

DRAFT

Initial Study and Mitigated Negative Declaration

**City of Morgan Hill - Glen Ayre Hillside Water
Reservoir Project**



Prepared by:



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2525 Warren Drive
Rocklin, California 95677

July 2026

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DRAFT MITIGATED NEGATIVE DECLARATION

Lead Agency: City of Morgan Hill

Project Location: The Proposed Project is located at the end of Glen Ayre Drive, approximately 2.6 miles west of Highway 101. The Proposed Project will disturb an approximate one-half acre site. The existing tank site is located at approximately 37° 7'57.93" N and 121°41'34.60"W within the Upper Llagas Creek Watershed (Hydrological Unit Code #180600020302; U.S. Geological Survey [USGS] 2024).

Project Description Summary: The Proposed Project will include replacement of the existing 100,000 gallon Reservoir with a 250,000 gallon steel ground-level potable water reservoir; including providing a temporary tank, grading, reservoir foundation, site drainage, retaining structures, electrical system, disinfection plan, landscape screening, and all appurtenant equipment and connective piping for a fully functioning new reservoir.

Public Review Period: July 24, 2026, through August 24, 2026

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

Biological Resources

BIO-1: Special-Status Plant Habitat Avoidance and Survey. A special-status plant survey shall be conducted according to California Department of Fish and Wildlife (CDFW), California Native Plant Society (CNPS), and U.S. Fish and Wildlife Service (USFWS) protocols prior to Proposed Project ground-disturbing or vegetation-disturbing activities. The survey shall be conducted by a qualified biologist (as defined per agency protocols) throughout all potential habitat for special-status plants within the Proposed Project impact area and a 25-foot buffer. The survey shall be timed according to the identifiable period for special-status plant species with potential to occur (typically the blooming period). To the extent feasible, known reference populations will be visited prior to the survey to confirm target species are evident and identifiable at the time of the survey. If no special-status plants are found and the survey is still considered recent as per CDFW and USFWS protocols at the time of Proposed Project implementation, no further measures pertaining to special-status plants are necessary. If a special-status plant is found, appropriate avoidance and minimization measures shall be determined by a qualified biologist to ensure Proposed Project-related activities don't eliminate, substantially reduce the number of, or restrict the range of the special-status plant species, and don't conflict with any local policies or ordinances protecting special-status

plant species. If complete avoidance is not feasible, the agency with jurisdiction (CDFW, USFWS and/or the City of Morgan Hill) shall be consulted to determine if additional minimization or mitigation measures are required. Additional measures, if needed, shall be developed in consultation with the respective agency. These measures may include restoration or permanent preservation of habitat for the special-status plant species or translocation (via seed collection and/or transplantation) from planned impact areas to unaffected suitable habitat.

BIO-2: Crotch Bumble Bee. If the Crotch bumble bee is no longer a Candidate or formally Listed species under the California Endangered Species Act (ESA) at the time ground-disturbing activities occur, then no additional protection measures are required.

If the Crotch bumble bee is legally protected under the California ESA as a Candidate or Listed species and ground-disturbing activities are scheduled to begin between February 1 and October 31, preconstruction surveys shall be conducted by a qualified biologist. Based on CDFW's Survey Considerations for California ESA Candidate Bumble Bee Species, three Crotch bumble bee surveys shall be conducted at two-to-four-week intervals during the colony active period (April-August).

If Crotch bumble bees are detected, any remaining surveys will focus on nest location. If no nests are found but the species is observed during preconstruction surveys, work crews should be informed of the possibility of Crotch bumble bees or their nests being present onsite. If a Crotch bumble bee is encountered during construction, work shall stop until the individual leaves of its own volition. If an active Crotch bumble bee nest is detected, an appropriate no disturbance buffer zone (including foraging resources and flight corridors essential for supporting the colony) shall be established around the nest to reduce the risk of disturbance or accidental take, and the designated biologist shall coordinate with CDFW to determine if an Incidental Take Permit under Section 2081 of the California ESA will be required. Nest avoidance buffers may be removed at the completion of the flight season (October 31) and/or once the qualified biologist deems the nesting colony is no longer active.

If initial grading is phased or delayed for any reason, preconstruction surveys will be repeated prior to ground-disturbing activities if nesting habitat is still present or has reestablished and will be affected.

BIO-3: Bay Checkerspot Butterfly. In order to avoid impacts to Bay Checkerspot Butterfly, the following measures based on those found in the Santa Clara Valley Habitat Plan (SCVHP) shall be incorporated:

- Conduct reconnaissance level surveys for adult butterflies during the peak of the flight period (March through early May, but typically April) to determine species presence or absence. Submit the results of these surveys to the SCVHP.
- Identify and map presence of larval host plants and submit this map with the results of the reconnaissance level survey.

- Locate the Proposed Project footprint as far from field-verified occupied Bay checkerspot habitat or the highest-quality serpentine habitat as feasible.
- If covered plants cannot be avoided, notify the Implementing Entity of the construction schedule so that plant salvage can be considered and potentially implemented.

BIO-4: Blainville's Horned Lizard. To avoid or minimize impacts to this species, a preconstruction survey shall occur within 48 hours of the initiation of ground-disturbing activities. The survey shall include the entire Proposed Project footprint and take place during the appropriate time of day to detect Blainville's horned lizard. If Blainville's horned lizard is found, a plan will be prepared, in consultation with CDFW, to potentially collect and relocate individual(s) to suitable habitat outside the Proposed Project Area.

BIO-5: Nesting Bird. A preconstruction nesting bird survey shall be conducted within 14 days prior to the commencement of Proposed Project-related activities to identify active nests that could be impacted by construction.

The preconstruction nesting bird survey shall include accessible areas within 100 feet of the Proposed Project boundaries, including any temporary disturbance areas. For raptors, the preconstruction nesting bird survey shall include accessible areas within 500 feet of the Proposed Project boundary.

If active nests are found, a no-disturbance buffer shall be established around the nest. A qualified biologist, in consultation with the CDFW, shall establish the buffer distance. The buffer shall be maintained until the nestlings have fledged (e.g. are capable of flight and become independent of the nest), to be determined by a qualified biologist. The avoidance buffer can be removed and no further measures are necessary once the young have fledged or the nest is no longer occupied, as determined by a qualified biologist.

BIO-6: American Badger. A preconstruction survey of the Proposed Project Area to determine the presence of active American badger burrows shall be conducted a minimum of 14 days prior to the initiation of Proposed Project activities. If no burrows are found, then no further action is required. If an active burrow is discovered, contact CDFW immediately to determine appropriate actions regarding avoidance and minimization measures.

Cultural Resources

CUL-1: Unanticipated Discoveries. If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under California Environmental Quality Act (CEQA), as defined by CEQA or a historic property under Section 106 of the National Historic Preservation Act (NHPA), if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, the City of Morgan Hill shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill 2641). The archaeologist shall notify the Santa Clara County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code (PRC), and Assembly Bill 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the Proposed Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (Assembly Bill 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Paleontological Resources

PALEO-1: Discovery of Unknown Resources. If any paleontological resources (i.e., fossils) are found during Proposed Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until the City of Morgan Hill is notified and the area is cleared for future work. A qualified paleontologist

shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources.

Transportation

TRA-1: Construction Traffic Management Plan. If construction activities require roadway closures, a construction traffic management plan (Traffic Plan) shall be prepared, prior to construction, by the Contractor, in coordination with the City of Morgan Hill. The management plan shall be detailed and comprehensive to adequately mitigate potential conflicts between baseline and construction-related traffic. The Traffic Plan will include, at a minimum, the following measures:

- Adequate off-street worker parking shall be provided.
- A flagman or signal-controlled one-way traffic-control operation shall be provided where two-way traffic operation is impractical or unsafe.
- Construction staging areas shall be provided to minimize storage of equipment and materials in the traffic lanes.
- All paved surfaces disturbed during construction shall be repaved when work is complete.
- The Contractor shall provide traffic control and diversion plans for review and approval by each appropriate jurisdiction.
- To minimize delays in emergency response during project construction, emergency providers shall be notified in advance. Police, fire protection, and ambulance services shall be notified in advance of the times, duration, and location of construction activities throughout the project's construction process.

Tribal Resources

TCR-1: Unanticipated Discovery of Tribal Cultural Resources. If potentially significant TCRs are discovered during ground disturbing activities, all work shall cease within 50 feet of the find. A Native American Representative from traditionally and culturally affiliated Native American Tribes that requested consultation on the Project shall be immediately contacted and invited to assess the significance of the find and make recommendations for further evaluation and treatment, as necessary. If deemed necessary by the City, a qualified cultural resources specialist, who meets the Secretary of Interior's Standards and Qualifications for Archaeology, may also assess the significance of the find in joint consultation with Native American representatives to ensure that tribal values are considered. Work at the discovery location cannot resume until the City, in consultation as appropriate and in good faith, determines that the discovery is either not a TCR, or has been subjected to culturally appropriate treatment, if avoidance and preservation cannot be accommodated.

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Appendix B – Biological Resources Assessment for the Glen Ayre Hillside Water Reservoir Project, ECORP Consulting, Inc. 2025
Appendix C – Records Search Results for the Glen Ayre Hillside Water Reservoir Project. ECORP Consulting, Inc. 2025
Appendix D – Energy Consumption Analysis, ECORP Consulting, Inc. 2025
Appendix E – Noise Impact Results, ECORP Consulting, Inc. 2025

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
AB	Assembly Bill
ANSI	American National Standards Institute

BAAQMD	Bay Area Air Quality Management District
BCC	USFWS Bird of Conservation Concern
BMP	Best Management Practice
BRA	Biological Resource Assessment
BSA	Biological Study Area
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH ₄	methane
CHL	California Historical Landmark
City	City of Morgan Hill
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalence Levels
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
County	Santa Clara County
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
DOC	California Department of Conservation

DPM	Diesel Particulate Matter
DTSC	California Department of Toxic Substances Control
ECORP	ECORP Consulting, Inc.
EIR	Environmental Impact Report
EOP	Emergency Operations Plan
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
IEPR	Integrated Energy Policy Report
IS/MND	Initial Study/Mitigated Negative Declaration
kW	kilowatt
Ldn	Day-Night Average (Noise Level)
Leq	Equivalent Noise Level
LRA	Local Responsibility Area
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MHFD	Morgan Hill Fire Department
MHUSD	Morgan Hill Unified School District
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
mph	miles per hour
MRZ	Mineral Resource Zone
MSL	Mean Sea Level
N/A	Not Applicable
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NOI	Notice of Intent

NO _x	nitric oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
O ₃	Ozone
OES	Office of Emergency Services
OHP	California Office of Historic Preservation
PG&E	Pacific Gas and Electric Company
PM	Particulate Matter
PM ₁₀	Particulate Matter Less than 10 Microns in Diameter
PM _{2.5}	Particulate Matter Less than 2.5 Microns in Diameter
ppm	parts per million
PPV	Peak particle velocity
PRC	Public Resources Code
ROG	Reactive Organic Gases
RWD	Report of Waste Discharge
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCVHP	Santa Clara Valley Habitat Plan
SCVWD	Santa Clara Valley Water District
SEMS	Standardized Emergency Management System
SEQ	Southeast Quadrant
SFBAAB	San Francisco Bay Area Air Basin
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act
SOI	Sphere of Influence
SRA	Source Receptor Area
SSC	California Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation

USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VHFHSZ	Very High Fire Hazard Severity Zones
WDR	Waste Discharge Requirement
WMI	Watershed Management Initiative

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1.0 BACKGROUND

1.1 Summary

Project Title:	City of Morgan Hill - Glen Ayre Hillside Water Reservoir Project
Lead Agency Name and Address:	City of Morgan Hill Engineering and Utilities 17575 Peak Avenue Morgan Hill, California 95037
Contact Person and Phone Number:	David Gittleson, PE, 408-310-4642
Project Location:	The Proposed Project is located at the end of Glen Ayre Drive, approximately 2.6 miles west of Highway 101. The Proposed Project will disturb an approximate one-half acre site. The existing tank site is located at approximately 37° 7'57.93" N and 121°41'34.60"W within the Upper Llagas Creek Watershed (Hydrological Unit Code #180600020302; NRCS, USGS 2024).
General Plan Designation:	Residential Estate (RE)

1.2 Introduction

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

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

David Gittleson, PE
17575 Peak Avenue
Morgan Hill, CA 95037

2.0 PROJECT DESCRIPTION

2.1 Project Background

The City of Morgan Hill operates a water system with 15,003 service connections serving a population of 44,478 customers. The 2021 Water System Master Plan identified the Glen Ayre Tank to be upsized from 100,000 gallons to 250,000 gallons to mitigate existing storage deficiencies and provide storage for fire flow demands.

2.2 Project Location

The Project is located at the end of Glen Ayre Drive, approximately 2.6 miles west of Highway 101. The project will disturb an approximate one-half acre site in Santa Clara County. The existing tank site is located at approximately 37° 7'57.93" N and 121°41'34.60"W within the Upper Llagas Creek Watershed (Hydrological Unit Code #180600020302; USGS 2024). Figure 2-1, Project Vicinity, depicts the Project location.

2.3 Project Characteristics

The proposed project, the upsizing of the Glen Ayre Tank, is located on City-owned property near the western end of the City limits. The tank is located at the end of Glen Ayre Road, and supplies the Glen Ayre pressure zone, while being fed by the Llagas pressure zone through the Glen Ayre Booster Pump Station located on Llagas Rd approximately 0.7 miles away, with an elevation difference of 248 feet. The tank has a singular 8-inch inlet/outlet pipe and operates between 6 to 12 feet in water level.

The existing tank is 35-feet in diameter with a capacity of 100,000 gallons. To increase the capacity to 250,000 gallons without affecting the water level height, the new tank will be designed to be approximately 55-feet in diameter. The new tank footprint will require an expansion of the existing utility easement. During construction, five 21,000 gallon temporary tanks will be placed onsite. The ground in the area will be lightly graded to provide a flat area for the temporary tanks. Once the five temporary tanks are in place, they will be filled and the existing tank will be demolished. Once the new tank is constructed and filled, the five temporary tanks will be dismantled and removed from the site. Basic screening landscaping will be planted around the new tank fencing to reduce visual impacts for homes near the tank. Proposed improvements are shown on Figure 2-2, Project Plans.

