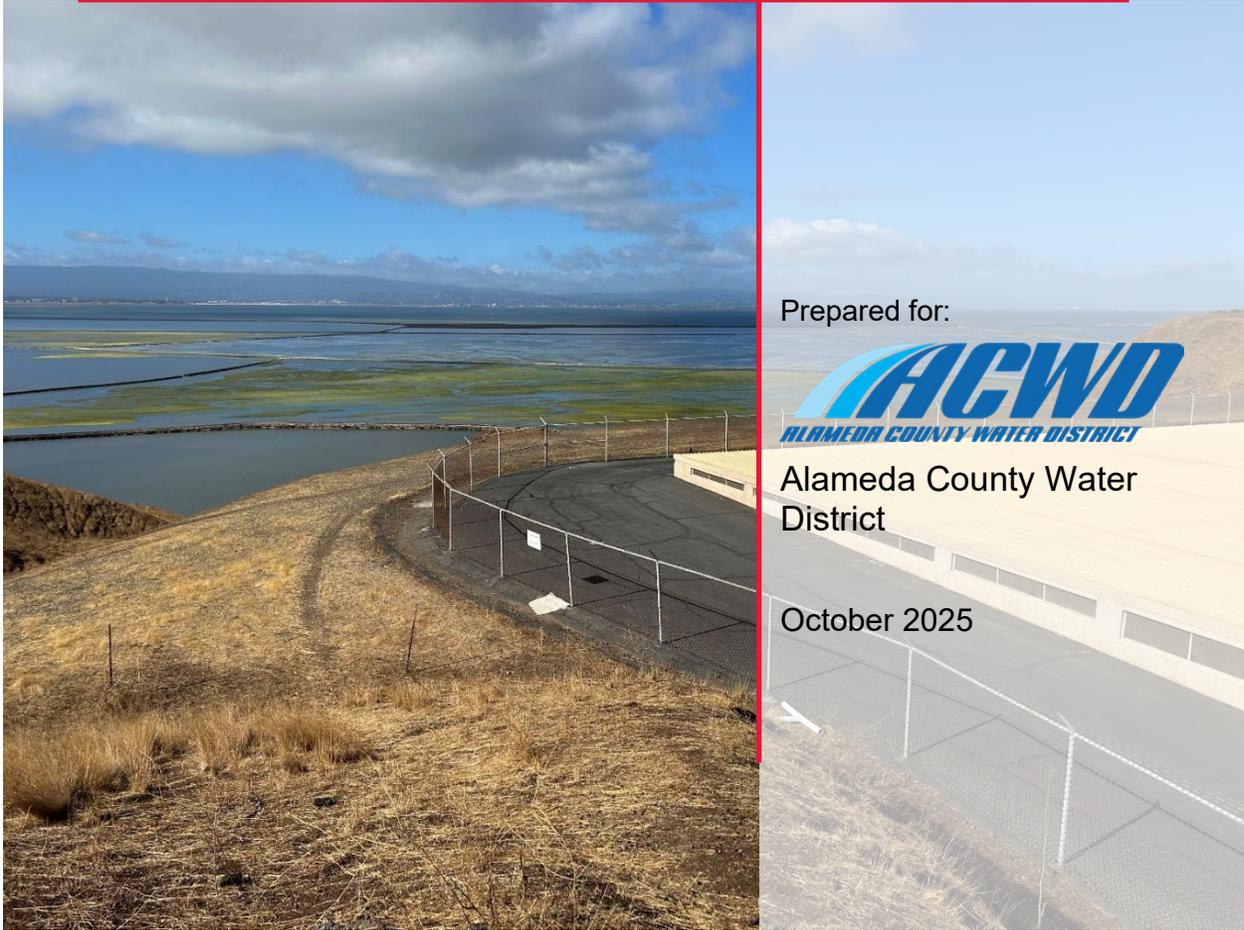


Initial Study/Proposed Mitigated Negative Declaration
Patterson Reservoir Remediation Project
ACWD Job No. 21414



Prepared for:



Alameda County Water
District

October 2025

Prepared by:



Consulting
Engineers and
Scientists

This page intentionally left blank.

Initial Study/Proposed Mitigated Negative Declaration

Patterson Reservoir Remediation Project

ACWD Job No. 21414

Prepared for:

Alameda County Water District
43885 South Grimmer Blvd
Fremont, CA 94538

Contact:

Dorota Budzynska
Project Manager
510-668-4420

Prepared by:

GEI Consultants
2868 Prospect Park Drive, Suite 400
Rancho Cordova, CA 95670

Contact:

Chrissy Burns
Project Manager
916-631-4500

October 20, 2025

Project No. 2303895

This page intentionally left blank.

Mitigated Negative Declaration

Project Name. Patterson Reservoir Remediation Project, ACWD Job No. 21414

Project Location. The project site is located at Patterson Reservoir (Reservoir) along Patterson Road off Paseo Padre Parkway in Fremont between the Coyote Hills Regional Park and Dumbarton Quarry Campground, north of Highway 84.

Project Description. The Patterson Reservoir Remediation Project will restore storage capacity and maximize the operating water level while providing sufficient freeboard for the Reservoir as required by the California Department of Water Resources, Division of Safety of Dams (DSOD). The project involves constructing earthen berms on the east and west side of the existing Reservoir, tying into high ground on the north and south sides to create a ring around the Reservoir. To facilitate construction activities, existing utilities would be protected-in-place, relocated, or removed from service. Project construction is anticipated to take approximately 6 months between Spring 2027 and Fall 2027.

Findings. It is hereby determined that, based on the information contained in the attached Initial Study, the project would not have a significant adverse effect on the environment.

Mitigation measures necessary to avoid the potentially significant effects on the environment are included in the attached Initial Study, which is hereby incorporated and fully made part of this Mitigated Negative Declaration. ACWD has hereby agreed to implement each of the identified mitigation measures, which would be adopted as part of the Mitigation Monitoring and Reporting Program (**Appendix A**).



Girum Awoke
Alameda County Water District

02/23/2026

Date

This page intentionally left blank.

Table of Contents

Abbreviations and Acronyms	iv
1.0 Introduction	1-1
1.1 Purpose of the Initial Study.....	1-1
1.2 Summary of Findings	1-2
1.3 Document Organization.....	1-3
2.0 Project Description.....	2-1
2.1 Project Location.....	2-1
2.2 Project Background	2-1
2.2.1 Alameda County Water District Overview	2-1
2.2.2 Patterson Reservoir.....	2-1
2.3 Project Objectives	2-5
2.4 Project Features.....	2-5
2.4.1 Earthen Berms	2-5
2.4.2 Utility Relocation.....	2-6
2.5 Project Implementation.....	2-7
2.5.1 Construction Phase Characteristics.....	2-7
2.6 Regulatory Requirements, Permits, and Approvals	2-9
3.0 Environmental Checklist.....	3-1
3.1 Aesthetics.....	3-5
3.1.1 Environmental Setting	3-5
3.1.2 Discussion.....	3-6
3.2 Agriculture and Forestry Resources	3-8
3.2.1 Environmental Setting	3-9
3.2.2 Discussion.....	3-9
3.3 Air Quality.....	3-11
3.3.1 Environmental Setting	3-11
3.3.2 Discussion.....	3-13
3.4 Biological Resources.....	3-17
3.4.1 Environmental Setting	3-18
3.4.2 Discussion.....	3-28
3.5 Cultural Resources.....	3-45
3.5.1 Environmental Setting	3-45
3.5.2 Methods	3-48
3.5.3 Discussion.....	3-50
3.6 Energy.....	3-55
3.6.1 Environmental Setting	3-55
3.6.2 Discussion.....	3-55
3.7 Geology and Soils	3-57
3.7.1 Environmental Setting	3-58
3.7.2 Discussion.....	3-59
3.8 Greenhouse Gas Emissions.....	3-62
3.8.1 Environmental Setting	3-62
3.8.2 Discussion.....	3-63
3.9 Hazards and Hazardous Materials	3-64

3.9.1	Environmental Setting	3-65
3.9.2	Discussion	3-66
3.10	Hydrology and Water Quality	3-71
3.10.1	Environmental Setting	3-72
3.10.2	Discussion	3-73
3.11	Land Use and Planning	3-77
3.11.1	Environmental Setting	3-77
3.11.2	Discussion	3-77
3.12	Mineral Resources	3-79
3.12.1	Environmental Setting	3-79
3.12.2	Discussion	3-80
3.13	Noise	3-81
3.13.1	Environmental Setting	3-81
3.13.2	Discussion	3-82
3.14	Population and Housing	3-84
3.14.1	Environmental Setting	3-84
3.14.2	Discussion	3-84
3.15	Public Services	3-85
3.15.1	Environmental Setting	3-85
3.15.2	Discussion	3-85
3.16	Recreation	3-86
3.16.1	Environmental Setting	3-86
3.16.2	Discussion	3-86
3.17	Transportation	3-88
3.17.1	Environmental Setting	3-88
3.17.2	Discussion	3-88
3.18	Tribal Cultural Resources	3-90
3.18.1	Environmental Setting	3-90
3.18.2	Discussion	3-91
3.19	Utilities and Service Systems	3-93
3.19.1	Environmental Setting	3-93
3.19.2	Discussion	3-94
3.20	Wildfire	3-96
3.20.1	Environmental Setting	3-96
3.20.2	Discussion	3-97
3.21	Mandatory Findings of Significance	3-98
3.21.1	Discussion	3-98
4.0	List of Preparers	4-1
5.0	References	5-1

List of Tables

Table 2-1. Construction Activity Overview.....2-8
Table 2-2. Discretionary Permits or Approvals Potentially Required.....2-9
Table 3-1. Federal and California Ambient Air Quality Standards and Attainment Status13-12
Table 3-2. Special-status Plant Species With Potential to Occur in and Adjacent to the
Project Site3-23
Table 3-3. Special-status Wildlife Species With Potential to Occur in and Adjacent to the
Project Site3-24
Table 3-4. Previous Investigations in the Project Boundary3-49
Table 3-5. Previously Identified Cultural Resources within the 0.25-mile Buffer3-49
Table 3-6. Typical Construction Equipment Noise Levels3-82

List of Figures

Figure 2-1. Regional Location2-2
Figure 2-2. Proposed Project2-3
Figure 3-1. Habitat and Landcover Types3-20

List of Appendices

Appendix A Mitigation Monitoring and Reporting Program
Appendix B Evaluated Wildlife and Plant Potential to Occur Tables

Abbreviations and Acronyms

Acronym	Description
AB	Assembly Bill
AC	Asphalt Concrete
ACWD	Alameda County Water District
APE	Area of Potential Effect
BAAQMD	Bay Area Air Quality Management District
BCE	Before Common Era
BMP	best management practice
CAAQS	California ambient air quality standards
CAL FIRE	California Department of Forestry and Fire Protection
CAL/OSHA	Division of Occupational Safety and Health
CAP	Climate Action Plan
CARB	California Air Resource Board
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CE	Common Era
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGS	California Geological Survey
CHP	California Highway Patrol
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DOC	Department of Conservation
DSOD	Division of Safety of Dams
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EBRPD	East Bay Regional Parks District
EIR	Environmental Impact Report

Acronym	Description
EPA	Environmental Protection Agency
ESA	National Endangered Species Act (
ESLs	Environmental Screening Levels
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FP	Fully Protected
GHG	Greenhouse gas
GSP	Groundwater Sustainability Plan
HCP	Habitat Conservation Plan
HHRL	human health risk levels
IS	Initial Study
LF	Linear feet
LRA	local responsibility area
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zones
MT	metric ton
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge and Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory Mapper
NWIC	Northwest Information Center
O3	ozone
OHP	Office of Historic Preservation
PM	Particulate matter
PM _{2.5}	PM equal to or less than 2.5 micrometers in diameter
PM ₁₀	PM equal to or less than 10 micrometers in diameter
PRC	California Public Resources Code
SEMS	Superfund Enterprise Management System
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SFPUC	San Francisco Public Utilities Commission

Acronym	Description
SGMA	Sustainable Groundwater Management Act
SPCCP	Spill Prevention Control and Countermeasures Plan
SR	State Route
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SY	square yards
TMDL	total maximum daily loads
TN	tons
UBC	Uniform Building Code
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
WEAP	worker environmental awareness program

1.0 Introduction

The Alameda County Water District (ACWD) has prepared this Initial Study (IS) and proposed Mitigated Negative Declaration (MND) in compliance with the California Environmental Quality Act (CEQA) to address the potentially significant and significant environmental impacts of the proposed Patterson Reservoir Remediation Project (project or proposed project) in the city of Fremont, Alameda County, California. ACWD is the lead agency under CEQA.

To satisfy CEQA requirements, this document includes:

- a proposed MND
- an IS, and
- a Mitigation Monitoring and Reporting Program (MMRP) (**Appendix A**)

After the required public review of this document is complete, ACWD will consider adopting the MND, adopting a Mitigation Monitoring and Reporting Program, and approving the proposed project at a public hearing.

1.1 Purpose of the Initial Study

This document is prepared in accordance with CEQA (California Public Resources Code [PRC], Section California Code of Regulations [CCR] 21000 et seq.) and the State CEQA Guidelines (Title 14, Section 15000 et seq. of the CCR). The purpose of this IS is to (1) determine whether project implementation would result in potentially significant or significant impacts on the physical environment; and (2) implement mitigation measures, as necessary, to eliminate the project's potentially significant or significant project impacts or reduce them to a less than significant level. An MND is prepared if the IS identifies potentially significant impacts, and: (1) feasible measures are available to mitigate the potentially significant impacts to less than significant levels; and (2) there is no substantial evidence, in light of the whole record before the lead agency, that the proposed project, with mitigation, may have a potentially significant or significant impact on the physical environment.

An IS presents environmental analysis and substantial evidence in support of its conclusions regarding the significance of environmental impacts. Substantial evidence may include expert opinion based on facts, technical studies, or reasonable assumptions based on facts. An IS is neither intended nor required to include the level of detail provided in an Environmental Impact Report (EIR).

CEQA requires that all State and local government agencies consider the potentially significant and significant environmental impacts of projects they propose to carry out or over which they have discretionary authority, before implementing or approving those projects. The public agency that has the principal responsibility for carrying out or approving a project is the lead agency for CEQA compliance (State CEQA Guidelines, CCR Section 15367). ACWD has

principal responsibility for carrying out this project and is therefore the CEQA lead agency for this IS/MND.

If there is substantial evidence (including the analyses in an IS) that a project, either individually or cumulatively, may have a significant impact on the physical environment, the lead agency must prepare an EIR (State CEQA Guidelines, CCR Section 15064[a]). If the IS concludes that impacts would be less than significant, or that mitigation measures committed to by the project proponent would reduce impacts to a less than significant level, a Negative Declaration or MND may be prepared.

ACWD has prepared this IS to evaluate the potential environmental impacts of the project and has identified mitigation measures to reduce or eliminate any potentially significant project-related impacts. Therefore, an MND has been prepared for this project.

1.2 Summary of Findings

Chapter 3, Environmental Checklist, of this document contains the analysis and discussion of potential environmental impacts of the project. Based on the issues evaluated in that chapter, and in ACWD's independent judgment, it was determined that:

The proposed project would result in no impacts on the following issue areas:

- Agriculture and Forestry Resources
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Wildfire

The proposed project would result in less-than-significant impacts on the following issue areas:

- Aesthetics
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Noise
- Recreation
- Transportation
- Utilities and Service Systems

The proposed project would result in less-than-significant impacts after mitigation implementation on the following issue areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Tribal Cultural Resources

- Mandatory Findings of Significance (including cumulative impacts)

1.3 Document Organization

This document is divided into five key sections:

Chapter 1, “Introduction,” describes the purpose of the IS/MND, summarizes findings, and describes the organization of the IS.

Chapter 2, “Project Description,” describes the project location, project purpose, project components, construction activities, project operations and maintenance, and discretionary actions and approvals that may be required.

Chapter 3, “Environmental Checklist,” presents an analysis of environmental issues identified in the CEQA Environmental Checklist and determines whether project implementation would result in a beneficial impact, no impact, less-than-significant impact, Less-than-Significant Impact with Mitigation Incorporated, potentially significant impact, or significant impact, on the physical environment in each issue area. For this project, mitigation measures have been developed to reduce all potentially significant impacts to less than significant levels.

Chapter 4, “References Cited,” lists the references used to prepare this IS/MND.

Chapter 5, “Report Preparers,” identifies individuals who helped prepare or review this IS/MND.

This page intentionally left blank.

2.0 Project Description

This chapter describes the project background, location and setting, project objectives, project elements and characteristics, construction implementation, operation and maintenance (O&M), and discretionary actions and approvals that may be required.

2.1 Project Location

The project site is located within the Newark 7.5-minute series quadrangle. U.S. Geological Survey (USGS) topographic map in an un-sectioned portion west of Township 4 south, Range 2 west in the city of Fremont, Alameda County, California, as shown in **Figure 2-1**. The project site is located at Patterson Reservoir along Patterson Road off Paseo Padre Parkway between the Coyote Hills Regional Park and the Dumbarton Quarry Campground, north of Highway 84, as shown in **Figure 2-2**.

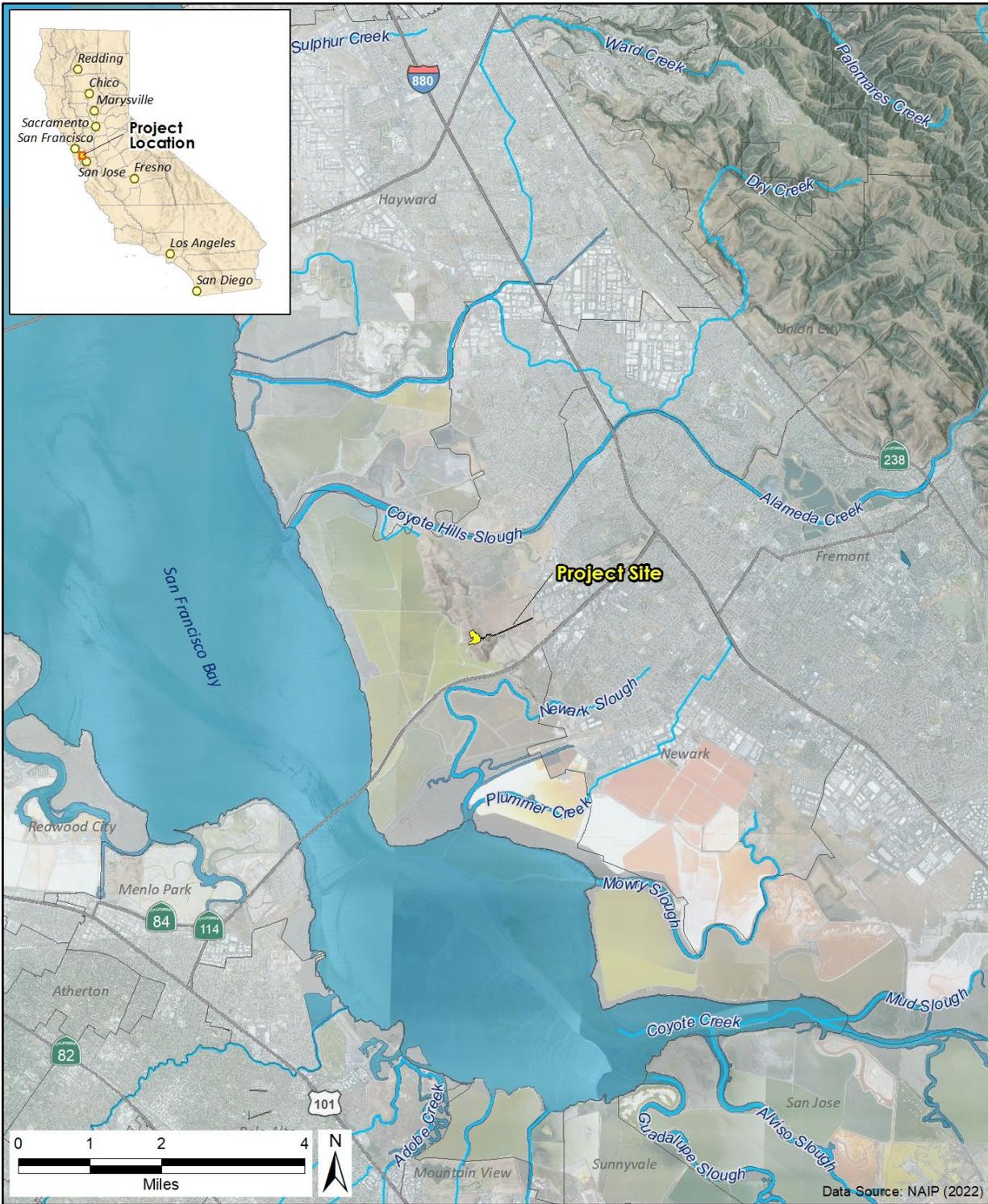
2.2 Project Background

2.2.1 Alameda County Water District Overview

The Alameda County Water District (ACWD) was founded in 1914. It was originally created to protect the groundwater basin, conserve the waters of the Alameda Creek Watershed, and develop supplemental water supplies, primarily for agricultural use. In 1930, urban water distribution became an added function of the District. Today, the District provides water primarily to urban customers. ACWD has a broad portfolio of water sources including runoff from the Alameda Creek Watershed; the local groundwater basin, which ACWD continually recharges; desalinated water produced from the brackish water pumped by the ACWD's Aquifer Reclamation Program wells; the State Water Project; and the San Francisco Public Utilities Commission (SFPUC) water system. This mix of sources, along with customer conservation, provides high resilience to drought and has allowed ACWD to improve water reliability even as the Tri-City area has added new homes and businesses. ACWD had an average daily water delivery of 33 million gallons per day in fiscal year 2022 to 2023.

2.2.2 Patterson Reservoir

The Reservoir is owned and operated by ACWD and is a key component of the drinking water infrastructure and supply system. Constructed in 1965, the 46 acre-feet below-grade, off-stream, lined, and covered Reservoir is situated on a ridge of the Coyote Hills (Figure 2-2). The existing Reservoir is supported on the east, north, and south sides by bedrock, and along the west side by an embankment constructed by benching and filling the existing hillslope. The Reservoir was originally certified by the California Department of Water Resources (DWR) Division of Safety



Z:\Projects\2303895_ACWD_Patterson_Res\G001_RegionalLocation_20240603.mxd
 03Jun2024 SI

Figure 2-1. Regional Location



Figure 2-2. Proposed Project

15Jan2026 RS Z:\Projects\2303895_ACWD_Patterson_Res\G003_ProjectLocation_11x17_20260114.mxd

This page intentionally left blank

of Dams (DSOD) to impound water to the spillway crest, at elevation (El) 199.83 feet¹. The current dam crest is at El. 200.00 feet, providing 0.17 feet of total freeboard.

In 2004, a Memorandum of Seismic Stability Review, completed by DSOD, indicated that estimated average vertical seismic settlement resulting from the design seismic event would be on the order of less than 1 inch and up to 2 feet for dry and saturated embankment conditions, respectively. ACWD implemented a water surface operating restriction of El. 196.00 feet to meet DSOD's minimum freeboard requirement of 4 feet. ACWD has observed that this lowered operating level has impacted its overall system water pressure and quality, and desires to increase the normal Reservoir operation level to El. 198.50 feet to optimize system performance. In 2019, at the request of ACWD, DSOD re-evaluated the seismic performance of the Reservoir embankment. The results of this reevaluation confirmed DSOD's previous estimates of seismic deformations and the restricted maximum operating water surface of 196.00 feet was upheld. Therefore, the project is proposed to address the need to provide additional freeboard.

2.3 Project Objectives

The objectives of the proposed project are as follows:

- Provide a minimum of 4-feet of total freeboard, consistent with DSOD's freeboard requirements.
- Maintain access and use of the Reservoir in a safe manner.

2.4 Project Features

The proposed project would construct earthen berms on the east and west side of the existing Reservoir which tie into high ground on the north and south sides to create a ring around the Reservoir. To facilitate construction activities, existing utilities would be protected-in-place, relocated, or removed from service. This section discusses the design and characteristics of the proposed project.

2.4.1 Earthen Berms

The proposed earthen berms would be approximately 4-feet high with a design crest at El. 203.83 feet (Figure 2-2), which would provide 4 feet of total freeboard, consistent with DSOD requirements. The eastern berm would be designed to have 2H:1V side slopes with a 15-foot crown and a 14-foot-wide asphalt roadway to provide vehicular access on the top of the berm. The eastern berm would follow the alignment of the existing roadway adjacent to the Reservoir and would connect into the high point of the road at the south end of the alignment and into the high ground adjacent to the roadway to the north. The existing asphalt paving, aggregate road base and underlying loose materials would be excavated prior to construction of the new earthen berm.

¹ All elevations provided reference the National Geodetic Vertical Datum of 1929 (NGVD 29) unless stated otherwise.

The western berm would be designed as a 12-foot wide berm supported with vertical reinforced concrete panels backfilled with compacted soil and topped with 6 inches of compacted aggregate base material. The berm alignment and footprint would allow for construction rear the edge of the existing embankment on the west side of the Reservoir. Vehicular access around the Reservoir structure would be provided inside of the western berm.

The earthen berms would be constructed of imported embankment fill which would be obtained from a material source within 50 miles of the project site. Excavation spoils and materials unsuitable for project re-use would be disposed of offsite.

Construction of the earthen berms would impact the existing chain link fence that protects the Reservoir facility in certain locations. Therefore, the existing fence would be removed and replaced with new chain link fence with barbed wire installed along the existing alignment or relocated to accommodate traffic and access. Proposed perimeter fencing would contain the entirety of the project site. Upon completion of construction activities, the finished slopes and other disturbed areas would be seeded with native vegetation to protect from erosion. Construction of the earthen berms would not impact existing Reservoir operations.

2.4.2 Utility Relocation

The nearest power poles and associated power lines on each side of the access road ramp would need to be raised or relocated before beginning constructing the earthen berm (Figure 2-2). Additionally, the existing power line located along the eastern berm would be reconstructed either above ground or underground (Figure 2-2). Given that the underground option would require more ground disturbance and be more impactful, undergrounding the electrical line is assumed in for ground disturbance in this document. Power pole and electrical line relocations and reconstruction would be coordinated with East Bay Regional Park District (EBRPD), which owns and operates those facilities. Modifications to power poles and electrical lines would require deenergizing the project site and EBRPD's downstream facilities for a short period of time (approximately a few days).

Existing storm drains with inlets located within the berm and access ramp footprints would be removed from service through grouting, and the inlets would be removed and disposed of offsite. A new storm drain would be installed with inlets outside of the berm or ramp footprints (Figure 2-2). Additionally, the western portion of an existing water line located around the perimeter of the Reservoir would be isolated from the remainder by installing the blow-offs at each end and removed from service by capping ends (Figure 2-2).

Active utilities located within the berm and access ramp footprint that have more than 2 feet of cover would be unaltered by project construction and protected in-place. Active utilities located within the berm and access ramp footprint that have 2 feet or less of cover would be removed and replaced or relocated onsite. If utilities are replaced or relocated onsite below the crown of the berm and access ramp, they would have 2 feet of cover, and if utilities are replaced or relocated onsite below the wide slopes of the berm and ramp, they would have 1.5 feet of cover.

Inactive utilities located within berm and access ramp footprints that have 2 feet or less of cover would be removed and disposed of offsite. Inactive utilities located within berm and access ramp footprints that have more than 2 feet of cover would be removed from service through grouting. Grouting would extend 5 feet beyond the footprint.

2.5 Project Implementation

Implementation of the proposed project would consist of construction activities for the earthen berms and utility relocation or removal. This section describes the characteristics associated with construction.

2.5.1 Construction Phase Characteristics

Construction Schedule and Sequencing

Project construction would take place for approximately one construction season and is currently expected to occur from Spring through Fall 2027. Construction would typically occur between 7:00 a.m. and 5:00 p.m., Monday through Friday except on ACWD's observed holidays. Additionally, construction would occur on Saturdays, as needed. Nighttime construction would not be required. **Table 2-1** summarizes the proposed construction activities, their estimated durations, equipment mix, maximum number of workers required, and import and export quantities.

There are two routes available to access the project site. The primary route would access the Reservoir from the east, beginning at the gate located on Paseo Padre Parkway, continuing southwest along an unpaved access road towards the Reservoir facilities and up a partially paved access road ramp. Tree trimming may occur along the eastern access road to allow for access of large construction equipment. An alternate route would access the Reservoir from the north, beginning at the entrance to the East Bay Regional Parks District (EBRPD) Coyote Hills Regional Park on Patterson Ranch Road, continuing west and south along paved sections of the Bayview Trail and Meadowlark Trail. For the alternative access route, ACWD may need to obtain an easement from the EBRPD. Access to the adjacent City of Fremont Police Department Training Facility may be temporarily closed for a portion of or the full construction period. However, access to the Alameda County Communication Tower would be maintained during all construction phases. Additionally, prior to construction activities, ACWD will coordinate with the City of Fremont Police Department and Alameda County, to alert them of construction phasing and timeline.

Table 2-1. Construction Activity Overview

Construction Activity	Anticipated Types of Equipment and Number of Pieces
Mobilization	Pickup Trucks (2), Water Truck (1)
SWPPP Install	Pickup truck (2)
Utility Locate	Pickup truck (2), Vacuum truck (1)
Demolition (AC, fencing, gates, utilities)	Backhoe (1), Pickup Truck (2), Water Truck (1)
Clearing and Grubbing	Pickup Truck (2), Backhoe (1), Bobcat (1), Water Truck (1), Haul Trucks (multiple)
Utility Installation (new, relocate, replacements)	Pickup Truck (2), Backhoe (1), Bobcat (1), Water Truck (1)
Embankment Construction (includes import and as-needed stockpiling)	Pickup Truck (2), Loader (1), Dozer (1), Compactor (1), Water Truck (1), Haul Trucks (multiple)
New roadway construction (AB, AC, curbs, guard rails)	Pickup Truck (2), Paver (1), Paving Equipment (miscellaneous), Compactor (1), Water Truck (1), Haul Trucks (multiple)
New Fencing / Gates	Pickup Truck (2), Bobcat (2)
Seeding	Pickup Truck (1), Seeding Truck (1), Water Truck (1)
Demobilization and Cleanup	Pickup Trucks (2), Water Truck (1)

Notes: square yards = SY, asphalt concrete = AC, linear feet = LF, asphalt base = AB, tons = TN, Stormwater Pollution Prevention Plan = SWPPP,

Source: GEI Consultants, 2024.

Construction Equipment and Personnel

Table 2-1 also lists the construction activities, and the types and number of equipment anticipated to be used for each project activity; however, this is not indicative of the total amount of equipment that would be operated onsite at any given time. The number of construction personnel would vary depending on project activities.

Construction Staging and Stockpiling

ACWD would establish a staging area on ACWD-owned Parcel 543-366-1, located southwest and adjacent to the City of Fremont Police Department Training Facility, and west of the northern end of the Reservoir. The staging area would be used for construction offices, stockpiling of material and equipment, and handling of materials. There is an existing dirt mound that would either be removed and disposed of offsite or would be flattened to accommodate equipment movement and handling of materials. Disturbed areas would be restored to pre-construction conditions prior to demobilization, except for the dirt mound.

Operation and Maintenance

Inspections and maintenance activities that would occur following construction activities would be the same as those that occur under existing conditions at the Reservoir. Annual maintenance activities would include, but are not limited to, weed abatement and inspections of earthen berms. Long-term maintenance activities for the proposed project would be limited to troubleshooting and repair of site- and issue-specific items within the project site.

2.6 Regulatory Requirements, Permits, and Approvals

As lead agency under CEQA, ACWD has the principal responsibility for approving and carrying out the proposed project and for ensuring that CEQA requirements and other applicable regulations are met. **Table 2-2** lists the permits anticipated to be required for the project.

Table 2-2. Discretionary Permits or Approvals Potentially Required

Agency	Permits and Authorizations Required	Description
San Francisco Bay Regional Water Quality Control Board	National Pollutant Discharge Elimination System, Construction General Permit (Notice of Intent to Proceed)	Required for projects that disturb more than 1 acre of land; discharge permit for stormwater. A Storm Water Pollution Prevention Plan must be prepared and implemented.
East Bay Regional Parks Department	Construction Easement Permit	Required for use of the alternative temporary access route.

This page intentionally left blank.

3.0 Environmental Checklist

Project Information

1. Project title:	Patterson Reservoir Remediation Project
2. Lead agency name and address:	Alameda County Water District 43885 South Grimmer Blvd Fremont, CA 94538
3. Contact person and phone number:	Dorota Budzynska 510-668-4420
4. Project location:	The City of Fremont, Alameda County, California
5. Project sponsor's name and address:	See #2, above.
6. General plan designation:	Open Space – Resource Conservation and Public Open Space
7. Zoning:	Open Space
8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)	The proposed project would construct earthen berms on the east and west side of the existing Reservoir, tying into high ground on the north and south sides to create a ring around the Reservoir. To facilitate construction activities, existing utilities would be protected-in-place, relocated, or removed from service.
9. Surrounding land uses and setting: Briefly describe the project's surroundings:	The project is in the City of Fremont within Alameda County, California. The surrounding land use consists primarily of open space. See Section 3.1 "Aesthetics" for further discussion regarding land uses surrounding the project site.
10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)	San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) EBRPD
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?	Yes. Consultation is described in more detail in Sections 3.5, "Cultural Resources," and 3.18, "Tribal Cultural Resources."

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. **Please also note** that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Environmental Factors Potentially Affected

The environmental factors listed as “Yes” in the table below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

Environmental Factors	Yes or No?
Aesthetics	No
Agriculture and Forestry Resources	No
Air Quality	Yes
Biological Resources	Yes
Cultural Resources	Yes
Energy	No
Geology/Soils	No
Greenhouse Gas Emissions	No
Hazards and Hazardous Materials	Yes
Hydrology/Water Quality	Yes
Land Use/Planning	No
Mineral Resources	No
Noise	No
Population/Housing	No
Public Services	No
Recreation	No
Transportation	No
Tribal Cultural Resources	Yes
Utilities/Service Systems	No
Wildfire	No
Mandatory Findings of Significance	Yes

Determination (to be completed and signed by the Lead Agency)

On the basis of this initial evaluation:	Yes or No?
I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	No
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	Yes
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	No
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	No
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	No



02/23/2026

Signature

Date

GIRUM AWOKE

Print Name

DIRECTOR OF ENGINEERING & TECHNOLOGY

Title

Alameda County Water District

Agency

Evaluation of Environmental Impacts

The environmental analysis in the following sections is patterned after the CEQA Guidelines Appendix G, Environmental Checklist, which was prepared by the Office of Planning and Research and used by ACWD in its environmental review process. The Environmental Checklist will identify and briefly explain the environmental effects of the proposed project. For any effects that are determined to be potentially significant, the Environmental Checklist will identify and evaluate feasible measures that may be incorporated into the project to avoid or mitigate any adverse impacts.

