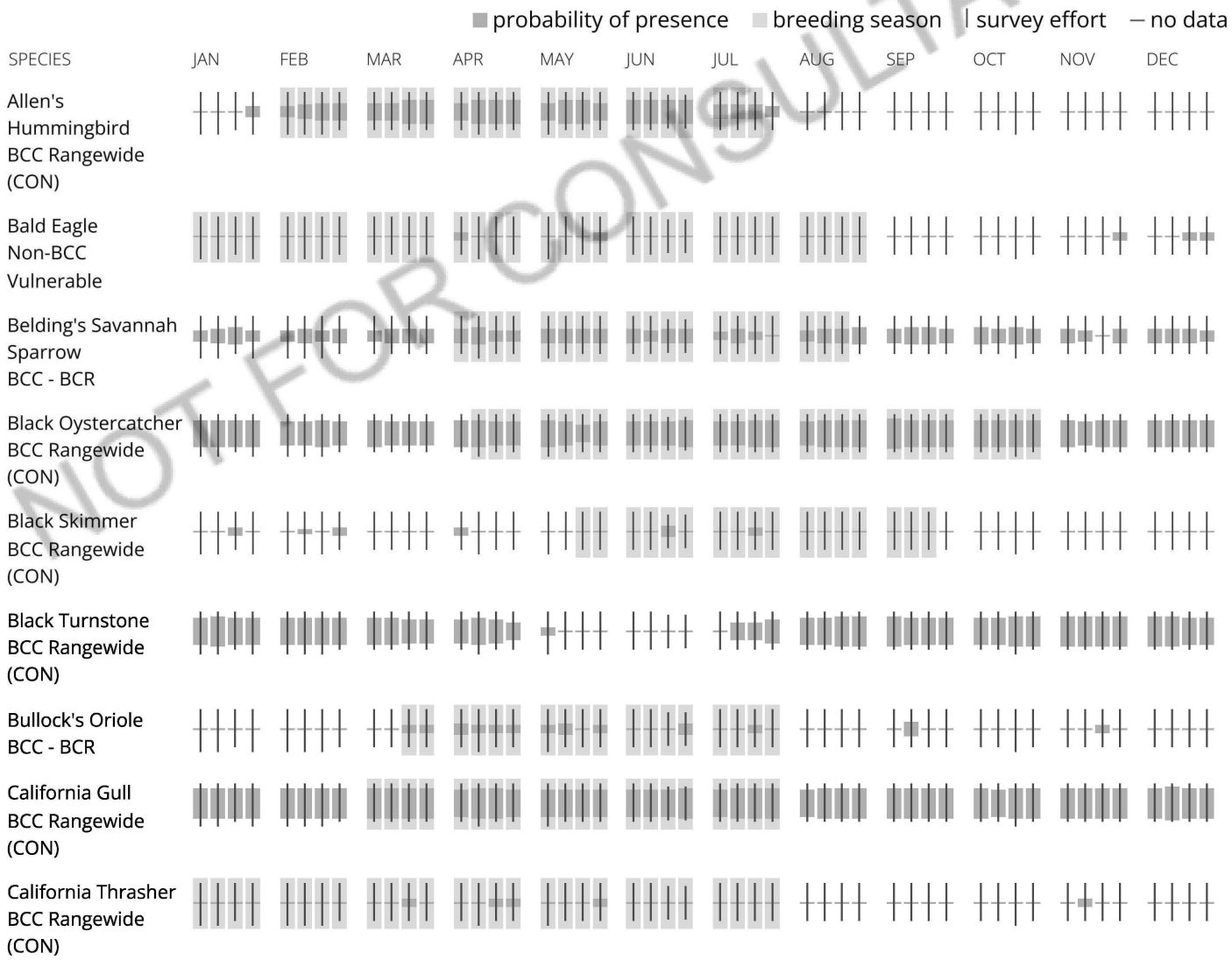
Breeding Season ( )
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