A paved access road will be constructed around the new tank for accessibility.

2.4 Project Staging

Temporary staging would occur on site near the existing tank. This site is unpaved. Before demolition of the existing tank, five (5) 21,000 gal temporary tanks will be placed within the staging area and will be filled before the existing tank is demolished. These tanks will remain onsite until the new tank is completed and filled. Then they will be dismantled and removed. Minor grading will take place in the staging area for the temporary tanks.

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Map Date: 4/29/2025
Sources: Esri, County of Santa Clara, Maxar

Figure 2-1. Project Setting

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2.5 Land Use and Planning

The proposed Project is located in the City of Morgan Hill within Santa Clara County. The Morgan Hill General Plan Designation for the project site is Residential Estate (Morgan Hill 2017). The proposed Project is an allowed use.

2.6 Project Construction and Timing

Construction of the proposed Project would begin December 2026 and would be constructed in a single phase and completed by June 2027. Construction equipment will likely include excavators, backhoes, graders, loaders, skid steers, pavers, grinders, rollers, sweepers, cranes, and dump trucks. Generally, construction will occur between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays. Post-construction activities will include site clean-up. Construction will require temporary staging and storage of materials and equipment. Staging areas will be located at the new tank site and adjacent property.

Although construction is not expected to generate hazardous waste, field equipment used during construction has the potential to contain various hazardous materials such as diesel fuel, hydraulic oil, grease, solvents, adhesives, paints, and other petroleum-based products.

2.7 Regulatory Requirement, Permits, and Approvals

- California Regional Water Quality Control Board (RWQCB) – the City of Morgan Hill must obtain a National Pollutant Discharge Elimination (NPDES) Construction Activities Stormwater General Permit. The permit requires that the project applicant prepare a Stormwater Pollution Prevention Plan (SWPPP) prior to any construction activities.
- U.S. Fish and Wildlife Service (USFWS): Consultation for endangered species and possible take permits, if needed.

2.8 Consultation With California Native American Tribe(s)

City of Morgan Hill notified the following California Native American tribes traditionally and culturally affiliated with the geographic area of the Proposed Project on January 19, 2026:

- Tamien Nation
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Costanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of San Francisco Bay Area
- North Valley Yokuts Tribe
- The Ohlone Indian Tribe

Section 4.18 of this IS/MND provides a summary of the notification process.

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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 Environmental Factors Potentially Affected

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

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

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☒

I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that the Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required. ☐

David Hether
City of Morgan Hill Representative

Date: 7/23/26

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

4.1.1.1 *Visual Character of the Project Site*

The Proposed Project is located at the western terminus of Glen Ayre Drive within the City of Morgan Hill (Figure 4.4-1). The Proposed Project site is bound by residences to the east and south, and annual grassland and oak woodland to the west and north. There is a large water tank, three small trailers, and a solar water heater within the Proposed Project Area. The Proposed Project Site is at the top of a hill, with broad views of the surrounding countryside to the west and north. Surrounding residential uses have views of the existing tank currently.

4.1.1.2 *Scenic Corridors and Vistas*

The General Plan does not designate official scenic views corridors or vistas. However, there are number of vistas within Morgan Hill that could be considered scenic. El Toro Hill, rising over the City just west of Downtown, is one of the most prominent visual landmarks and is visible from many vantage points, particularly from Highway 101, along Monterey Road, and along wider east-west roadways like Cochrane Avenue, Main Avenue, Dunne Avenue, and Tennant Avenue. Broader views of the Diablo Range to the east and the Santa Cruz Mountains to the west are visible from Highway 101 and many points within the City and the Sphere of Influence (SOI). Within the low-lying portions of the City and SOI the hills of these ranges provide a backdrop to the City, and views of these hillsides and ridgelines in many areas are partially or fully blocked by existing buildings and trees.

Eastward and westward scenic views are also available in areas of the City and SOI that are undeveloped, such as in parks, agricultural areas, and other open spaces. In the higher elevations in the western and eastern portions of the City and SOI, roadways wind among these hillsides and offer closer views of hillside landscapes and vegetation, as well as intermittent views across the valley.

Within the rural residential and agricultural areas in the City and SOI, hillside views are more expansive and nearfield open spaces, including agricultural lands, allow broader vistas.

Five creeks traverse Morgan Hill. The natural streamside and riparian areas serve as scenic resources, with creeks in the hills remaining generally natural. In the low-lying and more urbanized portion of the City and SOI, the aesthetic value of the creeks varies as most creeks have been straightened and channelized to prevent flooding.

4.1.2 Regulatory Setting

4.1.2.1 State Policies

State Scenic Highways

A scenic highway is generally defined by the California Department of Transportation (Caltrans) as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural landscape attributes. A highway may be designated scenic depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers' enjoyment of the view.

Caltrans has not designated any scenic highways in Morgan Hill or its Sphere of Influence (Morgan Hill 2017).

California Building Standards Code

Title 24 in the CCR is the California Building Standards Code.

Part 2 of Title 24 is the California Building Code (CBC), which is based on the International Building Code and combines three types of building standards from three different origins:

- Building standards that have been adopted by state agencies without change from building standards contained in the International Building Code.
- Building standards that have been adopted from the International Building Code to meet California conditions.
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the International Building Code that have been adopted to address particular California concerns.

Part 6 of Title 24 is the California Energy Code. It includes standards for lighting that are intended to improve energy efficiency, and that reduce light pollution and glare by regulating light power and brightness and sensor controls.

4.1.2.2 Local Policies

City of Morgan Hill Municipal Code

Morgan Hill's Municipal Code regulates development in the City. The following provisions from the Municipal Code pertain to the visual effects of development:

- Section 18.48.045, Glare, establishes a regulation that no direct or sky-reflected glare shall emanate from any establishment or use, so as to be visible at a distance of five hundred feet from such establishment or use.

- Chapter 15.40, Building Security, contains provisions, including lighting requirements, to protect the public by providing safeguards to protect property from unlawful trespass. Section 15.40.310 requires that open parking lots for nonresidential uses shall be illuminated with an intensity of at least 2 footcandles. Section 15.40.400 requires that open parking lots and carports for hotels and multifamily residential uses shall be illuminated with an intensity of at least 2 footcandles. Section 15.40.420 requires that aisles and passageways within the building complex shall be illuminated with an intensity of at least twenty-five one-hundredths (0.25) footcandles.

4.1.3 Aesthetics (I) Environmental Checklist and Discussion

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

Less Than Significant Impact.

A scenic vista is a viewpoint that provides a distant view of highly valued natural or manufactured landscape features for the benefit of the general public. Typical scenic vistas are locations where views of rivers, ocean, hillsides, and open space areas can be obtained as well as locations where valued urban landscape features can be viewed in the distance. The Proposed Project will take place on a city owned parcel with an existing water tank. Additionally, any impacts to a scenic vista would be temporary during construction activities. Once the Proposed Project is completed, the water tank will be slightly larger than the existing tank, but there will be no substantial change in the existing visual character of the site. Therefore, the Proposed Project would have a less than significant impact to visual scenic vistas.

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

No Impact.

Caltrans has not designated any scenic highways in Morgan Hill or its Sphere of Influence. Therefore, the Proposed Project is not located near or within a state designated scenic highway and will not damage scenic resources, including but not limited to trees, outcroppings, and historic buildings within a state scenic highway viewshed.

Except as provided in Public Resources Code Section 21099, would the Project:

- 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?

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Less Than Significant Impact.

The Proposed Project involves replacing an existing water tank within a residential area. Proposed Project construction activities would introduce equipment and machinery into the viewshed of the limited viewer groups/residents that would have views of the Proposed Project Area, creating temporary visual effects. Once construction is complete, the new water tank would be visible from neighbor's properties, but would not differ substantially from existing conditions as the only difference would be the wider circumference of the tank.

Additionally, the new water tank will be painted in a natural color that similarly matches the color of the existing tank and would further help reduce any perceived changes in the viewshed. Therefore, the Proposed Project will not result in a degradation of the visual character or quality of the public views of the site and surrounding area and the Proposed Project would not conflict with zoning and other regulations governing scenic quality. Any visual impacts as a result of the Proposed Project would be less than significant.

Except as provided in Public Resources Code Section 21099, would the Project:

- d) Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

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No Impact

The Proposed Project involves replacing an existing tank with a new tank in at the same location. The new tank would be wider in circumference but would be painted tan to match the surrounding landscape and reduce its visibility when viewed from surrounding areas, similar to the tanks existing condition. Small manually operated outdoor work lighting is proposed on the new tank structure as part of the Proposed Project and would not create a new source of substantial light or glare. There would be no impact and no mitigation is required.

4.1.4 Mitigation Measures

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

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

4.2.1.1 *California Important Farmland Inventory System and Farmland Mapping and Monitoring Program*

The California Department of Conservation Farmland Mapping and Monitoring Program identifies lands that have agriculture value and maintains a statewide map of these lands called the Important Farmlands Inventory. Important Farmland maps classify land into one of eight categories, which are defined as follows:

- Prime Farmland – Land that has the best combination of features for the production of agricultural crops.
- Farmland of Statewide Importance – Land other than Prime Farmland that has a good combination of physical and chemical features for the production of agricultural crops.
- Unique Farmland – Land of lesser quality soils used for the production of the state’s leading agricultural cash crops.
- Farmland of Local Importance – Land that is of importance to the local agricultural economy.
- Grazing Land – Land with existing vegetation that is suitable for grazing.
- Urban and Built-up Lands – Land occupied by structures with a density of at least one dwelling unit per 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public utility structures, and other developed purposes.
- Land Committed to Nonagricultural Use – Vacant areas; existing lands that have a permanent commitment to development but have an existing land use of agricultural or grazing lands.
- Other Lands – Land that does not meet the criteria of the remaining categories.

According to the California Department of Conservation (DOC) online Important Farmland Finder Map (DOC 2025a), the proposed location of the new water tank is classified as Other Land. Other land is described as vacant and non-agricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

4.2.1.2 *Williamson Act Contracts*

The California Land Conservation Act of 1965, commonly known as the Williamson Act, enables local governments to enter into agreements with private landowners to restrict parcels for agricultural or

related open space use. In return, landowners receive property tax assessments that are based on farming and open space uses instead of full market value.

The Proposed Project is not zoned for agriculture or forestry use and is not under Williamson Act contract (DOC 2025b).

4.2.2 Regulatory Setting

4.2.2.1 Local Policies

Morgan Hill Municipal Code – Chapter 8.50 Right-to-Farm

The City established its Right-to-Farm ordinance to protect the continued operation of agricultural land within the City limit. Whenever property is sold, transferred, exchanged, or leased, the property owner is required to have the purchaser sign a disclosure statement to acknowledge the City's support of agricultural operations. The ordinance also includes a system to resolve disputes associated with agricultural operations and adjacent uses.

Morgan Hill Municipal Code – Chapter 12.32 Restrictions on Removal of Significant Trees

This section of the Morgan Hill Municipal Code makes it unlawful for any person to cut down, remove, poison or otherwise kill or destroy, or cause to be removed any tree or community of trees on any City or private property without first securing a permit. The requirements of this chapter pertain to trees with a single stem or trunk of a circumference of forty inches or more for nonindigenous species and eighteen inches or more for indigenous species measured at four and one-half feet vertically above the ground or immediately below the lowest branch, whichever is lower, and having the inherent capacity of naturally producing one main axis continuing to grow more vigorously than the lateral axes.

Morgan Hill Agricultural Lands Preservation Program and Agricultural Mitigation Ordinance

The City of Morgan Hill has adopted an Agricultural Lands Preservation Program to provide a program to encourage the preservation and enhancement of open space/agriculture while identifying certain properties for compatible development with sports, recreation, and leisure uses. The Proposed Project included boundary adjustments to an area in Morgan Hill referred to as the Southeast Quadrant (SEQ) and allows for the development of a portion of the SEQ area, while ensuring that agricultural activity and open space is maintained and permanently preserved in the SEQ area and citywide.

The Proposed Project established CEQA mitigation procedures to mitigate the loss of agricultural lands. Mitigation for the loss of farmland includes payment of an agricultural mitigation fee, acquisition of other agricultural land, or dedication of a permanent agricultural conservation easement on agricultural land and payment of a fee to cover ongoing management and monitoring activities. Mitigation is required at a ratio of 1:1 (meaning one acre of in-perpetuity farmland preservation (along with necessary funding for stewardship and program administration) for each acre of farmland development/conversion). The

program encourages dedications of conservation easements within the Study Area, with particular emphasis on the lands within the SEQ area.

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

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

No Impact.

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

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

Less Than Significant Impact.

The Proposed Project Area and surrounding parcels are not under Williamson Act contracts (DOC 2025b). The Proposed Project would not conflict with existing zoning for agricultural uses or a Williamson Act contract.

The Morgan Hill General Plan Designation for the Proposed Project Area is Residential Estate (Morgan Hill 2017).

Implementation of the Proposed Project would not change the use nor would result in any land use designation or zoning change. Therefore, any impact would be less than significant, and no mitigation is required.

Would the Project:

- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

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No Impact.

As described previously in item a), the Proposed Project does not involve properties zoned for forest land, timberland or Timberland Production, and therefore would not conflict with existing zoning codes. No impact would occur and no mitigation measures are required.

Would the Project:

- d) Result in the loss of forest land or conversion of forest land to non-forest use?

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No Impact.

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

Would the Project:

- 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?

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No Impact.

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

4.2.4 Mitigation Measures

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

4.3 Air Quality

This assessment was prepared using methods and assumptions recommended in the rules and regulations of the Bay Area Air Quality Management District (BAAQMD). Regional and local existing conditions are presented, along with pertinent pollutant emissions standards and regulations. The purpose of this assessment is to estimate criteria air pollutants attributable to the Proposed Project and determine the level of impact the Proposed Project would have on the environment.

4.3.1 Environmental Setting

The Proposed Project is located in the City of Morgan Hill. The California Air Resource Board (CARB) has divided California into regional air basins according to topographic features. Santa Clara County is located in a region identified as the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB is approximately 5,600 square miles in area and consists of nine counties that surround the San Francisco Bay, including all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties; the southwestern portion of Solano County; and the southern portion of Sonoma County. The topography of the SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys and bays. This complex terrain, especially the higher elevations, distorts the normal wind flow patterns in the SFBAAB. The greatest distortions occur when low-level inversions are present and the air beneath the inversion flows independently of air above the inversion, a condition that is common in the summertime.