For the evaluation of potential impacts, the questions in the Environmental Checklist are stated and a discussion is provided according to the analysis undertaken. All discussions take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Unless specifically discussed in a resource section, O&M activities would not result in significant impacts. To each question, there are five possible findings:

- **Beneficial impact.** The project would have a beneficial impact on the environment.
- **No impact.** The project would not have any measurable environmental impact on the environment.
- **Less-than-significant impact.** The project would have the potential for impacting the environment, although this impact would be below established thresholds that are considered to be significant.
- **Less than significant with mitigation incorporated.** The project would have the potential to generate impacts, which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially significant impact.** The project would have impacts, which may be considered significant, and therefore additional analysis is required to identify mitigation measures that could reduce potentially significant impacts to less than significant levels.

The following is a discussion of potential project impacts as identified in the Environmental Checklist.

3.1 Aesthetics

1. AESTHETICS. Except as provided in PRC Section 21099, would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
1 -a. Have a substantial adverse effect on a scenic vista?			Less-than-Significant Impact		
1 -b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				No Impact	
1 -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 a 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		
1 -d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				No Impact	

3.1.1 Environmental Setting

Project Area Characteristics

The visual character of a project site and its immediate surroundings is defined by existing land uses and the associated natural or built environment, including vegetation, landforms, and structural features. The project site is located in the western portion of the city of Fremont, in Alameda County and surrounded by primarily open space consisting of low, rolling hills covered in low-lying vegetation and shrubs, with trees sparingly interspersed. The project site is located just outside of the Coyote Hills Regional Park, however, the northern access route is located within the Coyote Hills Regional Park. This Park contains several hiking trails and campgrounds such as the Meadowlark Trail, Apay Way Trail, and Dairy Glen Group Campground.

Additionally, the Dumbarton Quarry Campground on the Bay is located 0.5 miles south of the Reservoir. The San Francisco South Bay is located 0.15 miles west of the western edge of the project site and technological industrial² development is located approximately 1 mile east of the

² Technological Industrial refers to areas used for research and development, “clean and green” tech, and semi-conductor, computer hardware, software and related technological, administrative, sales, and engineering facilities (City of Fremont 2011).

project site. The City of Fremont Police Department Training Facility abuts the Reservoir at the northwest corner. The facility is frequently used as a shooting range for short-range shooting practice sessions.

Scenic Vistas and Highways

Scenic vistas are defined as expansive views of distant landforms and aesthetic features from public vantage points, including areas designated as official scenic vistas along roadway corridors or otherwise designated by local jurisdictions. Some scenic vistas are officially designated by public agencies. The San Francisco South Bay is a known scenic resource in the area.

A scenic highway is officially designated as a State Scenic Highway when a local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives notification from Caltrans that the highway has been designated as an official Scenic Highway. The nearest designated State Scenic Highway is State Route (SR) 84, located approximately 0.6 miles south of the project area (Caltrans 2015).

Light and Glare

There are two primary sources of light: light emanating from building interiors that pass-through windows and light from exterior sources (e.g., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting). Depending upon the location of the light source and its proximity to adjacent light-sensitive uses, light introduction can be a nuisance, affecting adjacent areas and diminishing the view of the clear night sky. Light spillage is typically defined as unwanted illumination from light fixtures on adjacent properties. Existing light sources in the vicinity of the project area include limited exterior lighting.

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

The project site has scenic views of the San Francisco Bay, however, the rolling hills located adjacent to the eastern edge of the San Francisco Bay tend to block views from the City of Fremont. While the project site, construction staging area, and haul routes would be in the foreground from the San Francisco Bay, construction activities and use of construction equipment would only occur over a few months and would only be visible temporarily. Following construction, the project site would include the new earthen berms, relocation of two existing power poles and a portion of existing electrical line. If the electrical line is relocated underground, it would be removed from the scenic landscape. If the electrical line is relocated aboveground, this would not significantly alter the scenic landscape as electrical lines are already existing within the landscape. Overall character and aesthetics of the Reservoir would not change, and views of the San Francisco Bay would be similar to existing conditions. Therefore, this impact **is less than significant**.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

There are no designated State Scenic Highways located within the project site or local vicinity. The nearest designated State Scenic Highway is SR 84, located approximately 0.6 miles south of the project area (Caltrans 2019). There would be no work conducted that is visible within or along a State Scenic Highway, and **no impact** would occur.

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?

The construction of earthen berms would moderately alter the landscape. The earthen berms would have a maximum height of four feet, and this height is not substantial enough to impact public views or degrade the scenic quality of the landscape given that most of the natural areas would remain visible. The finished berm slopes and other disturbed areas would be seeded with native vegetation to protect from erosion, which will also improve the visual quality at the site. Tree trimming may occur to allow access for large construction equipment; however, this would not substantially alter the existing visual character of the site. Additionally, utility relocation including relocating two utility poles, electrical lines, and removing and installing segments of storm drain line, water line, and barbed wire fence would not result in a visual change at the site because storm drains and water line would be buried underground and fencing, utility poles, and electrical lines are already present at the site. During construction, vehicles and equipment would be onsite, which would temporarily alter the visual character of the site. However, all construction equipment would be removed from the site following the completion of construction activities and visual changes from construction activities would be temporary. Therefore, impacts to visual character of the site would be **less than significant**.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The proposed project includes the construction of earthen berms and utility relocation. The proposed project design does not include new permanent sources of light. Construction would occur during daylight hours and no nighttime lighting would be required. Furthermore, implementation of the proposed project does not include structures built with reflective materials such as glass or metal; therefore, implementation of the proposed project would not create a new source of glare in the area. Potential impacts regarding new light or glare in the project area would not occur and there would be **no impact**.

3.2 Agriculture and Forestry Resources

<p>2. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>	<p>Have Potentially Significant Impact?</p>	<p>Have Less-than-Significant Impact with Mitigation Incorporated?</p>	<p>Have Less-than-Significant Impact?</p>	<p>Have No Impact?</p>	<p>Have Beneficial Impact?</p>
<p>2 -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?</p>				<p>No Impact</p>	
<p>2 -b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>				<p>No Impact</p>	
<p>2 -c. Conflict with existing zoning for, or cause rezoning of, 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))?</p>				<p>No Impact</p>	
<p>2 -d. Result in the loss of forest land or conversion of forest land to non-forest use?</p>				<p>No Impact</p>	
<p>2 -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?</p>				<p>No Impact</p>	

3.2.1 Environmental Setting

Agriculture

The project site is designated as Open Space – Resource Conservation and Public Open Space and zoned for Open Space (City of Fremont 2024). The California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) identifies lands that have agricultural value and maintains a Statewide map of agricultural lands in its Important Farmland Inventory System (DOC 2004). The Important Farmland Inventory System classifies land based upon its productive capabilities, which is based on characteristics such as fertility, slope, texture, drainage, depth, salt content, and availability of water for irrigation. The California Department of Conservation (DOC) maintains the FMMP and monitors the conversion of farmland to and from agricultural use through its Important Farmland Inventory. Farmlands are divided into the following categories: Prime Farmland; Farmland of Statewide Importance; Unique Farmland; Farmland of Local Importance; Grazing Land; Urban and Built-up Land; and Other Land. The project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) on maps prepared for the FMMP (DOC 2020). Additionally, land within the project vicinity is enrolled in active Williamson Act contracts, however, the project site is not enrolled in a Williamson Act contract (DOC 2023).

Forestry

Public Resources Code (PRC) Section 12220(g) defines “forest land” as land that can support 10 percent native tree cover and forest vegetation of any species, including hardwoods, under natural conditions and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. There is no forestland located within the project site.

3.2.2 Discussion

a, b) 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? Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project area does not contain Farmland and is not zoned for agriculture (DOC 2020). There is land enrolled in active Williamson Act Contracts in the project vicinity, however, the project site itself is not enrolled in a Williamson Act contract (DOC 2023). Therefore, the proposed project would not convert Farmland to non-agricultural use, would not conflict with existing zoning or agricultural use and would not impact a Williamson Act contract. The project would have **no impact**.

- c, d) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? Result in the loss of forest land or conversion of forest land to non-forest use?**

The project site does not contain any forest land or timberland. The project site is zoned as open space within the city of Fremont (City of Fremont, 2011). Because the project site will not interact with forest land or timberland zones, there would be no loss or conversion of forest land. There would be **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?**

There is no farmland or forest land within the project area. There would be **no impact**.

3.3 Air Quality

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
3 -a. Conflict with or obstruct implementation of the applicable air quality plan?		Less-than-Significant Impact with Mitigation Incorporated			
3 -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			
3 -c. Expose sensitive receptors to substantial pollutant concentrations?			Less-than-Significant Impact		
3 -d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			Less-than-Significant Impact		

3.3.1 Environmental Setting

The proposed project is located in the San Francisco Bay Area Air Basin (SFBAAB) within Alameda County. The Bay Area Air Quality Management District (BAAQMD) is responsible for obtaining and maintaining air quality conditions in Alameda County.

The U.S. Environmental Protection Agency (EPA) and the California Air Resource Board (CARB) have identified six air pollutants as being of nationwide and Statewide concern: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter (PM). PM is subdivided into two classes based on particle size: PM equal to or less than 10 micrometers in diameter (PM₁₀) and equal to or less than 2.5 micrometers in diameter (PM_{2.5}). Health-based air quality standards have been established for these pollutants by the EPA at the national-level and by CARB at the State-level. These standards are referred to as the national ambient air quality standards (NAAQS) and the California ambient air quality standards (CAAQS), respectively. The NAAQS and CAAQS were established to protect the public with a margin of safety from adverse health impacts caused by exposure to air pollution. Both EPA and CARB designate areas of the State as attainment, nonattainment, maintenance, or unclassified for the various pollutant standards according to the Federal Clean Air Act and the California Clean Air Act, respectively. An area is designated nonattainment/transitional to signify that the area is close to attaining the standard for that pollutant. The “unclassified” designation is used in an area that cannot be classified as meeting or not meeting the standards, based on available information. The EPA established NAAQS in 1971 for six air pollution constituents. States have the option to add other

pollutants, to require more stringent compliance, or to include different exposure periods. CAAQS and NAAQS are listed in **Table 3-1**. The SFBAAB's is currently nonattainment for State and Federal standards for ozone, State standards for annual PM_{2.5} and PM₁₀, and Federal standards for 24-hour PM_{2.5} (BAAQMD 2022).

Table 3-1. Federal and California Ambient Air Quality Standards and Attainment Status¹

Pollutant	Averaging Time	California Standards Concentration	Federal Primary Standards Concentration
Ozone (O ₃)	8-hour	0.070 ppm (137 micrograms per cubic meter)	0.070 ppm (137 micrograms per cubic meter) ²
Ozone (O ₃)	1-hour	0.09 ppm (180 micrograms per cubic meter)	None ³
Respirable Particulate Matter (PM ₁₀)	24-hour	50 micrograms per cubic meter	150 micrograms per cubic meter
Respirable Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 micrograms per cubic meter	None
Fine Particulate Matter (PM _{2.5})	24-hour	None	35 micrograms per cubic meter
Fine Particulate Matter (PM _{2.5})	Annual Average	12 micrograms per cubic meters	12 micrograms per cubic meter
Carbon Monoxide	8-hour	9 ppm. (10 milligrams per cubic meter)	9 ppm (10 milligrams per cubic meter)
Carbon Monoxide	1-hour	20 ppm. (23 milligrams per cubic meter).	35 ppm (40 micrograms per cubic meter)
Nitrogen Dioxide	Annual Average	0.03 ppm. (57 micrograms per cubic meters)	0.053 ppm (100 micrograms per cubic meters)
Nitrogen Dioxide	1-hour	0.18 ppm (339 micrograms per cubic meters)	0.100 ppm. (188 micrograms per cubic meters)
Lead	30-day Average	1.5 micrograms per cubic meters	None
Lead	Rolling 3-Month Average	None	0.15 micrograms per cubic meter
Lead	Quarterly Average	None	1.5 micrograms per cubic meter
Sulfur Dioxide	24-hour	0.04 parts per million (105 micrograms per cubic meter)	0.14 parts per million (for certain areas)
Sulfur Dioxide	3-hour	None	None
Sulfur Dioxide	1-hour	0.25 parts per million (655 micrograms per cubic meter)	0.075 parts per million (196 micrograms per cubic meter)
Sulfates	24-hour	25 micrograms per cubic meter	No Federal Standard
Hydrogen Sulfide	1-hour	0.03 parts per million (42 micrograms per cubic meter)	No Federal Standard
Vinyl Chloride	24-hour	0.01 parts per million (26 micrograms per cubic meter)	No Federal Standard

Notes: ppm = parts per million; PM = particulate matter

¹ Impacts to all resources are reduced to less than significant with the incorporation of mitigation measures.

² On October 1, 2015, the national 8-hour ozone (O₃) primary and secondary standards were lowered from 0.075 to 0.070 ppm.

³ 1-Hour O₃ standard revoked effective June 15, 2005, although some areas have continuing obligations under that standard.

Source: EPA 2024

BAAQMD Screening Criteria

The BAAQMD developed screening criteria for criteria air pollutants and precursors, which provides lead agencies with a conservative indication of whether implementing a proposed project could result in potentially significant criteria air pollutants and precursors (BAAQMD 2022). If all screening criteria are met by a proposed project, then the lead agency would not need to perform a detailed air quality assessment. The screening table developed was derived using the default assumptions in the California Emissions Estimator Model Version 2020.4.0 with mobile source emissions factors from the CARB's EMFAC2021 model. Construction-related fugitive dust was not included in the development of the screening table because these emissions are controlled through best management practices (BMPs).

If all the following screening criteria are met, the construction of the proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors:

- The project size is at or below the applicable screening level size of 452 thousand square feet, which is applicable to commercial and industrial land uses. See BAAQMD 2022 CEQA Guidelines Table 4-1 (BAAQMD 2022).
- All BMPs are included in the project design and implemented during construction.
- Construction-related activities would not overlap with operational activities.
- Construction-related activities would not include:
 - demolition,
 - simultaneous occurrence of two or more construction phases (e.g., paving and building construction would occur simultaneously),
 - extensive site preparation (e.g., grading, cut and fill, or earth movement),
 - extensive material transport (e.g., soil import and export requiring a considerable amount of haul truck activity), or
 - stationary sources (e.g., backup generators) subject to BAAQMD rules and regulations.

3.3.2 Discussion

a, b) Conflict with or obstruct implementation of the applicable air quality plan? 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?

The proposed project would generate criteria pollutants from the use of diesel-powered vehicles and equipment and earthmoving activities. Construction of the proposed project would require a small number of truck trips (a maximum of 20 trips in a day) to drop off material and equipment to the project site and would generate up to 1,000 vehicle miles traveled (VMT) per day. For workers commuting to the project site, up to 632 truck trips would occur during construction, resulting in approximately 8,480 VMT over the construction permit, and approximately 74 VMT per day. Therefore, a maximum of 1,074 VMT would occur daily.

Construction of the proposed project meets all BAAQMD screening criteria because the project does not include commercial or industrial land use, all BAAQMD BMPs are included in the project design, the project would not change operations activities and is limited to construction, and construction would not include demolition, overlapping construction phasing, extensive site preparation, extensive material transport, or any stationary sources. Therefore, a detailed assessment was not performed, and the project would result in a less-than-significant impact for all criteria air pollutants, except for fugitive dust (which is not included in BAAQMD screening criteria). Generation of fugitive dust at the project site could result in a **significant** impact due to ground disturbing activities during construction. The following mitigation measure has been identified to address this impact.

Mitigation Measure AQ-1: Basic Best Management Practices for Construction-related Fugitive Dust Emissions

The following BMPs will be implemented to control emissions of fugitive dust.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- Minimize the height that soils are dropped during handling.
- 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.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Implementing Mitigation Measure AQ-1 would reduce construction-related fugitive dust emissions by implementing control measures such as watering unpaved surfaces, limiting truck speed, maintaining equipment, etc., which would reduce the temporary impact related to fugitive dust generation to a less than significant level. Therefore, the proposed project would not result in a conflict with an air quality plan or result in a cumulatively considerable net increase of criteria air pollutants. This impact would be **less-than-significant with mitigation incorporated**.

c) Expose sensitive receptors to substantial pollutant concentrations?

Some members of the population are especially sensitive to emissions of air pollutants and should be given special consideration in the evaluation of a project's air quality impacts. These people include children, older adults, any person with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

Construction-related activities would result in temporary, intermittent emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment used for construction activities; on-road truck travel; and other miscellaneous activities. On-road diesel-powered haul trucks traveling to and from the construction areas to deliver materials and equipment are less of a concern because they would not stay on the site for long periods of time.

When evaluating toxic air contaminants (TAC) concentrations and associated health risks, the primary factors influencing risk exposure include relative mass of emissions generated, duration of exposure of such emissions at receptor locations, and proximity of sources to receivers, because health risk increases with increased exposure duration and pollutant concentrations reduce with increasing distance from the source.

Project construction would occur between Spring and Fall 2025 and is anticipated to take approximately 115 days. The project area is remote in nature, with the nearest sensitive receptor, a residence, located approximately 1.3 miles southwest of the project site. However, a recreational trail is located approximately 130 feet from the Reservoir, though access would be limited or restricted during construction. Given the short duration of construction and the distance to sensitive receptors, construction-related TAC emissions would not expose sensitive receptors to a substantial pollutant concentration. This impact would be **less than significant**.

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

Human response to odors is subjective, and sensitivity to odors varies greatly. 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, anxiety) to physiological (e.g., circulatory and respiratory reactions, nausea, vomiting, headaches). The project would not create new objectionable odors. Sources that may emit odors during construction activities include exhaust from diesel construction equipment, which some individuals could consider offensive. However, odors from these sources would be localized and generally confined to the immediate area surrounding the project site. Haul trucks would also produce exhaust, but relatively few haul trips are necessary to import materials to the project site, and haul trucks would travel along major routes that are currently used by similar large transport vehicles. Because of the diffusive properties of diesel exhaust, the remote nature of the project area, and existing conditions along anticipated haul routes, this impact would be considered **less than significant**.

3.4 Biological Resources

4. BIOLOGICAL RESOURCES. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
4 -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 with Mitigation Incorporated			
4 -b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				No Impact	
4 -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	
4 -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	
4 -e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				No Impact	
4 -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	

3.4.1 Environmental Setting

Information on biological resources relevant to the proposed project is based on site visits, review of aerial photographs and prior documentation, including the Environmental Technical Memorandum (GEI 2024) that address biological resources in the project vicinity. Several online biological data resources were queried, including the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) (CDFW 2025), the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool (USFWS 2025a), the USFWS Critical Habitat Mapper (USFWS 2025b), the USFWS National Wetlands Inventory Mapper (NWI) (USFWS 2025c), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2025a), National Endangered Species Act (ESA) Critical Habitat Mapper (NMFS 2025a), the Essential Fish Habitat Mapper (NMFS 2025b), amongst other citizen science databases. Additional information on individual plants and wildlife species was also reviewed as cited below.

The approximately 25.1-acre project site is situated on Patterson Road off Paseo Padre Parkway between the Coyote Hills Regional Park and the Dumbarton Quarry Campground, and north of Highway 84 (Figure 2-2). The topography within the project site is sloping and comprised of foothills and winding access roads. The elevation of the project site is approximately 205 feet, with the surrounding area ranging from approximately 15 feet to 208 feet above mean sea level. A study area was identified for biological resources to include the entirety of the project site and a 350-foot-wide buffer around the project limits, to account for special-status species and other sensitive biological resources that may be in the project vicinity that could be affected by the proposed project.

The study area includes primarily grassland habitat, with that same habitat type continuing around to the greater surrounding area. To the north lies marshland and rolling grassland hills that are within the 1,266-acre open space area, the Coyote Hills Regional Park. The Coyote Hills Regional Park provides habitat for wildlife and open space to the public. The San Francisco South Bay is located 0.15 miles west of the western edge of the project site. Additionally, technological industrial³ development is located approximately 1 mile east of the project site.

Habitat and Land Cover Types

Habitats were characterized using the nomenclature of vegetation types generally following the California Wildlife Habitat Relationships System (CDFW 2024).

Most of the study area includes annual grassland and barren areas, which includes components of the Reservoir itself and associated access roads. Eucalyptus (*Eucalyptus* spp.) woodland is present within the study area along a portion of the eastern access road into the project site. There was one agricultural pond mapped outside of the project boundary but within the 350-foot-wide buffer. However, no work will occur within this area. There is also an agricultural ditch

³ Technological Industrial refers to areas used for research and development, “clean and green” tech, and semi-conductor, computer hardware, software and related technological, administrative, sales, and engineering facilities (City of Fremont 2011).

running the length of the eastern access road that was dry at the time of survey. **Figure 3-1** shows habitat and land cover types present in the study area.

Annual Grassland

Annual grassland vegetation occurs as the second majority land cover type within and adjacent to the biological study area. These areas are commonly dominated by annual grasses and forbs, including ripgut brome (*Bromus diandrus*), fennel (*Foeniculum vulgare*), mustard (*Brassica* ssp.), stinkwort (*Datura stramonium*), and yellow star thistle (*Centaurea solstitialis*). These areas can provide foraging, refuge, and nesting opportunities for several terrestrial and semi-aquatic wildlife species.

Barren

Barren areas make up the majority of the project site and include the gravel and paved roads used for access to the Reservoir and the Reservoir site itself, which occurs on a concrete pad. These areas typically provide little foraging, refuge, or nesting habitat for terrestrial wildlife species. Vegetation is generally absent from barren areas, but occasional scattered ruderal grasses and forbs can occur at low density on the roads.

Eucalyptus Woodland

Small patches of eucalyptus woodland occur along both sides of the eastern access road on the perimeter of the study area. This vegetation type can provide suitable overwintering habitat for monarch butterfly (*Danaus plexippus*), roosting habitat for bats, as well as potential foraging, refuge, and nesting opportunities for several terrestrial wildlife species.

Freshwater Pond

There is one aquatic feature outside of the project boundary but within the biological study area. This pond appears to be connected to agricultural culverts and was wetted at the time of the survey. It is categorized in the NWI as a freshwater pond. Scattered grasses and ruderal vegetation surround this agricultural pond, as well as access roads and disturbed areas.

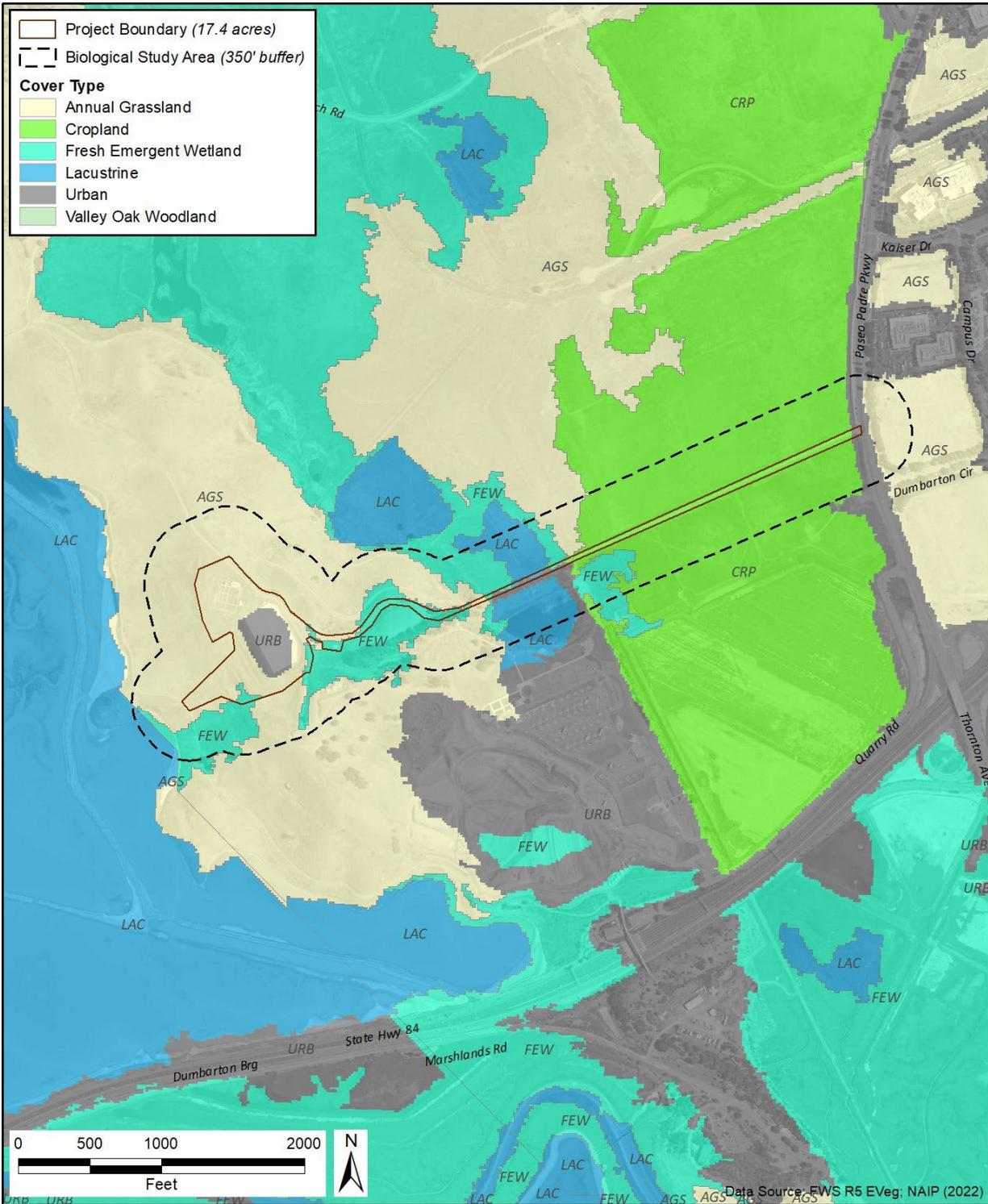


Figure Source: GEI Consultants, Inc.2024.

Z:\Projects\2303895_ACWD_Patterson_Res\G002_Project_Area_Landcover_20240702.mxd
 02Jul2024 SI

Figure 3-1. Habitat and Landcover Types

Wildlife

Grassland habitats in the study area support a moderate diversity of species. A variety of birds may use several habitats in the study area for nesting and/or foraging. Species that are likely to forage and nest in the study area include red-tailed hawk (*Buteo jamaicensis*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), killdeer (*Charadrius vociferus*), northern mockingbird (*Mimus polyglottos*), and California scrub-jay (*Aphelocoma californica*). Bird species with potential to forage but not nest in the study area include golden eagle (*Aquila chrysaetos*), bald eagle (*Haliaeetus leucocephalus*), and others.

Several species of common amphibians, reptiles, and small- and medium-sized mammals are also likely to occur in the study area. Common amphibian and reptile species that may occur in the study area include western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), and king snake (*Lampropeltis*). Common mammals anticipated to occur in the study area include Botta's pocket gopher (*Thomomys bottae*), jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beecheyii*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*).

The agricultural pond adjacent to the study area provides habitat for aquatic species, which could include bullfrogs, turtles, and waterfowl. However, no in-water work would occur within this pond.

Sensitive Biological Resources

Sensitive biological resources addressed in this section include those that are afforded consideration or protection under CEQA, California Fish and Game Code, California Endangered Species Act (CESA), ESA, Clean Water Act (CWA), and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

Special-status Species

Plants and animals addressed as special-status species in this analysis include taxa (distinct taxonomic categories or groups) that fall into any of the following categories:

- taxa officially listed, candidates for listing, or proposed for listing by the Federal government or the State as endangered, threatened, or rare;
- taxa meeting the criteria for listing, even if not currently included on any list, as described in State CEQA Guidelines California Code of Regulations Section 15380;
- wildlife identified by CDFW as species of special concern;
- species listed as Fully Protected under the California Fish and Game Code;
- species afforded protection under local or regional planning documents; and
- plant taxa considered by CDFW to be “rare, threatened, or endangered in California” and assigned a California Rare Plant Rank (CRPR).

The CRPR system includes six rarity and endangerment ranks for categorizing plant species of concern. All plants with a CRPR are considered “special plants” by CDFW. The term “special plants” is a broad term used by CDFW to refer to all plant taxa inventoried in the CNDDDB, regardless of their legal or protection status. Plants ranked as CRPR 1 or 2 may qualify as endangered, rare, or threatened species within the definition presented in Section 15380 of State CEQA Guidelines. CDFW recommends that potential impacts to CRPR 1 and 2 plant species be evaluated in CEQA documents. In general, CRPR 3 and 4 plants do not meet the definition of endangered, rare, or threatened pursuant to State CEQA Guidelines Section 15380; however, these species may be evaluated by the lead agency on a case-by-case basis. This section analyzes CRPR 1 and 2 plants.

The term “California species of special concern” is applied by CDFW to wildlife taxa not listed under the Federal ESA or CESA, but that are nonetheless declining at a rate that could result in listing, or that historically occurred in low numbers and have known threats to their persistence.

An initial list of special-status species that could potentially occur in, or adjacent to the project site, given suitable habitat conditions are present, was developed through review of CNDDDB (CDFW 2025) and CNPS Rare Plant Inventory (CNPS 2025a) records from the project vicinity and a list generated by the USFWS IPaC tool (USFWS 2025a). The CNDDDB wildlife queries included the USGS Newark 7.5-minute quadrangle, within which the project site is located, and the surrounding eight quadrangles (Dublin, Mountain View, Palo Alto, Redwood Point, Niles, San Leandro, Hayward, and Milpitas). Given the small project footprint and limited area of disturbance, CNDDDB and CNPS special-status plant occurrences were only queried for a single USGS quad in which the project is located (Newark). (Note: Not all species tracked in the CNDDDB and CNPS inventory meet the definition of special-status species described above.)

Plants

Fifteen special-status plant species were evaluated for their potential to occur in the study area. **Table 3-2** summarizes, for each of the species with potential to occur, the regulatory status, habitat associations, and level of potential to occur in the study area. Most of the species evaluated were determined to have none-to-little potential to occur because of an absence of suitable habitat or because the study area is outside the known distribution or range of the species. For this reason, **Table 3-2** includes only the species with some level of potential to occur, and the full table of evaluated and dismissed plant species can be found in **Appendix B**. One species was determined to have some potential to occur in the study area, Congdon’s tarplant (*Centromadia parryi* ssp. *congdonii*; CRPR 1B.1). This species is associated with grassland and alkaline soil and may be found in lowland areas along the access road, on the hillslopes, and around the Reservoir within the project boundary.

Table 3-2. Special-status Plant Species with Potential to Occur in and Adjacent to the Project Site

Species Name	Blooming Period	Legal Status Federal/State/CRPR1	Habitat Associations	Potential to Occur in and Adjacent to the Project Site2
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	May – November	–/–/1B.1	Alkaline soils in grassland. Elevation: 0–755 feet.	Could occur. Suitable habitat and mildly alkaline soils present. More likely to be in lowland areas along access roads and on hillslopes around the Reservoir. Known occurrences adjacent to the project site.

Notes: CRPR = California Rare Plant Rank

¹ Legal Status Definitions:

E Plant species listed as Endangered under the Federal and/or California Endangered Species Act.

R Plant species listed as rare under the California Native Plant Protection Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.

– No listing under the Federal and/or California Endangered Species Act.

1B Plant species considered Rare, Threatened, or Endangered in California and elsewhere.

2B Plant species considered Rare or Endangered in California but more common elsewhere.

California Rare Plant Rank Extensions:

.1 Seriously threatened in California.

.2 Moderately threatened in California.

² Potential for Occurrence Definitions

Known to occur: The species, or evidence of its presence, was observed in the project site during previous field surveys (as reported in background information materials) or was recently reported by others.

Could occur: Extant species distribution, habitat conditions, behavior of the species, known occurrences (as documented in the CNDDDB, or USFWS and/or CNPS databases) in the project vicinity, or other factors, indicate that the species could occur.

Unlikely to occur: Although the project site is located within the extant range of the species, the species is unlikely to be present because of very restricted distribution and/or because only low-quality habitat or very limited habitat is present in the project site and vicinity.

No potential to occur: The project site is located outside of the species extant distribution and/or potential habitat to support the species is not present.

Sources: CDFW 2025; CNPS 2025a; CNPS 2025b; USFWS 2025a; data collected and compiled by GEI Consultants Inc., in 2024 and revised in 2025

Terrestrial Wildlife

Sixty-two special-status wildlife species were evaluated for their potential to occur in the study area. **Table 3-3** summarizes, for each of the species with potential to occur, the regulatory status, habitat associations, and level of potential to occur in the study area. Most of the species evaluated were determined to have none-to-little potential to occur because of an absence of suitable habitat or because the study area is outside the known distribution or range of the species. For this reason, **Table 3-3** includes only the species with some level of potential to occur, and the full table of evaluated and dismissed wildlife species can be found in **Appendix B**. Seventeen special-status wildlife species were determined to have some potential to occur within the study area, as discussed further below.