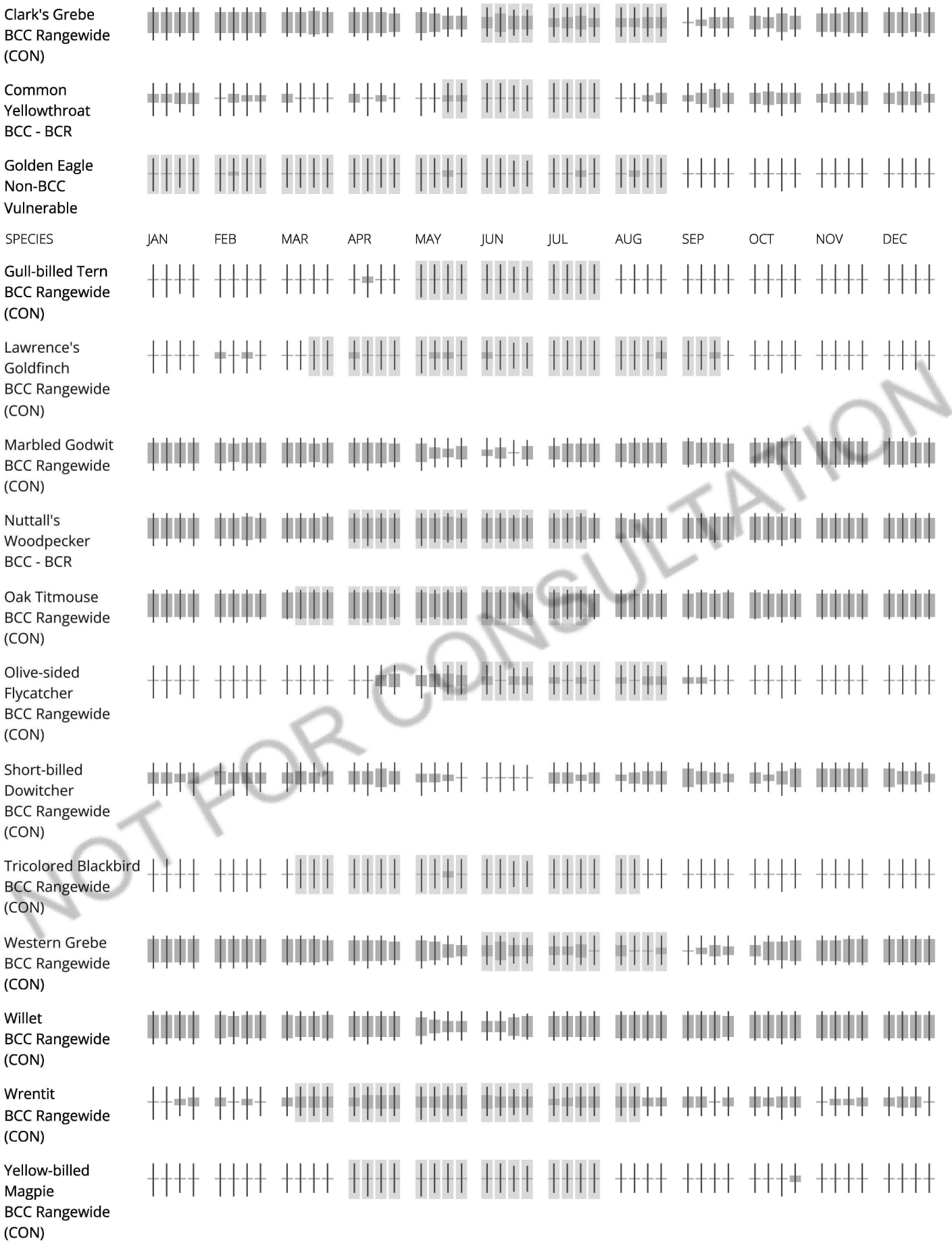
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



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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 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

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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.

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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:

RIVERINE

R4SBAx
R4SBA

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.

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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 tuberficid 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.