Both the U.S. Environmental Protection Agency (USEPA) and CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O₃), carbon monoxide (CO), Particulate Matter (PM), nitrogen oxides (NO_x), sulfur dioxide, and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The Santa Clara County (County) portion of the SFBAAB, which encompasses the Proposed Project Area, is designated as a nonattainment area for the federal O₃ and PM Less than 2.5 Microns in Diameter (PM_{2.5}) standards and is designated nonattainment area for the state standards for O₃, PM_{2.5}, and PM Less than 10 Microns in Diameter (PM₁₀) (CARB 2023a).

The local air quality regulating authority in the portion of Santa Clara County encompassing the Proposed Project Area is BAAQMD. The BAAQMD's primary responsibility is ensuring that the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are attained and maintained in the Santa Clara County portion of the SFBAAB. The BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities.

The following is a list of noteworthy BAAQMD rules that are required of construction activities associated with the Proposed Project :

- *Regulation 2, Rule 2: New Source Review:* Requires any new source resulting in an increase of any criteria pollutant to be evaluated for adherence to best available control technology. For compression internal combustion engines, best available control technology requires that the generator be fired on California diesel fuel (fuel oil with a sulfur content less than 0.05 percent by weight and less than 20 percent by volume of aromatic hydrocarbons). All stationary internal combustion engines larger than 50 horsepower must obtain a Permit to Operate. If the engine is diesel fueled, it must also comply with the BAAQMD-administered Statewide Air Toxics Control Measure for Stationary Diesel Engines.
- *Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants:* Requires any new or modified source of toxic air contaminants to be evaluated in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control when existing sources are modified or replaced.
- *Regulation 6, Rule 6, Prohibition of Trackout:* Controls trackout of solid material onto public paved roads from three types of sites: large bulk material sites, large construction sites, and large disturbed area sites. Under this regulation, the owners and operators of a construction site are required to clean up trackout on public roadways within four hours of identification and at the conclusion of each workday. The rule also includes requirements regarding the emission of fugitive dust during cleanup of trackout, and requirements for monitoring and reporting trackout at regulated sites.
- *Regulation 7, Odorous Substances:* Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds. A person (or facility) must meet all limitations of this regulation but meeting such limitations shall not exempt such person from any other requirements of BAAQMD, state, or national law. The limitations of this regulation shall not be applicable until BAAQMD receives odor complaints from ten or more complainants within a 90-day period, alleging that a person has caused odors perceived at or beyond the property line of such person and deemed to be objectionable by the complainants in the normal course of their work, travel, or residence. When the limits of this regulation become effective, as a result of citizen complaints described above, the limits shall remain effective until such time as no citizen complaints have been received by BAAQMD for one year. The limits of this Regulation shall become applicable again if BAAQMD receives odor complaints from five or more complainants within a 90-day period. BAAQMD staff investigate and track all odor complaints it receives and make attempts to visit the site and identify the source of the objectionable odor and assist the owner or facility in finding a way to reduce the odor.
- *Regulation 8, Rule 3, Architectural Coatings:* The purpose of this Rule is to limit the quantity of Reactive Organic Gases (ROG) in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District. This Rule states that no person shall: (i) manufacture, blend, or repackage for sale within the District; (ii) supply, sell, or offer for sale within the District; or (iii) solicit for application or apply within the District, any

architectural coating with a Volatile Organic Compound content, as calculated pursuant to Section 8-3-607, in excess of specified limits.

- *Regulation 8, Rule 15, Emulsified and Liquid Asphalts:* The purpose of this Rule is to limit the emissions of ROG caused by the use of emulsified and liquid asphalt in paving materials and paving and maintenance operations. Specifically, this Rule prohibits the use of any rapid-cure liquid asphalt in paving material or in paving and maintenance operations, any medium-cure liquid asphalt in paving material or in paving and maintenance operations, any emulsified asphalt containing petroleum solvents in excess of 3 percent by volume in paving material or in paving and maintenance operations, and any slow-cure liquid asphalt which contains more than 0.5 percent by volume of petroleum solvents which boil at less than 260°C (500°F).

In addition to these regulations, the BAAQMD recommends quantifying a proposed project's construction-generated emissions by implementing the Basic Best Management Practices (BMPs) for dust and exhaust construction impacts in CEQA compliance documentation. If additional construction measures are required to reduce construction-generated emissions, the Enhanced BMPs should then be applied. Table 4.3-1 identifies the Basic and Enhanced BMPs. In addition, all projects must implement any applicable air toxic control measures. For example, projects that have the potential to disturb asbestos (from soil or building materials) must comply with all the requirements of CARB's air toxic control measures for construction and grading.

Table 4.3-1. BAAQMD Basic and Enhanced Construction Best Management Practices
BAAQMD Basic Construction Best Management Practices
All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
All vehicle speeds on unpaved roads shall be limited to 15 mph.
All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.
BAAQMD Enhanced Best Management Practices
Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.

Table 4.3-1. BAAQMD Basic and Enhanced Construction Best Management Practices

BAAQMD Basic Construction Best Management Practices
Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.
Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
Minimize the amount of excavated material or waste materials stored at the site.
Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

Note: BAAQMD = Bay Area Air Quality Management District; mph = miles per hour

4.3.2 Air Quality (III) Environmental Checklist and Discussion

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

No Impact.

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

The BAAQMD is the agency responsible for enforcing many federal and state air quality requirements and for establishing air quality rules and regulations. The BAAQMD attains and maintains air quality conditions in Santa Clara County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The BAAQMD has also released guidelines for addressing CEQA Appendix G air quality impacts, including potential impacts associated with regional air quality planning and conformance to the SIP (BAAQMD 2023). Within its guidance, it outlines three criterion that any impact analysis must answer:

- For each applicable air quality plan, does the project support the primary goals?
- For each applicable air quality plan, does the project include all applicable control measures?

- For each applicable air quality plan, does the project disrupt or hinder implementation?

The most recently adopted air quality plan is the BAAQMD's 2017 Clean Air Plan, the primary goals of which are to protect public health and the climate. The 2017 Clean Air Plan includes a wide range of control measures and actions to reduce combustion-related activities, decrease combustion of fossil fuels, improve energy efficiency, and reduce emissions of potent greenhouse gases. Several measures address the reduction of multiple pollutants such as O₃ precursors, PM, air toxics, and greenhouse gas (GHG) emissions. Determination of whether a project supports the goals in the 2017 Clean Air Plan is achieved by analyzing the relevant components of the Proposed Project.

In terms of the first criterion, the Proposed Project would not negatively impact the plan's goals of protecting public health and the climate as the Proposed Project would only increase the capacity of an existing water tank in order to better serve local residents. Further, as shown in Table 4.3-2 below, emissions generated during Proposed Project construction and operations would not exceed the BAAQMD's significance thresholds. Once construction is complete the Proposed Project would contribute a minimal amount of operational air quality emissions as the Proposed Project is replacing the existing 100,000-gallon water reservoir at the terminus of Glen Ayre Drive with a new 250,000-gallon steel, ground-level potable water reservoir.

Secondly, the Proposed Project would implement all applicable BAAQMD control measures. Per City of Morgan Hill General Plan Policy NRE-10.0, which mandates cooperation with regional agencies such as the BAAQMD in developing and implementing air quality management plans, and General Plan Policy NRE-12.1, which requires that all development projects implement best management practices to reduce air pollutant emissions associated with construction and operation of the Proposed Project, the Proposed Project would be subject to the BAAQMD Regulations and Rules described above. Additionally, the Proposed Project would be subject to the requirements of mitigation measure AQ-1, as described in detail in Sections 4.3.2.1 and 4.3.3 below, which requires the Proposed Project to implement all of BAAQMD's Basic Construction BMPs. Thus, the Proposed Project would be consistent with the second criterion.

Lastly, the Proposed Project would include temporary water tanks, grading of a foundation for the new reservoir, site drainage improvements, retaining structures, electrical system, landscaping plan, and all appurtenant equipment and connective piping for the new reservoir and would in no way disrupt or hinder implementation of the 2017 Clean Air Plan.

The Proposed Project would not conflict with or obstruct reduction measures presented in the 2017 Clean Air Plan or the BAAQMD's air quality planning efforts. There would be no impact.

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐

Less Than Significant Impact with Mitigation Incorporated.

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

4.3.2.1 Project Construction

Emissions associated with Proposed Project construction would be temporary and short-term but have the potential to represent a significant air quality impact. Two basic sources of short-term emissions will be generated through Proposed Project construction: operation of the heavy-duty equipment (i.e., excavators, loaders, haul trucks) and the creation of fugitive dust during excavation. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation.

Per City of Morgan Hill General Plan Policy NRE-10.0, which mandates cooperation with regional agencies such as the BAAQMD in developing and implementing air quality management plans, and General Plan Policy NRE-12.1, which requires that all development projects implement best management practices to reduce air pollutant emissions associated with construction and operation of the Proposed Project, the Proposed Project would be subject to the BAAQMD Regulations and Rules described above.

Construction impacts were assessed in accordance with methodologies recommended by the BAAQMD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. CalEEMod provides the ability to analyze a project based on California air quality standards. Proposed Project construction generated air pollutant emissions were calculated using CalEEMod model defaults for Santa Clara County and the size of the new water tank, as mentioned in the Project Description. The Proposed Project would replace the existing 100,000-gallon water reservoir at the terminus of Glen Ayre Drive with a new 250,000-gallon steel, ground-level potable water reservoir. The Proposed Project would include a temporary water tank, an

expansion of the existing utility easement, and basic screening landscaping around the tank to reduce visual impacts for homes around the tank. Based on information provided in the Project Description, the disturbed area was conservatively modeled as 0.5 acre. Additionally, the demolition of the previous water tank consisting of 962.11 building square footage was accounted for. It is noted that the CalEEMod model cannot specifically account for the construction of a water tank due to the limited land uses available within the model and therefore such activity is modeled as a “non-asphalt surface” in the CalEEMod Model.

See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted average daily construction-generated emissions for the Proposed Project are summarized in Table 4.3-2. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceed the BAAQMD’s thresholds of significance.

Table 4.3-2. Construction-Related Emissions						
Construction Year	Pollutant (average pounds per day)					
	ROG	NO_x	PM₁₀ (exhaust)	PM_{2.5} (exhaust)	PM₁₀ (fugitive dust)	PM_{2.5} (fugitive dust)
Construction Calendar Year One	1.25	10.90	0.47	0.14	0.43	0.03
Construction Calendar Year Two	1.14	9.58	0.35	0.14	0.33	0.03
<i>BAAQMD Potentially Significant Impact Threshold</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>82</i>	<i>Basic Construction Best Management Practices</i>	<i>Basic Construction Best Management Practices</i>
Exceed BAAQMD Threshold?	No	No	No	No	No	No

CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Emissions estimates account for the quantifiable dust-reduction measures that are also approved methods within the BAAQMD Basic Construction Best Management Practices, such as watering unpaved portions of the construction site twice daily and limiting off-road equipment to slower speeds. Emission calculations account for the conservative estimate of a 0.5 acre Project Site and the demolition of 962.11 square feet of the previous water tank.

BAAQMD = Bay Area Air Quality Management District; NO_x = Nitric Oxide; PM_{2.5} = Fine Particulate Matter; PM₁₀ = Coarse Particulate Matter; ROG = Reactive Organic Gas.

As shown in Table 4.3-2, emissions generated during Proposed Project construction would not exceed the BAAQMD’s numeric thresholds of significance during construction. It is noted that the BAAQMD thresholds for fugitive dust emissions are not numeric but instead rely on the implementation of BAAQMD BMPs (see Table 4.3-1 above) to be considered less than significant. Thus, the Proposed Project

would need to incorporate BAAQMD Basic BMPs in order to be considered less than significant. This requirement is contained in mitigation measure AQ-1. With implementation of mitigation measure AQ-1, this impact is less than significant and criteria pollutant emissions generated during Proposed Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Proposed Project region is nonattainment under an applicable state ambient air quality standard, and no health effects from Proposed Project criteria pollutants would occur.

4.3.2.2 Operational Emissions

Operational Significance Analysis

The Proposed Project is proposing to replace the existing 100,000-gallon water reservoir at the terminus of Glen Ayre Drive with a new 250,000-gallon steel, ground-level potable water reservoir. The Proposed Project would include a temporary water tank, an expansion of the existing utility easement, and basic screening landscaping around the tank to reduce visual impacts for homes around the tank. The Proposed Project's operations would require minimal site visits and thus a negligible amount of vehicle-generated criteria air pollutants. However, the Proposed Project would include an emergency backup, diesel-powered generator. This generator would not be operational during the majority of days and would only operate during testing operations and/or an emergency involving a power outage. Accounting for 24 hours of operation annually, the maximum daily criteria air pollutants that would be emitted from operations of the water tank would equate to 1.14 pounds per day of the O₃ precursor, ROG, 3.18 pounds per day of the O₃ precursor, NO_x, 4.13 pounds per day of CO, and 0.17 pound per day of each PM₁₀ and PM_{2.5} (California Air Pollution Control Officers Association [CAPCOA] 2022; Appendix A). These values are well below BAAQMD significance thresholds and therefore operational air quality impacts would be less than significant.

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

Less Than Significant Impact.

4.3.2.3 Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Proposed Project-generated emissions of Diesel Particulate Matter (DPM), ROG, NO_x, CO, and PM₁₀ from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SFBAAB which encompasses the Proposed Project Area is designated as a nonattainment area for the federal O₃ and PM_{2.5} standards, designated nonattainment area for the state standards for O₃, PM_{2.5}, and PM₁₀ (CARB 2023a). Thus, existing O₃, PM_{2.5},

and PM₁₀ levels in the SFBAAB are at unhealthy levels during certain periods. However, as shown in Table 4.3-2, the Proposed Project would not exceed the applicable significance thresholds for emissions.