Table 3-3. Special-status Wildlife Species with Potential to Occur in and Adjacent to the Project Site

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
Invertebrates			
monarch butterfly – California overwintering population <i>Danaus plexippus</i>	C/-	Winter roost sites located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby; relies on milkweed as its obligate larval host plant.	Known to occur. Study area has suitable overwintering habitat (Eucalyptus grove), which is a documented overwintering site, within the study area (CDFW 2025; Xerces Society 2025a; iNaturalist 2024).
Amphibians and Reptiles			
northwestern pond turtle <i>Actinemys marmorata</i>	P/SSC	Permanent or nearly permanent water bodies with abundant vegetation and rocky or muddy bottoms.	Could occur. Marginally suitable aquatic habitat is present in the agricultural pond outside the project site but within the study area. The study area also includes suitable upland habitat. There is only one known recent occurrence outside of the study area (iNaturalist 2024).
California tiger salamander <i>Ambystoma californiense</i>	T/T	Typically found in annual grassland of lower hills and valleys; breeds in temporary and permanent ponds and in streams; uses rodent burrows and other subterranean retreats in surrounding uplands for shelter.	Could occur. There is only suitable breeding habitat outside of the study area within the fresh emergent ponds to the north of the study area. However, grasslands with mammal burrows present in the study area and project site could support refuge for this species. There are known recent occurrences outside of the study area (iNaturalist 2024). There have been no known occurrences within the wetlands in the greater vicinity of the study area.
Birds			
tricolored blackbird <i>Agelaius tricolor</i>	-/T, SSC	Forages in grasslands, agricultural fields, and other open habitats; nests in marshes and other dense vegetation.	Could occur. While there is no suitable nesting habitat present in the study area, grasslands in and adjacent to the study area provide marginal foraging habitat. Several known occurrences adjacent to the project site (eBird 2024).

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
grasshopper sparrow <i>Ammodramus savannarum</i>	-/SSC	Nests and forages in natural grasslands, typically on rolling hills and lowland plains.	Could occur. Portions of the project site and surrounding area are suitable nesting and foraging habitat for this species. Several known recent occurrences adjacent to the project site (eBird 2024).
golden eagle <i>Aquila chrysaetos</i>	-/FP	Uncommon resident in hills and mountains throughout California, and an uncommon migrant and winter resident in the Central Valley and Mojave Desert. Prefers rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, cliffs, and rock outcrops.	Could occur. Several known occurrences adjacent to the study area (eBird 2024). However, no suitable nesting habitat is present, and animal would only use the study area for foraging.
short-eared owl <i>Asio flammeus</i>	-/SSC	Found in open, treeless areas with elevated sites for perches, and dense vegetation for roosting and nesting. Associated with perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands. Breeds in coastal areas in Del Norte and Humboldt Counties, San Francisco Bay Delta, northeastern Modoc plateau, east Sierras from Lake Tahoe to Inyo County and San Joaquin Valley. Winters in the Central Valley, western Sierra Nevada foothills and along the coastline.	Could occur. Portions of the project site and surrounding area are suitable nesting and foraging habitat for this species. Several known recent occurrences adjacent to the project site (eBird 2024).
western burrowing owl <i>Athene cucularia</i>	-/C, SSC	Nest and forages in grasslands and agricultural fields with natural of artificial burrows or friable soils.	Known to occur. Grasslands in study area provide potential habitat and there are recent known occurrences (eBird 2024). Several more recent known occurrences are within the greater surrounding area as well (eBird 2024).
northern harrier <i>Circus cyaneus</i>	-/SSC	Nests and forages in grasslands, agricultural fields, and marshes.	Known to occur. Grasslands in the study area provide foraging and nesting habitat. Several recent known occurrences (eBird 2024).
white-tailed kite <i>Elanus leucurus</i>	-/FP	Forages in grasslands and agricultural fields; nests in woodlands and isolated trees and.	Known to occur. Grasslands in study area provide foraging habitat; however, nesting habitat is limited within the study area as suitable nesting trees are sparse. Several recent known occurrences (eBird 2024).
saltmarsh common yellowthroat <i>Geothlypis trichas sinuosa</i>	-/SSC	Dwells only in the San Francisco Bay Area. Primarily found in brackish and fresh marshes, but also occupies salt marsh and riparian woodland habitat.	Known to occur. Portions of the study area and surrounding areas are suitable foraging habitat for this species; however, nesting habitat is not present within the study area. Several recent known occurrences (eBird 2024).

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
bald eagle <i>Haliaeetus leucocephalus</i>	-/E, FP	Nests in large, old-growth, or dominant live trees with open branchwork, especially ponderosa pine. Requires large bodies of water or rivers with abundant fish, and adjacent snags.	Could occur. Several known occurrences adjacent to the study area (eBird 2024). However, no suitable nesting habitat is present, and animal would only use the study area for foraging.
loggerhead shrike <i>Lanius ludovicianus</i>	-/SSC	Shrublands and open woodlands with a fair amount of grass cover and areas of bare ground. Requires tall shrubs or trees, fences, or power lines for hunting perches and territorial advertisement. Also requires open areas of short grasses, forbs, or bare ground for hunting, large shrubs or trees for nest placement, and thorny vegetation or barbed wire fences for impaling prey.	Known to occur. Grasslands and fences in the study area provide foraging habitat; however nesting habitat is limited. Several known recent occurrences nearby (eBird 2024).
purple martin <i>Progne subis</i>	-/SSC	Nests in bridges in urban area and forages in adjacent open habitat.	Could occur. Suitable foraging habitat is present within the study area, but nesting habitat is not present. There have been several known occurrences adjacent to the study area (eBird 2024).

Mammals

pallid bat <i>Antrozous pallidus</i>	-/SSC	Ranges across nearly all of California except for high elevation portions of the Sierra Nevada Mountains and Del Norte, western Siskiyou, Humboldt, and northern Mendocino Counties. Generally found in a wide variety of habitats but with some preference for drier areas. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings.	Could occur. Suitable roosting habitat could be present in trees within the study area but there is no suitable roosting habitat within the project site.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	-/SSC	Ranges throughout California except for high elevation portions of the Sierra Nevada Mountains. Generally prefers mesic habitats but known to occur in all non-alpine habitats of California. Roosting occurs in caves, tunnels, mines, buildings, tree bark hollows, or other structures and this species may use different roosting sites for day and night.	Could occur. Suitable roosting habitat could be present in trees within the study area but there is no suitable roosting habitat within the project site.
western red bat <i>Lasiurus frantzii</i>	-/SSC	Occurs in most habitats except desert and alpine areas. Solitary bat species that roosts primarily in the foliage of trees or shrubs, and typically at the margins of habitats adjacent to streams or open fields, orchards, and sometimes urban areas. Association with intact riparian habitat particularly with willows, cottonwoods, and sycamores.	Could occur. Suitable roosting habitat could be present in trees within the study area but there is no suitable roosting habitat within the project site.

Notes:

- ¹ Legal Status Definitions:
- E Wildlife species listed as Endangered under the Federal and/or California Endangered Species Act.
 - T Wildlife species listed as Threatened under the Federal Endangered Species Act.
 - FP Wildlife species listed as Fully Protected under the California Fish and Game Code.
 - C Wildlife species identified as a candidate species for listing under the California Endangered Species Act.
 - P Wildlife species identified as a proposed species for listing under the Endangered Species Act.
 - SSC Wildlife species listed as Species of Special Concern by the California Department of Fish and Wildlife.
 - No status under Federal and/or California laws and regulations.

² Potential for Occurrence Definitions:

Known to occur: The species, or evidence of its presence, was observed in the project site during previous field surveys (as reported in background information materials) or was recently reported by others.

Could occur: Extant species distribution, habitat conditions, behavior of the species, known occurrences (as documented in the publicly accessible databases) in the vicinity, or other factors, indicate that the species could occur.

Unlikely to occur: Although the project site is located within the extant range of the species, the species is unlikely to be present because of very restricted distribution and/or because only low-quality habitat or very limited habitat is present in the project site and vicinity.

No potential to occur: The project site is located outside of the species extant distribution and/or potential habitat to support the species is not present.

Sources: CDFW 2025; eBird 2024; iNaturalist 2024; Nafis 2024; Shufard and Gardali 2008; USFWS 2025a; data collected and compiled by GEI Consultants Inc., in 2024 and revised in 2025

Plants

The sloping grasslands and mildly alkaline soil within the study area provide potential habitat for Congdon's trillium. This species could occur near the access roads and around the Reservoir.

Invertebrates

There is a known documented overwintering site for monarch butterfly within the grove of eucalyptus woodland along the eastern access road within the study area. The grove may be used as a roosting site during the typical overwintering period from approximately October to February. There are no documented occurrences of milkweed species or breeding within the study area; therefore, the area would only be utilized for roosting/overwintering.

Amphibians

While there is suitable refuge and upland habitat within grassland in the project site and study area for California tiger salamander (*Ambystoma californiense*), the only suitable breeding aquatic habitat is located outside of the study area in the wetlands to the north. There have been known occurrences outside of the study area.

Reptiles

The agricultural pond within the study area, but outside of the project site, would be considered suitable aquatic habitat for northwestern pond turtle (*Actinemys marmorata*). The surrounding grasslands within the project site and study area could be suitable upland habitat used for refuge and nesting. There is only one known recent occurrence outside of the study area in a secluded pond within urban sprawl (iNaturalist 2024).

Birds

Several special-status birds are known to occur or were determined to have some potential to occur in or adjacent to the study area, where potentially suitable foraging and/or nesting habitat is present. The patches of trees immediately south and east of the project boundary could provide potential nest sites for loggerhead shrike (*Lanius ludovicianus*) and white-tailed kite. Burrowing owl (*Athene cunicularia*), northern harrier, grasshopper sparrow (*Ammodramus savannarum*),

and short-eared owl (*Asio flammeus*) could use grassland within and adjacent to the study area for both foraging and nesting. Lastly, golden eagle, bald eagle, and saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), tricolored blackbird (*Agelaius tricolor*), and purple martin (*Progne subis*) could use the study area for foraging or roosting, but there is no suitable nesting habitat present.

Mammals

Three special-status bat species, pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus frantzii*), could occur within the trees lining the eastern haul road into the project. These large trees could provide potential roosting habitat (both day and night) for these species, and the surrounding grasslands provide suitable foraging habitat.

Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through CEQA, ESA, Magnuson Stevens Fishery Conversation and Management Act, Section 1602 of the California Fish and Game Code, Section 404 of the CWA, and the Porter-Cologne Act. Sensitive natural habitats may be of special concern for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. There are no sensitive habitats in the project site, although the freshwater pond in the study area may be considered a sensitive habitat.

Critical Habitat

Critical habitat is a geographic area containing features determined by USFWS or the National Marine Fisheries Service (NMFS) to be essential to the conservation and recovery of a species listed as threatened or endangered under the ESA. There is no designated critical habitat for any special-status plant or wildlife species in the project vicinity (USFWS 2025b; NMFS 2025a).

Sensitive Natural Communities

CDFW maintains a list of terrestrial natural communities that are native to California – the *California Natural Community List* (CDFW 2023). Within that list, CDFW identifies and ranks natural communities of special concern considered to be highly imperiled. There are no sensitive natural communities in the project site.

3.4.2 Discussion

Analysis Methodology

This analysis addresses biological resource impacts that could result from project construction activities, as well as project-related changes in the study area. Potential to adversely affect special-status species and their habitats and other habitats considered sensitive by Federal, State, or local agencies is evaluated, in addition to the potential to substantially reduce the habitat or population of any fish or wildlife species or to eliminate a plant or animal community. This analysis considers temporary and permanent habitat loss and disturbance and potential for direct injury or death of individuals or a result of adverse effects on habitat quality. Impact conclusions

consider the habitat quality, impact extent, impact duration, and impact intensity (*e.g.*, level of harm, injury/loss, or degradation suffered by the resource). Information on activities and habitat conditions that could adversely affect special-status species is based on scientific publications, agency documents, and other relevant sources.

Reservoir improvements, including constructing earthen berms and utility relocation, as well as use of staging areas and haul routes, would result in both permanent conversion and temporary disturbance of vegetation and land cover. Permanent loss would result from the removal and conversion (through vegetation clearing, stripping, and filling) of a small amount of existing land cover to a different type of land cover. Some ground-disturbing activities associated with project implementation (*e.g.*, movement and staging of equipment and materials) would result in temporary impacts to vegetation and land cover. The project would temporarily affect some land cover types, because these would be expected to revert to a similar land cover upon completion of construction.

- 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 the U.S. Fish and Wildlife Service?**

Special-status Plants

Special-status plants determined to have potential to occur in the study area include Congdon's tarplant. This species is associated with lowland grasslands and may be found along the edges of the access roads or around the Reservoir. No Federal- or State-listed plants are anticipated to occur on the project site. While construction disturbance to suitable habitat will be limited, some project activities have the potential to impact special-status plant habitats and individuals. Project activities in grassland habitat within the staging area or around the Reservoir may impact special-status plants, should they be present. During construction, individuals may be impacted by compaction, trampling, removal, or degradation of habitat. Although adverse effects on special-status plants and their habitat would be avoided to the greatest extent possible, implementation of project-related activities may result in direct and/or indirect effects on these species should they be present in areas proposed for disturbance. Loss of special-status plant individuals or degradation of special-status plant habitat would be considered **significant**. The following mitigation measures have been identified to address this impact.

Mitigation Measure BIO-1: Avoid and Minimize Effects to Biological Resources.

- **Conduct a worker environmental awareness program (WEAP) training for all staff that will be on-site during construction.** A qualified biologist shall provide WEAP training to cover species identification, habitat, life history, and conservation measures for all special-status species with potential to occur within the study area. Training may consist of showing a video prepared by a qualified biologist, or an in-person presentation by a qualified biologist. In addition to the video or in-person presentation, training may be supplemented with the distribution of approved

brochures and other materials that describe protected resources and methods for avoiding effects.

- **Conduct preconstruction surveys prior to the start of construction for all special-status species with potential to occur.** A qualified biologist shall conduct a general preconstruction survey at least 24 hours before the start of construction to identify the potential presence of all special-status species with potential to occur in the study area. While this survey will focus on burrowing owl and other special-status birds, it would include all special-status wildlife species and other sensitive biological resources. If there is a lapse in ground disturbing activities for two weeks or more, another preconstruction survey will be conducted.
- **Erect and maintain high visibility fencing during construction to protect sensitive biological resource areas.** Before beginning construction activities, high-visibility fencing shall be erected to protect areas of sensitive biological resources that are located adjacent to construction areas but can be avoided. The fencing shall restrict encroachment of personnel and equipment into these areas. The fencing may be removed only when the construction within a given area is completed.
- **Stage vehicles and equipment in existing staging areas.** Project activities and staging of materials, portable equipment, vehicles, and supplies shall occur in disturbed areas where feasible.
- **Inspect areas under vehicles and heavy equipment daily.** The qualified biologist and/or ACWD staff shall inspect under and around all vehicles and heavy equipment for the presence of wildlife and other special-status species before the start of each workday. The awareness training provided by a qualified biologist shall emphasize checking equipment to avoid harming wildlife.
- **Cover all steep-walled holes or trenches daily.** ACWD and/or its contractor(s) will cover all steep holes and trenches with plywood or other suitable covers at the end of each day to ensure no entrapment of wildlife species. Alternatively, an earthen ramp may be built within the trench for adequate means of escape for wildlife.
- **A speed limit of 15 miles per hour will be observed within construction areas.** All staff related to the project will abide by a 15 mile per hour speed limit while within the project limits.
- **A biologist will be on-call and available for monitoring or relocation of identified species during project construction.** A qualified biologist shall be available daily, as needed, to be on-site for any necessary monitoring or for any biological needs that may occur on the project site during construction activities.
- **Remove refuse.** To eliminate sources that could attract wildlife, all trash, including food-related trash items such as wrappers, cans, bottles and food scraps, shall be disposed of in closed containers.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-2: Minimize Effects to Special-Status Plants.

- **Special-status Plant Surveys.** A qualified botanist shall be retained to perform focused surveys for special-status plants. These surveys shall serve to document the presence/absence of these species in and adjacent to (within 50 feet, where appropriate) proposed impact areas, including new construction access routes. These surveys shall be conducted in accordance with CDFW Protocols for Surveying and Evaluating Effects on Special-Status Native Plant Populations and Sensitive Natural Communities (2018) or other current protocols. These guidelines require that special-status plant surveys be conducted at the proper time of year when target species are both evident and identifiable. Surveys shall be scheduled to coincide with known blooming periods, and/or during appropriate developmental periods that are necessary to identify the plant species of concern. If 3 years has elapsed between the completion of the special-status plant surveys and the start of ground disturbance, these surveys should be repeated.
- **Special-status Plant Avoidance.** If any special-status plant species are found within 50 feet of areas of ground disturbance during the surveys, these plant species shall be avoided to the greatest extent possible and one of the following shall be implemented:
 - Any special-status plant species that are identified in or adjacent to the construction areas, but not proposed to be disturbed, shall be protected by flagging, signage, orange construction fence, and/or silt fence as appropriate based on-site conditions to limit the effects of project-related activities and material stockpiles on any special-status plant species; or,
 - If project-related activities would result in the loss of greater than 10 percent of a population or occupied habitat for a special-status plant species, a mitigation plan would be developed that describes a program to transplant, salvage, cultivate, and re-establish the species at suitable sites (if feasible). Alternatively, mitigation could be satisfied through off-site preservation or via payment to an in-lieu fee program, if available.

If the mitigation plan is chosen, it would include means and methods to propagate affected special-status plants via vegetative or reproductive means (e.g., harvesting of seed or seed bank through topsoil collection, salvaging and transplanting or collecting of cuttings), as appropriate for the species, and transplant at suitable receiving sites as close to the existing population as possible. Propagation and transplantation would occur prior to construction. The receiving location would be evaluated and chosen based on similarity to conditions at the transplant source location, to the extent feasible. Site conditions to consider when choosing a receiving site would include aspect, substrate, hydrology, associated species, and canopy cover. The transplanted plants would be monitored for at least one year following construction.

If preservation option is chosen, preservation areas may include undisturbed areas of the site that will be preserved and managed in perpetuity, offsite mitigation

lands, or a combination of both. The preserved habitat shall be of equal or greater habitat value to the areas affected in terms of soil features, extent of disturbance, vegetation structure, and contain extant populations of the same or greater size as the area affected.

The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, the location of the occurrence, and the current state of knowledge about overall population trends and threats to its survival. Mitigation will be provided to the extent necessary to ensure no loss of biological functions and values occurs, and at a minimum, the species and habitat will be replaced at a minimum 1:1 ratio (individuals or acreage of occupied habitat).

- **Restoration of Temporarily Disturbed Areas.** All exposed and/or disturbed areas resulting from project-related activities shall be restored using locally native grass and forb seeds, plugs or a mix of the two. Areas shall be seeded with species appropriate to their topographical and hydrological character. Seeded areas shall be covered with broadcast straw and/or jute netted, where appropriate.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Implementing Mitigation Measures BIO-1 and BIO-2 would reduce the potentially significant impacts associated with loss of special-status plants or degradation of habitat through avoidance, minimization and compensatory mitigation, should it be necessary. This impact would be **less-than-significant with mitigation incorporated**.

Special-status Wildlife

Monarch Butterfly

Eucalyptus woodland within the study area provides suitable roosting habitat for monarch butterfly. Construction activities that require vegetation trimming within areas of potentially suitable monarch habitat could result in loss of individuals and/or loss of habitat. This could cause injury or mortality of monarch butterfly if they are present within the eucalyptus trees when vegetation removal occurs. If disturbance levels are high enough, butterflies could be displaced from active roosting sites. Because of the potential for destruction and/or disturbance of occupied roosting habitat, if present in the project site during construction activities, this would be a **significant** impact. The following mitigation measures have been identified to address this impact.

Mitigation Measure BIO-1: Avoid and Minimize Effects to Biological Resources.

Please refer to Mitigation Measure BIO-1 above in this section, for the full text of this mitigation measure.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-3a: Avoid and Minimize Impacts to Monarch Butterfly.

To avoid effects of construction activities on monarch butterflies, ACWD shall ensure that the following measure is implemented.

- **Conduct Tree Trimming of all Suitable Overwintering Habitat within the Study Area Outside of the Overwintering Period for Monarch Butterfly.** Tree trimming of the eucalyptus trees bordering the eastern access road within the study area should occur outside of the overwintering period for monarch butterfly. Trimming should occur between March and August when the habitat is not actively being used by monarch. If the trimming cannot occur during this time period, a survey prior to trimming and monitoring during trimming will be required.
- **Conduct a Pre-construction Survey and Habitat Assessment for Monarch Butterfly of all Suitable Overwintering Habitat within the Project Area at least 14 Days Prior to the Start of Vegetation Trimming if Trimming Cannot Occur During the Summer Months.** Pre-construction surveys and habitat assessment for monarch butterfly will be conducted by a qualified biologist prior to vegetation removal (i.e. tree trimming) of the eucalyptus trees bordering the eastern access road within the study area if trimming cannot occur during March and August. The presence of monarch butterflies will be mapped and flagged for avoidance during the survey. The habitat assessment will follow the protocol datasheets, *Habitat Assessment Datasheet*, provided by the Xerces Society's Western Monarch Count.

Timing: Before construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-3b: If Surveys Detect Monarch Butterfly in the Study Area, Implement Measures to Avoid and Minimize Effects to Monarch Butterfly and Establish Protective Buffers Around Occupied Overwintering Habitat and Monitor.

If the focused surveys described above in Mitigation Measure BIO-3b have been completed and monarch butterfly is detected, ACWD shall coordinate with USFWS to determine acceptable methods for avoiding and minimizing effects on this species. ACWD shall ensure that the measures described below are implemented to avoid and minimize effects of the project on monarch butterfly, such that there is no direct loss of individuals of this species.

- **Consult with USFWS Regarding Best Approach to Avoid and Minimize Potential Impacts to Monarch Butterfly if Overwintering Individuals are Observed and Implement Measures.** A qualified biologist shall determine acceptable methods for avoiding and minimizing effects on this species, in accordance with the *Western Monarch Butterfly Conservation Recommendations* (USFWS 2023). Measures may include implementing no-disturbance buffers (required during overwintering season) and monitoring during tree trimming.

- **Conduct Focused Monarch Count Surveys.** A qualified biologist shall conduct focused monarch count surveys following the protocol in the *Monarch Count Survey Instructions* (Xerces Society 2024b). Survey data will be submitted immediately following the survey(s) to the Xerces Society.
- **Provide a Protective Buffer for Occupied Habitat during the Overwintering Season and Monitor Habitat to Ensure that Project Activities do not Result in Adverse Effects on Overwintering Monarch Butterfly.** Habitat occupied during the overwintering season (October to February) shall be provided with a protective buffer until a qualified biologist verifies through noninvasive means that either (1) there are no monarch butterflies present in the habitat or (2) that the individuals are not disturbed by the nearby work. The size of the buffer, which may range from 50 meters to 500 meters, will depend on distance from the habitat to area of project disturbance, type and intensity of disturbance, presence of visual buffers, time of year, and other variables that could affect susceptibility of the butterflies to disturbance (USFWS 2023). Monitoring shall be conducted to confirm that project activity is not resulting in detectable adverse impacts on overwintering monarch butterfly.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Implementing Mitigation Measures BIO-1, BIO-3a, and BIO-3b would reduce the potentially significant impact associated with adverse impacts to monarch butterfly by avoiding and minimizing disturbance adjacent to occupied habitat, such that there is no net loss of individuals of this species. This impact would be **less-than-significant with mitigation incorporated**.

California Tiger Salamander

The agricultural pond and grasslands adjacent to the project site provide suitable aquatic and upland habitat for California tiger salamanders and individuals could be disturbed and temporarily displaced from occupied habitat by construction activities. Vegetation clearing and haul routes could result in direct injury or mortality of salamander if those areas are used for dispersal or refuge. However, there would be minimal ground disturbing activities within the project area and potential to impact burrows with salamander present is low. Because individuals could be killed, injured, or displaced during construction activities, this is potential impact would be considered **significant**. The following mitigation measures have been identified to address this impact.

Mitigation Measure BIO-1: Avoid and Minimize Effects to Biological Resources.

Please refer to Mitigation Measure BIO-1 above in this section, for the full text of this mitigation measure.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-4a: Avoid and Minimize Impacts to California Tiger Salamander and Its Habitats.

To avoid and minimize effects of project activities on California tiger salamander, ACWD shall ensure that the measure described below is implemented.

- **Stop Work if California Tiger Salamander is Observed in Construction Area.** If California tiger salamander are observed in a construction area, ACWD shall stop work within approximately 200 feet of the salamander, and a qualified biologist shall be notified immediately. If possible, the salamander shall be allowed to leave the construction area on its own and the qualified biologist shall remain in the area until the biologist deems that the salamander is not harmed. Work will not commence until the salamander is more than 200 feet away from active construction.
- **Conduct Preconstruction Survey to Mark and Map Burrows within the Project Boundary.** A qualified biologist will identify all small mammal burrows within the Project site with stakes or pin flags so that they may be avoided during ground disturbance. Rodent burrows will be avoided to the extent possible.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-4b: If Surveys Detect California Tiger Salamander or Suitable Burrows in the Study Area, Implement Measures to Avoid and Minimize Effects to California Tiger Salamander and Establish Protective Buffers Around Occupied Burrows and Monitor.

If the focused surveys described above in Mitigation Measure BIO-4a have been completed and California tiger salamander and/or suitable burrows are detected, ACWD shall coordinate with CDFW and/or USFWS to determine acceptable methods for avoiding and minimizing effects on this species. ACWD shall ensure that the measures described below are implemented to avoid and minimize effects of the project on California tiger salamander, such that there is no direct loss of individuals of this species.

- **A Biologist Will be On-site During All Ground Disturbing Activities.** A qualified biologist shall be present during all ground disturbing activities, if potentially suitable burrows are present within the area of disturbance
- **Provide a Protective Buffer for Occupied Burrows and Monitor Burrows to Ensure that Project Activities do not Result in Adverse Effects on California Tiger Salamander.** Confirmed occupied burrows shall be provided with a protective buffer. The size of the buffer, which may range from 50 feet to 100 feet, will depend on distance from the burrow to project disturbance, type and intensity of disturbance, presence of visual buffers, time of year, and other variables that could affect susceptibility of the salamander to disturbance. Monitoring shall be conducted to confirm that project activity is not resulting in detectable adverse impacts on California tiger salamander.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Implementing Mitigation Measures BIO-1, BIO-4a, and BIO-4b would reduce significant impacts to California tiger salamander by avoiding and minimizing disturbance adjacent to occupied habitat, such that there is no net loss of individuals of this species. This impact would be **less-than-significant with mitigation incorporated**.

Northwestern Pond Turtle

The agricultural pond and grasslands adjacent to the project site provide suitable aquatic and upland habitat for pond turtles and individuals could be disturbed and temporarily displaced from occupied habitat by construction activities. Vegetation clearing and haul routes could result in direct injury or mortality of turtles if those areas are used for basking, hibernating, dispersal, or nesting. However, there would be minimal ground disturbing activities within the project area and potential to impact nesting turtles is low. Because individuals could be killed, injured, or displaced during construction activities, this is considered a **significant** impact. The following mitigation measures have been identified to address this impact.

Mitigation Measure BIO-1: Avoid and Minimize Effects to Biological Resources.

Please refer to Mitigation Measure BIO-1 above in this section, for the full text of this mitigation measure.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-5: Avoid and Minimize Impacts to Northwestern Pond Turtle and Its Habitats.

To avoid and minimize effects of project activities on northwestern pond turtle, ACWD shall ensure that the measure described below is implemented.

- **Stop Work if Northwestern Pond Turtle or Nest is Observed in Construction Area and, with CDFW Approval, Move Animal to the Nearest Suitable Habitat Outside the Area if Found On-site.** If northwestern pond turtles are observed in a construction area, ACWD shall stop work within approximately 200 feet of the turtle, and a qualified biologist shall be notified immediately. If possible, the turtle shall be allowed to leave the construction area on its own and the qualified biologist shall remain in the area until the biologist deems that the turtle is not harmed. Alternatively, the qualified biologist may attempt to capture and relocate the turtle, unharmed and with prior CDFW (and USFWS, if necessary) approval, to suitable habitat at least 200 feet from the construction area.

If a northwestern pond turtle nest is unintentionally uncovered during project activities, work would stop within approximately 200 feet of the nest and CDFW (and USFWS, if necessary) would be contacted immediately. Next steps shall include fencing off and buffering the nest and/or rescue, rehabilitation, and relocation of affected turtles, as approved by CDFW (and USFWS, if necessary).

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Implementing Mitigation Measures BIO-1 and BIO-5 would reduce the potentially significant impact associated with adverse impacts to northwestern pond turtle to **less-than-significant with mitigation incorporated** by avoiding and minimizing disturbance to pond turtles and their habitat.

Burrowing Owl

Grasslands in and adjacent to the study area provide potentially suitable habitat for burrowing owls. Construction activities that require earth-movement within areas of potentially suitable burrowing owl habitat could result in loss of occupied burrows. This could cause injury or mortality of burrowing owls, if they are present within the burrows when earthmoving occurs. If disturbance levels are high enough, owls could be displaced from active burrows, potentially resulting in abandonment of active nests and loss of eggs or young. Because of the potential for destruction and/or disturbance of occupied burrows, if present in the project site during construction activities, this would be a **significant** impact. The following mitigation measures have been identified to address this impact.

Mitigation Measure BIO-1: Avoid and Minimize Effects to Biological Resources.

Please refer to Mitigation Measure BIO-1 above in this section, for the full text of this mitigation measure.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-6a: Avoid and Minimize Impacts to Burrowing Owl.

To avoid effects of construction activities on burrowing owls, ACWD shall ensure that the following measure is implemented.

1. **Conduct an Assessment of Burrowing Owl Habitat Suitability in Areas Subject to Project-related Disturbance and Conduct a Focused Survey for Burrowing Owl at least 14 days prior to the start of construction activities.** A qualified biologist shall conduct an assessment of burrowing owl habitat suitability in areas subject to project-related disturbance. The assessment shall evaluate the area subject to direct impact, as well as adjacent areas within up to 500 feet of direct impact areas, depending on the potential extent of indirect impact. If suitable burrows or sign of burrowing owl presence are observed, a take avoidance survey will be conducted

within 14 days before on-site project activities begin. Survey shall be conducted in accordance with Appendix D of the Staff Report on Burrowing Owl Mitigation (CDFG 2012). A letter report documenting the survey methods and results shall be prepared and submitted to CDFW.

Timing: Before construction.

Responsibility: ACWD.

Mitigation Measure BIO-6b: If Surveys Detect Burrowing Owl in the Study Area, Implement Measures to Avoid and Minimize Effects to Burrowing Owl and Establish Protective Buffers Around Occupied Burrows and Monitor.

If the focused surveys described above in Mitigation Measure BIO-5a have been completed and burrowing owl are detected, ACWD shall coordinate with CDFW to determine acceptable methods for avoiding and minimizing effects on this species. ACWD shall ensure that the measures described below are implemented to avoid and minimize effects of the project on burrowing owl, such that there is no direct loss of individuals of this species or project-related nest failure.

- **Consult with CDFW Regarding Best Approach to Avoid and Minimize Potential Impacts to Burrowing Owl if Active Burrows Are Observed and Implement Measures.** A qualified biologist shall determine acceptable methods for avoiding and minimizing effects on this species, in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Measures may include implementing no-disturbance buffers (required during the breeding season) and developing and implementing a Burrowing Owl Exclusion Plan upon CDFW approval.
- **Provide a Protective Buffer for Occupied Burrows during the Breeding Season and Monitor Burrows to Ensure that Project Activities do not Result in Adverse Effects on Nesting Burrowing Owls.** Burrows occupied during the breeding season (February 1 through August 31) shall be provided with a protective buffer until a qualified biologist verifies through noninvasive means that either (1) the birds have not begun egg-laying, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer, which may range from 50 meters to 500 meters, will depend on distance from the nest to area of project disturbance, type and intensity of disturbance, presence of visual buffers, time of year, and other variables that could affect susceptibility of the owls to disturbance (CDFG 2012). Monitoring shall be conducted to confirm that project activity is not resulting in detectable adverse impacts on nesting burrowing owls.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Implementing Mitigation Measures BIO-1, BIO-6a, and BIO-6b would reduce adverse impacts to burrowing owl to **less-than-significant with mitigation incorporated** by avoiding and minimizing disturbance adjacent to occupied burrows, such that there is no net loss of individuals of this species or project-related nest failure.

Other Special-status Birds

The study area provides suitable foraging habitat and select nesting habitat for five additional special-status bird species—white-tailed kite, northern harrier, short-eared owl, loggerhead shrike, and grasshopper sparrow. In addition, the study area provides foraging but not nesting habitat for five bird species – golden eagle, bald eagle, purple martin, tricolored blackbird, and saltmarsh common yellowthroat. The majority of suitable habitat occurs within the study area and only marginally within the project site. This habitat disturbance and temporary loss is unlikely to substantially disrupt foraging activities of any of these species because there is similar and higher-quality habitat present in the immediate vicinity.

Construction activities would likely include noise and visual disturbances temporarily during the nesting season that could disturb birds nesting nearby, potentially resulting in nest failure. Disturbance of nesting pairs of sufficient magnitude could result in nest abandonment, a reduction in the level of care provided by adults (*e.g.*, duration of brooding, frequency of feeding), or premature fledging of young. Although the likelihood is low, active nests could occur, in the case of northern harrier and grasshopper sparrow, in grassland subject to ground disturbance, potentially resulting in direct destruction of an active nest and loss of the eggs or young.

Additionally, construction activities could result in removal of active ground nests of common bird species, which would violate the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. The list of protected migratory birds includes many common species not otherwise protected under Federal, State, regional, or local laws. Loss of active nests of such species during project implementation would not substantially reduce their abundance or cause any species to drop below self-sustaining levels and would not constitute a significant impact under CEQA. Regardless, ACWD would conduct pre-construction surveys and implement appropriate avoidance measures included in its standard construction general conditions to ensure there is no direct loss of active nests of common nesting birds protected by MBTA or California Fish and Game Code. These impacts are considered **significant**. The following mitigation measures have been identified to address this impact.

Mitigation Measure BIO-1: Avoid and Minimize Effects to Biological Resources.

Please refer to Mitigation Measure BIO-1 above in this section, for the full text of this mitigation measure.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-7a: Conduct Focused Surveys for Nesting Special-status Birds and Avoid Impacts.

To avoid effects of construction activities on nesting special-status birds, ACWD shall ensure that the following measures are implemented. If avoidance consistent with these

measures cannot be achieved, ACWD shall implement the minimization measures as described below.