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Quad Name **Oakland East**
Quad Number **37122-G2**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - **X**
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**
Chinook Salmon EFH - **X**
Groundfish EFH - **X**
Coastal Pelagics EFH - **X**
Highly Migratory Species EFH -

ESA and MMPA Cetaceans/Pinnipeds

MMPA Cetaceans -
MMPA Pinnipeds - **X**

Guadalupe Fur Seal – MMPA Depleted – T

Northern Elephant Seal – MMPA Protection

Northern Fur Seal – MMPA Depleted

Pacific Harbor Seal – MMPA Protection

Steller Sea Lion - MMPA Protection

APPENDIX C

Historic Property Identification Report for the City of Piedmont Sanitary Sewer Rehabilitation Phase 6 Project. ECORP, 2024
Information within the report is confidential and available upon request

APPENDIX D

Energy Consumption Analysis Memorandum

Proposed Project
Total Construction-Related
Gasoline Usage

Table 1. Construction in First Calendar Year			
Action	**Carbon Dioxide Equivalents (CO_2e) in Metric Tons[1]**	**Conversion of Metric Tons to Kilograms[2]**	**Construction Equipment Emission Factor[2]**
Project Construction	154	154,000	10.15
Total Gallons Consumed During First Calendar Year of Construction:			**15,172**

Sources:

[1] CalEEMod 2022.1.1 Outputs for Piedmont Sanitary Sewer Rehabilitation Project

[2]Climate Registry. 2016. *General Reporting Protocol for the Voluntary Reporting Program version 2.1.* January 2016. http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pdf

APPENDIX E

Noise Impact Memorandum

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/1/2024
Case Description: **Excavation**

Description	**Affected Land Use**
Excavation	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Excavator	No	40		80.7	30	0
Excavator	No	40		80.7	30	0
Front End Loader	No	40		79.1	30	0
Front End Loader	No	40		79.1	30	0
Vacuum Street Sweeper	No	10		81.6	30	0
Compactor (ground)	No	20		83.2	30	0
Generator	No	50		80.6	30	0
Generator	No	50		80.6	30	0
Generator	No	50		80.6	30	0
Generator	No	50		80.6	30	0
Compressor (air)	No	40		77.7	30	0
Compressor (air)	No	40		77.7	30	0

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Excavator	85.1	81.2
Excavator	85.1	81.2
Front End Loader	83.5	79.6
Front End Loader	83.5	79.6
Vacuum Street Sweeper	86	76
Compactor (ground)	87.7	80.7
Generator	85.1	82.1
Generator	85.1	82.1
Generator	85.1	82.1
Generator	85.1	82.1
Compressor (air)	82.1	78.1
Compressor (air)	82.1	78.1
Total	87.7	**91.4**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/1/2024
Case Description: Hauling

Description	**Affected Land Use**
Hauling	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Dump Truck	No	40		76.5	30	0
Dump Truck	No	40		76.5	30	0
Pickup Truck	No	40		75	30	0
Pickup Truck	No	40		75	30	0

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Dump Truck	80.9	76.9
Dump Truck	80.9	76.9
Pickup Truck	79.4	75.5
Pickup Truck	79.4	75.5
Total	80.9	**82.3**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/1/2024
Case Description: Paving

Description	**Affect Land Use**
Paving	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Roller	No	20		80	30	0
Roller	No	20		80	30	0
Paver	No	50		77.2	30	0
Compressor (air)	No	40		77.7	30	0
All Other Equipment > 5 HP	No	50	85		30	0
All Other Equipment > 5 HP	No	50	85		30	0
Vacuum Street Sweeper	No	10		81.6	30	0
Concrete Saw	No	20		89.6	30	0

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Roller	84.4	77.4
Roller	84.4	77.4
Paver	81.7	78.6
Compressor (air)	82.1	78.1
All Other Equipment > 5 HP	89.4	86.4
All Other Equipment > 5 HP	89.4	86.4
Vacuum Street Sweeper	86	76
Concrete Saw	94	87
Total	94	**92.2**

*Calculated Lmax is the Loudest value.

APPENDIX F

City of Piedmont Sanitary Sewer Rehabilitation Phase 6 Project Report, Bennett Engineering, 2024 - Available upon request