The health effects associated with O₃ are generally associated with reduced lung function. O₃ is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of ROG and NO_x in the presence of sunlight. The reactivity of O₃ causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O₃ not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O₃ for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term O₃ exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to O₃ may increase the risk of respiratory-related deaths. The concentration of O₃ at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of O₃ and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum O₃ concentration reaches 80 parts per billion. Because the Proposed Project would not involve construction activities that would result in O₃ precursor emissions (ROG or NO_x) in excess of the BAAQMD thresholds, which are set to be protective of human health and account for cumulative emissions in the SFBAAB, the Proposed Project is not anticipated to substantially contribute to regional O₃ concentrations and the associated health impacts.

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

Particulate matter (PM₁₀ and PM_{2.5}) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary Toxic Air Contaminant (TAC) of concern. PM₁₀ exhaust is considered a surrogate for DPM as it contains PM_{2.5} as a subset and all diesel exhaust is considered to be DPM. As with O₃ and NO_x, the Proposed Project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed the BAAQMD's thresholds. The increases of these pollutants generated by the Proposed Project would not on their own

generate an increase in the number of days exceeding the NAAQS or CAAQS standards. Therefore, PM₁₀ and PM_{2.5} emissions, when combined with the existing PM emitted regionally, would have minimal health effect on people located in the immediate vicinity of the Proposed Project Area. Additionally, the Proposed Project's PM₁₀ and PM_{2.5} emissions are not expected to cause any increase in related regional health effects from these pollutants.

In summary, Proposed Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants.

4.3.2.4 Operational Air Contaminants

Implementation of the Proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the implementation of the Proposed Project. The Proposed Project would not attract heavy-duty trucks. While the Proposed Project is proposing an emergency backup, diesel-powered generator, this generator would not be operational during the majority of days and would only operate during short periods of emissions testing conducted by BAAQMD or in the case of an emergency involving a power outage. It is noted that diesel-powered generators are regulated by BAAQMD Regulation 2, Rule 5, which provides for the review of TAC emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control when existing sources are modified or replaced. Pursuant to BAAQMD Regulation 2, Rule 5, stationary sources having the potential to emit TACs, including diesel-powered generators, are required to obtain permits from the BAAQMD. Permits may be granted to these operations provided they are operated in accordance with applicable BAAQMD rules and regulations. As part of the permitting process, the BAAQMD estimates the risk and hazard impacts of the particular source based on Health Risk Screening Assessments using conservative modeling parameters for the particular source. Therefore, there would not be significant concentrations of pollutants at nearby sensitive receptors. The Proposed Project would not be a source of TACs. The Proposed Project will not result in a high carcinogenic or non-carcinogenic risk during operation. A less than significant impact would occur.

4.3.2.5 Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have

become increasingly stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SFBAAB is designated as in attainment. Detailed modeling of Project-specific CO “hot spots” is not necessary and thus this potential impact is addressed qualitatively.

A CO “hot spot” would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The BAAQMD concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact. The Project is proposing to replace the existing 100,000 gallon water reservoir at the terminus of Glen Ayre Drive with a new 250,000 gallon steel, ground-level potable water reservoir. As the Project is proposing improvements to an existing use it is anticipated that it would result in a minimal contribution to traffic trips in the Project Area. Thus, the Proposed Project would not generate traffic volumes of more than 44,000 vehicles per hour. There is no likelihood of the Project traffic exceeding CO values.

Would the Project:

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

Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☐	☒

No Impact.

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

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

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may

use the word “strong” to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

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

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified as being associated with odors. Therefore, there is no impact from the Proposed Project on odors.

4.3.3 Mitigation Measures

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

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s General Air

Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

4.4 Biological Resources

This section is based on the analysis and recommendations presented in the Biological Resources Assessment (BRA) prepared for the Proposed Project (ECORP Consulting, Inc. [ECORP] 2025a; Appendix B). The Proposed Project Area is referred to below as the Biological Study Area (BSA).

4.4.1 Environmental Setting

The Project is located at the western terminus of Glen Ayre Drive within the City of Morgan Hill (Figure 4.4-1). The Project is bound by residences to the east and south, while the west and north are bound by annual grassland and oak woodland. There is a large water tank, three small trailers, an sport utility vehicle, and a solar water heater within the Project.

The BSA includes all areas where Project-related activities may result in impacts to sensitive biological resources. The 1.66-acre BSA corresponds to an unsectioned portion of the Ojo de Agua de La Coche Land Grant (Mount Diablo Base and Meridian) within the "Morgan Hill, California" 7.5-minute quadrangles (ECORP 2025a; Appendix B). The approximate center of the BSA is located at 37.132927° and - 121.692684° within the Pajaro watershed.

4.4.1.1 Vegetation Communities and Land Cover Types

The following sections describe vegetation communities and land cover types within the Study Area as observed during the site reconnaissance. A full list of plants observed onsite can be found in Appendix C of Appendix B. The approximate extent of vegetation communities and land cover types are depicted on Figure 4.4-1.

Annual Grassland

The annual grassland community is found throughout the BSA. The annual grassland in the BSA is dominated by nonnative annual grasses including wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), soft brome (*B. hordeaceus*), and foxtail barley (*Hordeum murinum*). Patches of native annuals were dispersed throughout the BSA. These patches included narrow-leaved owl's clover (*Castilleja attenuata*), purple owl's clover (*C. exserta*), bird's eye gilia (*Gilia tricolor*), goldfields (*Lasthenia* sp.), and needlegrass (*Stipa* sp.).

The annual grassland community onsite most closely resembles the *Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance. Semi-natural alliances are strongly dominated by nonnative plants that have become naturalized in the State, do not have state rarity rankings, and are not considered sensitive natural communities.

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Location: N:\2025\2025-065 Glen Ayre\MAPS\Vegetation_and_LandCover\GlenAyre_Vegetation.aprx - GlenAyre_Vegetation_20250608 (porridge - 5/12/2025)



Map Contents

 Project Area - 1.66 ac.

Vegetation Communities

 Developed/Disturbed - 0.32 ac.

 Annual Grassland - 1.29 ac.

 Rock - 0.05 ac.

Sources: Charted Territory: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) Open Street Map contributors



Map Date: 5/12/2025

Scale in Feet



Figure 4.4-1. Vegetation Communities

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Rock

The end of Glen Ayre Drive ends in a small traffic circle. The inside of this circle consists of large rocks, gravel, and very sparse, stunted vegetation. There was very little living vegetation in this area which made identification of species difficult.

Disturbed/Developed

The disturbed or developed land cover type is found surrounding the water tank and on the roads within the BSA. These areas are devoid of vegetation and are either paved or gravel surfaces.

4.4.1.2 Aquatic Resources

Review of the National Wetlands Inventory showed no mapped aquatic features within or adjacent to the BSA. Additionally, no aquatic resources were found within the BSA during the preliminary aquatic resources assessment.

4.4.1.3 Wildlife

The BSA provides habitat for a variety of wildlife species, although the BSA is small. Wildlife species observed while onsite included California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), lesser goldfinch (*Spinus psaltria*), lark sparrow (*Chondestes grammacus*), and coyote (*Canis latrans*). Other species typically associated with the habitat types found in the BSA include western fence lizard (*Sceloporus occidentalis*), California kingsnake (*Lampropeltis californiae*), American kestrel (*Falco sparverius*), and California ground squirrel (*Otospermophilus beecheyi*). A list of wildlife species observed in the BSA is provided in Appendix B.

4.4.1.4 Special-Status Species

Appendix D of the BRA (Appendix B; ECRP 2025a) provides a list of all the special-status plant and wildlife species identified as potentially occurring within the BSA. This list was created based on a review of literature and database searches including the CDFW California Natural Diversity Database, California Native Plant Society (CNPS) Rare Plant Inventory, USFWS Information for Planning and Consultation, and National Marine Fisheries Service Resources data, as further described in Appendix B. This provides the listing status for each species, a brief habitat description, and a determination on the potential to occur within the BSA. The following sections briefly describe and discuss the special-status species that are either listed or are candidates for listing under the California or federal ESAs and could potentially occur within the BSA.

Plants

Santa Clara Thorn Mint

Santa Clara thorn-mint (*Acanthomintha lanceolata*) is not listed pursuant to either the federal or California ESAs, but is designated as a California Rare Plant Rank (CRPR) 4.2 species. This species is an herbaceous annual that occurs in rocky soils in chaparral (sometimes serpentine), cismontane woodland, and coastal

scrub. Santa Clara thorn mint blooms from March through June and is known to occur at elevations ranging from 260 to 2,935 feet above Mean Sea Level (MSL). Santa Clara thorn mint is endemic to California; the current range of this species includes Alameda, Fresno, Merced, Monterey, San Benito, San Joaquin, Santa Clara, and Stanislaus counties.

There are no mapped California Natural Diversity Database (CNDDDB) occurrences for Santa Clara thorn mint within five miles of the BSA. The rocky and serpentine soils onsite provide suitable substrate, but there is no chaparral, cismontane woodland, or coastal scrub within the BSA. Santa Clara thorn mint has low potential to occur.

Bent-Flowered Fiddleneck

Bent-flowered fiddleneck (*Amsinckia lunaris*) is not listed pursuant to the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs in cismontane woodland, coastal bluff scrub, and valley and foothill grasslands. Bent-flowered fiddleneck blooms from March through June and is known to occur at elevations ranging from 10 to 1,640 feet above MSL. This species is endemic to California; its current range includes Alameda, Contra Costa, Colusa, Lake, Marin, Napa, San Francisco, Santa Clara, Santa Cruz, San Mateo, Sonoma, Sutter, and Yolo counties.

There are no mapped CNDDDB occurrences for bent-flowered fiddleneck within five miles of the BSA. The annual grassland within the BSA provides suitable habitat for this species. Bent-flowered fiddleneck has potential to occur.

California Androsace

California androsace (*Androsace elongata* ssp. *acuta*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is an herbaceous annual that occurs in chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland. California androsace blooms from March through June and is known to occur at elevations ranging from 490 to 4,280 feet above MSL. The current range of this species in California includes Alameda, Contra Costa, Colusa, Fresno, Glenn, Kern, Los Angeles, Merced, Monterey, Riverside, San Bernardino, San Benito, Santa Clara, San Diego, Siskiyou, San Joaquin, San Luis Obispo, San Mateo, Stanislaus, and Tehama counties.

There are no mapped CNDDDB occurrences for California androsace within five miles of the BSA. The annual grassland within the BSA provides suitable habitat for this species. California androsace has potential to occur.

Big-Scale Balsamroot

Big-scale balsamroot (*Balsamorhiza macrolepis*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous perennial that occurs in chaparral, cismontane woodlands, valley and foothill grassland, and sometimes on serpentinite soils. Big-scale balsamroot blooms from March through June and is known to occur at elevations ranging from 150 to 5,100 feet above MSL. Big-scale balsamroot is endemic to California; the current range of this species

includes Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, and Tuolumne counties.

There are no mapped CNDDDB occurrences for big-scale balsamroot within five miles of the BSA. The serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. Big-scale balsamroot has potential to occur.

Oakland Star Tulip

Oakland star-tulip (*Calochortus umbellatus*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This plant is a perennial bulbiferous herb found often in serpentine soils in broadleaf upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland. Oakland star-tulip blooms from March through May and is known to occur from 330 to 2,295 feet above MSL. Oakland star-tulip is endemic to California; the current range includes Alameda, Contra Costa, Marin, Santa Clara, and San Mateo counties.

There are no mapped CNDDDB occurrences for Oakland star tulip within five miles of the BSA. The serpentine substrates within the annual grassland provide suitable habitat for this species within the BSA. Oakland star tulip has potential to occur.

South Coast Range Morning Glory

South coast range morning-glory (*Calystegia collina* ssp. *venusta*) is not listed pursuant to the federal or California ESAs, but is designated as a CRPR 4.3 species. This species is a rhizomatous herbaceous perennial that occurs in chaparral, cismontane woodland, and valley and foothill grassland, sometimes within serpentine soils or sedimentary substrates. South coast range morning glory blooms from April through June and is known to occur at elevations ranging from 885 to 4,890 feet above MSL. This species is endemic to California; its current range includes Fresno, Monterey, San Benito, Santa Barbara, and Santa Clara counties.

There are no mapped CNDDDB occurrences for south coast range morning glory within five miles of the BSA. The serpentine substrates within the annual grassland provide suitable habitat for this species within the BSA. South coast range morning glory has potential to occur.

Tiburon Paintbrush

Tiburon paintbrush (*Castilleja affinis* ssp. *neglecta*) is listed as endangered pursuant to the federal Endangered Species Act (ESA), threatened pursuant to the California ESA, and is designated as a CRPR 1B.2 species. This species is a hemiparasitic perennial herb that occurs in serpentine valley and foothill grassland. Tiburon paintbrush blooms from April through June and is known to occur at elevations ranging from 195 to 1,310 feet above MSL. Tiburon paintbrush is endemic to California; the current range of this species includes Marin, Napa, and Santa Clara counties.

There are two mapped CNDDDB occurrences for Tiburon paintbrush within five miles of the BSA. The serpentine substrates within the annual grassland provide suitable habitat for this species within the BSA. Tiburon paintbrush has potential to occur.

Pink Creamsacs

Pink creamsacs (*Castilleja rubicundula* var. *rubicundula*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is a hemiparasitic herbaceous annual that occurs in serpentinite substrates in chaparral (openings), cismontane woodland, meadows and seeps, and valley and foothill grassland. Pink creamsacs blooms from April through June and is known to occur at elevations ranging from 65 to 2,985 feet above MSL. Pink creamsacs is endemic to California; its current range includes Butte, Colusa, Glenn, Lake, Napa, Santa Clara, Shasta, and Yolo counties.

There is one mapped CNDDDB occurrence for pink creamsacs within five miles of the BSA. The serpentine substrates within the annual grassland provide suitable habitat for this species within the BSA. Pink creamsacs has potential to occur.

Douglas' Spineflower

Douglas' spineflower (*Chorizanthe douglasii*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.3 species. This species is an herbaceous annual that occurs in sandy or gravelly substrate in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland. Douglas' spineflower blooms from April through July and is known to occur at elevations ranging from 180 to 5,250 feet above MSL. Douglas' spineflower is endemic to California; its current range includes Monterey, San Benito, Santa Clara, and San Luis Obispo counties.

There are no mapped CNDDDB occurrences for Douglas' spineflower within five miles of the BSA. The rocky substrates within the annual grassland provide suitable habitat for this species within the BSA. Douglas' spineflower has potential to occur.