- **Conduct Vegetation Removal between September 16 and January 31 to the Extent Feasible.** Vegetation removal shall be conducted between September 16 and January 31, to the extent feasible, to minimize potential loss of active bird nests.
- **Conduct Pre-construction Surveys for Active Nests of Special-status Birds in Areas of Suitable Habitat before Starting Construction.** If construction activities that could affect suitable habitat for special-status birds cannot be conducted outside of the respective nesting seasons, ACWD shall complete pre-activity surveys for nesting birds. Surveys of all potential nesting habitat in the area shall be conducted by a qualified biologist during the nesting season, which is typically February 15 to August 1. Surveys shall be conducted within suitable nesting habitat that could be affected by construction activities and shall include a 350-foot buffer area (or larger area if required by established survey protocol) surrounding these areas.
 - Where appropriate, pre-activity surveys shall follow established survey protocols or guidelines.
 - If no established survey protocol exists, the qualified biologist shall complete surveys no more than 1 week prior to the start of construction activities or more than 1 week prior to the restart of construction after a lapse of 14 days. If no nesting birds are detected during pre-activity surveys, no additional mitigation measures are required.

Timing: Before construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-7b: If Avoiding Construction-related Effects on Nesting Special-status Birds is Infeasible, Implement Minimization Measures.

If the measures described above in Mitigation Measure BIO-6a have been completed and avoiding effects on nesting special-status birds is infeasible, ACWD shall coordinate with CDFW to determine acceptable methods for minimizing effects on these species. ACWD shall ensure that the measures described below are implemented to minimize effects of the project on nesting special-status birds, such that there is no direct loss of individuals of these species or project-related nest failure.

- **Establish and Maintain Buffers Around Active Nest Sites to Avoid Nest Failure and Monitor Nest Sites to Confirm that Project Activities Are Not Adversely Affecting the Nesting Birds or Their Young.** If any active nests, or behaviors indicating active nests are present, or observed, ACWD shall establish appropriately sized avoidance buffers around the nest sites, as determined by a qualified biologist in coordination with CDFW to avoid nest failure resulting from project activities. The size and shape of the buffer shall depend on the species, nest location, nest stage, and specific construction activities to be performed while the nest is active. The buffer shall be expanded if the birds are exhibiting agitated behavior, or the buffers may be

adjusted (reduced) if a qualified biologist determines it would not be likely to adversely affect the nest. If required, buffers shall be marked in the field by a qualified biologist using temporary fencing, high-visibility flagging, or other means that are equally effective in clearly delineating the buffer.

- Monitoring shall be conducted by a qualified biologist, either continuously or periodically during work, to confirm that project activity is not resulting in detectable adverse impacts on nesting birds or their young. The qualified biologist shall be empowered to stop construction activities that, in the biologist's opinion, threaten to cause unanticipated and/or unpermitted adverse effects on special-status wildlife (e.g., nest abandonment). If construction activities are stopped, the qualified biologist shall consult with CDFW to determine appropriate measures that ACWD shall implement to avoid adverse effects.
- No project activity shall commence within the buffer areas until a qualified biologist has determined that the young have fledged, or the nest site is otherwise no longer in use.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Implementing Mitigation Measures BIO-1, BIO-7a, and BIO-7b would reduce adverse impacts to nesting special-status birds to a **less-than-significant with mitigation incorporated** by avoiding and minimizing disturbance to active nests, such that there is no direct loss of individuals of these species or project-related nest failure.

Roosting Bats

There is potentially suitable roosting habitat for bats within the study area, and because the project may include tree trimming, there is the potential to impact roosting bats and bat habitat. This would be a **significant** impact. The following mitigation measures have been identified to address this impact.

Measure BIO-1: Avoid and Minimize Effects to Biological Resources.

Please refer to Mitigation Measure BIO-1 above in this section, for the full text of this mitigation measure.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Mitigation Measure BIO-8a: Conduct an Assessment of Suitable Roosting Habitat within the Project Site.

To avoid effects of construction activities on roosting bats, ACWD shall ensure that the following measures are implemented.

- **Conduct an Assessment of Suitable Roosting Habitat within the Project Site Where Tree Trimming is Unavoidable.** Flag and record locations of trees that either have signs of bat presence (i.e. guano) or have the potential to be suitable roosting habitat for bats.

Timing: Before construction.

Responsibility: ACWD.

Mitigation Measure BIO-8b: If Avoiding Tree Trimming with Suitable Roosting Habitat is Infeasible, Implement Minimization Measures.

If the measures described above have been completed and avoiding effects on suitable roosting habitat is infeasible, ACWD shall ensure that the measures described below are implemented to minimize effects of the project on roosting bats, such that there is no direct loss of individuals of these species or project-related maternity failure.

- **Conduct Tree Trimming between August 16 and December 1 OR between February 28 and May 1 to the Extent Feasible.** Tree trimming shall be conducted between August 16 and December 1 or between February 28 and May 1, to the extent feasible, to minimize potential loss of maternity roosts.
- **Conduct Emergence Surveys for Trees to be Trimmed after March 1.** If tree trimming is not possible during the winter and summer months, avoid removal of potential roost habitats until after March 1, or whenever weather conditions are suitable for conducting emergence surveys. Conduct dusk emergence surveys at all trees deemed to be suitable roosting habitat that will be removed.
 - If emergency surveys indicate roost occupancy, a qualified biologist shall safely exclude roosting bats prior to tree removal. If roosting bats must be excluded, provide alternative roosting habitat such as bat boxes, installed under direction of a qualified biologist, in advance of bat exclusion.

If trees are identified as providing suitable roosting habitat must be trimmed prior to conducting emergence surveys, implement the following measures.

- Perform tree trimming in the presence of the monitoring bat biologist.
- Remove all unaffected limbs (those without potential roosting habitat) from the tree and leave the remaining trunk and limbs overnight. Leave all fallen material on the ground at least one night prior to removal from the project site.
- As practical, fell all affected limbs slowly and gently, to minimize the likelihood of crushing bats that may be roosting inside.
- If bats are detected at any point, stop work immediately, leave the tree site and a surrounding 200-foot buffer, and consult with the monitoring bat biologist.

Timing: Before and during construction.

Responsibility: ACWD and construction contractor(s).

Implementing Mitigation Measures BIO-1, BIO-8a, and BIO-8b would reduce adverse impacts to roosting bats to **less-than-significant with mitigation incorporated** by avoiding and minimizing disturbance to roosting bats, such that there is no direct loss of individuals of these species or project-related bat maternity failure.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified 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 is no riparian habitat or other sensitive natural communities present in the study area; therefore, there would be **no impact** on these resources.

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?

While there are potential wetlands in the study area, there are no wetlands within the project site or that would otherwise be disturbed; therefore, **no impact** would occur to jurisdictional waters.

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?

A wildlife corridor is generally a topographical or landscape feature or movement area that connects two areas of habitat that otherwise would be entirely fragmented or isolated from one another. Overall, the study area (which extends beyond the project site) is part of a much larger extent of open grasslands and does not serve as a corridor between isolated habitat areas. Wetlands and open water habitats adjacent to the project site may facilitate local movement of aquatic species, but no project work would occur in these aquatic habitats. Therefore, there would be **no impact** on migratory corridors, and no impact on movement of terrestrial or aquatic animals or with the use of an established migratory corridor.

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

Implementing proposed project activities would not conflict with any local policies or ordinances protecting biological resources. The City of Fremont has a Tree Preservation Ordinance (Chapter 18.215) that puts protection on all established trees on private or public property. However, any tree trimming occurring within the project site would be considered “pruning” and would not cause permanent damage to the tree, therefore, potential trimming would be in compliance with this ordinance. Neither Alameda County nor the City of Fremont have any other ordinances or policies prescribing specific requirements for protection of other biological resources. The proposed project would not conflict with these County and City plans, and there would be **no impact**.

e) 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 activities would not conflict with any provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or State HCP. While the study area does overlap with the PG&E Bay Area Operations and Maintenance HCP, implementing the project would not conflict with this HCP or its ability to be effectively implemented. Therefore, **no impact** would occur.

3.5 Cultural Resources

5. CULTURAL RESOURCES. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
5 -a. Cause a substantial adverse change in the significance of a historical resource pursuant to CCR Section 15064.5?		Less-than-Significant Impact with Mitigation Incorporated			
5 -b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?		Less-than-Significant Impact with Mitigation Incorporated			
5 -c. Disturb any human remains, including remains interred outside of dedicated cemeteries?		Less-than-Significant Impact with Mitigation Incorporated			

3.5.1 Environmental Setting

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historic, architectural, archaeological, cultural, or scientific importance.

Precontact Setting

This section summarizes the archaeological context of the project. There have been several chronological schemes constructed by archaeologists to frame changes in archaeological collections, generally becoming more refined with improvements in dating techniques and more sophisticated theory and interpretation. The context presented here is based on Milliken et al (2007) describing a broad general cultural sequence for the San Francisco Bay Area (Bay Area) ranging from 11,500 Before Common Era (BCE) to (colonial) Contact in the Common Era (CE); additional sources are cited as appropriate.

There is no evidence of human occupation in the Bay Area during the Terminal Pleistocene (11,500-8,000 BCE). This could be due to erosion, burial, or submersion in the San Francisco Bay which formed approximately 10,000 years ago (Rosenthal and Meyer 2004).

The Early Pleistocene (8,000-3,500 BCE) does show evidence of ancestral Native American groups active in the Bay Area. Interpretation of data indicates the groups adopted a mobile forager lifestyle, utilizing well-crafted millingslabs, handstones, and distinctive projectile points. The earliest date for a millingslab component in the Bay Area, 7920 BCE, was obtained from a charcoal concentration found underneath a millingslab at Los Vaqueros Reservoir (CA-CCO-696) in the hills east of Mount Diablo. Archaeobotanical evidence from sites like Los Vaqueros

Reservoir indicated a focus on acorns and wild cucumbers. Populations were sparse, mobile, and adapted to various environments, developing technologies such as ground stone tools and basketry (Moratto 2004).

The Early Period (3,500-500 BCE) brought a transition from high mobility to sedentary or semi-sedentary living. Indicative of this is the appearance of substantial shell mounds in West Berkeley (CA-ALA-307), Ellis Landing (CA-CCO-295), and Pacheco (CA-MRN-152), as well as large house floors with postholes found at the Rossmoor site (CA-CCO-309). Mortars, pestles, and ornamental goods became more prevalent. Changes in burial practices, including occasional burning before internment, are noted. Evidence of far-ranging trade is also present during this period, as shown by the discovery as far inland as the Great Basin of beads made of shell from the central and southern California coasts (Bennyhoff and Hughes 1987). Some researchers have argued that an emphasis on hunting northern fur seal emerged in the southern Bay Area during this period.

Ornamental changes mark the Lower Middle Period (500 BCE-430 CE) with the disappearance of rectangular shell beads in the Bay Area and the emergence of split-beveled and small saucer beads made from Olivella shell enter the record, as do circular Haliotis beads. Artifacts such as fish spears, spatulae, and basketry awls indicate diversified tool use. Intensive site use is observed, with accumulations of dark midden in previously underused areas like Napa Valley.

The Upper Middle Period (430–1,050 CE) brought dramatic changes in mortuary practices, including extended burials and the Meganos funerary style with massive bead lots. This period saw the abandonment of more than half the sites that had been occupied previously, a large increase in the amount of sea otter bone in the still-occupied sites, and a general collapse of the Olivella trade network. New artifacts like "show blades" and fishtail charmstones appear.

Increased cultural complexity, sedentism, and social stratification characterize the Initial Late Period (1,050-1,500 CE). The artifacts include shaped mortars, new Olivella beads, and the appearance of the banjo-shaped effigy ornaments. Adoption of bow-and-arrow technology affects lithic raw material acquisition. Biface production and total amounts of debitage produced at Napa Glass Mountain obsidian quarries dropped significantly, while amounts of debris from that same source increased dramatically in the interior East Bay. Researchers have interpreted this as a rearranging of technology, in which large flakes from the Napa Glass Mountain sources were transported to more distant locales where small projectile points, performs, and various simple flake tools were produced.

Bead types change again in the Terminal Late Period (1,500 CE – Contact) with clamshell disk beads replacing Olivella sequin and cup beads. Projectile point types shift, and evidence of clam disk bead manufacture is found inland. Other artifacts appearing during this period are the toggle harpoon, hopper mortar, and magnesite tube beads. Site distribution remains consistent, but midden accumulations are thinner. Hypotheses for these changes include population growth, migration, and the impact of European-introduced epidemics.

Ethnographic Setting

The project boundary is situated within the ancestral lands of the Ohlone people, part of a linguistic family encompassing eight distinct, but related, languages (Levy 1978). Organized into various ethnic groups based on language, the Ohlone lived in around 50 politically autonomous nations, or tribelets, each with a common language such as Tamyen at the time of European contact (Levy 1978). The Bay Area was the most densely populated area in California north of Mexico (Margolin 1978). The Spanish, the first Europeans to explore the area called the Ohlone Tribes in the area Costanoans (coast people), and some tribes still have that word in their tribal names.

Tribelets usually consisted of one or more central large villages, and several smaller villages or settlements within a particular territory (Margolin 1978). These villages ranged from 50 to 500 individuals and defended territorial boundaries vigorously (Levy 1978). Chiefs, usually inherited patrilineally, led councils and had responsibilities ranging from directing ceremonies to overseeing hunting and warfare.

Ohlone households were larger than those of other California Indians, and clan and moiety structures played a role in their social organization. Some households consisted of patrilineally descended extended families. Sororal polygynous marriages also occurred with cowives and their children living together, although this was confined mostly to chiefs (Levy 1978; Margolin 1978), and perhaps only 10 percent of men had multiple wives (Rosenthal et al. 2004). The Ohlone were grouped into clans and divided into deer and bear moieties (Levy 1978). Dwellings were dome-shaped structures thatched with different materials, while sweathouses and dance areas were integral to their communal spaces.

Today there are still several Ohlone/Costanoan Tribes in the Bay Area with active and vibrant programs to assist their members and maintain their culture. The Ohlone Chumash Tribe provides services to help members acquire jobs and training, housing, and telecare for members and other members of the community as well (Ohlone Chumash Tribe 2024 *Homepage* June 25, 2024 [<https://www.ohlonetribe.org>]). The Muwekma Ohlone Tribe has many partnerships with universities and local governments to keep their language alive, inform a broader awareness of their Tribe to the community, and continue their culture expression in modern media (Muwekma Ohlone Tribe 2024 *Homepage* June 25, 2024 [<https://www.muwekma.org>]). One thing in common with many Ohlone tribes is a push for Federal recognition; there are no Ohlone tribes that have Federal recognition which can aid a tribe in government funding and programs.

Historic Setting

Alameda County

Alameda County was formed in 1873 from parts of neighboring Contra Costa and Santa Clara counties (Alameda City Coalition for Fair Redistricting 2023). Agricultural activities initially supported the county, but eventually the economy transitioned to manufacturing and industrial-based jobs in the late 19th and early 20th centuries. The City of Oakland (named county seat in 1873), became the site of numerous factories, causing the surrounding region to grow at a rapid

pace (Walker 2005). The population soared from 67,000 in 1900, to 284,000 by 1930 (Walker 2005). Growth continued in the post-World War II era and throughout the 20th century. Currently, Alameda County covers roughly 800 square miles and houses over 1.5 million residents (Alameda County 2023).

Fremont

Fremont City Councilman Wally Pond formed the City of Fremont in 1956 from five individual townships: Mission San Jose, Centerville, Niles, Irvington, and Warm Springs. Soon after, Fremont and nearby Silicon Valley became instrumental participants in the emerging technology industry of the late 20th century. During the 1980s and 1990s, Apple Inc. established the first Mac computer manufacturing plant in Fremont (City of Fremont 2023). In addition, to technology, area residents are exposed to vast recreational parks and reserves such as Don Edwards San Francisco Bay National Wildlife Refuge and the Coyote Hills Regional Park.

Alameda County Water District

In 1913, the California Legislature passed the Caminetti Bill (County Water District Act of 1913), signed by Governor Hiram Johnson, which approved the formation of municipal water districts. Alameda County formed the ACWD in 1914 because of a growing concern of water supply coupled with the aftermath of the 1906 San Francisco earthquake that destroyed numerous water-related resources such as reservoirs, pipes, and storage tanks throughout San Francisco Bay (Piraino 2015: 8; ACWD 2024). In addition, agricultural activities placed demands on Alameda County's water resources. The ACWD faced additional challenges from the 1920s through the end of the 1930s as the State endured a drought which strained the existing water supply (Piraino 2015: 61). In the late 1930s, the ACWD constructed a 100,000-gallon reservoir at Mission San Jose and extended water mains from Centerville to Alvarado and Newark and allowed for additional water supply in the region (Piraino 2015: 61). The ACWD currently maintains six reservoirs and five tanks (ACWD 2024).

3.5.2 Methods

The cultural resources investigations carried out for the proposed project included a records search at the South San Joaquin Valley Information Center, archival research, and a field survey.

Records Search

Before conducting the intensive-level pedestrian survey, various sources of information on archaeological resources were reviewed by a GEI archaeologist, including background research conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System, review of historic maps, and ethnographic documents primarily available online.

On October 16, 2023, GEI archaeologist, Amy Wolpert, MA, performed a record search through the NWIC (File No.: 23-0532) of the project boundary with a 0.25-mile buffer. The search indicated there have been five previous investigations (**Table 3-4**) within the project boundary and eleven in the 0.25-mile buffer. The previous investigations cover approximately 10 percent

of the project boundary. The record search also indicated that there are no previously recorded cultural or built environment resources within the project boundary, and one resource within the 0.25-mile buffer (**Table 3-5**).

Table 3-4. Previous Investigations in the Project Boundary

Report No.	Year	Author(s)	Title	Affiliation
S-002666	1981	William Breece	Archaeological Survey of Ardenwood Estates, Fremont, California.	Environmental Science Associates
S-006590	1984	Matthew R. Clark	Archaeological Reconnaissance of the Impact Zone for Water Distribution Improvements, and Areal Additions to Coyote Hills Regional Park, Alameda County, California	Holman & Associates
S-013191	1991	Donna M. Garaventa, Michael R. Fong, Stuart A. Guedon, Sondra A. Jarvis, David G. Brittin, and Steven A. Rossa	Cultural Resources Assessment for a General Plan Amendment of the Ardenwood Forest Completion, Fremont, Alameda County, California	Basin Research Associates, Inc.
S-020033	1998	William Self	Cultural Resources Inventory of Alameda County Water District Proposed Facility Sites, Alameda County, Ca (letter report)	William Self Associates, Inc.
S-024997	2001	Basin Research Associates, Inc.	Cultural Resources Assessment, Ardenwood 2000 Area, City of Fremont, Alameda County, California	Basin Research Associates, Inc.

Source: NWIC File No.: 23-0532

Table 3-5. Previously Identified Cultural Resources within the 0.25-mile Buffer

Report No.	Year	Author(s)	Title	Affiliation
P-01-000239	CA-ALA-000503H	Leslie Salt Co. Plant One	Historic	Site containing standing structures, debris scatter, water conveyance system, roads, trails. Portion of site is approximately 900 ft from project boundary

Source: NWIC File No.: 23-0532

Field Survey

On December 13, 2023, GEI archaeologist Amy Wolpert, MA, conducted a pedestrian survey of the project site. The survey was conducted to intensive standards (transects spaced no more than 15 meters apart). An Eos Arrow 100® Submeter GNSS Receiver was carried to record the survey area and the location(s) of newly identified cultural or built environment resources - if observed. Field notes and photographs for the cultural resources survey were recorded with a Wildnote digital data form system on a mobile device. Digital maps used on Google Earth TM and paper maps were carried to ensure accurate survey coverage of the project boundary.

The survey area included a graveled access road, asphalt road, concrete pad, asphalt surface surrounding the Reservoir, a fenced (inaccessible) area used by the City of Fremont as a firing range, terraced earth, and some vegetated land. Areas not paved or graveled were closely inspected for cultural resources. Ground visibility was poor throughout the project boundary, ranging from 0 to approximately 25 percent. Because the ground visibility was poor, soils from burrowing animals were closely examined, when possible. Modern debris (plastics, glass, casings, paper/cardboard) were observed in the project boundary. Abandoned power lines are located in the northeast of the project boundary, east of the paved road. Old fence posts (wood and steel) with barbed wire were observed throughout the project boundary. One historic era (more than 45 years old) built environment resource, the Reservoir, was recorded and photographed during the pedestrian survey. Otherwise, nothing of cultural significance was observed during the archaeological pedestrian survey.

As part of the field survey, one historic era (more than 45 years old) built environment resource was identified and recorded, the Patterson Reservoir.

3.5.3 Discussion

a, b) Cause a substantial adverse change in the significance of a historical resource pursuant to in CCR Section 15064.5? Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?

Under CEQA, public agencies must consider the effects of their actions on historical resources. CEQA defines a historical resource as any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR). The CRHR includes resources listed in, or formally determined eligible for listing in the National Register of Historic Places (NRHP), as well as some California Historical Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR, and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (California PRC Section 5024.1, 14 CCR Section 4850).

A cultural resource may be eligible for listing in the CRHR if it:

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

In addition to meeting one or more of the above criteria, resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (OHP 1999).

Impacts would be deemed significant if there is substantial adverse change by means of physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. Per Section 15064.5 (b)(2) of the CEQA Guidelines the significance of a historical resource is materially impaired when a project:

1. demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR,
2. demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant, or
3. demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for the purposes of CEQA.

The Reservoir was built in 1962 and is in-ground and covered. The Reservoir does not appear to meet the criteria for the CRHR because of a lack of historical significance. Therefore, it is not considered a historical resource for the purposes of CEQA and the project would have no impact to known historical resources.

No previously reported archaeological resources were identified during the records search conducted at the NWIC. Likewise, no archaeological resources were identified during the pedestrian survey conducted by GEI. The Native American Heritage Commission (NAHC) indicated that there was a positive result from their Sacred Lands File. A Tribal representative with the Ohlone Indian Tribe contacted GEI archaeologists inquiring about the project but did not follow up with any concerns at present. There are no archaeological resources within the project area, and it does not appear that the project area is sensitive for archaeological resources. While unlikely, it is possible that historical resources or archaeological resources might be inadvertently discovered by project-related, ground-disturbing activities. If this were to happen it would be considered a **significant** impact to the environment. The following mitigation measures have been identified to address this impact.

Mitigation Measure CR-1: Worker Environmental Awareness Program (WEAP) Training for Cultural and Tribal Resources.

Cultural resources awareness training, as part of an overall Workers Environmental Awareness Program (WEAP), should be conducted for all construction personnel. The training should be conducted before any stages of physical project implementation and construction. Native American representatives from the Confederated Villages of Lisjan Nation (CVLN) will be invited to assist and comment in development of the cultural resources portion of the WEAP and to participate in the presentation of the WEAP.

The WEAP training should include information on the potential kinds of pre-contact Native American and historic-era cultural materials that could be encountered, how to identify buried faunal and human remains, and how to identify anthropogenic soils (e.g., midden soils). The WEAP training should also include a summary of the relevant laws concerning cultural resources and human remains, along with a summary of all protocols to follow if workers encounter cultural resources or human remains.

Timing: During construction activities.

Responsibility: ACWD and its construction contractor(s).

Mitigation Measure CR-2: Cultural Monitoring Plan

A Cultural Monitoring Plan shall be developed for the entire project site. This plan shall be developed through consultation between ACWD, and with the involvement of a project archaeologist(s) who meets Secretary of the Interior's Qualification Standards for Professional Archaeologist (SOI), and CVLN. The Cultural Monitoring Plan shall specify that if human remains are discovered, procedures for notification of the County Coroner and for the disposition of Native American human remains under Health and Safety Code Section 7050.5 and PRC 5097.5 shall be followed (See Mitigation Measure CR-4). Archaeological and Tribal monitors will have the authority to halt work within 100 feet of any potential find during monitoring in order to assess the potential find.

Monitoring may include dedicated fulltime archaeological and/or Tribal monitoring at and near areas that might be identified as having the most potential for encountering cultural and Tribal resources, to ensure that if an intact archaeological deposit is encountered during project-related ground-disturbing activities then appropriate treatment measures can be quickly developed and implemented. Less dedicated monitoring efforts such as spot monitoring (only periodic monitoring) may be implemented in areas determined to have very low probability in encountering cultural or Tribal resources. CVLN and archaeological monitors may, in consultation with one another and the lead agency, halt or reduce monitoring efforts if warranted by conditions such as encountering bedrock, or if sediments being excavated are imported fill. Any discovery of historical or archeological resources during construction within the project site will be addressed according to the procedures in Mitigation Measure CR-3.

Timing: Before and during construction activities.

Responsibility: ACWD and its construction contractor(s).

Mitigation Measure CR-3: Address Previously Undiscovered Historic Properties, Archaeological Resources, and Tribal Cultural Resources.

Previously undiscovered resources may be encountered during project-related, ground-disturbing activities. Therefore, an Unanticipated Discoveries Plan shall be developed in consultation with CVLN prior to the initiation of project construction. The Unanticipated Discoveries Plan shall address the accidental discovery of archaeological and Tribal resources including issuance of a stop work order and establishment of a no work zone in the immediate vicinity of the find if warranted. In the event of an inadvertent discovery on-site archaeological and Tribal monitors will make a quick assessment of the find to determine if work can continue or if further investigation is warranted. If further investigation is determined to be necessary then ACWD and the lead agency will be immediately notified. If either an archaeological or Tribal monitor are not present at the time of the discovery, a qualified archaeologist, who meets the SOI qualifications and a CVLN representative, shall visit the discovery site as soon as practicable for identification and evaluation pursuant to CEQA Guidelines Section 15064.5. If it is determined the find is not a “historical” or “unique archaeological” resource and if CVLN determine that the find is not a Tribal Cultural Resource, and thus not significant, construction may resume. If the archaeologist determines that the archaeological find is significant or potentially significant, the archaeologist shall determine if the find can be avoided and, if so, shall detail avoidance procedures. If the archaeological find cannot be avoided, the archaeologist in consultation with participating Tribes shall develop an Action Plan within 48 hours which shall include provisions to minimize impacts and, if required, a Resource Treatment Plan.

The preferred treatment for impacts to archaeological sites, including those identified as Tribal Cultural Resources, is avoidance, as directed under CEQA Guidelines 15126.4(b)(93)(b)(1). Not all archaeological sites that may be encountered may be able to be avoided. The Resource Treatment Plan will be developed consistent with requirements in the CEQA Guidelines Section 15126.4(b). If archaeological data recovery is included in the Treatment Plan, the Plan shall include a research design to identify research questions as the focus of data recovery efforts and detail the field and laboratory methods to address the questions. The Treatment Plan shall also include a specific discussion of the methods and level of effort at each site for data recovery excavation, which are an acceptable form of mitigation under Section 15126.4(b)(3)(c) of the CEQA Guidelines. Specific plans for Tribal Cultural Resources shall be prepared in consultation with CVLN.

Timing: During construction activities.

Responsibility: ACWD and its construction contractor(s).

Implementation of Mitigation Measure CR-1, CR-2, and CR-3 would reduce impacts related to discovery of unknown historical and archaeological resources to a less than significant level because cultural resources awareness training, would be conducted for all construction personnel, a cultural monitoring plan would be developed and implemented, and any findings would be assessed by an archaeologist, and the treatment or investigation would be conducted in

accordance with CEQA and its implementing guidelines. Therefore, the proposed project would have a **less-than-significant impact with mitigation incorporated**.

c) Disturb any human remains, including remains interred outside of dedicated cemeteries?

No human remains have been discovered in the project area and it is not anticipated that human remains, including those interred outside of dedicated cemeteries, would be discovered during project-related ground-disturbance activities. There is no indication from the records searches or pedestrian survey that human remains are present on the project site. However, if human remains, including those interred outside of formal cemeteries and including associated items and materials, are discovered during subsurface activities, the human remains, and associated items and materials could be inadvertently damaged. This impact is considered **significant**. The following mitigation measure has been identified to address this impact:

Mitigation Measure CR-4: Avoid Potential Effects on Undiscovered Burials.

If human remains are found, the California Health and Safety Code (CHSC) requires that excavation be halted in the immediate area and that the County Coroner be notified to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (CHSC Section 7050.5[b]). If the Coroner determines that the remains are those of a Native American, the Coroner must contact the NAHC by telephone within 24 hours of making that determination (CHSC Section 7050.5[c]).

Once notified by the Coroner, the NAHC shall identify the person it believes is the Most Likely Descendant (MLD) of the Native American remains. With permission of the legal landowner(s), the MLD may visit the site and make recommendations regarding the treatment and disposition of the human remains and any associated grave goods. This visit should be conducted within 24 hours of the MLD's notification by the NAHC (California Public Resources Code [PRC], Section 5097.98[a]). If a satisfactory agreement for treatment of the remains cannot be reached, any of the parties may request mediation by the NAHC (PRC, Section 5097.94[k]). Should mediation fail, the landowner or the landowner's representative must reinter the remains and associated items with appropriate dignity on the property in a location not subject to further subsurface disturbance (PRC, Section 5097.98[b]).

Timing: During construction activities.

Responsibility: ACWD and its construction contractor(s).

Implementation of Mitigation Measure CR-4 would reduce impacts related to discovery of human remains to a less than significant level because any inadvertent discovery of human remains would be addressed as proscribed by State law and the MLD would be consulted. Therefore, the proposed project would have a **less-than-significant impact with mitigation incorporated**.

3.6 Energy

6. ENERGY. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
6 -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		
6 -b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?			Less-than-Significant Impact		

3.6.1 Environmental Setting

PG&E provides electric and gas service to the City of Fremont. PG&E is a leader in its use of renewable, non-polluting energy sources, therefore, energy used by the City of Fremont and its residents is on average much less polluting than an equivalent amount of energy used by a city and its residents in other regions of the country, where a greater percentage of power comes from combustion of hydrocarbons (coal, natural gas, etc.) (City of Fremont 2011). In 2022, PG&E power mix accounted for approximately 38.3 percent renewable energy from PG&E-owned generation and power purchases (PG&E 2022). According to the California Energy Commission, Alameda County consumed approximately 10,396 million kilowatts per hour in 2022 (CEC 2022).

3.6.2 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The project would involve the use of gas- and diesel-fueled vehicles and equipment during construction activities, and from import and export of materials to and from the project site. Construction activities would occur over a 6-month construction period. See Table 2-1 within Chapter 2, “Project Description,” for information regarding construction equipment use during each stage of construction of the proposed project. The project’s use of energy resources during construction would be non-recoverable but temporary, and would not include unnecessary, inefficient, or wasteful energy use. Project construction would temporarily increase fuel consumption; however, it is anticipated that fuel would only be used to the extent it is needed to complete construction activities and would not be consumed in a wasteful manner during construction. Additionally, the selected construction contractor(s) would use the best available engineering techniques, construction practices, and equipment operating procedures.

Implementation of the proposed project would require the relocation of existing utilities; however, the project itself would not change the use of these utilities or include energy-consuming structures or facilities and would not change existing reservoir operations. Therefore, the project's energy consumption for construction and operations would not be considered wasteful, inefficient, or unnecessary and this impact would be **less than significant**.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

As described in impact a) above in this section, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy. The project would allow the continued operation of critical water supply infrastructure by the ACWD. After construction, the project would operate similar to existing conditions and would not generate any increased electricity demands. Therefore, the project would not conflict with State or local plans for renewable energy or energy efficiency. This impact would be **less than significant**.

3.7 Geology and Soils

7. GEOLOGY AND SOILS. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
7 -a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			Less than Significant		
7 -a. 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 California Geological Survey Special Publication 42.)			Less than Significant		
7 -a. ii. Strong seismic ground shaking?			Less than Significant		
7 -a. iii. Seismic-related ground failure, including liquefaction?			Less than Significant		
7 -a. iv. Landslides?			Less-than-Significant Impact		
7 -b. Result in substantial soil erosion or the loss of topsoil?			Less-than-Significant Impact		
7 -c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			Less-than-Significant Impact		
7 -d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated),), creating substantial direct or indirect risks to life or property?			Less-than-Significant Impact		
7 -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?				No Impact	
7 -f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			Less than Significant		

3.7.1 Environmental Setting

Seismic and Geologic Hazards

The San Francisco Bay Area is one of the most seismically active regions of the United States. An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the project site. The degree of shaking is dependent on the magnitude of the event, the distance to its zone of rupture and local geological conditions. The nearest active fault is the Hayward fault line located approximately 6.6 miles east of the project site (CGS 2015). There are no Alquist-Priolo fault zones located within the project site (CGS 2021). Additionally, the project site is located within liquefaction and landslide zone (CGS 2021).

Geology and Soils

The project site is located on the following soil types (NRCS 2023):

1. Contra Costa clay loam;
2. 30 to 50 percent slopes, Omni silty clay loam, drained;
3. Pescadero clay, drained;
4. Pescadero clay, ponded;
5. Quarry; and
6. 30 to 50 percent slopes, Vallecitos-rock outcrop complex.

Paleontological Resources

Paleontological resources are the fossilized remains or impressions of plants and animals, including vertebrates (animals with backbones; mammals, birds, fish, etc.), invertebrates (animals without backbones; starfish, clams, coral, etc.), and microscopic plants and animals (microfossils). They are valuable, nonrenewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. The project site and adjacent hills are underlain by contorted rocks of the Franciscan Complex, which include greenstone, graywacke, radiolarian chert, and serpentinite (Helley and Miller, 1992). This Franciscan Complex is Jurassic to Cretaceous-aged assemblage primarily comprised of marine sedimentary, metamorphic, and volcanic rocks. No known paleontological resources are located within the project area.

3.7.2 Discussion

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**

The project site is not located within an Alquist-Priolo Earthquake Fault Zone; however, it is adjacent to the active Hayward fault line (City of Fremont 2011). The proposed project is unlikely to affect surface fault ruptures or increase risk of loss, injury, or death from surface fault ruptures, due to the limited impact of construction beyond surface level activity. The project would result in a **less-than-significant** impact.

ii, iii, iv) Strong seismic ground shaking, Seismic-related ground failure, including liquefaction, or Landsides?