Rattan's Cryptantha

Rattan's cryptantha (*Cryptantha rattanii*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.3 species. This species is an herbaceous annual that occurs in cismontane woodland, riparian woodland, and valley and foothill grassland. Rattan's cryptantha blooms from April through July and is known to occur at elevations ranging from 805 to 3,000 feet above MSL. Rattan's cryptantha is endemic to California; its current range includes Fresno, Merced, Monterey, San Benito, Santa Barbara, Santa Clara, and Stanislaus counties.

There are no mapped CNDDDB occurrences for Rattan's cryptantha within five miles of the BSA. The annual grassland within the BSA provides suitable habitat for this species. Rattan's cryptantha has potential to occur.

Santa Clara Valley Dudleya

Santa Clara Valley dudleya (*Dudleya abramsii* ssp. *setchellii*) is listed as endangered pursuant to the federal ESA and is designated as a CRPR 1B.1 species. This species is an herbaceous perennial that occurs on rocky and serpentine soils in cismontane woodland and valley and foothill grassland. Santa Clara Valley dudleya blooms from April through October and is known to occur at elevations ranging from 195 to 1,755 feet above MSL. This species is endemic to California and is known only from Santa Clara County.

There are seventeen mapped CNDDDB occurrences for Santa Clara Valley dudleya within five miles of the BSA. The rocky, serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. Santa Clara Valley dudleya has potential to occur.

Tracy's Eriastrum

Tracy's eriastrum (*Eriastrum tracyi*) is listed as rare pursuant to the California ESA, is not listed pursuant to the federal ESA, and is designated as a CRPR 3.2 species. This species is an herbaceous annual that occurs in chaparral, cismontane woodland, and valley and foothill grassland. Tracy's eriastrum blooms from May through July and is known to occur at elevations ranging from 1,035 to 5,840 feet above MSL. Tracy's eriastrum is endemic to California; the current range of this species includes Colusa, Fresno, Glenn, Kern, Lake, Lassen, Santa Clara, Shasta, Stanislaus, Tehama, Trinity, and Tulare counties. Distribution or identity is uncertain in Colusa, Glenn, and Tehama counties.

There are no mapped CNDDDB occurrences for Tracy's eriastrum within five miles of the BSA. The annual grassland within the BSA provides suitable habitat for this species. Tracy's eriastrum has potential to occur.

Elegant Wild Buckwheat

Elegant wild buckwheat (*Eriogonum elegans*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.3 species. This species is an herbaceous annual that usually occurs on gravelly and sandy substrates, sometimes along roadsides, and often in washes in cismontane woodland and valley and foothill grassland. Elegant wild buckwheat blooms from May through November and is known to occur at elevations ranging from 655 to 5,005 feet above MSL. Elegant wild buckwheat is endemic to California; its current range includes Monterey, San Benito, Santa Barbara, Santa Clara, and Ventura counties.

There are no mapped CNDDDB occurrences for elegant wild buckwheat within five miles of the BSA. The gravelly, serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. Elegant wild buckwheat has potential to occur.

San Francisco Wallflower

San Francisco Wallflower (*Erysimum franciscanum*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is an herbaceous perennial that often occurs on granitic or serpentine substrates, and sometimes on roadsides, within chaparral, coastal dunes, coastal scrub, and valley and foothill grassland. San Francisco wallflower blooms from March through June and is known to occur at elevations ranging from zero to 1,805 feet above MSL. San Francisco wallflower is endemic to California; its current range includes Marin, San Francisco, San Mateo, Santa Clara, Santa Cruz, and Sonoma counties.

There are no mapped CNDDDB occurrences for San Francisco wallflower within five miles of the BSA. The serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. San Francisco wallflower has potential to occur.

San Benito Poppy

San Benito poppy (*Eschscholzia hypocoides*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.3 species. This species is an herbaceous annual that occurs in clay and serpentinite soils within chaparral, cismontane woodland, and valley and foothill grassland. San Benito poppy blooms from March through June and is known to occur at elevations ranging from 655 to 4920 feet above MSL. San Benito poppy is endemic to California; its current range includes Fresno, Kern, Kings, Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Clara, Santa Cruz, and Stanislaus counties.

There are no mapped CNDDDB occurrences for San Benito poppy within five miles of the BSA. The serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. San Benito poppy has potential to occur.

Fragrant Fritillary

Fragrant fritillary (*Fritillaria liliacea*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.2 species. This species is a perennial bulbiferous herb that often occurs on serpentinite soils in cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland. Fragrant fritillary blooms from February through April and is known to occur from 10 to 1,345 feet above MSL. Fragrant fritillary is endemic to California; the current range of this species includes Alameda, Contra Costa, Monterey, Marin, San Benito, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma counties.

There are two mapped CNDDDB occurrences for fragrant fritillary within five miles of the BSA. The serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. Fragrant fritillary has potential to occur.

Serpentine Leptosiphon

Serpentine leptosiphon (*Leptosiphon ambiguus*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is an herbaceous annual that occurs usually in serpentinite soil within cismontane woodland, coastal scrub, valley and foothill grassland. Serpentine leptosiphon blooms from March through June and is known to occur at elevations ranging from 395 to 3,710 feet above MSL. Serpentine bird's-beak is endemic to California; its current range includes Alameda, Butte, Contra Costa, El Dorado, Fresno, Merced, Monterey, San Benito, Santa Clara, Santa Cruz, San Joaquin, San Mateo, and Stanislaus counties.

There are no mapped CNDDDB occurrences for serpentine leptosiphon within five miles of the BSA. The serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. Serpentine leptosiphon has potential to occur.

Woolly-Headed Lessingia

Woolly-headed lessingia (*Lessingia hololeuca*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 3 species. This species is an herbaceous annual that occurs in clay or serpentinite soils in broadleaf upland forests, coastal scrub, lower montane coniferous forests, and valley and foothill grassland. Woolly-headed lessingia blooms from June through October and is known to occur at elevations ranging from 50 to 1,000 feet above MSL. Woolly-headed lessingia is endemic to California;

the current range of this species includes Alameda, Fresno, Marin, Mendocino, Monterey, Napa, San Diego, Santa Clara, Santa Cruz, San Mateo, Solano, Sonoma, Tehama, Tuolumne, and Yolo counties.

There are no mapped CNDDDB occurrences for woolly-headed lessingia within five miles of the BSA. The serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. Woolly-headed lessingia has potential to occur.

Smooth Lessingia

Smooth lessingia (*Lessingia micradenia* var. *glabrata*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs on serpentine substrates and often roadsides in chaparral, cismontane woodland, and valley and foothill grassland. Smooth lessingia blooms from July through November, and occasionally as early as April. It is known to occur at elevations ranging from 395 to 1,380 feet above MSL. Smooth lessingia is endemic to California: its current range includes Santa Clara County.

There are 21 mapped CNDDDB occurrences for smooth lessingia within five miles of the BSA. The serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. Smooth lessingia has potential to occur.

Woodland Woollythreads

Woodland woollythreads (*Monolopia gracilens*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs in serpentine substrates in openings in broadleaf upland forest and chaparral, cismontane woodland, openings in North Coast coniferous forest, and valley and foothill grassland. Woodland woollythreads blooms from March through July and is known to occur at elevations ranging from 330 to 3,935 feet above MSL. Woodland woollythreads is endemic to California; its current range includes Alameda, Contra Costa, Monterey, San Benito, Santa Clara, Santa Cruz, San Luis Obispo, and San Mateo counties.

There are six mapped CNDDDB occurrences for woodland woollythreads within five miles of the BSA. The serpentine soils within the annual grassland provide suitable habitat for this species within the BSA. Woodland woollythreads has potential to occur.

San Benito Pentachaeta

San Benito pentachaeta (*Pentachaeta exilis* ssp. *aeolica*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs in cismontane woodland and valley and foothill grassland. San Benito pentachaeta blooms from March to May and is known to occur at elevations ranging from 1,575 to 2,805 feet above MSL. San Benito pentachaeta is endemic to California; its current range includes Monterey, San Benito, and Santa Clara counties.

There are no mapped CNDDDB occurrences for San Benito pentachaeta within five miles of the BSA. The annual grassland within the BSA provides suitable habitat for this species. San Benito pentachaeta has potential to occur.

Most Beautiful Jewelflower

Most beautiful jewelflower (*Streptanthus glandulosus* ssp. *glandulosus*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs in serpentine substrates in chaparral, cismontane woodland, and valley and foothill grassland. Most beautiful jewelflower blooms from April through September and is known to occur at elevations ranging from 310 to 3,280 feet above MSL. Most beautiful jewelflower is endemic to California; its current range includes Alameda, Contra Costa, Monterey, Santa Clara, and San Luis Obispo counties.

There are seventeen mapped CNDDDB occurrences for most beautiful jewelflower within five miles of the BSA. The serpentine soils in the annual grassland provide suitable habitat for this species within the BSA. Most beautiful jewelflower has potential to occur.

Metcalf Canyon Jewelflower

Metcalf Canyon jewelflower (*Streptanthus glandulosus* ssp. *albidus*) is listed as endangered pursuant to the federal ESA and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in serpentine soils in valley and foothill grassland. Metcalf Canyon jewelflower blooms from April through July and is known to occur at elevations ranging from 150 to 2,625 feet above MSL. Metcalf Canyon jewelflower is endemic to California; its current range includes Santa Clara County.

There are no mapped CNDDDB occurrences for Metcalf Canyon jewelflower within five miles of the BSA. The serpentine soils in the annual grassland provide suitable habitat for this species within the BSA. Metcalf Canyon jewelflower has potential to occur.

Invertebrates***Crotch's Bumble Bee***

The Crotch's bumble bee (*Bombus crotchii*) is a candidate for listing as endangered under the California ESA. The historic range of the Crotch's bumble bee extends from coastal areas east to the edges of the desert in central California south to Baja California del Norte, Mexico, excluding mountainous areas. The species was historically common throughout the southern two-thirds of its range but is now largely absent from much of that area and is nearly extirpated from the center of its historic range, the Central Valley.

The Crotch's bumble bee inhabits open grassland and scrub habitats. The species visits a wide variety of flowering plants, although its very short tongue makes it best suited to forage at open flowers with short corollas. Plant families most commonly associated with Crotch's bumble bee include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae. The species primarily nests underground. Little is known about overwintering sites for the species, but bumble bees generally overwinter in soft, disturbed soils or under leaf litter or other debris. The flight period for Crotch's bumble bee queens in California is from late February to late October, peaking in early April with a second pulse in July. The flight period for workers and males in California is from late March through September with peak abundance in early July.

There are two (2) mapped CNDDDB occurrences within five miles of the BSA. The annual grassland provides suitable habitat for this species. Crotch's bumble bee has potential to occur.

Monarch

The monarch (*Danaus plexippus*) is formally proposed for listing as threatened under the federal ESA. This butterfly occurs throughout a variety of habitats and requires blooming nectar resources for adults to feed on during breeding and migration and milkweed (*Asclepias* spp.) for oviposition and larval feeding. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias* spp.). Larvae emerge after 2 to 5 days and then develop through five larval instars over a period of 9 to 18 days, feeding on milkweed and sequestering toxic cardenolides as a defense against predators. The larvae then pupate into chrysalis before emerging 6 to 14 days later as an adult butterfly. Multiple generations of monarchs are produced during the breeding season, with most adult butterflies living approximately 2 to 5 weeks. Overwintering adults enter into reproductive diapause and live 6 to 9 months.

In many regions where monarchs are present, monarchs breed year-round. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration. Monarchs may use a variety of roosting trees along fall migration routes. Migratory individuals of eastern and western North America require a specific microclimate at overwintering sites that provides protection from the elements and moderate temperatures. Migratory monarchs in the western population primarily overwinter in groves of a variety of tree species along the coast of California and Baja California.

There are no mapped CNDDDB occurrences within five miles of the BSA. There is no suitable overwintering habitat within the BSA, but the species may occur as a migrant. Monarch has low potential to occur.

Bay Checkerspot Butterfly

The Bay checkerspot butterfly (*Euphydryas editha* ssp. *bayensis*) is listed as threatened under the federal ESA. This butterfly reproduces only in serpentine grasslands primarily utilizing the host plants California plantain (*Plantago erecta*) and purple owl's clover (*Castilleja exserta*). Topography is important for this species' survival as it requires cool microclimates in order to survive periodic drought, while warmer microclimates are necessary during wetter and cooler years. Habitat patch size and proximity to other patches of serpentine grassland influence the persistence of butterfly populations, with patches of several hectares and closer proximity to other patches leading to increased habitat occupancy. This species typically only lives for one year, which includes the following life stages: egg, prediapause larva, diapause (larval dormancy), postdiapause larva, pupa, and adult. Males and females feed on a variety of nectar sources, including common muilla (*Mullia maritima*), tidytops (*Layia platyglossa*), California goldfields (*Lasthenia californica*), lomatiums (*Lomatium* sp.), onions (*Allium* sp.), and several linanthus species (*Linanthus* sp.).

There are six (6) mapped CNDDDB occurrences within five miles of the Project. The closest occurrence to the Project is approximately 0.5-mile to the north and is dated April 13, 2014 (Occurrence No. 20). The serpentine grassland within the Project provides suitable habitat for this species. Plants that serve as host for the larval stage of this species are found onsite. These include purple owl's clover (*Castilleja exserta*) and California plantain (*Plantago erecta*). Bay checkerspot butterfly has potential to occur within the BSA.

Fish

There is no suitable habitat for special-status fish species within the BSA. Special-status fish species are not discussed further in this assessment.

Amphibians

There is no suitable habitat for special-status amphibians within the BSA. Special-status amphibians are not discussed further in this assessment.

Reptiles

Blainville's Horned Lizard

Blainville's horned lizard is considered a CDFW Species of Special Concern (SSC). This species is easily identifiable from many other lizards in California. Like all horned lizards, it is flattened dorsoventrally and possesses enlarged scales along the back of the head that resemble horns. This species can be distinguished from the desert horned lizard, a species with which it shares only a narrow portion of its range, by a double row of pointed fringe scales. This diurnal species can occur within a variety of habitats including scrubland, annual grassland, valley-foothill woodlands and coniferous forests, though it is most common along lowland desert sandy washes and chaparral. In the Central Valley, the species ranges from southern Tehama County southward. In the Sierra Nevada it occurs from Butte County south to Tulare County, and in the Coast Ranges it occurs from Sonoma County south into Baja California. It occurs from sea level to 8,000 feet MSL and an isolated population occurs in Siskiyou County.

There is one mapped CNDDDB occurrence for this species within five miles of the BSA. This occurrence is dated 1894. The open patches of bare ground within the annual grassland provide marginally suitable habitat for this species. Blainville's horned lizard has low potential to occur.

Birds

White-tailed Kite

White-tailed kite (*Elanus leucurus*) is not listed pursuant to either the California or federal ESAs; however, the species is fully protected pursuant to Section 3511 of the California Fish and Game Code. This species is a common resident in the Central Valley and the entire length of the California coast, as well as all areas up to the Sierra Nevada foothills and southeastern deserts. In northern California, white-tailed kite nesting occurs from March through early August, with nesting activity peaking from March through June. Nesting occurs in trees within riparian, oak woodland, savannah, and agricultural communities that are near foraging areas such as low elevation grasslands, agricultural, meadows, farmlands, savannahs, and emergent wetlands.

There are six mapped CNDDDB occurrences within five miles of the BSA. There are no suitable nesting trees within the BSA, but this species may use the annual grassland as foraging habitat. White-tailed kite has low potential to occur.

Northern Harrier

The northern harrier (*Circus hudsonius*) is not listed pursuant to either the California or federal ESAs; however, it is considered to be a USFWS Bird of Conservation Concern (BCC) and a CDFW SSC. This species is known to nest in the Central Valley, along the Pacific Coast, and in northeastern California. The northern harrier is a ground-nesting species, and typically nests in emergent wetland/marsh, open grasslands, or savannah communities usually in areas with dense vegetation. Foraging occurs within a variety of open environments such as marshes, agricultural fields, and grasslands. Nesting occurs from April through September.

There are no mapped CNDDDB occurrences within five miles of the BSA. The annual grassland provides marginally suitable breeding habitat for the species. Northern Harrier has low potential to occur.

Western Burrowing Owl

The western burrowing owl (*Athene cunicularia hypugaea*) is not listed pursuant to the federal ESA but is currently a candidate for listing under the California ESA; in addition, it is designated as a BCC by the USFWS, a SSC by the CDFW, and is also a covered species under the Santa Clara Valley Habitat Plan (SCVHP). Burrowing owls inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos. They can also inhabit developed areas such as golf courses, cemeteries, roadsides within cities, airports, vacant lots in residential areas, school campuses, and fairgrounds. This species typically uses burrows created by fossorial mammals, most notably the California ground squirrel (*Otospermophilus beecheyi*) but may also use manmade structures such as concrete culverts or pipes; concrete, asphalt, or wood debris piles; or openings beneath concrete or asphalt pavement. The breeding season typically occurs between February 1 and August 31.

There are nine mapped CNDDDB occurrences within five miles of the BSA. The annual grassland within the BSA provides suitable habitat, but no burrows were observed during the site reconnaissance visit. Western burrowing owl has low potential to occur.

Grasshopper Sparrow

The grasshopper sparrow (*Ammodramus savannarum*) is not listed pursuant to either the California or federal ESAs, but it is designated as a SSC by the CDFW. The grasshopper sparrow is an uncommon and local summer resident and breeder along the western edge of the Sierra Nevada and most coastal counties south to Baja California. This species generally inhabits moderately open grasslands and prairies with patchy bare ground and scattered shrubs. Grasshopper sparrows are more likely to occupy large tracts of habitat than small fragments. Breeding generally occurs from early May through August.

There are no mapped CNDDDB occurrences for grasshopper sparrow within five miles of the BSA. The annual grassland within the BSA provides suitable breeding habitat for this species. Grasshopper sparrow has potential to occur.

Special-Status Mammals

American Badger

The American badger (*Taxidea taxus*) is designated in California as an SSC. The species historically ranged throughout much of the state, except in humid coastal forests. Badgers were once numerous in the Central Valley; however populations now occur in low numbers in the surrounding peripheral parts of the valley and in the adjacent lowlands of eastern Monterey, San Benito, and San Luis Obispo counties. Badgers occupy a variety of habitats including grasslands and savannas. The principal requirements seem to be significant food supply; friable soils; and relatively open, uncultivated ground.

There are fourteen mapped CNDDDB occurrences for American badger within five miles of the BSA. The annual grassland within the BSA provides suitable habitat for American badger; however, there were no burrows, scat, tracks or other sign present within the BSA during site reconnaissance. American badger has low potential to occur.

4.4.1.5 Critical Habitat or Essential Fish Habitat

There is no designated Critical Habitat mapped within the BSA; however, there is designated critical habitat for Bay checkerspot butterfly immediately adjacent to the BSA. While the BSA is not within Critical Habitat, the proximity to this habitat and the presence of suitable habitat for the species within the BSA is noteworthy.

4.4.1.6 Wildlife Movement Corridors and Nursery Sites

The annual grassland within the BSA has the potential to serve as a wildlife movement area for terrestrial wildlife species adapted to human disturbance. The California Essential Habitat Connectivity dataset shows the BSA as being within an area considered the least permeable to wildlife. The BSA is on the edge of the urban/wildlife interface and wildlife likely use the area only sparingly as a corridor due to proximity of less disturbed habitat. There are no nursery or rookery sites within the BSA.

4.4.1.7 Protected Trees

There is one interior live oak (*Quercus wislizenii*) within the BSA. This tree is located against the fence that surrounds the existing water tank and is approximately 8" diameter-at-breast-height. There are no oak woodlands within the BSA.

4.4.2 Biological Resources (IV) Environmental Checklist and Discussion

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

Less Than Significant with Mitigation Incorporated

There are no known occurrences of special-status species within the BSA, but no protocol level surveys have been performed, to date. However, the BSA supports potentially suitable habitat for a few special-status species. The following discussion provides recommended measures to avoid and/or minimize potential impacts to these special-status species.

4.4.2.1 Special-Status Plants

The Project Area supports potential habitat for special-status plants, as identified in Table 3 of Appendix B. No special status plants are known to occur onsite; however, protocol-level surveys have not been conducted. If a special-status plant occurs in or near the Project development area, Project direct impacts could include damage or loss of individual plants and Project indirect impacts could include loss of suitable habitat, disturbance from human encroachment, and changes in habitat quality due to introduction or spread of non-native invasive plants, alteration of hydrology, erosion, and transport of soil, debris or pollutants into occupied habitat from adjacent Project areas. Implementation of Mitigation Measure BIO-1, which requires a special-status plant survey and identifies avoidance measures that would reduce impacts to special-status plants to less than significant.

4.4.2.2 Special-Status Invertebrates

Abandoned rodent burrows, loose soil and leaf litter, and the flowering plants in the BSA may provide suitable nesting, overwintering, and foraging habitat for Crotch bumble bees. Therefore, the proposed Project will incorporate Mitigation Measure BIO-2, which will reduce potential impacts to the Crotch Bumble Bee to less than significant.

The BSA provides suitable habitat for Bay checkerspot butterfly and there is Critical Habitat adjacent to the BSA. The BSA is close to the Hale Avenue/Falcon Crest habitat unit (Appendix B). The Project could result in the loss of suitable serpentine grassland habitat and has potential to directly injure or kill individual Bay checkerspot butterflies during construction activities if present. Therefore, the proposed Project will incorporate Mitigation Measure BIO-3, which would reduce potential impacts to the Bay Checkerspot Butterfly to less than significant.

4.4.2.3 *Special-Status Reptiles*

Blainville's horned lizard has low potential to occur onsite. Potential impacts to this species include potential injury or mortality due to heavy equipment and foot traffic. Therefore, the proposed Project will incorporate Mitigation Measure BIO-4, which would reduce potential impacts to the Blainville's horned lizard to less than significant.

4.4.2.4 *Nesting Birds (including Raptors)*

The BSA contains suitable nesting and/or wintering and foraging habitat for several special-status birds and other birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. If Project-related activities occur during the nesting season, the removal of active nests or disruption of nesting activities could lead to "take" of a protected bird, or an active nest with eggs or young, which would be considered a significant impact under CEQA. Impacts to wintering and foraging habitat are typically not considered significant under CEQA, particularly for a site that is small in size and located in proximity to existing developed areas. Therefore, the proposed Project would incorporate Mitigation Measure BIO-5, which will minimize potential impacts to nesting birds to a less than significant impact.

4.4.2.5 *American Badger*

Impacts to American Badger are unlikely; however, there is suitable habitat within the annual grassland. If burrows are present during construction activities, mortality or injury may occur during excavation, grading, and other heavy equipment activities. Therefore, the proposed Project will incorporate Mitigation Measure BIO-6, which would minimize potential impacts to the American Badger to a less than significant impact.

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

No Impact.

As discussed above, no sensitive natural communities, oak woodlands, or riparian habitat is found within the BSA and therefore will not be adversely impacted during Project implementation. The Project will have no impact on sensitive natural communities and no mitigation measures are required.

Would the Project:

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☐	☒

No Impact.

No aquatic resources were found within the BSA during the preliminary aquatic resources assessment. Therefore, there would be no impact on any protected wetlands, and no mitigation is required.

Would the Project:

- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

Project implementation may temporarily disturb and displace wildlife from the Project area. Some wildlife such as birds or nocturnal species are likely to continue to use the habitats opportunistically for the duration of construction. Once construction is complete, wildlife movements are expected to resume. Additionally, there are no documented nursery sites and no nursery sites were observed within the proposed Project area during the site reconnaissance. Therefore, the Project is expected to have a less than significant impact on wildlife movement.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

The Project does not include any protected trees or other biological resources that conflict with any local policies or ordinances. Therefore, this impact would be less than significant.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☐	☒

No Impact.

There are no conflicts with the adopted SCVHP. The Project would be considered an Urban Development project under the SCVHP and thus be a covered activity. There would be no impact.

4.4.3 Mitigation Measures

BIO-1: Special-Status Plant Habitat Avoidance and Survey. A special-status plant survey shall be conducted according to CDFW, CNPS, and USFWS protocols prior to Project ground-disturbing or vegetation-disturbing activities. The survey shall be conducted by a qualified biologist (as defined per agency protocols) throughout all potential habitat for special-status plants within the Project impact area and a 25-foot buffer. The survey shall be timed according to the identifiable period for special-status plant species with potential to occur (typically the blooming period). To the extent feasible, known reference populations will be visited prior to the survey to confirm target species are evident and identifiable at the time of the survey. If no special-status plants are found and the survey is still considered recent as per CDFW and USFWS protocols at the time of Project implementation, no further measures pertaining to special-status plants are necessary. If a special-status plant is found, appropriate avoidance and minimization measures shall be determined by a qualified biologist to ensure Project-related activities don't eliminate, substantially reduce the number of, or restrict the range of the special-status plant species, and don't conflict with any local policies or ordinances protecting special-status plant species. If complete avoidance is not feasible, the agency with jurisdiction (CDFW, USFWS and/or the City of Morgan Hill) shall be consulted to determine if additional minimization or mitigation measures are required. Additional measures, if needed, shall be developed in consultation with the respective agency. These measures may include restoration or permanent preservation of habitat for the special-status plant species or translocation (via seed collection and/or transplantation) from planned impact areas to unaffected suitable habitat.

BIO-2: Crotch Bumble Bee. If the Crotch bumble bee is no longer a Candidate or formally Listed species under the California ESA at the time ground-disturbing activities occur, then no additional protection measures are required.

If the Crotch bumble bee is legally protected under the California ESA as a Candidate or Listed species and ground-disturbing activities are scheduled to begin between February 1 and October 31, preconstruction surveys shall be conducted by a qualified biologist. Based

on CDFW's Survey Considerations for California ESA Candidate Bumble Bee Species, three Crotch bumble bee surveys shall be conducted at two-to-four-week intervals during the colony active period (April-August).

If Crotch bumble bees are detected, any remaining surveys will focus on nest location. If no nests are found but the species is observed during preconstruction surveys, work crews should be informed of the possibility of Crotch bumble bees or their nests being present onsite. If a Crotch bumble bee is encountered during construction, work shall stop until the individual leaves of its own volition. If an active Crotch bumble bee nest is detected, an appropriate no disturbance buffer zone (including foraging resources and flight corridors essential for supporting the colony) shall be established around the nest to reduce the risk of disturbance or accidental take, and the designated biologist shall coordinate with CDFW to determine if an Incidental Take Permit under Section 2081 of the California ESA will be required. Nest avoidance buffers may be removed at the completion of the flight season (October 31) and/or once the qualified biologist deems the nesting colony is no longer active.

If initial grading is phased or delayed for any reason, preconstruction surveys will be repeated prior to ground-disturbing activities if nesting habitat is still present or has reestablished and will be affected.

BIO-3: Bay Checkerspot Butterfly. In order to avoid impacts to Bay Checkerspot Butterfly, the following measures based on those found in the SCVHP shall be incorporated:

- Conduct reconnaissance level surveys for adult butterflies during the peak of the flight period (March through early May, but typically April) to determine species presence or absence. Submit the results of these surveys to the SCVHP.
- Identify and map presence of larval host plants and submit this map with the results of the reconnaissance level survey.
- Locate the project footprint as far from field-verified occupied Bay checkerspot habitat or the highest-quality serpentine habitat as feasible.
- If covered plants cannot be avoided, notify the Implementing Entity of the construction schedule so that plant salvage can be considered and potentially implemented.

BIO-4: Blainville's Horned Lizard. To avoid or minimize impacts to this species, a preconstruction survey shall occur within 48 hours of the initiation of ground-disturbing activities. The survey shall include the entire Project footprint and take place during the appropriate time of day to detect Blainville's horned lizard. If Blainville's horned lizard is found, a plan will be prepared, in consultation with CDFW, to potentially collect and relocate individual(s) to suitable habitat outside the Project Area.

BIO-5: Nesting Bird. A preconstruction nesting bird survey shall be conducted within 14 days prior to the commencement of Project-related activities to identify active nests that could be impacted by construction.

The preconstruction nesting bird survey shall include accessible areas within 100 feet of the Project boundaries, including any temporary disturbance areas. For raptors, the preconstruction nesting bird survey shall include accessible areas within 500 feet of the Project boundary.