The San Francisco Bay Area is one of the most seismically active regions of the United States. There are no Alquist-Priolo fault zones located within the project site (CGS 2021). Additionally, the project site is located within liquefaction and landslide zone (CGS 2021). In the event of seismic activity, the project area may be at risk of damage related to ground shaking or ground failure (i.e. liquefaction and/or landslides). Shaking potential in the project area ranges from strong to violent (City of Fremont 2011).

During proposed project construction activities, strong ground shaking could expose persons working in the project area to seismic hazards while operating heavy equipment. The ACWD and its contractors would be required to adhere to all Division of Occupational Safety and Health (CAL/OSHA) requirements for working within active construction sites, which would ensure the safety of all construction workers onsite.

The earthen berms would be constructed near relatively steep slopes where landslides could occur; however, the project would comply with the Fremont Building Code, which is based on the 2022 California Building Code (CBC). The City of Fremont Building Code adheres to 2022 CBC Section 1804 "Excavation, Grading, and Fill," with slight amendments regarding slopes for permanent fill and excavation. All project facilities would be designed in accordance with the requirements of the City of Fremont Building Code, which would prevent potential impacts from ground shaking or ground failure. (City of Fremont 2024).

The proposed project does not include permanent structures that would house people. Therefore, the project would not result in a significant impact to people or structures from potential seismic ground shaking or ground failure as a result of implementation of the proposed project. This impact would be **less than significant**.

b) Result in substantial soil erosion or the loss of topsoil?

Construction activities would result in short-term soil disturbance and could expose disturbed areas if a storm event occurs during construction. Rainfall of sufficient intensity could dislodge soil particles from the soil surface. If particles are dislodged and the storm is large enough to generate runoff, substantial localized erosion could occur. In addition, soil disturbance could result in substantial loss of topsoil from wind erosion.

The ACWD would prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) to prevent and control pollution and to minimize and control runoff and erosion in compliance with State and local laws. The SWPPP would identify the activities that may cause pollutant discharge (including sediment) during storms or strong wind events, techniques to control pollutant discharge, and an erosion control plan. Topsoil may be stripped and stockpiled onsite for later reuse. Additionally, BMPs would be implemented to reduce fugitive dust at the project site (refer to Mitigation Measure AQ-1 for more information), which would further minimize the loss of topsoil during construction. With the implementation of a SWPPP and BMPs, the impacts from the proposed project would be **less than significant**.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

During project construction activities, unstable soils could expose persons working in the project area to hazards while operating heavy equipment. The ACWD and its contractors would be required to adhere to all Cal/OSHA requirements for working within active construction sites that would ensure the safety of all construction workers onsite.

As discussed previously, the proposed project design would comply with the City of Fremont Building Code, which regulates the design of projects to reduce potential hazards, including landslides, lateral spreading, subsidence, liquefaction or collapse. Therefore, relative to existing conditions, the proposed project would not expose people or structures to new potential substantial adverse effects related to unstable soils. Impacts would be **less than significant**.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

The project area is within the San Francisco-San Jose quadrangle, as defined by California Geological Survey (CGS), and is comprised of peaty mud from intertidal deposits (CGS 1991). Specifically, it is underlain with varieties of clay loam, quarry, and rock outcropping (NRCS 2022). The clay present in the project area may be considered expansive soil. However, as discussed above, the proposed project design would comply with the City of Fremont Building Code, which regulates the design of projects to reduce potential impacts, including building upon expansive soils. For these reasons, this impact would be **less than significant**.

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?

The proposed project would not require the use of septic tanks or alternative wastewater disposal systems. During project implementation, the contractor may have portable toilet facilities available onsite temporarily for use by construction workers. Once project-related construction activities are concluded, such portable facilities would be removed, and the wastewater properly handled and disposed of in accordance with all applicable laws and regulations. There would be **no impact** associated with wastewater disposal.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The project site and adjacent hills are underlain by the Franciscan Complex, which is Jurassic to Cretaceous-aged assemblage primarily comprised of marine sedimentary, metamorphic, and volcanic rocks. There have been known occurrences of invertebrate fossils, however, vertebrae fossils are considered rare in this Complex (Bailey et al. 1964),

Due to the rarity of scientifically significant fossils in the Franciscan Complex, this Complex is considered to have low paleontological sensitivity. Additionally, soils at the site have previously been disturbed due to construction of the existing facilities, and the project does not include intensive ground disturbance. Therefore, there would be **less than significant**.

3.8 Greenhouse Gas Emissions

8. GREENHOUSE GAS EMISSIONS. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
8 -a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			Less-than-Significant Impact		
8 -b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			Less-than-Significant Impact		

3.8.1 Environmental Setting

Greenhouse gas (GHG) emissions are defined as carbon dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. Senate Bill 32 (Health & Safety Code § 38566) set a Statewide emission reduction mandate of 40 percent below 1990 levels by 2030. CARB was appointed to develop policies to achieve this goal. Additionally, Executive Order B-55-18 set a target of Statewide carbon neutrality by 2045 (State of California 2018). In 2022, CARB published an updated Climate Change Scoping Plan, the 2022 Scoping Plan for Achieving Carbon Neutrality (CARB 2022).

GHGs are present in the atmosphere naturally, released by natural and human-caused sources, and formed from secondary reactions taking place in the atmosphere. Human sources include emissions associated with the transportation, industrial and manufacturing, utility, residential, commercial, and agricultural sectors. Evidence has shown that GHG emissions from locations around the world contribute to global climate change, which could have drastic impacts related to flooding and other natural disasters, agriculture, habitats, water supply, and the economy.

In 2023, the City of Fremont adopted the *Climate Ready Fremont, an Update to the Climate Action Plan* (City of Fremont 2023). The 2023 *Climate Ready Fremont* serves as an update to the City of Fremont 2012 CAP which established a roadmap for achieving the sustainability vision of the General Plan through the implementation of local measures that together would reduce community-wide GHG emissions by 30 percent below 2018 levels (or 55 percent below 2005 levels) by the year 2030.

3.8.2 Discussion

a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

The BAAQMD has not adopted thresholds of significance for construction-related GHG emissions. The proposed project includes construction of two earthen berms and utility relocation. Project construction would temporarily generate GHG emissions from exhaust associated with on-site equipment operation, material hauling, and worker vehicle trips over the 6-month construction period. However, the project would not create an ongoing source of GHG emissions. Therefore, this impact would be considered **less than significant**. Additionally, implementing Mitigation Measure AIR-1 would further reduce GHG emissions from construction activities.

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

The City of Fremont's *Climate Ready Fremont* identifies specific and achievable strategies for reducing GHG emissions in the city. The document includes 31 strategies that are organized under the following eight focus areas: buildings and energy, infrastructure and equipment, land use and mobility, materials and waste, natural and urban landscapes, adaptation and resiliency, green and circular economy, and public participation and engagement. As described above, the proposed project would not result in substantial GHG emissions due to project implementation. The proposed project would allow for continued operation of the Reservoir in a safe manner, consistent with existing conditions. Therefore, the proposed project would not conflict with existing GHG laws, plans, policies, or regulations adopted for the purpose of reducing emissions of GHG, and this impact would be **less than significant**.

3.9 Hazards and Hazardous Materials

9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
9 -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 with Mitigation Incorporated			
9 -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 with Mitigation Incorporated			
9 -c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				No Impact	
9 -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	
9 -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 or excessive noise for people residing or working in the project area?				No Impact	
9 -f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				No Impact	
9 -g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				No Impact	

3.9.1 Environmental Setting

The California Office of Emergency Services oversees State agencies and programs that regulate hazardous materials (Health and Safety Code, Article 1, Chapter 6.95). A hazardous material is 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 environment.

Hazardous Material Sites

A database search of all data sources included in the Cortese List (enumerated in PRC Section 65962.5) was conducted for the project. These sources include the GeoTracker database, a groundwater information management system that is maintained by the State Water Resources Control Board (SWRCB); the Hazardous Waste and Substances Site List (i.e., the EnviroStor database), maintained by the California Department of Toxic Substances Control (DTSC); and EPA's Superfund Site database (DTSC 2024a and 2024b, SWRCB 2024a and 2024b, CalEPA 2024, EPA 2024). There were no hazardous materials sites identified within 0.25 mile of the project site. The project site is not located in an area identified as more likely to contain asbestos by the DOC (DOC 2000).

The City of Fremont Police Department Training Facility abuts the Reservoir at the northwest corner and is frequently used as a shooting range for short-range shooting practice sessions. In 2021, soil sampling at the Police Department Training Facility were collected and analyzed, and the results indicated levels of antimony, arsenic, copper, and lead, above their respective San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (ESLs) for direct exposure human health risk levels for residential and/or commercial land (SFBRWQCB 2019). Additionally, the staging area located adjacent to the Police Department Training Facility includes a mound of earthen material of unknown source.

In 2025, the GEI Consultants conducted additional soil testing on behalf of ACWD to evaluate the potential for encountering hazardous materials at the project site, specifically the eastern berm and staging area, during material movement and ground disturbing activities (GEI Consultants, 2025). Soil samples were analyzed for California Administrative Manual (CAM) 17 metals and CCR Title 22 metals. The samples were evaluated against the 2025 ESL for direct exposure of construction workers, including cancer risk and non-cancer hazard. All soil samples are classified as non-hazardous because results show that all metal concentrations are below CAM 17 and CCR Title 22 Total Threshold Limit Concentration and applicable Soluble Threshold Limit Concentration. However, all 10 locations exceeded the ESLs for direct exposure of construction workers, including cancer risk and non-cancer hazard level for arsenic and/or cobalt. Additionally, nickel exceeded the non-cancer hazard level at 3 out of 10 locations.

Schools

There are no schools located within 0.25 mile of the project site. The nearest school facility to the project is Lincoln Elementary School, which is located approximately 1.6 miles southeast of the project site.

Airports

There are no airports located within 2 miles of the project site. The nearest airport is the Palo Alto Airport, which is located approximately 6.4 miles southwest of the project site.

Emergency Operations, Response and Evacuation

The City of Fremont currently does not have an adopted emergency operation or evacuation plan. However, the City of Fremont has prepared the *Tri-City Multi-jurisdictional Local Hazard Mitigation Plan* in partnership with the City of Newark, City of Union City, Alameda County Water District, and Union Sanitary District to reduce long-term risk and loss to people and property in the Tri-City area, and bolster community resilience in the face of future natural disasters (City of Fremont 2024). The *Tri-City Multi-jurisdictional Local Hazard Mitigation Plan* is currently in the review stage and has yet to be approved.

Wildland Fires

The project site is not located within a fire hazard severity classification of very high (CAL FIRE 2023). The project site, and surrounding area, is classified as Local Responsibility Area (LRA) unzoned (CAL FIRE 2023).

3.9.2 Discussion

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

Project construction activities would involve the storage, transport, and use of small amounts of hazardous substances necessary to operate and maintain construction vehicles and equipment such as oils, lubricants, and fuel. The routine use or an accidental spill of these hazardous materials could result in inadvertent releases, which could adversely affect construction workers, the public, and the environment.

The transport and use of hazardous materials are strictly regulated by local, State, and Federal agencies to minimize adverse hazards from accidental release. The EPA, DTSC, California Highway Patrol (CHP), and Caltrans implement and enforce State and Federal laws regarding hazardous material transportation. Contractors would be required to use, store, and dispose of any hazardous materials in accordance with all applicable regulations.

Furthermore, project workers handling hazardous materials are required to adhere to Cal/OSHA health and safety requirements. Since compliance with existing hazardous materials regulations and programs are mandatory, project construction activities are not expected to create a

potentially significant hazard to construction workers, the public, or the environment. In the event of a spill that releases hazardous materials within the project area, a coordinated response would occur at the Federal, State, and local level, depending on the location. In the event of a hazardous materials spill, local fire and police services would be simultaneously notified and sent to the scene to assess and respond to the situation.

The proposed project would not involve routine or long-term transport or disposal of hazardous materials, after construction. After construction of the project, operations of the reservoir would occur under existing conditions and no new acutely hazardous materials would be required because of the project. However, the potential for accidental spill or release of hazardous materials during project construction is a **significant** impact. The following mitigation measure have been identified to address this impact.

Mitigation Measure HAZ-1: Implement a Spill Prevention Control and Countermeasures Plan for Storage, Use, and Transport of Hazardous Materials during Construction Activities.

ACWD will implement a Spill Prevention Control and Countermeasures Plan (SPCCP).

- **Prepare and Implement a Spill Prevention Control and Countermeasures Plan.** ACWD will prepare a SPCCP or require its contractor to prepare a SPCCP and the contractor will implement the SPCCP. The SPCCP and all material necessary for its implementation will be accessible onsite prior to initiation of project construction and throughout the construction period. The SPCCP will include a plan for the emergency cleanup of any spills of fuel or other material. Employees/construction workers will be provided with the necessary information from the SPCCP to prevent or reduce the discharge of pollutants from construction activities to waters and to use the appropriate measures should a spill occur. ACWD will direct the contractor to immediately stop work in the area in the event of a hazardous materials spill onto the land or in waters and ACWD will notify appropriate Federal, State, and local agencies as may be required by law for the type, quantity, and location of the particular spill. In addition, ACWD will require its contractor to implement the following additional BMPs as part of the SPCCP for the project:
 - Designate a supervisor to oversee and enforce proper spill prevention measures.
 - Provide spill response and prevention education for employees and subcontractors.
 - Stock appropriate clean-up materials onsite near material storage, unloading, and use areas.
 - Designate hazardous waste storage areas away from storm drains or watercourses.
 - Minimize production or generation of hazardous materials onsite or substitute materials used onsite with less hazardous materials.

- **Dispose of All Construction-related Debris and Materials at an Approved Disposal Site.** All debris, litter, unused materials, sediment, rubbish, vegetation, or other material removed from the construction areas that cannot reasonably be secured will be removed daily from the project work area and deposited at an appropriate disposal or storage site.
- **Use Safer Alternative Products to Protect Waters.** Every reasonable precaution will be exercised to protect waters from pollution with fuels, oils, and other harmful materials. Safer alternative products (such as biodegradable hydraulic fluids) will be used, where feasible.
- **Prevent Any Contaminated Construction By-products from Entering Flowing Waters; Collect and Transport Such By-products to an Authorized Disposal Area.** Petroleum products, chemicals, fresh cement, and construction by-products containing, or water contaminated by, any such materials will not be allowed to enter the Reservoir, streams, rivers, or other waters and will be collected and transported to an authorized upland disposal area or off-site for disposal at a facility accepting these materials.
- **Prevent Hazardous Petroleum or Other Substances Hazardous to Aquatic Life from Contaminating the Soil or Entering Waters.** Gas, oil, other petroleum products, or any other substances that could be hazardous to aquatic life and resulting from project-related activities, will be prevented from contaminating the soil and/or entering waters.
- **Properly Maintain All Construction Vehicles and Equipment and Inspect Daily for Leaks; Remove and Repair Equipment/Vehicles with Leaks.** Construction vehicles and equipment will be properly maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. Vehicles and equipment will be checked daily for leaks. If leaks are found, the equipment will be removed from the site and will not be used until the leaks are repaired.
- **Refuel and Service Equipment at Designated Refueling and Staging Areas.** Equipment will be refueled and serviced at designated refueling and staging sites. All refueling, maintenance, and staging of equipment and vehicles will be conducted in a location where a spill will not drain directly toward aquatic habitat. Appropriate containment materials will be installed to collect any discharge, and adequate materials for spill cleanup shall be maintained onsite throughout the construction period.
- **Store Heavy Equipment, Vehicles, and Supplies at Designated Staging Areas.** All heavy equipment, vehicles, and supplies will be stored at the designated staging areas at the end of each work period.
- **Install an Impermeable Membrane between the Ground and Any Hazardous Material in Construction Storage Areas.** Storage areas for construction material that contains hazardous or potentially toxic materials will have an impermeable

membrane between the ground and the hazardous material and will be bermed as necessary to prevent the discharge of pollutants to groundwater and runoff water.

- **Use Only Nontoxic Materials and Materials with No Coatings or Treatments Deleterious to Aquatic Organisms for Placement in Any Waters.** All materials placed in streams, rivers, or other waters will be nontoxic and will not contain coatings or treatments or consist of substances deleterious to aquatic organisms that may leach into the surrounding environment in amounts harmful to aquatic organisms.

Timing: During construction activities.

Responsibility: ACWD and its construction contractor(s).

Implementation of Mitigation Measure HAZ-1, along with compliance with State and Federal regulations, adherence to Cal/OSHA, and coordination with local fire and police services, would reduce the potential impact from accidental spills or exposure to hazardous materials during routine use, transport, or disposal to occur. Therefore, this impact would be **less-than-significant with mitigation incorporated**.

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?

Ground disturbing activities associated with the east berm has the potential to encounter soils containing arsenic, copper, and nickel above ESL for direct exposure of construction workers, including cancer risk and non-cancer hazards. As such, construction workers should utilize Cal/OSHA required best management practices and implement appropriate safety precautions, such as employee training, use of personal protective equipment, implementing an inquiry and illness prevention program, posting safety and health protection onsite, keeping detailing injury records, and reporting serious injuries to Cal/OSHA, when working with these soils. The existing mound of soil located within the staging area could be graded flat by the contractor for the purpose of developing the staging area.

During construction activities, construction workers that may directly or indirectly be exposed to contaminated onsite soil would perform work in accordance with Cal/OSHA regulations. Therefore, this impact is considered **less than significant**.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Because there are no schools within 0.25 mile of the project area, implementation of the proposed project would not have the potential to emit hazardous emissions or handle hazards near a school. There would be **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?**

The project site is not identified on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. There would be **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 or excessive noise for people residing or working in the project area?**

The project site is not located within an airport land use plan or within two miles of a public airport or public use airport. There would be **no impact**.

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

The project would not include any road closures or significantly increase vehicles on roadways; therefore, it would not impair or physically interfere with emergency response or evacuation. Additionally, the City of Fremont does not have an adopted emergency response plan or emergency evacuation plan. There would be **no impact**.

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

The project site is not located with a fire hazard severity classification of very high (CAL FIRE 2023). The project site is classified as Local Responsibility Area (LRA) unzoned (CAL FIRE 2023). The proposed project would not substantially change operations and maintenance at the project site, and construction activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. There would be **no impact**.

3.10 Hydrology and Water Quality

10. HYDROLOGY AND WATER QUALITY. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
10 -a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		Less-than-Significant Impact with Mitigation Incorporated			
10 -b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				No Impact	
10 -c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:		Less-than-Significant Impact with Mitigation Incorporated			
10 -c. i. result in substantial erosion or siltation on- or off-site;		Less-than-Significant Impact with Mitigation Incorporated			
10 -c. ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;		Less-than-Significant Impact with Mitigation Incorporated			
10 -c. 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		Less-than-Significant Impact with Mitigation Incorporated			
10 -c. iv. impede or redirect flood flows?		Less-than-Significant Impact with Mitigation Incorporated			
10 -d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			Less-than-Significant Impact		
10 -e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				No Impact	

3.10.1 Environmental Setting

Surface Water Hydrology

The Reservoir is located at the terminus of the Livermore Valley Canal and provides offline storage for Alameda County Flood Control and Water Conservation's District 7 Treatment Plant. From the Reservoir, located near Livermore, the South Bay Aqueduct delivers water to Lake Del Valle and to its terminus at the Santa Clara Terminal Reservoir in San Jose (DWR 2024).

Groundwater

The project area is in the South Bay Hydrologic Basin Planning Area, the Santa Clara Valley Groundwater Basin, and the Niles Cone subbasin (2-9.01), as designated by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). The DWR *California's Groundwater Update 2020 Highlights* designates the Santa Clara Valley Niles Cone subbasin as "Medium Priority" (DWR 2021). The ACWD developed an Alternative to a Groundwater Sustainability Plan (GSP) for the management of the Niles Cone subbasin in compliance with the Sustainable Groundwater Management Act (SGMA). The Alternative to a GSP continues groundwater management under pre-existing authority by which ACWD carries out groundwater management efforts within Niles Cone, in addition to the authorities of a GSP under SGMA and shows that ACWD has managed the Niles Cone sustainably for decades, meeting the objective of SGMA.

No known municipal, domestic, or industrial groundwater supply wells are located at the project site. The nearest known Groundwater Ambient Monitoring and Assessment well is owned by ACWD and is located approximately 0.3 mile east of the project site (DWR 2020a).

Water Quality

In accordance with the CWA Section 303, water quality standards for this basin are contained in the Water Quality Control Plan for the San Francisco Basin (SFBRWQCB 2021). The SWRCB is required under CWA Section 303(d) to prepare a list of water bodies (also known as the 303[d] list) that do not meet applicable water quality. The Reservoir and waterbodies that flow into the Reservoir are not listed as impaired (SWRCB 2018).

Flood Hazards

The project site is mapped by Federal Emergency Management Agency as Zone X, which includes areas determined to be outside the 0.2 percent annual change floodplain. There are no areas associated with the project site that are mapped as special flood hazard areas (FEMA 2009). The project site is located within a dam inundation zone (DWR 2020b). Additionally, the project site is located within a Tsunami zone (CGS 2022).

3.10.2 Discussion

a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

The project does not propose uses that would violate water quality standards, waste discharge requirements, or otherwise degrade surface or groundwater. However, the proposed project would include earthwork activities such as demolition, excavation, and grading, which would involve the disturbance and exposure of surface soils. As such, exposed soils could increase erosion and sedimentation in surface runoff during storm events. In addition, construction activities would involve the use of chemicals and solvents such as fuel and lubricating grease for motorized heavy equipment, which could accidentally spill and subsequently impact stormwater quality (for more discussion of this topic refer to Section 3.9, “Hazards and Hazardous Materials.”) There is potential for stormwater to transport sediment and/or hazardous materials to the Reservoir. Impacts to water quality from construction activities would be **significant**. The following mitigation measures have been identified to address these impacts.

Mitigation Measure HWQ-1: Prepare and Implement a Stormwater Pollution Prevention Plan and BMPs to Reduce Erosion.

Construction activities would be subject to SWRCB’s General Permit for Discharges of Storm Water Associated with Construction Activity (Order No. 2009-0009-DWQ, NPDES NO. CAS000002) (2009-0009-DWQ) to meet construction-related stormwater permit requirements of the NPDES program. Any permits will be obtained by ACWD or its contractor(s) before commencing ground-disturbing construction activity. The General Permit also requires preparing and implementing a SWPPP that identifies BMPs to prevent or minimize the introduction of contaminants into surface waters. Such BMPs could include, but would not be limited to, silt curtains, silt fencing, straw bale barriers, fiber rolls, storm drain inlet protection, hydraulic mulch, and a stabilized construction entrance. The SWPPP will include development of site-specific structural and operational BMPs to prevent and control impacts on runoff quality, measures to be implemented before each storm event, inspection, maintenance of BMPs, and monitoring of runoff quality by visual and/or analytical means.

Timing: Before and during construction.

Responsibility: ACWD and its contractor(s).

Mitigation Measure HAZ-1: Implement a Spill Prevention Control and Countermeasures Plan and Other BMPs for Storage, Use, and Transport of Hazardous Materials during Construction Activities.

Please refer to Mitigation Measure HAZ-1 in Section 3.9, “Hazards and Hazardous Materials,” for the full text of this mitigation measure.

Timing: During construction activities.

Responsibility: ACWD and its construction contractor(s).

Implementing Mitigation Measures HWQ-1 and HAZ-1 would reduce construction-related impacts to water quality by requiring preparation and implementation of a SWPPP along with other measures specifically designed to prevent erosion and siltation during construction, preparation and implementation of a SPCCP, and BMPs to reduce the risk of accidental spills. Furthermore, standard permit conditions addressing water quality will be required by the SFBRWQCB and implemented by ACWD. Compliance with the NPDES permit requires submittal to the SFBRWQCB of notices of intent to discharge, and implementation of a SWPPP and BMPs to minimize water quality degradation during construction activities. By applying the measures described above and implementing permit conditions required by the SFBRWQCB, the proposed project would not violate water quality standards or create or contribute stormwater runoff that would substantially degrade water quality. Therefore, the mitigation measures would reduce potentially significant impacts to water quality associated with project construction to **less-than-significant with mitigation incorporated.**

b, e) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

While the project area is included in a medium-priority basin and therefore, ACWD is responsible for the implementation of a GSP under SGMA, the proposed project would not use groundwater supplies during construction or operation. Therefore, the project would not decrease groundwater supplies or interfere with the implementation of any sustainable groundwater management plan. The proposed project would have **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 which would:

i, ii, iii, iv) Result in substantial erosion or siltation on- or off-site; Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; 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 impede or redirect flood flows? sources of polluted runoff?

The project area would introduce a small amount of new impervious surfaces from paving on the new roadway; however, it is unlikely that this change would alter the existing drainage pattern of the project site. The drainage infrastructure would enable stormwater to flow around or through the site in a manner that would prevent erosion, siltation, flooding, polluted runoff, or the exceedance of stormwater drainage systems capacities.

Implementation of the proposed project components would require temporary earth-moving activities which would alter the topography of the project area. As discussed above in Question (b) in Section 3.7, “Geology and Soils,” and Question (a) in Section 3.10, “Hydrology and Water Quality,” project construction activities have the potential to result in erosion or siltation, flooding, and polluted runoff into nearby waterbodies. Therefore, any of these potential impacts would be **significant**. The following mitigation measures have been identified to address these impacts.

Mitigation Measure HWQ-1: Prepare and Implement a Stormwater Pollution Prevention Plan and BMPs to Reduce Erosion.

Please refer to Mitigation Measure HWQ-1 above in this section, for the full text of this mitigation measure.

Timing: Before and during construction.

Responsibility: ACWD and its contractor(s).

Mitigation Measure HAZ-1: Implement a Spill Prevention Control and Countermeasures Plan and Other BMPs for Storage, Use, and Transport of Hazardous Materials during Construction Activities.

Please refer to Mitigation Measure HAZ-1 in Section 3.9, “Hazards and Hazardous Materials,” for the full text of this mitigation measure.

Timing: During construction activities.

Responsibility: ACWD and its construction contractor(s).

Implementing Mitigation Measures HWQ-1 and HAZ-1 would reduce construction-related impacts by requiring preparation and implementation of a SWPPP along with other measures specifically designed to prevent erosion and siltation during construction, preparation and implementation of a SPCCP, and BMPs to reduce the risk of accidental spills. By applying the measures described above, the proposed project would not substantially alter the existing drainage pattern of the project area in a way such that substantial erosion or siltation would occur on-site or off-site. Therefore, impacts would be **less-than-significant with mitigation incorporated**.

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

There are no areas associated with the project site that are mapped as special flood hazard areas (FEMA 2011). However, the project site is located within an identified tsunami risk area and dam inundation area (CGS 2022 and DWR 2020b). Further, because the Reservoir is a large body of water, a seiche could occur following a seismic event. If a tsunami, dam inundation, or seiche were to occur, it could risk the release of pollutants due to project inundation. However, a SWPPP would be prepared and implemented during construction activities to ensure proper

handling of chemicals and avoid release of pollutants to the project site in the event of one of these natural disasters. Further, evacuation would occur per the *City of Fremont Tri-City Multi-Jurisdictional Local Hazard Mitigation Plan*. The project does not include components that would change or exacerbate the potential for a tsunami, dam inundation, or seiche to occur at the project site. Therefore, the project would not increase the likelihood that pollutants are released. This impact would be considered **less than significant**.

3.11 Land Use and Planning

11. LAND USE AND PLANNING. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
11 -a. Physically divide an established community?				No Impact	
11 -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	

3.11.1 Environmental Setting

The project site is located at the Reservoir, on land designated as Open Space – Resource Conservation and Public Open Space and zoned for Open Space (City of Fremont 2024). The Open Space – Resource Conservation and Public category includes spaces owned by public or quasi-public agencies other than the City of Fremont. Open spaces with this designation include regional parks such as Coyote Hills, and land owned by the San Francisco Public Utilities Commission (Hetch Hetchy Aqueduct), the Ohlone Community College District, and the USFWS (Don Edwards Wildlife Refuge). This designation also includes PG&E transmission line rights-of-way and Alameda County Flood Control and Water Conservation District easements and rights-of-way (City of Fremont 2011).

3.11.2 Discussion

a) Physically divide an established community?

The physical division of an established community generally refers to the construction of a feature such as an interstate highway or railroad tracks, or removal of a means of access, such as a local road or bridge that would impact mobility within an existing community or between a community and outlying area. Given that the project site is not located within or adjacent to a community, and would not construct any permanent, linear physical structures, the proposed project would result in **no impact** in regard to the physical division of an established community.

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?

The proposed project consists of construction of two earthen berms and relocation of utilities. There would be no change in land use associated with implementation of the project. Proposed project activities would not conflict with any provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or State HCP project, and therefore, the project would not conflict with land use plans or policies adopted for the purpose of avoiding or mitigating an environmental effect. See Section 3.4 “Biological Resources,” for further discussion. There would be **no impact**.

3.12 Mineral Resources

12. MINERAL RESOURCES. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
12 -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	
12 -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	

3.12.1 Environmental Setting

In compliance with the Surface and Mining Reclamation Act, the California Geologic Survey established a Mineral Resource Zones (MRZ) classification system to denote location and significance of key extractive resources. Lands throughout Alameda County are classified as MRZs of varying significance. The MRZ categories are as follows:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- MRZ-3: Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ.

The project site is located in the South San Francisco Bay Production-Consumption Quadrangle and is designated as MRZ-1 and MRZ-2 (CGS 2023 and DOC 1996)

Approximately 0.1 mile southeast of the project site is a 91-acre mineral resource site, as designated by the State Mining and Geology Board. This area overlaps with the local mineral resource area, the former Dumbarton Quarry, and contains regionally significant aggregate resources such as sand, gravel, and crushed rock. The former Dumbarton Quarry was closed in 2007 due to environmental constraints and is not expected to reopen for mineral extraction in the future (City of Fremont 2011).

3.12.2 Discussion

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?**

The project area is in the vicinity of the former Dumbarton Quarry, which contains aggregate resources including sand, gravel, and crushed rock. However, no active mining activities are currently going on in this area, nor are any planned for the future. The project includes installation of earthen berms and utility relocation, which will not disturb any designated mineral resource areas. Therefore, construction of the proposed project would not include a change in the overall mineral resources of the area. Therefore, the project would have **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?**

The project site is over the former Dumbarton Quarry, a local mineral resource area; however, the Dumbarton Quarry is closed with no expectation of reopening. While the project site would include a slight manipulation to the aggregate resources of that area, the project would not result in the loss of availability of a locally important mineral resource recovery site given that the Dumbarton Quarry has been closed. Furthermore, implementation of the project would not inhibit future mineral extraction in the surrounding area. Therefore, the project would have **no impact**.

3.13 Noise

13. NOISE. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
13 -a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable standards of other agencies?			Less-than-Significant Impact		
13 -b. Generation of excessive groundborne vibration or groundborne noise levels?			Less-than-Significant Impact		
13 -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 2 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	

3.13.1 Environmental Setting

The project site is located at the Reservoir in a remote natural area on the western boundary of the city of Fremont. The Dumbarton Quarry Campground on the Bay is located approximately 0.5 mile southeast of the project site. The nearest permanent residence is located approximately 1.3 miles southwest of the project site.

The City of Fremont Municipal Code Chapter 18.160 “Construction Hours,” states that construction activities for development projects in any zoning district on any property with 500 feet of more residences lodging facilities, nursing homes or inpatient hospitals shall be limited to the weekday hours of 7:00 a.m. to 7:00 p.m. and the Saturday or holiday hours of 9:00 a.m. to 6:00 p.m., while Sunday construction is not allowed. Construction activity for projects not located within 500 feet of residences, lodging facilities, nursing homes or inpatient hospitals shall be limited to the weekday hours of 6:00 a.m. to 10:00 p.m. and the weekend or holiday hours of 8:00 a.m. to 8:00 p.m. (City of Fremont 2024).

3.13.2 Discussion

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

Construction noise impacts typically occur when construction activities take place during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), when construction activities occur immediately adjacent to noise sensitive land uses, or when construction durations last over extended periods of time. Construction of the proposed project would temporarily increase the ambient noise levels within the vicinity of the project area and along haul routes.

Although construction activities would occur only during the daytime hours, uncontrolled construction noise could still be considered disruptive to residents adjacent to the project area. The proposed project would generate temporary construction noise from the use of heavy machinery during construction activities, and from the transport of construction workers and materials to the site. The list of construction equipment that may be used for proposed project construction activities is shown in **Table 3-6** with typical noise levels generated at 50 feet from the equipment (reference levels). Since the closest sensitive noise receptor is approximately 1.3 miles away from the proposed project, construction noise levels at the sensitive noise receptors would be considerably lower and likely would not be heard at all. Additionally, construction related noise would be short-term and temporary. All work within the proposed project area would be limited to the hours identified in the City of Fremont Municipal Code.

Table 3-6. Typical Construction Equipment Noise Levels

Type of Equipment	Typical Noise Levels (dB L _{max}) at 50 Feet
Backhoe	80
Paver	85
Loader	80
Truck	84
Dozer	82
Compactor	80

Notes: dB = decibels; L_{max} = maximum instantaneous sound level
Source: Construction equipment list based on Federal Highway Administration 2018, adapted by GEI Consultants, Inc. in 2023.

During proposed project operations, minimal noise would be generated during inspections and maintenance activities. Impacts related to noise levels would be considered **less than significant**.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Project activities have the potential to generate low levels of groundborne vibration due to the operation of equipment (i.e., haul trucks). Groundborne vibrations propagate through the ground and rapidly diminish in intensity with increasing distance from the source. No high-impact activities, such as pile driving or blasting, would be used during construction. However, some vibration may occur during construction equipment mobilization. The vibrations could potentially be detectable by nearby sensitive receptors; however, the closest residence noise receptor is approximately 1.3 miles away from the proposed project, therefore, it's unlikely that groundborne vibration would be felt. Since vibrations from construction mobilization would be temporary and minimal, and there would be no new permanent vibration sources, this impact would be considered **less than significant**.

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 2 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?

The project is located more than 2 miles from the nearest public airport or private airstrip. Therefore, the project would not expose people to excess noise levels due to the proximity to a public airport or private airstrip. The proposed project would have **no impact**.

3.14 Population and Housing

14. POPULATION AND HOUSING. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
14 -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	
14 -b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				No Impact	

3.14.1 Environmental Setting

The project area is located within the City of Fremont approximately 1.30 miles from the nearest established residential community. The population of Fremont was estimated in July 2023, to be 226,208 (U.S. Census Bureau 2023).