If active nests are found, a no-disturbance buffer shall be established around the nest. A qualified biologist, in consultation with the CDFW, shall establish the buffer distance. The buffer shall be maintained until the nestlings have fledged (e.g. are capable of flight and become independent of the nest), to be determined by a qualified biologist. The avoidance buffer can be removed and no further measures are necessary once the young have fledged or the nest is no longer occupied, as determined by a qualified biologist.

BIO-6: American Badger. A preconstruction survey of the Project area to determine the presence of active American badger burrows shall be conducted a minimum of 14 days prior to the initiation of Project activities. If no burrows are found, then no further action is required. If an active burrow is discovered, contact CDFW immediately to determine appropriate actions regarding avoidance and minimization measures.

4.5 Cultural Resources

ECORP prepared a *Cultural Resources Records Search Result* for the Glen Ayre Hillside Water Reservoir Project (ECORP 2025b) to determine if cultural resources were present in or adjacent to the Project Area and to assess the sensitivity of the Project Area for undiscovered or buried cultural resources. Cultural resources include pre-contact archaeological sites, historic archaeological sites, and historic built environment sites.

The information provided below is an abridged version of the *Cultural Resources Records Search Result* and is included here to provide a brief context of the potential cultural resources in the Project Area.

4.5.1 Environmental Setting

The Project Area is within the Sierra Azul (Blue Mountains) of the Santa Cruz Mountain Range (California Coast Range). The region is characterized by agricultural areas, grasslands, and oak woodlands. The Project Area is located along a dominant ridgeline that divides Coyote Creek and Llagas Creek. The elevation of the Project Area is approximately 900 feet above mean sea level.

4.5.1.1 Early Human Settlement

When Europeans made first contact with the Project Area, it was occupied by the Ohlone group of Native Americans, specifically, the Tamyen triblet. The Ohlone group of Native Americans are a designated linguistic family made up of eight related languages. The various Ohlone tribes subsisted as hunter-gatherers that relied on local terrestrial and marine flora and fauna. The main plant food source was the

acorn, but they also used a range of other plants, including various seeds, buckeye, berries, and roots. Protein sources included grizzly bear, elk, sea lions, antelope and black-tailed deer as well as smaller mammals such as raccoons, brush rabbits, ground squirrels, and wood rats. Fish also played an important role in the Tamyen diet, and included steelhead, salmon, and sturgeon (City of Morgan Hill 2017).

4.5.1.2 Spanish Colonization

The first European exchange with the Ohlone was probably in 1602, when Sebastian Vizcaino's expedition arrived in Monterey. The Ohlone population in 1770 was approximately 10,000 when the first mission was established in Ohlone territory. By 1832, the population had declined to fewer than 2,000. This was primarily due to diseases introduced by Europeans. However, a combination of factors accounts for this rapid decrease, including slavery, violence, starvation and reduced birth rates. Following the secularization of the missions by the Mexican government in the 1830s, meaning that their identification with religious values was lessened, Native Americans gradually left the missions. Many went on to become manual laborers on ranchos, which are land grants from the Spanish and Mexican governments and the root of the modern English word, ranch (City of Morgan Hill 2017).

4.5.1.3 Morgan Hill Local History

The context of Santa Clara Valley changed dramatically with the discovery of gold. The population explosion that followed the gold rush rapidly changed the nature of the Santa Clara Valley. There was a large-scale conversion of land to agriculture and livestock cultivation to support the gold rush population. Innovations in irrigation and the introduction of mass transportation systems further compounded the shift to an agriculture economy. The introduction of the transcontinental railroad was a major catalyst of this shift as it connected Santa Clara Valley agricultural businesses with major markets in the east coast and major cities along the railroad route.

Four prominent local families, including Murphy, Tenant, Fisher, and Weber, catalyzed much of the early development in and around Morgan Hill, as well as a majority of the South Bay. In 1885, Martin Murphy acquired the 9,000-acre Rancho Ojo de Agua de la Coche, south from Rancho Laguna Seca (Alvires) between Coyote Creek and Llagas Creek, which encompassed present day Morgan Hill, as part of the Spanish Land Grants. The Murphy and Fisher families were joined when Daniel Martin and Maria Fisher, heir to the nearby 19,000-acre Rancho Laguna Seca, married. The daughter of Daniel and Maria Martin, Diana, married Hiram Morgan Hill. Diana and Hiram Morgan Hill built the Villa Mira Monte estate between the Southern Pacific Railroad and Monterey Road in 1884. The proximity of Villa Mira Monte to the booming railroads attracted many visitors to the Morgan Hill's Ranch train stop, which ultimately lead the town to assume the name Morgan Hill (City of Morgan Hill 2017).

4.5.2 Research Methods and Results

A total of eight previous cultural resources investigations have been conducted within 0.5 mile of the Project Area, covering approximately 18 percent of the total search radius (Appendix C). None of the eight previous studies were conducted within the Project Area. The previous studies were conducted between 1973 and 2019 and vary in size from approximately 8 to approximately 2,900 acres.

The records search also determined that no previously recorded cultural resources are located within 0.5 mile of the Project Area.

The California Office of Historic Preservation's (OHP) Built Environment Resource Directory for Santa Clara County (dated September 23, 2022) did not include any resources within 0.5 mile of the Project Area. The closest listed property is the Llagas Creek Bridge, constructed in 1940, at Llagas Road close to Oak Glen Avenue, which is approximately 2.5 miles south of the Project Area.

The National Register Information System failed to reveal any eligible or listed properties within the Project Area. The nearest National Register property is the Villa Mira Monte, which is located at 17860 Monterey Road in the City of Morgan Hill, approximately 3 miles east of the Project Area.

ECORP reviewed resources listed in the County of Santa Clara Heritage Resource Inventory List. The nearest listed Santa Clara County Historic Landmark is the Tilton House, which is located at 19665 Hale Avenue, approximately 1.75 miles north of the Project Area.

ECORP reviewed resources listed as California Historical Landmarks (CHLs) by the OHP on March 25, 2025. The nearest listed landmark is CHL No. 259 (Vasquez Tree and Site of 21-Mile House [established in 1852]), which is located along the northwestern corner of Tennant Avenue and Monterey Highway in Morgan Hill, approximately 5 miles southeast of the Project Area.

4.5.3 Research Results

An examination of maps, charts, aerial photographs, soils information, and the results of the records search and literature review revealed that residential development in the vicinity of the Project Area began in 1968 and that construction was completed within the Project Area prior to 1980. Prior to 1968, the Project Area remained largely undeveloped. Residential properties adjacent to the Project Area have been improved several times from 1968 to today, including construction and maintenance of underground utility lines. The Project Area itself experienced a high level of disturbance from the initial construction of a water tank and related underground utilities. Several residential buildings currently occupy the area adjacent to the Project Area, including a residence, accessory structure, and swimming pool on the property where the water tank easement (Project Area) is located.

Soils and geological data indicate a low potential for the presence of pre-contact cultural material buried within the Project Area. The low potential for pre-contact cultural material is further supported by the eight cultural studies within 0.5 mile of the Project Area since 1973 that have not identified any cultural material.

The Project Area has not been precisely delineated as of this writing; therefore, ECORP used an estimated Project Area based on the existing parcel boundaries. Based on the geological data and the lack of recorded resources in the vicinity of the Project Area, minor alterations to the final Project Area will not change the findings.

Based on the information examined and summarized above, the Project Area does not appear to be particularly constrained by the presence of cultural resources. Additionally, due to the lack of recorded

resources in the vicinity, and the nature of disturbance from the construction of the original water tank and surrounding residential development, it is not likely that there would be intact cultural resources within the Project Area.

4.5.4 Cultural Resources (V) Environmental Checklist and Discussion

Would the Project:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less than Significant Impact.

As mentioned above, the records search did not yield any results of a known historical resource. Therefore, no Historic Properties under Section 106 of the NHPA or Historical Resources under CEQA will be affected by the proposed Project. Any impact would be less than significant.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☒	☐	☐

Less Than Significant With Mitigation Incorporated.

As mentioned above, the soils and geological data indicate a low potential for the presence of pre-contact cultural material buried within the Project Area. The low potential for pre-contact cultural material is further supported by the eight cultural studies within 0.5 mile of the Project Area since 1973 that have not identified any cultural material. However, there always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources; therefore, with implementation of CUL-1, impacts to archaeological resources will remain less than significant.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☒	☐	☐

Less Than Significant With Mitigation Incorporated.

There are no known burial or dedicated cemetery sites within the Project Area; however, as stated above in b) there always remains the potential for ground-disturbing activities to expose previously unrecorded

cultural resources or human remains; therefore, with implementation of CUL-1, impacts to human remains will remain less than significant.

4.5.5 Mitigation Measures

CUL-1: Unanticipated Discoveries. If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined by CEQA or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, the City of Morgan Hill shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill 2641). The archaeologist shall notify the Santa Clara County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and Assembly Bill 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (Assembly

Bill 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

4.6 Energy

4.6.1 Environmental Setting

Energy consumption is analyzed according to the potential direct and indirect environmental impacts associated with the construction and operation of the Project. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emissions of pollutants during the construction phase and the use of electricity during normal operations. The impact analysis focuses on the sources of energy that are relevant to the Proposed Project, which includes the equipment fuel necessary for Project construction, the diesel fuel consumed by the emergency backup diesel-powered generator, and the electricity consumed to pump water during the initial filling of the water tank. It is noted that the Proposed Project's operations would generate minimal vehicle trips. For the purposes of this analysis, one vehicle trip is assumed to visit the site each day; however, even this contribution to fuel consumption would be negligible and therefore it was not considered further in this analysis.

4.6.1.1 *Electricity Types and Sources*

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

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

4.6.1.2 *Energy Consumption*

Electricity use is typically measured in kilowatt-hours (kWh). Fuel use in internal-combustion engine vehicles is typically measured in gallons (e.g., of gasoline or diesel fuel) and energy use in electric vehicles is measured in kWh.

Table 4.6-1 shows the electricity consumption associated with all non-residential uses in Santa Clara County from 2019 to 2023. As shown, electricity demand has decreased since 2019.

Table 4.6-1. Non-Residential Electricity Consumption in Santa Clara County 2020-2024

Year	Non-Residential Electricity Consumption (kilowatt hours)
2024	13,521,000,000
2023	12,749,000,000
2022	12,833,000,000
2021	12,258,000,000
2020	11,949,000,000

Source: California Energy Commission 2025

Table 4.6-2 shows automotive fuel consumption in Santa Clara County from 2020 to 2024. Fuel consumption has decreased since 2020.

Table 4.6-2. Fuel Consumption in Santa Clara County 2020-2024

Year	Total Gasoline Consumption (gallons)	Total Diesel Consumption (gallons)
2024	492,167,322	88,110,518
2023	515,914,321	73,396,321
2022	526,195,425	72,764,118
2021	539,533,743	88,205,676
2020	504,491,132	85,041,847

Source: California Air Resources Board 2025

4.6.2 Energy (VI) Environmental Checklist and Discussion

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact

This impact analysis focuses on the sources of energy that are relevant to the Proposed Project: the equipment fuel necessary for Project construction and material hauling (construction), the electricity consumed during the pumping of water during the initial fill of the water, and the fuel consumed by the emergency backup diesel-powered generator. It is noted that the Proposed Project's operations would generate minimal vehicle trips. For the purposes of this analysis, one vehicle trip is assumed to visit the site each day; however, even this contribution to fuel consumption would be negligible and therefore it

was not considered further in this analysis. Addressing energy impacts requires an agency to determine what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use project. For the purposes of this analysis, the amount of gasoline and diesel fuel necessary for Project construction is calculated and compared to all fuel consumed in Santa Clara County. Additionally, the amount of electricity necessary to fill the water tank is compared to the respective nonresidential consumption in Santa Clara County. Lastly, the amount of diesel fuel consumed by the emergency backup diesel-powered generator during Project operations has been calculated and compared to all fuel consumed in Santa Clara County. Electricity and fuel consumption associated with the Proposed Project are summarized in Table 4.6-3.

Table 4.6-3. Proposed Project Fuel Consumption	
Activity	Annual Energy Consumption
Electricity Consumption	
Water Pumping ¹	7.9 kilowatt-hours
Backup Diesel-powered Emergency Generator Fuel Consumption	
Backup Generator Diesel Fuel Consumption ²	160 gallons
Construction Equipment Fuel Consumption²	
Construction Diesel Fuel Consumption ^{2,3}	38,618 gallons
Construction Gasoline Fuel Consumption ^{2,3}	6,249 gallons

Source: ¹California Energy Commission 2007; ²CalEEMod (California Air Pollution Control Officers Association 2022); EMFAC2025 (CARB 2025). See Appendix D.

Notes: The Project increases in electricity consumption are compared with all of the nonresidential usage in Santa Clara County in 2024, the latest year of data available. The Project increase in construction fuel consumption is compared with the countywide fuel consumption in 2024, the most recent full year of data.

The proposed water storage tanks would provide an additional 150,000 gallons of new water storage capacity at the site. As a result, based on CEC-recommended estimates of electricity use for water pumping, the Project would utilize an estimated 7.9 kilowatt-hours of electricity per year for water supply and conveyance if the 250,000-gallon storage tank is refilled once per year (CEC 2007). As shown in Table 4.6-3, the increase in electricity usage as a result of the Proposed Project operations would constitute a negligible increase in the typical annual electricity consumption attributable to non-residential uses in Santa Clara County. Due to the low increase in electricity consumption as a result of the Proposed Project and its objective to provide adequate clean water to the service area, the Proposed Project would not result in the inefficient, wasteful, or unnecessary consumption of electricity.

Accounting for 24 hours of operation annually at full capacity, the emergency backup diesel-powered generator would be expected to consume 160 gallons of diesel fuel annually, which represents an increase of less than 0.00001 percent. This estimation was calculated using the methodology provided in Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2 (USEPA 2021). See Appendix D.