3.14.2 Discussion

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)?

The proposed project does not include the construction of new homes or businesses that could directly or indirectly affect the population. While there would be up to 8 construction workers temporarily onsite, it is anticipated that construction workers would come from the existing labor pool within the San Francisco Bay Area. As such, the proposed project would not require construction of housing to accommodate workers, since they would commute to the sites. Following construction activities, the project would not result in an increase in population. Therefore, the project would have **no impact**.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project site is located in a natural, non-urbanized area with the nearest residential property approximately 1.3 miles away. No residences would be condemned or displaced by the proposed project. Therefore, the proposed project would not displace people or housing necessitating the construction of replacement housing elsewhere. There would be **no impact**.

3.15 Public Services

15. PUBLIC SERVICES. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
15 -a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:					
Fire protection?				No Impact	
Police protection?				No Impact	
Schools?				No Impact	
Parks?				No Impact	
Other public facilities?				No Impact	

3.15.1 Environmental Setting

The City of Fremont police and fire departments provide services to the project area. The nearest school facility to the project site is Lincoln Elementary School, which is located approximately 1.6 miles southeast of the project site. Surrounding the project site is Coyote Hills Regional Park, which is comprised of open space, campsites, and hiking trails.

3.15.2 Discussion

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

The proposed project would create two earthen berms and relocated existing utilities within the project area. Implementation of the proposed project would not change existing demand for public services described above because the proposed project would not result in a permanent increase of employees or population to the project area. The proposed project would not substantially increase the need for new public services' staff or new facilities as compared to existing conditions. There would be **no impact**.

3.16 Recreation

16. RECREATION. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
16 -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?			Less-than-Significant Impact		
16 -b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				No Impact	

3.16.1 Environmental Setting

The project site is located proximate the Coyote Hills Regional Park. The Meadowlark Trail is located adjacent to the project site and is commonly used by hikers and bikers. Some of these users continue their travel along the access road leading to Reservoir and towards the Alameda County Communications Tower located east of the project site. Additionally, the Apay Trail is located down-slope from the Reservoir, along the edge of the South Bay.

There are two campgrounds located within 1-mile of the project site: the Dairy Glen Group Campground is located approximately 0.5 mile north of the project site; and the Dumbarton Quarry Campground on the Bay is located approximately 0.5 mile southeast of the Reservoir.

3.16.2 Discussion

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?

The proposed project would not directly or indirectly induce population growth (see Section 3.14, “Population and Housing”) and as such would not introduce new residents to the project area. During construction activities, public access to these nearby recreational routes, such as the Meadowlark Trail, may need to be limited or restricted for safety reasons. However, there are other nearby recreational routes, such as the Apay Trail, which could easily accommodate recreational use during the short-term construction time frame, if restrictions are required.

The proposed project would not increase the use of existing recreational facilities in the area or result in the physical deterioration of recreational facilities. This impact would be **less than significant**.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The proposed project does not include the construction or expansion of recreation facilities. Therefore, the project would have **no impact**.

3.17 Transportation

17. TRANSPORTATION. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
17 -a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			Less-than-Significant Impact		
17 -b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			Less-than-Significant Impact		
17 -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	
17 -d. Result in inadequate emergency access?			Less-than-Significant Impact		

3.17.1 Environmental Setting

The project site is in a non-urbanized portion of the city of Fremont. Access to the project site would be provided via two potential access routes. The primary route would access the Reservoir from the east, beginning at the gate located on Paseo Padre Parkway, continuing southwest along an unpaved access road towards the Reservoir facilities and up a partially paved access road ramp. An alternate route would access the Reservoir from the north, beginning at the entrance to the EBRPD Coyote Hills Regional Park on Patterson Ranch Road, continuing west and south along paved sections of the Bayview Trail and Meadowlark Trail.

3.17.2 Discussion

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Direct impacts to the local circulation system would occur due to the temporary addition of project-related vehicles to local roadways over the construction period. Implementation of the proposed project could temporarily increase the number of vehicles on local roadways and dirt access roads due to the transport and delivery of construction equipment and daily worker commute trips. All equipment and materials would be transported to the site on public highways and local roads (paved and unpaved), using standard transport vehicles. The construction equipment would be offloaded at staging areas (refer to Figure 2-2), and then mobilized to the construction site as needed. Construction activities may temporarily slow circulation in these areas, but it is not expected to interfere with traffic or transit routes within the project area.

No traffic control would be required for proposed project implementation. All worker parking would be accommodated in the staging area. The project would only generate minimal new traffic, and therefore, would not result in any long-term degradation in operating conditions on local roadways used for the proposed project. Public access is also provided via the nearby Meadowlark Trail, which may need to be limited or restricted for safety reasons during construction. However, there are alternative routes located nearby, such as the Apay Trail, which could be used if access via the Meadowlark Trail is limited or restricted.

The proposed project would not conflict with adopted policies, plans, or programs related to public transit or alternative modes of transportation because the project area does not contain these types of facilities. Impacts would be **less than significant**.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

“Vehicle miles traveled” refers to the amount and distance of automobile travel attributed to a project. A small amount of truck trips would be required to transport materials to the site. Additionally, approximately four to eight workers would be required onsite during various construction activities. Truck trips associated with construction would be temporary over the construction period and would not result in any perceivable increase in vehicle miles traveled. There would be minimal vehicle trips associated with project O&M activities, which include maintenance and inspection. As a result, the proposed project would be consistent with CEQA Guidelines Section 15064.3 subdivision (b) and would have a **less-than-significant** 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)?

The proposed project does not include the construction or design of any roadway infrastructure that would cause a safety risk to vehicle operations. The proposed project would not adversely alter the physical configuration of the existing roadway network serving the project vicinity and would not introduce unsafe design features associated with large equipment transport. Additionally, the proposed project would not introduce uses (types of vehicles) that are incompatible with existing uses already served by the area’s road system. Therefore, the project would have **no impact**.

d) Result in inadequate emergency access?

The proposed project would temporarily add vehicles to the local roadway and circulation system. However, the project would not require lane or road closures. All project-related activities would occur onsite within the project area and would not interfere with emergency response access. Operations and maintenance activities after construction of the proposed project would be the same as occur under current conditions respective to emergency response and evacuation. This impact would be **less than significant**.

3.18 Tribal Cultural Resources

18. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
18 -a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or		Less-than-Significant Impact with Mitigation Incorporated			
18 -b. 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		Less-than-Significant Impact with Mitigation Incorporated			

3.18.1 Environmental Setting

GEI archaeologist, Amy Wolpert, MA, requested a search of the NAHC Sacred Lands File of the project vicinity on October 16, 2023, to identify recorded areas of interest to Native Americans, and to request a contact list of Native Americans who may have interest in the proposed project or information on Tribal Cultural Resources. The NAHC responded to GEI’s request on November 15, 2023, with a positive results letter. A positive result does not necessarily indicate that a resource with Tribal significance is located within the project boundary, but one is in the same USGS Township, Range, and Section the project boundary is within. The NAHC requested that the project contact the Ohlone Indian Tribe. The NAHC also provided a contact list of Native Americans and Tribal representatives who could be contacted for further information if project requires Tribal consultation.

On November 15, 2023, GEI archaeologist Amy Wolpert, MA, received an email communication from Mr. Andrew Galvan of the Ohlone Indian Tribe requesting a project description. At that time, no formal project description had been drafted. Due to this, a response was sent to Mr. Galvan on November 15, 2023, outlining potential project components. No further communication with the Ohlone Indian tribe has occurred.

The ACWD sent Assembly Bill (AB) 52 consultation letters on June 18, 2024 to those Tribes who have previously sent notice to ACWD asking that they be asked to consult on ACWD projects that may impact Tribal Cultural Resources, as well as Tribes that were identified as having cultural lands or cultural places in the area of the project by the NAHC in their response to a Sacred Lands File search. The letter contained a brief description of the project and an invitation to consult on the project. Letters were sent to the following Tribes:

1. Indian Canyon Mutsun Band of Costanoan Indians
2. Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
3. Rumsen Am:a Tur:ataj Ohlone
4. The Ohlone Indian Tribe
5. North Valley Yokuts Tribe
6. Guidiville Indian Rancheria
7. Costanoan Rumsen Carmel Tribe
8. The Confederated Villages of Lisjan
9. Amah Mutsun Tribal Band of Mission San Juan Bautista

A representative of the Confederated Villages of Lisjan Nation reached out for additional figures of the project site and historical maps that include waterways, which were provided. A consultation meeting was held on December 4, 2024. As a result of this meeting, the representative of the Confederated Villages of Lisjan Nation provided input on applicable mitigation measures related to cultural and tribal resources, which have been incorporated into this IS/MND.

A representative of the Muwekma Ohlone Tribe of the San Francisco Bay Area reached out stating their interest in the project and a desire for future discussion regarding assisting with services. This request was received on August 6, 2024, outside of the AB 52 consultations window. ACWD responded to this required on January 29, 2025, thanking them for reaching out and stating that if there should be a need for consultation, field monitoring, or other archeological services that they would reach out.

3.18.2 Discussion

a and b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k)? 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Since publication of this document, a representative of the Confederated Villages of Lisjan Nation has reached out for additional figures of the project site and historical maps that include waterways. Additionally, a representative of the Muwekma Ohlone Tribe of the San Francisco Bay Area requested a discussion regarding the project. It is possible, although unlikely, that Tribal Cultural Resources might be inadvertently discovered during project-related, ground-related activities. If this were to happen this would result in a **significant** impact to the environment. The following mitigation measures have been identified to address this impact.

Mitigation Measure CR-1: Address Previously Undiscovered Historic Properties, Archaeological Resources, and Tribal Cultural Resources.

Please refer to CR-1 in Section 3.5 “Cultural Resources” for the full text of this mitigation measure.

Timing: During construction activities.

Responsibility: ACWD and its construction contractor(s).

Mitigation Measure CR-2: Avoid Potential Effects on Undiscovered Burials.

Please refer to CR-2 in Section 3.5 “Cultural Resources” for the full text of this mitigation measure.

Timing: During construction activities.

Responsibility: ACWD and its construction contractor(s).

Mitigation Measure CR-1 would reduce potentially significant impacts to Tribal Cultural Resources by having a qualified archaeologist examine any discoveries, assess potential impacts, and create treatment measures, if necessary, and providing any interested California Native American Tribes the opportunity for input to address any assessment and treatment, if any, to discovered resources. Mitigation Measures CR-2 would reduce potentially significant impacts to Tribal Cultural Resources by following State laws insuring proper disposition of any remains and consulting with the MLD regarding the ultimate disposition of any remains. Therefore, the impact from the project would be **less-than-significant with mitigation incorporated**.

3.19 Utilities and Service Systems

19. UTILITIES AND SERVICE SYSTEMS. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
19 -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		
19 -b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			Less-than-Significant Impact		
19 -c. Result in a determination by the wastewater treatment provider that 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	
19 -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		
19 -e. Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?			Less-than-Significant Impact		

3.19.1 Environmental Setting

ACWD provides water and PG&E provides electrical services to the project area. Wastewater is treated by Union Sanitary District and solid waste services are provided by Republic Services. There are existing overhead electrical lines and power poles located along the north side of the existing access road, security fencing along the perimeter of the Reservoir, and storm drains at various locations around the Reservoir (refer to Figure 2-2).

3.19.2 Discussion

- 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?**

The proposed project may require limited use of water during construction activities for dust suppression purposes. New water facilities or expansion of existing facilities would not be required to support this nominal use. No water or wastewater treatment facilities would be installed as part of the proposed project. Implementation of the proposed project would not require significant amounts of new electric power or natural gas (see Section 3.6, “Energy,” above for more details), and would not require the use of any telecommunications facilities.

The proposed project includes the implementation of permanent stormwater drainage infrastructure to direct surface runoff to flow around or through the project site after earthen berm construction. As discussed above in Section 3.10, “Hydrology and Water Quality,” the proposed project would not result in environmental effects associated with erosion and siltation or degradation of water with implementation of Mitigation Measures HWQ-1 and HAZ-1.

As discussed in Chapter 2, “Project Description”, the relocation of two electrical utilities and a portion of existing electrical line would be required. Additionally, active utilities located within the berm and access ramp footprint that have 2 feet or less of cover would be removed and replaced or relocated onsite. All relocation activities would occur within the construction work area for the project. Due to the temporary removal and relocation of the utilities, coordination with EBRPD would be required in advance of construction to identify infrastructure locations and appropriate protection measures, and temporary bypasses may be required. Any required utility relocation would be conducted either in advance of or concurrent with project construction activities. The project would result in a **less-than-significant impact**.

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

The proposed project may require a limited use of water during construction activities for dust suppression purposes. No permanent water supply would be required to serve the proposed project. This impact would be **less than significant**.

- c) **Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?**

The proposed project would result in the generation of wastewater associated with temporary use of portable toilets. During project implementation, ACWD or its contractor may have portable toilet facilities available onsite temporarily for use by construction workers. Given the small construction workforce of a maximum of eight workers onsite daily for the construction period,

this amount of waste would be minimal. Once construction is concluded, such portable facilities would be removed, and the wastewater properly handled and disposed of in accordance with all applicable laws and regulations. Therefore, the proposed project does not require a wastewater treatment provider to serve the project. There would be **no impact**.

d, e) 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? Comply with Federal, State, and local management and reduction statues and regulations related to solid waste?

The proposed project would not create substantial amounts of solid waste, and as such would not exceed the capacity of local infrastructure. Minimal waste would be generated during construction and would likely be disposed of offsite. The nearest landfill is the Republic Services Newby Island Landfill, located approximately 13.1 miles from the project area with a maximum capacity of 65.9 million cubic yards. The project's contribution to this capacity would be nominal. The project would comply with Federal, State, and local management and reduction statues and regulations related to solid waste. Therefore, the project would result in a **less-than-significant** impact related to local infrastructure capacity and would not impair attainment of solid waste reduction goals, regulations or statues.

3.20 Wildfire

20. WILDFIRE. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
20 -a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				No Impact	
20 -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	
20 -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	
20 -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	

3.20.1 Environmental Setting

The project site is not located in a high severity fire zone (CAL FIRE 2023). The project site is classified as Local Responsibility Area (LRA) unzoned (CAL FIRE 2023). The City of Fremont Fire Department provides fire protection for the residents located within the city. The City of Fremont Fire Department currently operates 11 fire stations through the city with the closest being Station 10 located at 5001 Deep Creek Road (City of Fremont 2011)

3.20.2 Discussion

a, b, c, and d) Substantially impair an adopted emergency response plan or emergency evacuation plan? 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? 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? Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project site is not located in a high severity fire zone. The project would involve construction of two earthen berms surrounding the Reservoir as well as utility replacement. The project would allow for additional freeboard at the Reservoir to provide flood resiliency. There would not be an increase in the number of users at the site that could impair emergency response or evacuation. Additionally, the short-term, temporary nature of construction and the intermittent nature of material off hauling and drop-off via large trucks at the project site locations would not pose a risk to emergency response or evacuation during an emergency. The project would not require any infrastructure that would exacerbate fire risk or the risk of flooding, slope instability, or drainage changes. There would be **no impact**.

3.21 Mandatory Findings of Significance

21. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:	Have Potentially Significant Impact?	Have Less-than-Significant Impact with Mitigation Incorporated?	Have Less-than-Significant Impact?	Have No Impact?	Have Beneficial Impact?
21 -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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?		Less-than-Significant Impact with Mitigation Incorporated			
21 -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 with Mitigation Incorporated			
21 -c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		Less-than-Significant Impact with Mitigation Incorporated			

3.21.1 Discussion

- a) **Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?**

The analysis conducted in this IS concludes that implementation of the proposed project would not have a significant impact on the environment with the implementation of mitigation measures. As evaluated in Chapter 3.4, "Biological Resources," impacts on biological resources would be less than significant or less-than-significant with mitigation incorporated. The proposed project would not 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; or reduce the number or restrict the range of an endangered, rare, or threatened species. As discussed in Chapter 3.5,

“Cultural Resources,” the proposed project would not eliminate important examples of the major periods of California history or prehistory. Therefore, project impacts would be **less-than-significant with mitigation incorporated**.

Once constructed, operation of the proposed project would have no long-term permanent impacts to biological or cultural resources.

b) Would the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

A cumulative impact could occur if the proposed project would result in an incrementally considerable contribution to a significant cumulative impact in consideration of past, present, and reasonably foreseeable future projects for each resource area. No direct significant impacts were identified for the proposed project that could not be mitigated to a less than significant level. However, when combined with other projects within the vicinity, the proposed project may result in contribution to a potentially significant cumulative impact.

The proposed project would result in no potential impacts to agricultural and forestry resources, land use and planning, mineral resources, population and housing, public services, and wildfire. Additionally, impacts would be less than significant for aesthetics, energy, geology and soils, GHG emissions, noise, recreation, transportation, and utilities and service systems.

Potential impacts to air quality, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, tribal cultural resources, and utilities and service systems would only occur during construction of the proposed project. These potential construction impacts would be short term and occur over the 6-month construction period. The construction impacts for the proposed project are limited in nature and scope to the project area in and around the area around the Reservoir. The project work itself would occur within the construction work area footprint and would be contained such that off-site impacts do not occur. As a result, the impacts of the proposed project would not combine together with other related projects in the vicinity to produce a significant environmental impact. Furthermore, operation and maintenance would not result in any potential impacts to resources. Therefore, operation of the proposed project would not contribute to long-term cumulative impacts and their contribution to impacts would be less than cumulatively considerable.

Implementation of mitigation measures listed within Section 3.2, “Air Quality,” Section 3.4, “Biological Resources,” Section 3.5, “Cultural Resources,” Section 3.9, “Hazards and Hazardous Materials,” Section 3.10, “Hydrology and Water Quality,” and Section 3.18, “Tribal Cultural Resources,” would aim to reduce project impacts to neighboring sensitive receptors and to sensitive natural resources. Impacts related to air quality, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, tribal cultural resources, and utilities and service systems would be less than cumulatively considerable. Therefore, the

proposed project would not result in any impacts that would be cumulatively considerable resulting from the proposed project. Cumulative impacts would be considered **less-than-significant with mitigation incorporated**.

c) Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed project would not result in substantial adverse effects, either direct or indirect, on human beings. As described in Section 3.3, “Air Quality,” air emissions associated with the proposed project would not result in adverse health effects to sensitive receptors with the implementation Mitigation Measure AQ-1, which would reduce construction-related emissions by implementing control measures. Furthermore, as described in Section 3.13, “Noise,” construction noise would not result in adverse effects to sensitive receptors. Impacts to human beings would be **less-than-significant with mitigation incorporated**.

4.0 List of Preparers

Alameda County Water District (Lead Agency)

Dorota Budzynska.....Project Manager, Document Review

Chris Delp.....Document Review

GEI Consultants, Inc. (CEQA Document Preparation)

Ryan Jolley.....Project Director

Chrissy Burns.....Project Manager

Katelyn Matroni.....Senior Environmental Planner

Amanda Ibara.....Environmental Scientist

Kelly Fitzgerald-Holland.....Senior Biologist

Hannah Dunn.....Biologist

Jesse Martinez.....Senior Archaeologist

Madeline Bowen.....Architectural Historian

Ryan Snyder.....Geographic Information Systems Analyst

This page intentionally left blank.

5.0 References

Introduction

No references cited.

Project Description

Alameda County Water District (ACWD). 2014. Reliability by Design: Integrated Resources Planning at the Alameda County Water District. Available: https://www.acwd.org/DocumentCenter/View/585/ACWD_IRP_web5?bidId= Accessed: May 7, 2024.

Environmental Checklist

Aesthetics

Caltrans. 2019. List of eligible and officially designated State Scenic Highways. Available online at: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>, accessed June 13, 2024.

Agriculture and Forestry Resources

California Department of Conservation (DOC), Division of Land Resource Protection, 2004. A Guide to the Farmland Mapping and Monitoring Program, 2004 Edition. Available online at: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/Archive/fmmp_guide_2004.pdf, accessed June 27, 2024.

California Department of Conservation (DOC), Division of Land Resource Protection, 2020. California Important Farmland Finder. Available online at: <https://maps.conservation.ca.gov/DLRP/CIFF/>, accessed June 14, 2024.

California Department of Conservation (DOC), Division of Land Resource Protection, 2023. A California Important Farmland Finder. Available online at: <https://maps.conservation.ca.gov/DLRP/CIFF/>, accessed June 14, 2024.

City of Fremont, 2011. City of Fremont General Plan, Land Use Chapter 2. Adopted December 2011. Available online at: <https://www.fremont.gov/home/showpublisheddocument/801/637750630860000000>, accessed June 14, 2024.

Air Quality

Bay Area Air Quality Management District (BAAQMD). 2022. *2022 CEQA Guidelines*. Available: <https://www.baaqmd.gov/en/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines> Accessed: July 2, 2024.

Environmental Protection Agency (EPA). 2024. NAAQS Table. Available : <https://www.epa.gov/criteria-air-pollutants/naaqs-table>. Accessed: July 2, 2024.

Biological Resources

California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency, Sacramento, California.

California Department of Fish and Wildlife (CDFW). 2023. California Natural Community Lists. VegCAMP Database. Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>.

_____. 2024. California Wildlife Habitat Relationships System. Online Database. Available at: <https://wildlife.ca.gov/Data/CWHR/Wildlife-Habitats>. Accessed May 31, 2024

_____. 2025. California Natural Diversity Database (CNDDDB), Wildlife and Habitat Data Analysis Branch, RareFind Version 6. Commercial version. Available at: <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data> . Accessed May 31, 2024.

California Native Plant Society. 2025a. Inventory of Rare and Endangered Plants (online edition, v802). California Native Plant Society, Sacramento, California. Available: <http://www.rareplants.cnps.org>. Accessed June 6, 2024.

_____. 2024b. Calscape Database. Sacramento, California. Available: <http://www.rareplants.cnps.org>. Accessed June 6, 2024.

eBird. 2024. eBird: An online database of bird distribution and abundance [web application]. Accessed on May 31, 2024. Available at: <https://ebird.org/explore>

GEI Consultants, Inc. (GEI). 2024. Patterson Reservoir Remediation Project Environmental Compliance Analysis. Technical Memorandum.

Hatfield, R., E. Sellers, J. Kerr, and M. Larrivé. 2020. Xerces Society - Bumble Bee Watch. Version 1.9. United States Geological Survey. Occurrence dataset <https://doi.org/10.15468/t4rau8> accessed via GBIF.org on 2024-02-29.

iNaturalist. 2024. An online database of wildlife distribution and abundance. Available from <https://www.inaturalist.org>. Accessed May 31, 2024

Nafis, G. 2024. California Herps - A Guide to the Amphibians and Reptiles of California. Available at: <http://www.californiaherps.com/>. Accessed June 6, 2024.

- National Marine Fisheries Service. 2025a. National ESA Critical Habitat Mapper. Online Application. Available at: <https://www.fisheries.noaa.gov/resource/map/national-esa-critical-habitat-mapper>. Accessed on May 31, 2024.
- _____. 2025b. Essential Fish Habitat Mapper. Online Application. Available at: <https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper>. Accessed on May 31, 2024.
- Shuford, W.D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Wildlife, Sacramento, California.
- U.S. Fish and Wildlife Service (USFWS). 2023. Western Monarch Butterfly Conservation Recommendations. Available at: <https://xerces.org/publications/planning-management/western-monarch-butterfly-conservation-recommendations>.
- _____. 2025a. Information for Planning and Consultation (IPaC). Species list generator. Available at: <https://ecos.fws.gov/ipac/>. Accessed May 31, 2024.
- _____. 2025b. Critical Habitat for Threatened and Endangered Species Web Portal. Available at: <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>. Accessed May 31, 2024.
- _____. 2025c. National Wetlands Inventory Mapper [web application]. Available at: <https://www.fws.gov/wetlands/data/mapper.html>. Accessed May 31, 2024.
- Xerces Society. 2018. A Petition to the State of California Fish and Game Commission to List The Crotch Bumble Bee, Franklin’s Bumble Bee, Suckley Cuckoo Bumble Bee, and Western Bumble Bee as Endangered under the California Endangered Species Act. Available at: <https://xerces.org/sites/default/files/2019-10/CESA-petition-Bombus-Oct2018.pdf>.
- _____. 2024a. Western Monarch and Milkweed Occurrence Database. Monarch and milkweed occurrences in project vicinity. Data accessed from the Western Monarch Milkweed Mapper, a project by the Xerces Society, U.S. Fish and Wildlife Service, Idaho Department of Fish and Game, and Washington Department of Fish and Wildlife. Available online at: <https://www.monarchmilkweedmapper.org/>, accessed May 31, 2024.
- _____. 2024b. Monarch County Survey Instructions. Protocol for the Xerces Society’s Western Monarch Count. Xerces Society for Invertebrate Conservation.

Cultural Resources

- Alameda County. 2023. “Cities.” Available at: <https://acgov.org/about/cities.htm>. Accessed December 21, 2023.

- Alameda County Water District (ACWD). 2024. “Chronology of Significant Events.” Available at: <https://www.acwd.org/91/Chronology-of-Significant-Events>. Accessed Aug 29, 2024.
- Alameda City Coalition for Fair Redistricting. 2023. “History of Alameda County Districts.” Available at: <https://www.alcoredistracting.org/the-county/history>. Accessed December 21, 2023.
- Bennyhoff, James A., & Richard E. Hughes. 1987. Shell Beads and Ornament Exchange Networks between California and the Great Basin. In *The Archaeology of Monitor Valley, 5: Regional Synthesis and Implications*, by David H. Thomas. Anthropological Papers of the American Museum of Natural History. New York, NY.
- City of Fremont. 2023. “History.” Available at: <https://www.fremont.gov/about/history>. Accessed December 21, 2023.
- East By Regional Park District. 2023. “Coyote Hills Regional Park.” Available at: <https://www.ebparks.org/parks/coyote-hills>. Accessed December 21, 2023.
- Levy, R. S. 1978. Costanoan. In *The Handbook of North American Indians, Volume 8, California*, edited by R. F. Heizer, pp. 485–495. Smithsonian Institution, Washington, D.C.
- Margolin, M. 1978. *The Ohlone Way: Indian Life in the San Francisco–Monterey Bay Area*. Heyday Books. Berkeley, CA.
- Milliken, P., R. T. Fitzgerald, M. G. Hylkema, R. Groza, T. Origer, D. G. Bieling, A. Leventhal, R. S. Wiberg, A. Gottfield, D. Gillette, V. Bellifemine, E. Strother, R. Cartier, & D. A. Frederickson. 2007. Punctuated Culture Change in the San Francisco Bay Area. In *California Prehistory: Colonization, Culture, and Complexity*, edited by T. L. Jones and K. A. Klar. Alta Mira Press, Plymouth, United Kingdom.
- Moratto, M.J. 2004. *California Archaeology*. Reprinted from 1984 edition, Coyote Press, Salinas, CA.
- Muwekme Ohlone Tribe. 2024. “Homepage.” Available at: <https://www.muwekma.org>. Accessed June 25, 2024.
- Ohlone Chumash Tribe. 2024. “Homepage” Available at: <https://www.ohlone-tribe.org>. Accessed June 25, 2024.
- California Office of Historic Preservation (OHP). 1999. *Technical Assistance Series 10: California State Law and Historic Preservation Statutes, Regulations and Administrative Policies Regarding Historic Preservation and Protection of Cultural and Historical Resources*. State of California, Sacramento, CA.
- Piraino, Paul A. 2015. *Our First 100 Years: A Comprehensive History of the Alameda County Water District*. Prepared by the Alameda County Water District. Fremont, CA. Available

at: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.acwd.org/DocumentCenter/View/1144/Our-First-100-Years---A-Comprehensive-History-of-the-Alameda-County-Water-District. Accessed December 21, 2023.

Rosenthal, J.S., & J. Meyer. 2004. Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways, Volume III: Geoarchaeological Study, Landscape Evolution and the Archaeological Record of Central California. prepared by Far Western Anthropological Research Groups, Inc. for Caltrans District 10.

Walker, Richard. 2005. "Oakland Rising: The Industrialization of Alameda County." Available at: https://www.foundsf.org/index.php?title=Oakland_Rising:_The_Industrialization_of_Alameda_County. Accessed December 21, 2023.

Energy

California Energy Commission (CEC). 2022. *Electricity Consumption by County*. Available online at: <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed: June 27, 2024.

City of Fremont. 2011. *City of Fremont General Plan, Chapter 1 "Sustainability."* Available: <https://www.fremont.gov/home/showpublisheddocument/811/637750630892770000> Accessed: June 27, 2024.

Pacific Gas and Electric (PG&E). 2022. *2022 Power Mix*. Available: <https://www.pge.com/content/dam/pge/docs/account/billing-and-assistance/bill-inserts/1023-Power-Content-Label.pdf> Accessed: June 27, 2024.

Geology and Soils

Bailey et al. 1964. Franciscan and Related Rocks, and Their Significance in the Geology of Western California. Bulletin 183, California Department of Mines and Geology.

California Building Standards Commission (BSC). 2022. *2022 California Building Code, Title 24, Part 2, Volume 1& 2*. Available: https://codes.iccsafe.org/content/CABC2022P1/chapter-18-a-soils-and-foundations#CABC2022P1_Ch18A_Sec1804A Accessed July 8, 2024.

California Geological Survey (CGS), 2015. California Department of Conservation. Fault Activity Map of California. Available online at: <https://maps.conservation.ca.gov/cgs/fam/>, accessed June 28, 2024.

California Geological Survey (CGS). 2021. Earthquake Zones of Required Investigation and Earthquake Fault Zones, Landslides, and Liquefaction Zones. Available online at: <https://maps.conservation.ca.gov/cgs/EQZApp/>, accessed June 14, 2024.

City of Fremont, 2011. City of Fremont General Plan. Adopted December 2011. Available online at: <https://www.fremont.gov/home/showpublisheddocument/801/637750630860000000>. Accessed June 14, 2024.

Natural Resources Conservation Service (NRCS). 2023. Soil Map. Available online at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed: June 14, 2024.

Helley, E.J., and Miller, D.M., 1992, Geologic map of the Newark 7.5-minute quadrangle, Alameda County, California, U.S. Geological Survey, Open-File Report 92-312.

Greenhouse Gas Emissions

California Air Resources Board (CARB). 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Available: <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf> Accessed: June 27, 2024.

City of Fremont. 2023. *Climate Ready Fremont, An Update to the Climate Action Plan*. Available: <https://www.fremont.gov/home/showpublisheddocument/14218/638428261066300000> Accessed: June 27, 2024.

State of California, 2018. *Executive Department, Stage of California. Executive Order B-55-18 to Achieve Carbon Neutrality*. Available: <https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf>, accessed June 27, 2024.

Hazards and Hazardous Materials

California Department of Conservation (DOC), 2000. A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos, 2000, Map scale 1:1,100,000, Open-File Report 2000-19. Available online at: https://ww2.arb.ca.gov/sites/default/files/classic/toxics/asbestos/ofr_2000-019.pdf. Accessed: June 27, 2024.

California Department of Forestry and Fire Protection (CAL FIRE). 2023. State Responsibility Area Fire Hazard Severity Zones. Available: https://34c031f8-c9fd-4018-8c5a-4159cdf6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-map-2022/fire-hazard-severity-zones-maps-2022-files/fhsz_county_sra_11x17_2022_alameda_2.pdf. Accessed: June 27, 2024.

California Department of Toxic Substances Control (DTSC). 2024a. Hazardous Waste and Substances Site List (Cortese). Available online at: <https://calepa.ca.gov/sitecleanup/corteselist/>. Accessed: June 27, 2024.

_____. 2024b. EnviroStor. Available: <https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&s>

[ite_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29](https://www.calepa.ca.gov/siteweb/cortese/act_bklg_com_report_title_hazardous_waste_and_substances_site_list_cortese) Accessed : June 27, 2024.

California Environmental Protection Agency (CalEPA), 2024. Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit. Available online at: <https://calepa.ca.gov/sitecleanup/corteselist/>. Accessed: June 27, 2024.

California State Water Resources Control Board (SWRCB), 2024a. GeoTracker Database. Available online at: https://geotracker.waterboards.ca.gov/map/?global_id=T0601700073. Accessed: June 27, 2024.

City of Fremont. 2024. Tri-City Multi-jurisdictional Local Hazard Mitigation Plan. Available: <https://www.my.fremont.gov/tri-city-hazard-plan> Accessed: July 15, 2024.

_____. 2024b. List of Active Cease and Desist Orders and Cleanup and Abatement Orders. Available online at: <https://calepa.ca.gov/sitecleanup/corteselist/>. Accessed: June 27, 2024.

GEI Consultants. 2025. Task 18 – Soil Sampling and CAM 17 Testing ACWD Patterson Reservoir Remediation, Fremont, California, Technical Memorandum.

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). 2019. Environmental Screening Levels.

U.S. Environmental Protection Agency (EPA). 2024. Superfund Enterprise Management System (SEMS) Database. Available online at: <https://www.epa.gov/enviro/sems-search>. Accessed: June 27, 2024.

Hydrology and Water Quality

California Department of Water Resources (DWR). 2020a. Sustainable Groundwater Management Act Data Viewer. Available online at: <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels>. Accessed: June 27, 2024.

_____. 2020b. Dam Breach Inundation Map Web Publisher. Available online at: https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2. Accessed: July 1, 2024.

_____. 2021. California's Groundwater Update 2020. Available online at: https://data.cnra.ca.gov/dataset/calgw_update2020/resource/d2b45d3c-52c0-45ba-b92a-fb3c90c1d4be . Accessed: July 1, 2024.

California Geological Survey (CGS). 2022. *Tsunami Maps for California*. Available: https://maps.conservation.ca.gov/cgs/informationwarehouse/ts_evacuation/ Accessed: July 1, 2024.

City of Fremont. 2024. *City of Fremont Municipal Code, Chapter 15.10 “Fremont Building Code”* Available:
<https://www.codepublishing.com/CA/Fremont/#!/Fremont15/Fremont1510.html#15.10>
Accessed: August 29, 2024.

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). 2021. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Available online at:
https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#:~:text=The%20Water%20Quality%20Control%20Plan,includin%20surface%20waters%20and%20groundwater. Accessed: July 1, 2024.

State Water Resources Control Board (SWRCB). 2018. *California 2018 Integrated Report (303(d) List/305(b) Report)*. Available:
https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html Accessed: July 9, 2024.

Land Use and Planning

City of Fremont. 2011. *City of Fremont General Plan, Chapter 2 ‘Land Use.’* Available:
<https://www.fremont.gov/home/showpublisheddocument/801/637750630860000000>
Accessed: June 27, 2024.

_____. 2024. Fremont eGIS Public. Available:
https://egis.fremont.gov/gisapps/fremont/index.html?viewer=Public.gvh&_gl=1*1vywi3r*_ga*MTg2MTcyNjg1OC4xNzE5NTEwMDcw*_ga_24CKMMECR8*MTcxOTUxNDYzMC4yLjEuMTcxOTUxNDYzNS41NS4wLjA. Accessed: June 27, 2024.

Mineral Resources

California Geological Survey, (CGS), 2023. Mineral Land Classification. Available online at:
<https://maps.conservation.ca.gov/cgs/informationwarehouse/mlc/>. Accessed June 14, 2024.

California Department of Conservation (DOC), Division of Mines and Geology, 1996. Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region.

City of Fremont, 2011. *City of Fremont General Plan, Conservation Chapter 7*. Adopted December 2011. Available online at: <https://www.fremont.gov/home/showpublisheddocument/791/637750630830170000>. Accessed June 17, 2024.

Noise

City of Fremont. 2024. *City of Fremont Municipal Code*. Available:
<https://www.codepublishing.com/CA/Fremont/#!/Fremont01/Fremont01.html> Accessed: June 27, 2024.

Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment Manual*. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf Accessed: July 1, 2024.

Population and Housing

United States Census Bureau, 2023. Fremont City Quick Facts. Available online at: <https://www.census.gov/quickfacts/fremontcitycalifornia>, accessed June 18, 2024.

Public Services

No references cited.

Recreation

No references cited.

Transportation

No references cited.

Tribal Cultural Resources

No references cited.

Utilities and Service Systems

City of Fremont, 2011. City of Fremont General Plan, Chapter 9 “Public Facilities Chapter.” Adopted December 2011. Available online at: <https://www.fremont.gov/home/showpublisheddocument/807/637750630878430000>, accessed June 17, 2024.

Wildfire

California Department of Forestry and Fire Protection (CAL FIRE), 2023. *State Responsibility Area Fire Hazard Severity Zones*. Available: https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-map-2022/fire-hazard-severity-zones-maps-2022-files/fhsz_county_sra_11x17_2022_alameda_2.pdf. Accessed: June 27, 2024.

City of Fremont. 2011. *City of Fremont General Plan, Chapter 10 “Safety.”* Available: <https://www.fremont.gov/home/showpublisheddocument/809/638506889017470000> Accessed: June 27, 2024.

Mandatory Findings of Significance

No references cited.

This page intentionally left blank.

Appendix A Mitigation Monitoring and Reporting Program

This page intentionally left blank.

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation and Monitoring Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the proposed Patterson Reservoir Remediation Project (proposed project). The purpose of the MMRP is to ensure the implementation of avoidance and minimization measures and mitigation measures identified as part of the environmental review for the project. MMRP Table A includes the following information:

- A list of avoidance and minimization measures and mitigation measures;
- The timing for implementation of the measure;
- The party responsible for implementing the measure;
- The agency/city department responsible for monitoring the implementation; and
- The monitoring action and frequency.

The Alameda County Water District (ACWD) must adopt a MMRP or an equally effective program, if it approves the proposed project with the mitigation measures included in the IS/MND. Public Resources Code, Section 21081.6(a) requires an agency to adopt a program for reporting or monitoring mitigation measures that were adopted or made conditions of project approval.

This page intentionally left blank.

Table A Mitigation Monitoring and Reporting Program

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
AESTHETICS				
<i>There are no mitigation measures related to Aesthetics.</i>				
AGRICULTURE AND FOREST RESOURCES				
<i>There are no mitigation measures related to Agricultural and Forest Resources.</i>				
AIR QUALITY				
<p>AQ-1: Basic Best Management Practices for Construction-related Fugitive Dust Emissions</p> <ul style="list-style-type: none"> ▪ The following BMPs will be implemented to control emissions of fugitive dust. ▪ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. ▪ All haul trucks transporting soil, sand, or other loose material off-site shall be covered. ▪ All visible mud or dirt trackout onto adjacent paved 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. ▪ All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. ▪ Minimize the height that soils are dropped during handling. ▪ 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 	<p>Include measures as Condition of Approval. Implementation actions are outlined in the measure.</p>	<p>During construction activities.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>12-inch layer of compacted layer of wood chips, mulch, or gravel.</p> <ul style="list-style-type: none"> ▪ 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. 				
BIOLOGICAL RESOURCES				
<p>BIO-1: Avoid and Minimize Effects to Biological Resources.</p> <ol style="list-style-type: none"> 1. Conduct a worker environmental awareness program (WEAP) training for all staff that will be on-site during construction. A qualified biologist shall provide WEAP training to cover species identification, habitat, life history, and conservation measures for all special-status species with potential to occur within the study area. Training may consist of showing a video prepared by a qualified biologist, or an in-person presentation by a qualified biologist. In addition to the video or in-person presentation, training may be supplemented with the distribution of approved brochures and other materials that describe protected resources and methods for avoiding effects. 2. Conduct preconstruction surveys prior to the start of construction for all special-status species with potential to occur. A qualified biologist shall conduct a general preconstruction survey at least 24 hours before the start of construction to identify the potential presence of all special-status species with potential to occur in the study area. While this survey will focus on burrowing owl and other special-status birds, it would include all special-status wildlife species and other sensitive biological resources. If there is a lapse in ground disturbing activities for two weeks or more, another preconstruction survey will be conducted. 3. Erect and maintain high visibility fencing during construction to protect sensitive biological resource areas. Before beginning construction activities, high- 	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before and during construction.</p>	<p>ACWD and construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>visibility fencing shall be erected to protect areas of sensitive biological resources that are located adjacent to construction areas but can be avoided. The fencing shall restrict encroachment of personnel and equipment into these areas. The fencing may be removed only when the construction within a given area is completed.</p> <ol style="list-style-type: none"> 4. Stage vehicles and equipment in existing staging areas. Project activities and staging of materials, portable equipment, vehicles, and supplies shall occur in disturbed areas where feasible. 5. Inspect areas under vehicles and heavy equipment daily. The qualified biologist and/or ACWD staff shall inspect under and around all vehicles and heavy equipment for the presence of wildlife and other special-status species before the start of each workday. The awareness training provided by a qualified biologist shall emphasize checking equipment to avoid harming wildlife. 6. Cover all steep-walled holes or trenches daily. ACWD and/or its contractor(s) will cover all steep holes and trenches with plywood or other suitable covers at the end of each day to ensure no entrapment of wildlife species. Alternatively, an earthen ramp may be built within the trench for adequate means of escape for wildlife. 7. A speed limit of 15 miles per hour will be observed within construction areas. All staff related to the project will abide by a 15 mile per hour speed limit while within the project limits. 8. A biologist will be on-call and available for monitoring or relocation of identified species during project construction. A qualified biologist shall be available daily, as needed, to be on-site for any necessary monitoring or for any biological needs that may occur on the project site during construction activities. 9. Remove refuse. To eliminate sources that could attract wildlife, all trash, including food-related trash items such as wrappers, cans, bottles and food scraps, shall be disposed of in closed containers. 				

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>BIO-2: Minimize Effects to Special-Status Plants.</p> <ol style="list-style-type: none"> 1. Special-status Plant Surveys. A qualified botanist shall be retained to perform focused surveys for special-status plants. These surveys shall serve to document the presence/absence of these species in and adjacent to (within 50 feet, where appropriate) proposed impact areas, including new construction access routes. These surveys shall be conducted in accordance with CDFW Protocols for Surveying and Evaluating Effects on Special-Status Native Plant Populations and Sensitive Natural Communities (2018) or other current protocols. These guidelines require that special-status plant surveys be conducted at the proper time of year when target species are both evident and identifiable. Surveys shall be scheduled to coincide with known blooming periods, and/or during appropriate developmental periods that are necessary to identify the plant species of concern. If 3 years has elapsed between the completion of the special-status plant surveys and the start of ground disturbance, these surveys should be repeated. 2. Special-status Plant Avoidance. If any special-status plant species are found within 50 feet of areas of ground disturbance during the surveys, these plant species shall be avoided to the greatest extent possible and one of the following shall be implemented: <ul style="list-style-type: none"> • Any special-status plant species that are identified in or adjacent to the construction areas, but not proposed to be disturbed, shall be protected by flagging, signage, orange construction fence, and/or silt fence as appropriate based on-site conditions to limit the effects of project-related activities and material stockpiles on any special-status plant species; or, • If project-related activities would result in the loss of greater than 10 percent of a population or occupied habitat for a special-status plant species, a mitigation plan would be developed 	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before and during construction.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>that describes a program to transplant, salvage, cultivate, and re-establish the species at suitable sites (if feasible). Alternatively, mitigation could be satisfied through off-site preservation or via payment to an in-lieu fee program, if available.</p> <ul style="list-style-type: none"> • If the mitigation plan is chosen, it would include means and methods to propagate affected special-status plants via vegetative or reproductive means (e.g., harvesting of seed or seed bank through topsoil collection, salvaging and transplanting or collecting of cuttings), as appropriate for the species, and transplant at suitable receiving sites as close to the existing population as possible. Propagation and transplantation would occur prior to construction. The receiving location would be evaluated and chosen based on similarity to conditions at the transplant source location, to the extent feasible. Site conditions to consider when choosing a receiving site would include aspect, substrate, hydrology, associated species, and canopy cover. The transplanted plants would be monitored for at least one year following construction. • If preservation option is chosen, preservation areas may include undisturbed areas of the site that will be preserved and managed in perpetuity, offsite mitigation lands, or a combination of both. The preserved habitat shall be of equal or greater habitat value to the areas affected in terms of soil features, extent of disturbance, vegetation structure, and contain extant populations of the same or greater size as the area affected. • The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, the location of the occurrence, and the current state of knowledge about overall population trends and threats to 				

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>its survival; however, at a minimum, the species and habitat will be replaced at a minimum 1:1 ratio (individuals or acreage of occupied habitat).</p> <p>3. Restoration of Temporarily Disturbed Areas. All exposed and/or disturbed areas resulting from project-related activities shall be restored using locally native grass and forb seeds, plugs or a mix of the two. Areas shall be seeded with species appropriate to their topographical and hydrological character. Seeded areas shall be covered with broadcast straw and/or jute netted, where appropriate.</p>				
<p>BIO-3a: Avoid and Minimize Impacts to Monarch Butterfly. To avoid effects of construction activities on monarch butterflies, ACWD shall ensure that the following measure is implemented.</p> <ul style="list-style-type: none"> ▪ Conduct Tree Trimming of all Suitable Overwintering Habitat within the Study Area Outside of the Overwintering Period for Monarch Butterfly. Tree trimming of the eucalyptus trees bordering the eastern access road within the study area should occur outside of the overwintering period for monarch butterfly. Trimming should occur between March and August when the habitat is not actively being used by monarch. If the trimming cannot occur during this time period, a survey prior to trimming and monitoring during trimming will be required. ▪ Conduct a Pre-construction Survey and Habitat Assessment for Monarch Butterfly of all Suitable Overwintering Habitat within the Project Area at least 14 Days Prior to the Start of Vegetation Trimming if Trimming Cannot Occur During the Summer Months. Pre-construction surveys and habitat assessment for monarch butterfly will be conducted by a qualified biologist prior to vegetation removal (i.e. tree trimming) of the eucalyptus trees bordering the eastern access road within the study area if trimming cannot occur during March and August. The presence of monarch butterflies will be mapped and flagged for avoidance during the survey. The habitat 	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>During construction.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
assessment with follow the protocol datasheets, Habitat Assessment Datasheet, provided by the Xerces Society's Western Monarch Count.				
<p>BIO-3b: If Surveys Detect Monarch Butterfly in the Study Area, Implement Measures to Avoid and Minimize Effects to Monarch Butterfly and Establish Protective Buffers Around Occupied Overwintering Habitat and Monitor.</p> <p>If the focused surveys described above in Mitigation Measure BIO-3b have been completed and monarch butterfly is detected, ACWD shall coordinate with USFWS to determine acceptable methods for avoiding and minimizing effects on this species. ACWD shall ensure that the measures described below are implemented to avoid and minimize effects of the project on monarch butterfly, such that there is no direct loss of individuals of this species.</p> <ul style="list-style-type: none"> ▪ Consult with USFWS Regarding Best Approach to Avoid and Minimize Potential Impacts to Monarch Butterfly if Overwintering Individuals are Observed and Implement Measures. A qualified biologist shall determine acceptable methods for avoiding and minimizing effects on this species, in accordance with the Western Monarch Butterfly Conservation Recommendations (USFWS 2023). Measures may include implementing no-disturbance buffers (required during overwintering season) and monitoring during tree trimming. ▪ Conduct Focused Monarch Count Surveys. A qualified biologist shall conduct focused monarch count surveys following the protocol in the Monarch Count Survey Instructions (Xerces Society 2024b). Survey data will be submitted immediately following the survey(s) to the Xerces Society. ▪ Provide a Protective Buffer for Occupied Habitat during the Overwintering Season and Monitor Habitat to Ensure that Project Activities do not Result in Adverse Effects on Overwintering Monarch Butterfly. Habitat occupied during the overwintering season (October to February) shall be provided with a protective buffer until a qualified biologist verifies through noninvasive means that either (1) there are no monarch butterflies present in the habitat or (2) that the individuals are not disturbed by the nearby work. 	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before and during construction.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>The size of the buffer, which may range from 50 meters to 500 meters, will depend on distance from the habitat to area of project disturbance, type and intensity of disturbance, presence of visual buffers, time of year, and other variables that could affect susceptibility of the butterflies to disturbance (USFWS 2023). Monitoring shall be conducted to confirm that project activity is not resulting in detectable adverse impacts on overwintering monarch butterfly.</p>				
<p>BIO-4a: Avoid and Minimize Impacts to California Tiger Salamander and Its Habitats.</p> <p>To avoid and minimize effects of project activities on California tiger salamander, ACWD shall ensure that the measure described below is implemented.</p> <ul style="list-style-type: none"> ▪ Stop Work if California Tiger Salamander is Observed in Construction Area. If California tiger salamander are observed in a construction area, ACWD shall stop work within approximately 200 feet of the salamander, and a qualified biologist shall be notified immediately. If possible, the salamander shall be allowed to leave the construction area on its own and the qualified biologist shall remain in the area until the biologist deems that the salamander is not harmed. Work will not commence until the salamander is more than 200 feet away from active construction. ▪ Conduct Preconstruction Survey to Mark and Map Burrows within the Project Boundary. A qualified biologist will identify all small mammal burrows within the Project site with stakes or pin flags so that they may be avoided during ground disturbance. Rodent burrows will be avoided to the extent possible. 	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before and during construction.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p>Mitigation Measure BIO-4b: If Surveys Detect California Tiger Salamander or Suitable Burrows in the Study Area, Implement Measures to Avoid and Minimize Effects to California Tiger Salamander and Establish Protective Buffers Around Occupied Burrows and Monitor.</p> <p>If the focused surveys described above in Mitigation Measure BIO-4a have been completed and California tiger salamander and/or suitable burrows are detected, ACWD shall coordinate with CDFW</p>	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before and during construction.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>and/or USFWS to determine acceptable methods for avoiding and minimizing effects on this species. ACWD shall ensure that the measures described below are implemented to avoid and minimize effects of the project on California tiger salamander, such that there is no direct loss of individuals of this species.</p> <ul style="list-style-type: none"> ▪ A Biologist Will be On-site During All Ground Disturbing Activities. A qualified biologist shall be present during all ground disturbing activities, if potentially suitable burrows are present within the area of disturbance ▪ Provide a Protective Buffer for Occupied Burrows and Monitor Burrows to Ensure that Project Activities do not Result in Adverse Effects on California Tiger Salamander. Confirmed occupied burrows shall be provided with a protective buffer. The size of the buffer, which may range from 50 feet to 100 feet, will depend on distance from the burrow to project disturbance, type and intensity of disturbance, presence of visual buffers, time of year, and other variables that could affect susceptibility of the salamander to disturbance. Monitoring shall be conducted to confirm that project activity is not resulting in detectable adverse impacts on California tiger salamander. 				
<p>BIO-5: Avoid and Minimize Impacts to Northwestern Pond Turtle and Its Habitats.</p> <p>To avoid and minimize effects of project activities on northwestern pond turtle, ACWD shall ensure that the measure described below is implemented.</p> <ul style="list-style-type: none"> ▪ Stop Work if Northwestern Pond Turtle or Nest is Observed in Construction Area and, with CDFW Approval, Move Animal to the Nearest Suitable Habitat Outside the Area if Found On-site. If northwestern pond turtles are observed in a construction area, ACWD shall stop work within approximately 200 feet of the turtle, and a qualified biologist shall be notified immediately. If possible, the turtle shall be allowed to leave the construction area on its own and the qualified biologist shall remain in the area until the biologist deems that the turtle is not harmed. Alternatively, the qualified biologist may attempt to capture and relocate the turtle, unharmed and with prior CDFW (and USFWS, if 	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before and during construction.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>necessary) approval, to suitable habitat at least 200 feet from the construction area.</p> <ul style="list-style-type: none"> ▪ If a northwestern pond turtle nest is unintentionally uncovered during project activities, work would stop within approximately 200 feet of the nest and CDFW (and USFWS, if necessary) would be contacted immediately. Next steps shall include fencing off and buffering the nest and/or rescue, rehabilitation, and relocation of affected turtles, as approved by CDFW (and USFWS, if necessary). 				
<p>BIO-6a: Avoid and Minimize Impacts to Burrowing Owl. To avoid effects of construction activities on burrowing owls, ACWD shall ensure that the following measure is implemented.</p> <ol style="list-style-type: none"> 1. Conduct an Assessment of Burrowing Owl Habitat Suitability in Areas Subject to Project-related Disturbance and Conduct a Focused Survey for Burrowing Owl at least fourteen (14) days prior to the start of construction activities. A qualified biologist shall conduct an assessment of burrowing owl habitat suitability in areas subject to project-related disturbance. The assessment shall evaluate the area subject to direct impact, as well as adjacent areas within up to 500 feet of direct impact areas, depending on the potential extent of indirect impact. If suitable burrows or sign of burrowing owl presence are observed, a take avoidance survey will be conducted within 14 days before on-site project activities begin. Survey shall be conducted in accordance with Appendix D of the Staff Report on Burrowing Owl Mitigation (CDFG 2012). A letter report documenting the survey methods and results shall be prepared and submitted to CDFW. 	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before construction.</p>	<p>ACWD.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p>BIO-6b: If Surveys Detect Burrowing Owl in the Study Area, Implement Measures to Avoid and Minimize Effects to Burrowing Owl and Establish Protective Buffers Around Occupied Burrows and Monitor.</p> <p>If the focused surveys described above in Mitigation Measure BIO-5a have been completed and burrowing owl are detected, ACWD shall coordinate with CDFW to determine acceptable methods for avoiding and minimizing effects on this species. ACWD shall</p>	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before and during construction.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>ensure that the measures described below are implemented to avoid and minimize effects of the project on burrowing owl, such that there is no direct loss of individuals of this species or project-related nest failure.</p> <ol style="list-style-type: none"> 1. Consult with CDFW Regarding Best Approach to Avoid and Minimize Potential Impacts to Burrowing Owl if Active Burrows Are Observed and Implement Measures. A qualified biologist shall determine acceptable methods for avoiding and minimizing effects on this species, in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012). Measures may include implementing no-disturbance buffers (required during the breeding season) and developing and implementing a Burrowing Owl Exclusion Plan upon CDFW approval. 2. Provide a Protective Buffer for Occupied Burrows during the Breeding Season and Monitor Burrows to Ensure that Project Activities do not Result in Adverse Effects on Nesting Burrowing Owls. Burrows occupied during the breeding season (February 1 through August 31) shall be provided with a protective buffer until a qualified biologist verifies through noninvasive means that either (1) the birds have not begun egg-laying, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer, which may range from 50 meters to 500 meters, will depend on distance from the nest to area of project disturbance, type and intensity of disturbance, presence of visual buffers, time of year, and other variables that could affect susceptibility of the owls to disturbance (CDFG 2012). Monitoring shall be conducted to confirm that project activity is not resulting in detectable adverse impacts on nesting burrowing owls. 				
<p>BIO-7a: Conduct Focused Surveys for Nesting Special-status Birds and Avoid Impacts.</p> <p>To avoid effects of construction activities on nesting special-status birds, ACWD shall ensure that the following measures are implemented. If avoidance consistent with these measures cannot be achieved, ACWD shall implement the minimization measures as described below.</p>	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before construction.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>1. Conduct Vegetation Removal between September 16 and January 31 to the Extent Feasible. Vegetation removal shall be conducted between September 16 and January 31, to the extent feasible, to minimize potential loss of active bird nests.</p> <p>2. Conduct Pre-construction Surveys for Active Nests of Special-status Birds in Areas of Suitable Habitat before Starting Construction. If construction activities that could affect suitable habitat for special-status birds cannot be conducted outside of the respective nesting seasons, ACWD shall complete pre-activity surveys for nesting birds. Surveys of all potential nesting habitat in the area shall be conducted by a qualified biologist during the nesting season, which is typically February 15 to August 1. Surveys shall be conducted within suitable nesting habitat that could be affected by construction activities and shall include a 350-foot buffer area (or larger area if required by established survey protocol) surrounding these areas.</p> <p>Where appropriate, pre-activity surveys shall follow established survey protocols or guidelines.</p> <p>If no established survey protocol exists, the qualified biologist shall complete surveys no more than 1 week prior to the start of construction activities or more than 1 week prior to the restart of construction after a lapse of 14 days. If no nesting birds are detected during pre-activity surveys, no additional mitigation measures are required.</p>				
<p>BIO-7b: f Avoiding Construction-related Effects on Nesting Special-status Birds is Infeasible, Implement Minimization Measures.</p> <p>If the measures described above in Mitigation Measure BIO-6a have been completed and avoiding effects on nesting special-status birds is infeasible, ACWD shall coordinate with CDFW to determine acceptable methods for minimizing effects on these species. ACWD shall ensure that the measures described below are implemented to minimize effects of the project on nesting special-status birds, such that there is no direct loss of individuals of these species or project-related nest failure.</p>	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before and during construction.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>1. Establish and Maintain Buffers Around Active Nest Sites to Avoid Nest Failure and Monitor Nest Sites to Confirm that Project Activities Are Not Adversely Affecting the Nesting Birds or Their Young. If any active nests, or behaviors indicating active nests are present, or observed, ACWD shall establish appropriate-sized avoidance buffers around the nest sites, as determined by a qualified biologist in coordination with CDFW to avoid nest failure resulting from project activities. The size and shape of the buffer shall depend on the species, nest location, nest stage, and specific construction activities to be performed while the nest is active. The buffer shall be expanded if the birds are exhibiting agitated behavior, or the buffers may be adjusted (reduced) if a qualified biologist determines it would not be likely to adversely affect the nest. If required, buffers shall be marked in the field by a qualified biologist using temporary fencing, high-visibility flagging, or other means that are equally effective in clearly delineating the buffer.</p> <p>Monitoring shall be conducted by a qualified biologist, either continuously or periodically during work, to confirm that project activity is not resulting in detectable adverse impacts on nesting birds or their young. The qualified biologist shall be empowered to stop construction activities that, in the biologist's opinion, threaten to cause unanticipated and/or unpermitted adverse effects on special-status wildlife (e.g., nest abandonment). If construction activities are stopped, the qualified biologist shall consult with CDFW to determine appropriate measures that ACWD shall implement to avoid adverse effects.</p> <p>No project activity shall commence within the buffer areas until a qualified biologist has determined that the young have fledged, or the nest site is otherwise no longer in use.</p>				
<p>BIO-8a: Conduct an Assessment of Suitable Roosting Habitat within the Project Site.</p> <p>To avoid effects of construction activities on roosting bats, ACWD shall ensure that the following measures are implemented.</p>	<p>Include measures as Condition of Approval. Incorporate measures as</p>	<p>Before construction.</p>	<p>ACWD.</p>	<p>Verified by:</p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>1. Conduct an Assessment of Suitable Roosting Habitat within the Project Site Where Tree Trimming is Unavoidable. Flag and record locations of trees that either have signs of bat presence (i.e. guano) or have the potential to be suitable roosting habitat for bats.</p>	<p>part of construction specifications.</p>			<p>Date:</p>
<p>BIO-8b: If Avoiding Tree Trimming with Suitable Roosting Habitat is Infeasible, Implement Minimization Measures.</p> <p>If the measures described above have been completed and avoiding effects on suitable roosting habitat is infeasible, ACWD shall ensure that the measures described below are implemented to minimize effects of the project on roosting bats, such that there is no direct loss of individuals of these species or project-related maternity failure.</p> <ul style="list-style-type: none"> ▪ Conduct Tree Trimming between August 16 and December 1 OR between February 28 and May 1 to the Extent Feasible. Tree trimming shall be conducted between August 16 and December 1 or between February 28 and May 1, to the extent feasible, to minimize potential loss of maternity roosts. ▪ Conduct Emergence Surveys for Trees to be Trimmed after March 1. If tree trimming is not possible during the winter and summer months, avoid removal of potential roost habitats until after March 1, or whenever weather conditions are suitable for conducting emergence surveys. Conduct dusk emergence surveys at all trees deemed to be suitable roosting habitat that will be removed. ▪ If emergency surveys indicate roost occupancy, a qualified biologist shall safely exclude roosting bats prior to tree removal. If roosting bats must be excluded, provide alternative roosting habitat such as bat boxes, installed under direction of a qualified biologist, in advance of bat exclusion. ▪ If trees are identified as providing suitable roosting habitat must be trimmed prior to conducting emergence surveys, implement the following measures. <ul style="list-style-type: none"> ○ Perform tree trimming in the presence of the monitoring bat biologist. 		<p>Before and during construction.</p>	<p>ACWD and its construction contractor(s).</p>	

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<ul style="list-style-type: none"> ○ Remove all unaffected limbs (those without potential roosting habitat) from the tree and leave the remaining trunk and limbs overnight. Leave all fallen material on the ground at least one night prior to removal from the project site. ○ As practical, fell all affected limbs slowly and gently, to minimize the likelihood of crushing bats that may be roosting inside. ○ If bats are detected at any point, stop work immediately, leave the tree site and a surrounding 200-foot buffer, and consult with the monitoring bat biologist. 				
CULTURAL RESOURCES				
<p>CR-1: Worker Environmental Awareness Program (WEAP) Training for Cultural and Tribal Resources.</p> <p>Cultural resources awareness training, as part of an overall Workers Environmental Awareness Program (WEAP), should be conducted for all construction personnel. The training should be conducted before any stages of physical project implementation and construction. Native American representatives from the Confederated Villages of Lisjan Nation (CVLN) will be invited to assist and comment in development of the cultural resources portion of the WEAP and to participate in the presentation of the WEAP.</p> <p>The WEAP training should include information on the potential kinds of pre-contact Native American and historic-era cultural materials that could be encountered, how to identify buried faunal and human remains, and how to identify anthropogenic soils (e.g., midden soils). The WEAP training should also include a summary of the relevant laws concerning cultural resources and human remains, along with a summary of all protocols to follow if workers encounter cultural resources or human remains.</p>	<p>Include measures as Condition of Approval. Implementation actions are outlined in the measure.</p>	<p>During construction activities.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p>CR-2: Cultural Monitoring Plan</p> <p>A Cultural Monitoring Plan shall be developed for the entire project site. This plan shall be developed through consultation between ACWD, and with the involvement of a project archaeologist(s) who meets Secretary of the Interior's Qualification Standards for Professional Archaeologist (SOI), and CVLN. The Cultural</p>	<p>Include measures as Condition of Approval. Implementation actions are outlined in the measure.</p>	<p>Before and during construction activities.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>Monitoring Plan shall specify that if human remains are discovered, procedures for notification of the County Coroner and for the disposition of Native American human remains under Health and Safety Code Section 7050.5 and PRC 5097.5 shall be followed (See Mitigation Measure CR-4). Archaeological and Tribal monitors will have the authority to halt work within 100 feet of any potential find during monitoring in order to assess the potential find.</p> <p>Monitoring may include dedicated fulltime archaeological and/or Tribal monitoring at and near areas that might be identified as having the most potential for encountering cultural and Tribal resources, to ensure that if an intact archaeological deposit is encountered during project-related ground-disturbing activities then appropriate treatment measures can be quickly developed and implemented. Less dedicated monitoring efforts such as spot monitoring (only periodic monitoring) may be implemented in areas determined to have very low probability in encountering cultural or Tribal resources. CVLN and archaeological monitors may, in consultation with one another and the lead agency, halt or reduce monitoring efforts if warranted by conditions such as encountering bedrock, or if sediments being excavated are imported fill. Any discovery of historical or archeological resources during construction within the project site will be addressed according to the procedures in Mitigation Measure CR-3.</p>				
<p>Mitigation Measure CR-3: Address Previously Undiscovered Historic Properties, Archaeological Resources, and Tribal Cultural Resources.</p> <p>Previously undiscovered resources may be encountered during project-related, ground-disturbing activities. Therefore, an Unanticipated Discoveries Plan shall be developed in consultation with CVLN prior to the initiation of project construction. The Unanticipated Discoveries Plan shall address the accidental discovery of archaeological and Tribal resources including issuance of a stop work order and establishment of a no work zone in the immediate vicinity of the find if warranted. In the event of an inadvertent discovery on-site archaeological and Tribal monitors will make a quick assessment of the find to determine if work can continue or if further investigation is warranted. If further investigation is determined to be necessary then ACWD and the lead agency will be immediately notified. If either an</p>	<p>Include measures as Condition of Approval. Implementation actions are outlined in the measure.</p>	<p>During construction activities.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>archaeological or Tribal monitor are not present at the time of the discovery, a qualified archaeologist, who meets the SOI qualifications and a CVLN representative, shall visit the discovery site as soon as practicable for identification and evaluation pursuant to CEQA Guidelines Section 15064.5. If it is determined the find is not a "historical" or "unique archaeological" resource and if CVLN determine that the find is not a Tribal Cultural Resource, and thus not significant, construction may resume. If the archaeologist determines that the archaeological find is significant or potentially significant, the archaeologist shall determine if the find can be avoided and, if so, shall detail avoidance procedures. If the archaeological find cannot be avoided, the archaeologist in consultation with participating Tribes shall develop an Action Plan within 48 hours which shall include provisions to minimize impacts and, if required, a Resource Treatment Plan.</p> <p>The preferred treatment for impacts to archaeological sites, including those identified as Tribal Cultural Resources, is avoidance, as directed under CEQA Guidelines 15126.4(b)(93)(b)(1). Not all archaeological sites that may be encountered may be able to be avoided. The Resource Treatment Plan will be developed consistent with requirements in the CEQA Guidelines Section 15126.4(b). If archaeological data recovery is included in the Treatment Plan, the Plan shall include a research design to identify research questions as the focus of data recovery efforts and detail the field and laboratory methods to address the questions. The Treatment Plan shall also include a specific discussion of the methods and level of effort at each site for data recovery excavation, which are an acceptable form of mitigation under Section 15126.4(b)(3)(c) of the CEQA Guidelines. Specific plans for Tribal Cultural Resources shall be prepared in consultation with CVLN.</p>				
<p>Mitigation Measure CR-4: Avoid Potential Effects on Undiscovered Burials.</p> <p>If human remains are found, the California Health and Safety Code (CHSC) requires that excavation be halted in the immediate area and that the County Coroner be notified to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (CHSC Section 7050.5[b]).</p>	<p>Include measures as Condition of Approval. Implementation actions are outlined in the measure.</p>	<p>During construction activities.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>If the Coroner determines that the remains are those of a Native American, the Coroner must contact the NAHC by telephone within 24 hours of making that determination (CHSC Section 7050.5[c]).</p> <p>Once notified by the Coroner, the NAHC shall identify the person it believes is the Most Likely Descendant (MLD) of the Native American remains. With permission of the legal landowner(s), the MLD may visit the site and make recommendations regarding the treatment and disposition of the human remains and any associated grave goods. This visit should be conducted within 24 hours of the MLD's notification by the NAHC (California Public Resources Code [PRC], Section 5097.98[a]). If a satisfactory agreement for treatment of the remains cannot be reached, any of the parties may request mediation by the NAHC (PRC, Section 5097.94[k]). Should mediation fail, the landowner or the landowner's representative must reinter the remains and associated items with appropriate dignity on the property in a location not subject to further subsurface disturbance (PRC, Section 5097.98[b]).</p>				
ENERGY				
<i>There are no mitigation measures related to Energy.</i>				
GEOLOGY AND SOILS				
<i>There are no mitigation measures related to Geology and Soils.</i>				
GREENHOUSE GAS EMISSIONS				
<i>There are no mitigation measures related to Greenhouse Gas Emissions.</i>				
HAZARDS AND HAZARDOUS WASTE				
<p>HAZ-1: Implement a Spill Prevention Control and Countermeasures Plan for Storage, Use, and Transport of Hazardous Materials during Construction Activities. ACWD will implement a Spill Prevention Control and Countermeasures Plan (SPCCP).</p> <ul style="list-style-type: none"> ▪ Prepare and Implement a Spill Prevention Control and Countermeasures Plan. ACWD will prepare a SPCCP or require its contractor to prepare a SPCCP and the contractor will implement the SPCCP. The SPCCP 	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>During construction activities.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>and all material necessary for its implementation will be accessible onsite prior to initiation of project construction and throughout the construction period. The SPCCP will include a plan for the emergency cleanup of any spills of fuel or other material. Employees/construction workers will be provided with the necessary information from the SPCCP to prevent or reduce the discharge of pollutants from construction activities to waters and to use the appropriate measures should a spill occur. ACWD will direct the contractor to immediately stop work in the area in the event of a hazardous materials spill onto the land or in waters and ACWD will notify appropriate Federal, State, and local agencies as may be required by law for the type, quantity, and location of the particular spill. In addition, ACWD will require its contractor to implement the following additional BMPs as part of the SPCCP for the project:</p> <ul style="list-style-type: none"> ○ Designate a supervisor to oversee and enforce proper spill prevention measures. ○ Provide spill response and prevention education for employees and subcontractors. ○ Stock appropriate clean-up materials onsite near material storage, unloading, and use areas. ○ Designate hazardous waste storage areas away from storm drains or watercourses. ○ Minimize production or generation of hazardous materials onsite or substitute materials used onsite with less hazardous materials. <ul style="list-style-type: none"> ▪ Dispose of All Construction-related Debris and Materials at an Approved Disposal Site. All debris, litter, unused materials, sediment, rubbish, vegetation, or other material removed from the construction areas that cannot reasonably be secured will be removed daily from the project work area and deposited at an appropriate disposal or storage site. ▪ Use Safer Alternative Products to Protect Waters. Every reasonable precaution will be exercised to protect waters from pollution with fuels, oils, and other harmful materials. Safer alternative products (such as 				

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>biodegradable hydraulic fluids) will be used, where feasible.</p> <ul style="list-style-type: none"> ▪ Prevent Any Contaminated Construction By-products from Entering Flowing Waters; Collect and Transport Such By-products to an Authorized Disposal Area. Petroleum products, chemicals, fresh cement, and construction by-products containing, or water contaminated by, any such materials will not be allowed to enter the Reservoir, streams, rivers, or other waters and will be collected and transported to an authorized upland disposal area or off-site for disposal at a facility accepting these materials. ▪ Prevent Hazardous Petroleum or Other Substances Hazardous to Aquatic Life from Contaminating the Soil or Entering Waters. Gas, oil, other petroleum products, or any other substances that could be hazardous to aquatic life and resulting from project-related activities, will be prevented from contaminating the soil and/or entering waters. ▪ Properly Maintain All Construction Vehicles and Equipment and Inspect Daily for Leaks; Remove and Repair Equipment/Vehicles with Leaks. Construction vehicles and equipment will be properly maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. Vehicles and equipment will be checked daily for leaks. If leaks are found, the equipment will be removed from the site and will not be used until the leaks are repaired. ▪ Refuel and Service Equipment at Designated Refueling and Staging Areas. Equipment will be refueled and serviced at designated refueling and staging sites. All refueling, maintenance, and staging of equipment and vehicles will be conducted in a location where a spill will not drain directly toward aquatic habitat. Appropriate containment materials will be installed to collect any discharge, and adequate materials for spill cleanup shall be maintained onsite throughout the construction period. 				

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<ul style="list-style-type: none"> ▪ Store Heavy Equipment, Vehicles, and Supplies at Designated Staging Areas. All heavy equipment, vehicles, and supplies will be stored at the designated staging areas at the end of each work period. ▪ Install an Impermeable Membrane between the Ground and Any Hazardous Material in Construction Storage Areas. Storage areas for construction material that contains hazardous or potentially toxic materials will have an impermeable membrane between the ground and the hazardous material and will be bermed as necessary to prevent the discharge of pollutants to groundwater and runoff water. ▪ Use Only Nontoxic Materials and Materials with No Coatings or Treatments Deleterious to Aquatic Organisms for Placement in Any Waters. All materials placed in streams, rivers, or other waters will be nontoxic and will not contain coatings or treatments or consist of substances deleterious to aquatic organisms that may leach into the surrounding environment in amounts harmful to aquatic organisms. 				
<p>Mitigation Measure HAZ 2: Ensure Worker Safety in Areas with Elevated Concentrations of Lead</p> <p>To ensure worker safety in areas with elevated lead concentrations in or adjacent to project site, where ground disturbance activities would occur, ACWD and/or its contractor(s) shall require PPE that meets Cal/OSHA requirements for protection from lead exposure during project construction to maintain exposure levels below those established by the Cal/OSHA.</p>	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>During construction activities.</p>	<p>ACWD and its construction contractor(s).</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p>Mitigation Measure HAZ 3: Develop and Implement a Hazardous Materials Management Plan</p> <p>To minimize potential impacts to workers, the public or the environment from hazardous materials, ACWD and/or its contractor(s) shall develop and implement a Hazardous Materials Management Plan (HMMP) for areas where ground disturbing activities could come in contact with hazardous materials (i.e. the staging area and the portion of the project site that overlaps with the City of Fremont Police Department Training Facility). The HMMP shall establish procedures to manage potentially</p>	<p>Include measures as Condition of Approval. Incorporate measures as part of construction specifications.</p>	<p>Before and during construction activities.</p>	<p>ACWD.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>contaminated soil encountered as part of project construction. The HMMP shall identify proper protocols to implement upon uncovering suspected contamination, segregation and containment of contaminated materials, and testing and handling of potentially hazardous materials. The HMMP shall also identify potential licensed disposal facilities and their acceptance criteria.</p> <p><u>Soil and/or Groundwater Testing and Proper Disposal of Potentially Contaminated Soils or Groundwater</u></p> <p>The HMMP shall include procedures to conduct soil testing in areas with known potential for soils with hazardous levels of contaminants, and if soils are suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are exposed during site grading or excavation activities. Soil testing and investigation procedures are to be conducted and supervised by a hazardous materials specialist who meets Federal and State regulatory requirements related to the handling and disposal of hazardous materials. The test results shall be compared against SFBRWQCB ESLs for HHRL for residential and/or commercial land for Cancer and Non-cancer risk (if available) for the protection of human health (SFBRWQCB 2019). If hazardous levels of contaminants (as defined by Federal and State regulations) are present, ACWD shall report findings to Federal, State, and local agencies for further direction on clean up actions required. The materials shall be excavated and/or remediated as directed by Federal, State, and local regulatory agencies and taken to a permitted hazardous waste facility for disposal. The required handling, storage, and disposal methods will depend on the types and concentrations of hazardous materials identified in the soil. Any site investigations or remedial actions shall comply with applicable Federal, State, and local hazardous materials and waste disposal regulations.</p>				
<p><i>Additionally, Implementation of Mitigation Measure AQ-1 (above) would reduce impacts to hazards and hazardous materials</i></p>				
<p>HYDROLOGY AND WATER QUALITY</p>				
<p>HWQ-1: Prepare and Implement a Stormwater Pollution Prevention Plan and BMPs to Reduce Erosion.</p>	<p>Include measures as Condition of Approval. Incorporate measures as</p>	<p>Before and during construction</p>	<p>ACWD and its construction contractor(s)</p>	<p><i>Verified by:</i></p>

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<p>Construction activities would be subject to SWRCB's General Permit for Discharges of Storm Water Associated with Construction Activity (Order No. 2009-0009-DWQ, NPDES NO. CAS000002) (2009-0009-DWQ) to meet construction-related stormwater permit requirements of the NPDES program. Any permits will be obtained by ACWD or its contractor(s) before commencing ground-disturbing construction activity. The General Permit also requires preparing and implementing a SWPPP that identifies BMPs to prevent or minimize the introduction of contaminants into surface waters. Such BMPs could include, but would not be limited to, silt curtains, silt fencing, straw bale barriers, fiber rolls, storm drain inlet protection, hydraulic mulch, and a stabilized construction entrance. The SWPPP will include development of site-specific structural and operational BMPs to prevent and control impacts on runoff quality, measures to be implemented before each storm event, inspection, maintenance of BMPs, and monitoring of runoff quality by visual and/or analytical means.</p>	<p>part of construction specifications.</p>			<p>Date:</p>
<p><i>Additionally, Implementation of Mitigation Measure HAZ-1 (above) would reduce impacts to hydrology and water quality</i></p>				
<p>LAND USE AND PLANNING</p>				
<p><i>There are no mitigation measures related to Land Use and Planning.</i></p>				
<p>MINERAL RESOURCES</p>				
<p><i>There are no mitigation measures related to Mineral Resources.</i></p>				
<p>NOISE</p>				
<p><i>There are no mitigation measures related to Noise.</i></p>				
<p>POPULATION AND HOUSING</p>				
<p><i>There are no mitigation measures related to Population and Housing.</i></p>				
<p>PUBLIC SERVICES</p>				
<p><i>There are no mitigation measures related to Public Services.</i></p>				
<p>RECREATION</p>				

Mitigation Measure	Implementation Actions	Timing Requirement	Monitoring/Reporting Responsibility	Verified By and Date
<i>There are no mitigation measures related to Recreation.</i>				
TRANSPORTATION				
<i>There are no mitigation measures related to Transportation.</i>				
TRIBAL CULTURAL RESOURCES				
<i>There are no new mitigation measures related to Tribal Cultural Resources. Implementation of Mitigation Measure CUL-1 and CUL-2 (above) would reduce impacts to tribal cultural resources.</i>				
UTILITIES AND SERVICE SYSTEM				
<i>There are no mitigation measures related to Utilities and Service System.</i>				
WILDFIRE				
<i>There are no mitigation measures related to Wildfire.</i>				

This page intentionally left blank.

Appendix B Evaluated Wildlife and Plant Potential to Occur Tables

This page intentionally left blank.

Special-status Plant Species Evaluated with None-to-Little Potential to Occur in and Adjacent to the Project Site

Species Name	Blooming Period	Legal Status Federal/State/ CRPR ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
Alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	March – June	–/–/1B.2	Alkaline soils in playas, adobe clay grassland, and vernal pools. Elevation: 0–195 feet.	No potential to occur. No suitable habitat is present in the study area. Soils mildly alkaline.
big-scale balsamroot <i>Balsamorhiza macrolepis</i>	March - June	–/–/1B.2	Occasionally in serpentine soils in chaparral, cismontane woodland, and grassland. Elevation: 295–5,100 feet.	Unlikely to occur. Study area is below typical species elevation range.
pappose tarplant <i>Centromadia parryi</i> ssp. <i>parryi</i>	May – November	–/–/1B.2	Often in alkaline soils in chaparral, coastal prairie, meadows, seeps, coastal salt marshes and swamps, and vernal mesic grassland. Elevation: 0–1,380 feet.	No potential to occur. No suitable habitat is present in the study area.
Point Reyes salty birds-peak <i>Chloropyron maritimum</i> ssp. <i>palustre</i>	June – October	–/–/1B.2	Coastal salt marshes and swamps. Elevation: 0–35 feet.	No potential to occur. No suitable habitat is present in the study area.
Hoover’s button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>	July – August	–/–/1B.1	Vernal pools. Elevation: 9–147 feet.	No potential to occur. No suitable habitat is present in the study area.
San Joaquin spearscale <i>Extriplex joaquinana</i>	April – October	–/–/1B.2	Alkaline soils in chenopod scrub, meadows, seeps, playas, and grassland. Elevation: 0–2,740 feet.	Unlikely to occur. Species is a strong alkaline associate. Onsite soils and grassland unlikely to be suitable due to only mild alkalinity.
Contra Costa goldfields <i>Lasthenia conjugens</i>	March – June	E/–/1B.1	Mesic soils in vernal pools, grassland, alkaline playas, and cismontane woodland. Elevation: 0–1,540 feet.	No potential to occur. No suitable habitat is present in the study area.
Lassics lupine <i>Lupinus constancei</i>	July	E/–/1B.1	Serpentine soils in lower montane coniferous forest. Elevation: 4,920–6,560 feet.	No potential to occur. Study area is outside of the species known elevation range.
hairless popcornflower <i>Plagiobothrys glaber</i>	March – May	–/–/1A	Alkaline soils in meadows and seeps and coastal salt marshes and swamps. Elevation: 45–590 feet.	No potential to occur. No suitable habitat is present in the study area.

Species Name	Blooming Period	Legal Status Federal/State/CRPR ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
chaparral ragwort <i>Senecio aphanactis</i>	January – April	–/–/2B.2	Chaparral, cismontane woodland, coastal scrub, and alkaline flats. Elevation: 49–2,624 feet.	Unlikely to occur. No suitable habitat is present in the study area and nearby occurrence is from the 1800's.
long-styled sand-spurrey <i>Spergularia macrotheca var. longistyla</i>	February – May	–/–/1B.2	Alkaline soils in meadows, seeps, marshes and swamps. Elevation: 0–835 feet.	No potential to occur. No suitable habitat is present in the study area.
northern slender pondweed <i>Stuckenia filiformis ssp. alpina</i>	May – July	–/–/2B.2	Shallow freshwater marshes and swamps. Elevation: 980–7,055 feet.	No potential to occur. Study area is outside of the species known elevation range.
California seablite <i>Suaeda californica</i>	July – October	E/–/1B.1	Coastal salt marshes and swamps. Elevation: 0–50 feet.	No potential to occur. No suitable habitat is present in the study area.
saline clover <i>Trifolium hydrophilum</i>	April – June	–/–/1B.2	Marshes, swamps, vernal pools, and grassland with mesic or alkaline soils. Elevation: 0–985 feet.	Unlikely to occur. Species is a strong alkaline associate. Onsite soils and grassland unlikely to be suitable due to only mild alkalinity.

Notes: CRPR = California Rare Plant Rank

¹ Legal Status Definitions:

E Plant species listed as Endangered under the Federal and/or California Endangered Species Act.

R Plant species listed as rare under the California Native Plant Protection Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.

– No listing under the Federal and/or California Endangered Species Act.

1B Plant species considered Rare, Threatened, or Endangered in California and elsewhere.

2B Plant species considered Rare or Endangered in California but more common elsewhere.

California Rare Plant Rank Extensions:

.1 Seriously threatened in California.

.2 Moderately threatened in California.

² Potential for Occurrence Definitions

Known to occur: The species, or evidence of its presence, was observed in the project site during previous field surveys (as reported in background information materials) or was recently reported by others.

Could occur: Extant species distribution, habitat conditions, behavior of the species, known occurrences (as documented in the CNDDDB, or USFWS and/or CNPS databases) in the project vicinity, or other factors, indicate that the species could occur.

Unlikely to occur: Although the project site is located within the extant range of the species, the species is unlikely to be present because of very restricted distribution and/or because only low-quality habitat or very limited habitat is present in the project site and vicinity.

No potential to occur: The project site is located outside of the species extant distribution and/or potential habitat to support the species is not present.

Sources: CDFW 2025; CNPS 2025a; CNPS 2024b; USFWS 2025a; data collected and compiled by GEI Consultants Inc., in 2024 and revised in 2025

Special-status Wildlife Species Evaluated with None-to-Little Potential to Occur in and Adjacent to the Project Site

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
Invertebrates			
Crotch's bumble bee <i>Bombus crotchii</i>	-/C	Open grassland and scrub. Primarily nests underground and requires flowering plants for foraging.	Unlikely to occur. Project site has a lack of suitable flowering plants for foraging, although the species could forage and use underground refugia in the areas outside of the study area (Hatfield <i>et al.</i> 2020; Xerces Society 2018).
western bumble bee <i>Bombus occidentalis</i>	-/C	Meadows and grasslands with an abundance of floral resources. Primarily nests underground.	Unlikely to occur. Project site has a lack of suitable flowering plants for foraging, although the species could forage and use underground refugia in the areas outside of the study area (Hatfield <i>et al.</i> 2020; Xerces Society 2018).
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T/-	Vernal pools and other seasonal wetlands.	No potential to occur. No suitable habitat is present in the study area.
Bay checkerspot butterfly <i>Euphydras Editha bayensis</i>	T/-	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. All currently occupied habitats occur on serpentine or serpentine-like grasslands that support at least two of the larval host plants: California plantain (<i>Plantago erecta</i>), dense flower owl's-clover (<i>Castilleja densiflora</i>), and purple owl's clover (<i>Castilleja exserta</i>).	No potential to occur. No suitable habitat is present in the study area.
vernal pool tadpole shrimp <i>Lepidurus packardi</i>	E/-	Vernal pools and other seasonal wetlands.	No potential to occur. No suitable habitat is present in the study area.
Amphibians and Reptiles			
Santa Cruz black salamander <i>Aneides niger</i>	-/SSC	Occurs in mixed deciduous woodland, coniferous forests, and coastal grasslands. Found under rocks near streams, in talus, under damp logs, and other objects. Rarely encountered very far from water. Permanent or nearly permanent water bodies with abundant vegetation and rocky or muddy bottoms.	No potential to occur. No suitable habitat is present in the study area.

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
Northern California legless lizard <i>Anniella pulchra</i>	-/SSC	Relatively sparse amount of vegetation including coastal sand dunes, chaparral, pine-oak woodland, desert scrub, grassland, and riparian zones. Specifically, requires sandy to loose loamy substrates suitable for burrowing, and avoids areas with gravel or larger sized substrates and those with greater than 10% clay content. Also tends to avoid non-native grasslands, iceplant fields, and other non-native dominated herbaceous communities	No potential to occur. No suitable habitat is present in the study area.
California giant salamander <i>Dicampton ensatus</i>	-/SSC	Generally found in mesic coastal oak and coniferous forests. Sometimes found in coastal chaparral. Breeding and larval development is known to occur in cold temperature streams (Thomson et al. 2016).	No potential to occur. No suitable habitat is present in the study area.
Alameda whipsnake <i>Masticophis lateralis euryxanthus</i>	T/T	Endemic to California where it is only found in the East Bay area in Alameda and Contra Costa Counties. Prefers open areas in canyons, rocky hillsides, and chaparral scrublands, but will range into adjacent grasslands and woodlands.	Unlikely to occur. Habitat is only marginal in the study area; the area lacks suitable rocks for basking.
coast horned lizard <i>Phrynosoma blainvillii</i>	-/SSC	Generally occurs in sage scrub, dunes, alluvial scrub, annual grassland, chaparral, oak, riparian, and Joshua tree woodland, coniferous forest, and saltbush scrub. Needs loose, fine soils for burrowing, open areas for basking, and dense foliage for cover.	No potential to occur. No suitable habitat is present in the study area.
foothill yellow-legged frog – Central Coast DPS <i>Rana boylei pop. 4</i>	T/E	Generally found in shallow flowing streams and rivers with at least cobble sized substrate. Breeding generally occurs at the margins of wide shallow channels with reduced flow variation near tributary confluences. Specifically, egg masses are placed in low flow locations on or under rocks with preferred substrates being boulders, cobbles, or gravel.	No potential to occur. No suitable habitat is present in the study area.

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
California red-legged frog <i>Rana draytonii</i>	T/SSC	Ponds and streams in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover in lowlands or foothills. Breeding habitat includes permanent or ephemeral water sources, lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry.	Unlikely to occur. There is only suitable breeding habitat outside of the study area within the fresh emergent ponds to the north of the study area. Grasslands with mammal burrows present in the study area could support refuge for this species, however, there are no known recent nearby occurrences (CDFW 2025; iNaturalist 2024).
western spadefoot <i>Spea hammondi</i>	C/SSC	Generally found in grasslands, oak woodlands, coastal sage scrub, and chaparral in washes, floodplains, alluvial fans, playas, and alkali flats. Requires aquatic habitat for breeding and sandy or gravelly soils for burrowing.	Unlikely to occur. Suitable habitat in the study area is only marginal. Species require sandy or gravelly soil, which are not present.
San Francisco garter snake <i>Thamnophis sirtalis tetrataenia</i>	E/E, FP	Densely vegetated ponds near open hillsides for basking and foraging. Takes cover in rodent burrows. Temporary ponds and other seasonal freshwater bodies are also used. Avoids salt and brackish marshes. Emergent and bankside vegetation such as cattails (<i>Typha</i> spp.), bulrushes (<i>Schoenoplectus</i> spp.) and spike rushes (<i>Eleocharis</i> spp.) are preferred and used for cover.	No potential to occur. Study area is outside of the known range for this species (Nafis 2024).
Birds			
long-eared owl <i>Asio otus</i>	-/SSC	Rarely nests in the Central Valley. Roosts in dense stands of live oak (<i>Quercus</i> spp.) in riparian thickets with dense canopies near meadow edges.	No potential to occur. No suitable habitat is present in the study area.
redhead <i>Aythya americana</i>	-/SSC	Nests in freshwater emergent wetlands where dense stands of cattails (<i>Typha</i> spp.) and bulrushes (<i>Schoenoplectus</i> spp.) are interspersed with areas of deep, open water. Also observed nesting in somewhat alkaline marshes and potholes.	Unlikely to occur. While there are several known occurrences adjacent to the study area (eBird 2024), there is no suitable nesting or foraging habitat present in the study area. Suitable habitat only occurs outside of the study area and potential occurrences in the study area would only be flyovers.

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
brant <i>Branta bernicla</i>	-/SSC	Does not nest in California. Birds overwinter very locally along the length of the California coast in several large bays with eelgrass (<i>Zostera spp.</i>) including Humboldt Bay, Bodega Bay, Tomales Bay, Drakes Estero, Morro Bay, San Diego Bay, Mission Bay, and the San Diego River flood-control channel. Require well-protected, shallow marine waters with intertidal eelgrass beds, primarily within bays and estuaries.	No potential to occur. No suitable habitat is present in the study area.
Barrows goldeneye <i>Bucephala islandica</i>	-/SSC	Formerly nested in California in the southern Cascade Range and Sierra Nevada Range to as far south as Fresno County but has not been recorded nesting in the state since the 1930's. Uncommon and local winter resident on estuarine lagoons and bays along the north and central coasts and San Francisco and Monterey Bay areas, and inland on some rivers, lakes and reservoirs, especially near fish hatcheries.	Unlikely to occur. While there are several known occurrences adjacent to the study area (eBird 2024), there is no suitable nesting or foraging habitat present in the study area. Potential occurrences in the study area would only be flyovers.
Swainson's hawk <i>Buteo swainsoni</i>	-/T	Typically occurs in California only during the breeding season (March to September). Breeding resident in the Central Valley, Klamath Basin, Northeastern Plateau, and in juniper-sagebrush flats of Lassen County. Nests in oak savanna and cottonwood riparian areas adjacent to foraging habitat of grasslands, agricultural fields, and pastures.	Unlikely to occur. While there are several known occurrences adjacent to the study area (eBird 2024), suitable nesting habitat is low, and this species is only known to occur in this area in low numbers.
western snowy plover <i>Charadrius nivosus nivosus</i>	T/SSC	Coastal populations nest on sandy or gravelly dune-backed beaches, sand spits, and on estuarine salt pans and lagoons. Inland populations nest along barren to sparsely vegetated flats and along shores of alkaline and saline lakes, reservoirs, ponds, braided river channels, agricultural wastewater ponds, and salt evaporation ponds. Inland nesting occurs at Salton Sea, Mono Lake, and isolated sites on the shores of alkali lakes in northeastern California, the Central Valley, and southeastern deserts.	No potential to occur. No suitable habitat is present in the study area.

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
black tern <i>Chlidonia niger</i>	-/SSC	Nests on the high plateaus of northeastern California, and locally in dwindling numbers in the Sacramento Valley from the Butte Sink to the Natomas Basin, and in the San Joaquin Valley from Merced County south to the Tulare Lake Basin. Nests in fresh emergent wetlands, lakes, ponds, moist grasslands, and flooded rice fields. On migration, some take coastal routes and forage offshore.	Unlikely to occur. No suitable habitat is present in the study area. Suitable habitat only occurs outside of the study area and potential occurrences in the study area would only be flyovers.
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	T/E	Nests in extensive deciduous riparian thickets or forests with dense, low-level or understory vegetation.	No potential to occur. No suitable habitat is present in the study area.
yellow rail <i>Coturnicops noveboracensis</i>	-/SSC	Nests in sedge marshes and meadows with moist soil or shallow standing water. Winters in wet meadows and tidal marshes. Has been found nesting on the Modoc Plateau and in Plumas and Lassen Counties. Very rarely detected in migration and recorded in winter at a very few sites scattered along the coast, though seemingly regular at Tomales Bay in Marin County and Arrowhead Marsh in Alameda County.	No potential to occur. No suitable habitat is present in the study area. Suitable habitat only occurs outside of the study area.
willow flycatcher <i>Empidonax traillii</i>	-/E	Uncommon summer resident in wet meadows and montane riparian habitats from 2,000 to 8,000 feet in elevation in the Sierra Nevada and Cascade Ranges. Most numerous where extensive thickets of low, dense willows (<i>Salix</i> spp.) edge on wet meadows, ponds, or backwaters.	Unlikely to occur. While there are several known occurrences adjacent to the study area (eBird 2024), there is no suitable nesting or foraging habitat present in the study area. Potential occurrences in the study area would only be flyovers.
ashy storm-petrel <i>Hydrobates homochroa</i>	-/SSC	Breeds from central Mendocino County south to the southern Channel Islands. In fall, large numbers of birds congregate in the Monterey Bay and Cordell Bank areas. Usually breeds in crevices of talus slopes, rock walls, sea caves, cliffs, and driftwood.	No potential to occur. No suitable habitat is present in the study area.
yellow-breasted chat <i>Icteria virens</i>	-/SSC	Nests in early successional riparian habitats with a well-developed shrub layer and an open canopy. Restricted to narrow borders of streams, creeks, sloughs, and rivers. Often nest in dense thickets of blackberry and willow.	Unlikely to occur. Suitable foraging and nesting habitats are not present in the study area, although suitable habitats may occur in the vicinity of the study area.
least bittern <i>Ixobrychus exilis</i>	-/SSC	Nests in dense emergent vegetation in fresh and brackish marshes; rarely in tamarisk in desert riparian scrub.	No potential to occur. No suitable habitat is present in the study area. Suitable habitat only occurs outside of the study area.

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
California black rail <i>Laterallus jamaicensis coturniculus</i>	-/T, FP	Nests in marshes and wet meadows, including riparian marshes, wetlands, and coastal prairies. They require shallow water and vegetation cover.	No potential to occur. No suitable habitat is present in the study area. Suitable habitat only occurs outside of the study area.
Alameda song sparrow <i>Meospiza melodia pusillula</i>	-/SSC	Restricted to tidal salt marshes, mainly on the fringes of south San Francisco Bay with strongholds near Milpitas and in the Palo Alto Baylands, although a few persist within San Francisco City limits and as far north as El Cerrito in Contra Costa County. Requires upper marsh vegetation for nesting.	Unlikely to occur. Suitable foraging and nesting habitats are not present in the study area. Suitable habitat only occurs outside of the study area, and potential occurrences in the study area would only be flyovers.
Bryant's savannah sparrow <i>Passerculus sandwichensis alaudinus</i>	-/SSC	Ranges along the coast from Humboldt County to Santa Barbara County in low tidally influenced habitats and adjacent ruderal areas, moist grasslands within and just above the fog belt, and infrequently, drier grasslands.	Unlikely to occur. Suitable foraging and nesting habitats are not present in the study area. Suitable habitat only occurs outside of the study area, and potential occurrences in the study area would only be flyovers.
American white pelican <i>Pelecanus erythrorhynchos</i>	-/SSC	In California, nests almost exclusively in large lakes in the Klamath Basin region. On migration and over winter, occurs across much of the state in open wetlands and sheltered bays and lagoons. Nests on ground on earthen, sandy, and rocky islands or rarely on peninsulas or floating tule mat islands. Nests may be in the open in the sand or interspersed with or adjacent to tall weeds and open, low-stature shrubs. Roosts along water edges, beaches, sandbars, or old driftwood.	Unlikely to occur. While there are several known occurrences adjacent to the study area (eBird 2024), there is no suitable nesting or foraging habitat present in the study area. Potential occurrences in the study area would only be flyovers.
California Ridgeway's rail <i>Rallus obsoletus obsoletus</i>	E/E, FP	Restricted to tidal marshes on the fringes of San Pablo Bay, San Francisco Bay, Monterey Bay, and Morro Bay. Requires intricate network of sloughs with small natural berms along tidal channels, preferably with cordgrass (<i>Spartina</i> spp.) and pickleweed (<i>Salicornia</i> spp.)	No potential to occur. No suitable habitat is present in the study area.
bank swallow <i>Riparia riparia</i>	-/T	Nests in vertical banks or bluffs of suitable soil, typically adjacent to water, and forages in adjacent open habitat.	No potential to occur. No suitable habitat is present in the study area.

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
black skimmer <i>Rynchops niger</i>	-/SSC	In California, resides at a very few locations: southern San Francisco Bay from Alameda south to Palo Alto, the south coast from San Pedro to Tijuana Slough, and at the Salton Sea. Prefers calm, shallow water of back bays, lagoons, and estuaries for foraging, and sand bars, beaches, or dikes for roosting and nesting.	No potential to occur. No suitable habitat is present in the study area.
California least tern <i>Sternula antillarum browni</i>	E/E, FP	Nests and roosts in colonies on fine-grain sandy or pebbly beaches, or in smaller numbers on pebbly levees at water treatment plants or evaporation ponds. Forages over near shore ocean waters and in shallow estuaries and lagoons.	Unlikely to occur. While there are several known occurrences adjacent to the study area (eBird 2024), there is no suitable nesting or foraging habitat present in the study area. Potential occurrences in the study area would only be flyovers.
yellow warbler <i>Setophaga petechia</i>	-/SSC	Usually found in riparian deciduous habitats in summer: cottonwoods, willows, alders, and other small trees and shrubs typical of low, open-canopy riparian woodland. Also breeds in montane shrubbery in open coniferous forests.	Unlikely to occur. While there are several known occurrences adjacent to the study area (eBird 2024), there is no suitable nesting or foraging habitat present in the study area. Potential occurrences in the study area would only be flyovers.
yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	-/SSC	Nests in reedy marshes, prairies, and parks; winters in open agricultural fields and pastures.	Unlikely to occur. Although suitable wintering habitat is present within and adjacent to the study area, this species is known as a colonial nester and there are no recent documented occurrences of nesting populations or individuals within the study area (CDFW 2025; eBird 2024).

Mammals

southern sea otter <i>Enhydra lutris nereis</i>	T/FP	Ranges from Pigeon Point north of Monterey, south to Graviota State Beach near Santa Barbara, as well as San Nicolas Island. Habitat is typically defined by the 130-foot depth contour, and rocky and sandy habitat along the shoreline.	No potential to occur. No suitable habitat is present in the study area.
western mastiff bat <i>Eumops perotis californicus</i>	-/SSC	Ranges throughout all of Southern California, the central coast, and the Sierra Nevada Mountains. Generally, occurs in open, arid, or semi-arid habitats. Roosts in rock crevices and buildings.	No potential to occur. No suitable roosting habitat is present in the study area.
western red bat <i>Lasiurus frantzii</i>	-/SSC	Occurs in most habitats except desert and alpine areas. Solitary bat species that roosts primarily in the foliage of trees or shrubs, and typically at the margins of habitats adjacent to streams or open fields, orchards, and sometimes urban areas. Association with intact riparian habitat particularly with willows, cottonwoods, and sycamores.	Could occur. Suitable roosting habitat could be present in trees within the study area but there is no suitable roosting habitat within the project site.

Species Name	Legal Status Federal/ State ¹	Habitat Associations	Potential to Occur in and Adjacent to the Project Site ²
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	-/SSC	Found throughout the San Francisco Bay area in grasslands, scrub and wooded areas with evergreen / live oaks (<i>Quercus</i> spp.) and other thick-leaved trees and shrubs. Houses are typically placed on the ground, against or straddling a log or exposed roots of a standing tree and are often located in dense brush. Nests are also placed in the crotches and cavities of trees and in hollow logs. Sometimes arboreal nests are constructed but this behavior seems to be more common in habitat with evergreen / live oak trees.	No potential to occur. No suitable habitat is present in the study area.
salt-marsh harvest mouse <i>Reithrodontomys raviventris</i>	E/E, FP	Salt and brackish marshes with dense stands of pickleweed (<i>Salicornia pacifica</i>) adjacent to upland, salt-tolerant vegetation in the San Francisco, San Pablo, and Suisun Bay areas.	Unlikely to occur. While there have been several occurrences adjacent to the study area, the majority are from the 1980s and in habitat that are not present in the study area (CDFW 2025). There is no suitable habitat present in the study area, only outside of the study area.
Alameda Island mole <i>Scapanus latimanus parvus</i>	-/SSC	Known only from Alameda Island. Occurs in annual and perennial grassland, wet meadow, and a variety of open forest habitats.	No potential to occur. Study area is outside of the known range for this species.
salt-marsh wandering shrew <i>Sorex vagrans halicoetes</i>	-/SSC	Currently, it is confined to small remnant stands of salt marsh found around the southern arm of the San Francisco Bay in San Mateo, Santa Clara, Alameda and Contra Costa counties. Most frequent in salt marshes that provide dense cover, an abundant source of invertebrates for food, suitable nesting and resting sites, and continuous ground moisture	No potential to occur. Study area is outside of the known range for this species.
American badger <i>Taxidea taxus</i>	-/SSC	Arid, open grassland, shrubland, and woodland with soils suitable for burrowing.	Unlikely to occur. Although suitable habitat is present in the study area, this species is highly dependent on friable soils, which are not present within the study area.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E/T	Occurs in desert-like habitats characterized by sparse or absent shrub cover, sparse ground cover, and short vegetative structure. Prefers areas with open, level, sandy ground	No potential to occur. Study area is outside of the known range for this species (CDFW 2025).

Notes:

¹ Legal Status Definitions:

E Wildlife species listed as Endangered under the Federal and/or California Endangered Species Act.

T Wildlife species listed as Threatened under the Federal Endangered Species Act.

FP Wildlife species listed as Fully Protected under the California Fish and Game Code.

C Wildlife species identified as a candidate species for listing under the California Endangered Species Act.

SSC Wildlife species listed as Species of Special Concern by the California Department of Fish and Wildlife.

- No status under Federal and/or California laws and regulations.

2 Potential for Occurrence Definitions:

Known to occur: The species, or evidence of its presence, was observed in the project site during previous field surveys (as reported in background information materials) or was recently reported by others.

Could occur: Extant species distribution, habitat conditions, behavior of the species, known occurrences (as documented in the publicly accessible databases) in the vicinity, or other factors, indicate that the species could occur.

Unlikely to occur: Although the project site is located within the extant range of the species, the species is unlikely to be present because of very restricted distribution and/or because only low-quality habitat or very limited habitat is present in the project site and vicinity.

No potential to occur: The project site is located outside of the species extant distribution and/or potential habitat to support the species is not present.

Sources: CDFW 2025; eBird 2024; iNaturalist 2024; Nafis 2024; Shufard and Gardali 2008; USFWS 2024a; data collected and compiled by GEI Consultants Inc., in 2024