Fuel necessary for Project construction would be required for the operation and maintenance of construction equipment and the transportation of materials to the Project Site. The fuel expenditure necessary to construct the physical building and infrastructure would be temporary, lasting only as long as Project construction. As shown in Table 4.6-3, the Project's gasoline fuel consumption during construction is estimated to be 6,249 gallons, which would increase the annual countywide gasoline fuel use by 0.0013 percent. Additionally, the Project is estimated to consume 38,618 gallons of diesel fuel, which would be 0.0438 percent of the County's annual diesel fuel consumption. As such, Project construction would have a nominal effect on local and regional energy supplies. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency, combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Proposed Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects similar in nature.

For these reasons, this impact would be less than significant.

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

No Impact.

Senate Bill (SB) 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial Integrated Energy Policy Report (IEPR) that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety (Public Resources Code Section 25301a). Each biennial IEPR takes into account various factors such as energy supply, demand, infrastructure, environmental considerations, and economic impacts. The report aims to address key energy challenges and provide recommendations to achieve a reliable, affordable, and sustainable energy system for California (CEC 2023).

Some of the key areas typically covered in the report include renewable energy, energy efficiency, grid modernization, transportation, climate change mitigation, energy resilience, economic impacts and equity. The CEC prepares these assessments and associated policy recommendations every two years, with updates on alternate years, as part of the IEPR. The 2023 IEPR focuses on next steps for transforming transportation energy use in California. The 2023 IEPR addresses the role of transportation in meeting state climate, air quality, and energy goals; the transportation fuel supply; the Alternative and Renewable

Fuel and Vehicle Technology Program; current and potential funding mechanisms to advance transportation policy; transportation energy demand forecasts; the status of statewide plug-in electric vehicle infrastructure; challenges and opportunities for electric vehicle infrastructure (CEC 2023).

Electricity would be provided to the Project by PG&E. PG&E's Energy Efficiency 2024-2031 Strategic Business Plan builds on existing State programs and policies that support the IEPR goals of improving electricity, natural gas, and transportation fuel energy use in California. PG&E's Energy Efficiency Plan supports the State's goals of zero-carbon electricity and economy-wide carbon neutrality and moving towards a climate-resilient economy. PG&E's Energy Efficiency portfolio can address climate change by both delivering solutions that help to decarbonize customer's homes and buildings and by supporting the use of clean and renewable energy resources powering our electric system (PG&E 2022b). Thus, because PG&E is consistent with the 2023 IEPR and the Project would procure its energy from PG&E, the Project is consistent with, and would not otherwise interfere with or obstruct implementation of, the goals presented in the 2023 IEPR.

The Project would be built to the Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the CCR (Title 24). The Project's mandatory compliance with all applicable building standards would result in the Project not obstructing any state or local plan for renewable energy or energy efficiency.

In addition to the energy efficiency requirements in Title 24, Part 6, the Project would also comply with the California Green Building Standards Code (CALGreen), adopted in January 2010 and incorporated as Part 11 of Title 24. The CALGreen Code establishes mandatory green building standards for all new construction in California and is updated every three years. The most recent 2022 CALGreen update took effect on January 1, 2023, and addresses five key areas applicable to the Project: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. For water infrastructure projects, CALGreen emphasizes measures such as efficient water distribution, leak detection systems, and the use of sustainable construction materials to minimize environmental impacts and improve long-term sustainability.

With these energy and sustainability standards in place, the Project would align with and support state and local goals for renewable energy, energy efficiency, and water conservation. Therefore, no impact would occur.

4.6.3 Mitigation Measures

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

4.7 Greenhouse Gas Emissions

4.7.1 Environmental Setting

GHG emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass

through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps more than 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂. Often, estimates of GHG emissions are presented in CO₂ equivalents (CO₂e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

The local air quality agency regulating the SFBAAB, including the Project Site, is the BAAQMD, the regional air pollution control officer for the basin. The BAAQMD approved the BAAQMD 2022 CEQA Guidelines. These guidelines present a project-level operational threshold of significance for GHG emissions based on adherence to a suite of BAAQMD performance standards for land uses projects directly related to building design, transportation and consistency with the CEQA Guidelines Section 15183.5(b) or compliance with a Qualified GHG Reduction Strategy. BAAQMD has developed the BAAQMD performance standards for land uses projects based on typical residential and commercial land use projects and typical long-term communitywide planning documents such as general plans and similar long-range development plans. According to the BAAQMD, these performance standards may not be appropriate for other types of projects that do not fit into the mold of a typical residential or commercial project or general plan update (BAAQMD 2023). The BAAQMD states that lead agencies should keep this point in mind when evaluating other types of projects (BAAQMD 2023). Additionally, the BAAQMD performance standards are intended for new land use development projects to achieve California's long-term climate goal of carbon neutrality by 2045. The Proposed Project is not a typical residential or commercial project and does not involve a new land use. Therefore, the BAAQMD performance standards for land uses projects based on typical new residential and new commercial land use projects are not appropriate for use in this analysis.

For the purposes of this analysis, Project GHG emissions are quantified and compared to the thresholds issued by CAPCOA, which is an association of air pollution control officers representing all 35 local air quality agencies across California, including the BAAQMD. CAPCOA has instituted a GHG significance threshold of 900 metric tons of CO₂e annually for the evaluation of proposed land use development projects. This threshold, indicating a 90 percent capture rate, encompasses projects representing approximately 90 percent of GHG emissions from new sources. The 900 metric tons of CO₂e per year threshold is typically utilized to classify small projects within California as inconsequential, as it accounts for less than one percent of the future 2050 statewide GHG emissions target. CAPCOA considers the 900 metric ton threshold sufficiently low to capture a significant portion of future residential and nonresidential development necessary for accommodating statewide population and economic growth. Simultaneously, it establishes the emission threshold at a level that excludes small projects contributing a relatively minor fraction of cumulative statewide GHG emissions. The Project is compared to the CAPCOA significance threshold of 900 metric tons annually.

In the 2015 California Supreme Court *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227 (Newhall Ranch) decision, following its review of various potential GHG thresholds proposed in an academic study [Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the state that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.).

4.7.2 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

GHG Emissions were modeled using CalEEMod, version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod provides the ability to analyze a project based on California emission standards. Project construction generated GHG emissions were calculated using CalEEMod model defaults for Santa Clara County and the size of the new water tank, as described in the Project Description. The Project would replace the existing 100,000-gallon water reservoir at the terminus of Glen Ayre Drive with a new 250,000-gallon steel, ground-level potable water reservoir. The Project would include temporary water tanks, an expansion of the existing utility easement, and basic screening landscaping around the tank to reduce visual impacts for homes around the tank. Based on information provided in the Project Description, the disturbed area was conservatively modeled as 0.5 acre. Additionally, the demolition of the previous water tank consisting of 962.11 building square footage was accounted for. It is noted that the CalEEMod model cannot specifically account for the construction of a water tank due to the limited land uses available within the model and therefore such activity is

modeled as a “non-asphalt surface” in the CalEEMod Model. The Proposed Project’s operations would require minimal site visits. In order to provide a conservative analysis, one vehicle trip to the Project Site each day is considered. The Project would be a source of indirect energy emissions as water pumping associated with the Project would be powered by electricity. Additionally, the Project would include an emergency backup, diesel-powered generator.

4.7.2.1 Construction-Generated Greenhouse Gas Emissions

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

Table 4.8-1. Construction-Related Greenhouse Gas Emissions	
Emission Source	CO₂e (metric tons/year)
Construction Calendar Year One	216
Construction Calendar Two One	157
<i>CAPCOA Significance Threshold</i>	<i>900</i>
Exceed Significant Impact Threshold?	No

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

Notes: Emission calculations account for the demolition of the 921 square foot existing water tank.
CAPCOA = California Air Pollution Control Officers Association; CO₂e = Carbon Dioxide Equivalent

As shown in Table 4.8-1, Project construction would result in the generation of 216 metric tons of CO₂e during the first calendar year of construction and 157 metric tons of CO₂e during the second calendar year of construction. Both years are below the CAPCOA significance threshold of 900 metric tons of CO₂e. Once construction is complete, the generation of these GHG emissions would cease. Furthermore, GHG emissions generated by the construction sector have been declining in recent years. For instance, construction equipment engine efficiency has continued to improve year after year. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower (hp) and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the USEPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the USEPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 hp and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards. Tier 3 engine standards reduce precursor and subset GHG emissions such as nitrogen oxide by as much as 60 percent. On May 11, 2004, the USEPA signed the final rule

introducing Tier 4 emission standards, which were phased in over the period of 2008-2015. The Tier 4 standards require that emissions of nitrogen oxide be further reduced by about 90 percent. All off-road, diesel-fueled construction equipment manufactured in 2015 or later will be manufactured to Tier 4 standards.

This impact is less than significant.

4.7.2.2 Operational GHG Emissions

The Proposed Project's operations would require one vehicle trip to the Project Site each day. This vehicle trip would result in the generation of approximately 1 metric tons of CO₂e per year. The Project would be a source of indirect energy emissions as water pumping associated with the Project would be powered by electricity. As identified in Section 4.6, water pumping associated with the Project would consume 7.9 kilowatt hours annually. Applying an emissions factor of 0.0005 metric tons of CO₂e per kilowatt hour consumed equates to the generation of 0.004 metric tons of CO₂e. Additionally, the Project would include an emergency backup, diesel-powered generator. According to the CalEEMod model prepared for the Project, this source would generate 2 metric tons of CO₂e annually (CAPCOA 2022; see Appendix A), which is below the CAPCOA significance threshold. For these reasons, the Proposed Project's construction GHG emissions would have a less than a significant impact.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☐	☒

No Impact.

California promulgates several mandates and goals to reduce statewide GHG emissions, including SB 32 which aims to reduce statewide GHG emissions to 40 percent below 1990 levels by the year 2030 (California SB 32) and Executive Order S-3-05, which sets a goal of reducing statewide GHG emissions to 80 percent below 1990 levels by the year 2050. In addition, Assembly Bill (AB) 1279, the California Climate Crisis Act, was signed into law in 2022 and establishes a statewide policy to achieve carbon neutrality as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. AB 1279 further requires that by 2045, statewide anthropogenic GHG emissions be reduced to at least 85 percent below 1990 levels and directs CARB to identify measures necessary to achieve these long-term reduction and neutrality targets through its Climate Change Scoping Plan. In response, CARB adopted the Final 2022 Climate Change Scoping Plan Update, which builds upon previous Scoping Plans and identifies a technologically feasible, cost-effective, and equity-focused path for achieving both the SB 32 target of 40 percent below 1990 levels by 2030 and the AB 1279 requirement of carbon neutrality by 2045. The 2022 Scoping Plan emphasizes reducing reliance on fossil fuels, accelerating clean energy transitions, advancing carbon capture and storage technologies, and utilizing natural and working lands to both reduce emissions and sequester carbon.

The Proposed Project is subject to compliance with statewide GHG reduction requirements, including those established by SB 32 and AB 1279. Although the CAPCOA GHG significance thresholds were originally developed prior to the adoption of SB 32 and AB 1279, they were based on consistency with California's long-term climate framework and remain a widely accepted method for evaluating whether a project would substantially contribute to cumulative GHG emissions. Further, CAPCOA expressly noted that its thresholds were derived to be consistent with the State's long-term climate stabilization goals identified in AB 32 and Executive Order S-3-05 (CAPCOA 2008). Since the Proposed Project-generated GHG emissions would not surpass the CAPCOA GHG significance threshold, which was developed in consideration of statewide GHG reduction goals, the Project would not conflict with the state's adopted framework for achieving GHG reductions, including the long-term carbon neutrality mandate under AB 1279.

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

4.7.3 Mitigation Measures

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

4.8 Geology and Soils

4.8.1 Environmental Setting

4.8.1.1 Geomorphic Setting

The City of Morgan Hill lies in the south part of the Santa Clara Valley, a mostly flat alluvial plain that extends southward from San Francisco Bay as far as the City of Gilroy. Major right-lateral strike-slip fault zones flank the valley, including the San Andreas and Sargent-Berrocal Fault zones on the west and the Calaveras, Silver Creek, and Coyote Creek Fault zones on the east. The general pattern of surficial geology as one traverses the City of Morgan Hill from southwest to northeast can be described as sedimentary, lowgrade metamorphic, and igneous bedrock of the Late Jurassic to Early Cretaceous Franciscan Complex, transitioning to Quaternary alluvial valley fill, thence further exposures of the Franciscan Complex bedrock, followed by coarse alluvium (i.e., unconsolidated, poorly sorted gravel, silt, sand, and clay) of the lower Pleistocene to Upper Pliocene Santa Clara Formation.

The sandstones, chert, shale, limestone, low-grade metamorphic, and igneous rocks of the Late Jurassic to Early Cretaceous Franciscan Complex represent the oldest rocks exposed in the Project Area, and they occupy much of the hillsides that flank the valley to the southwest and to the northeast. The Franciscan Complex rocks appear to be geographically widespread, and they are inferred to occur at depth beneath the entire southwestern Santa Clara Valley. Masses of partially to completely serpentinized peridotite occur as fault-bounded bodies within the Franciscan Complex. In places, this peridotite has been hydrothermally altered to a calc-silicate metamorphic rock (Morgan Hill 2017).

4.8.1.2 Regional Seismicity and Fault Zones

The Earth's crust includes tectonic plates that locally collide with or slide past one another along plate boundaries. California is particularly susceptible to such plate movements, notably, the largely horizontal or "strike-slip" movement of the Pacific Plate, as it impinges on and slides past the west margin of the North American Plate. In general, earthquakes occur when the accumulated stress along a plate boundary or fault is suddenly released, resulting in seismic slippage. The amount (i.e., distance) of slippage can vary widely, ranging in scale from a few millimeters or centimeters, to tens of feet.

The performance of man-made structures during a major seismic event varies widely due to a number of factors: location with respect to active fault traces or areas prone to liquefaction or seismically-induced landslides; the type of building construction (i.e., wood frame, unreinforced masonry, non-ductile concrete frame); the proximity, magnitude, and intensity of the seismic event itself; and many other factors. In general, evidence from past earthquakes shows that wood frame structures tend to perform well especially when their foundations are properly designed and anchored. Older, unreinforced masonry structures, on the other hand, do not perform as well, especially if they have not undergone appropriate seismic retrofitting. Applicable building code requirements, such as those found in the CBC and the Morgan Hill Municipal Code, include seismic requirements that are designed to ensure the satisfactory performance of building materials under prescribed seismic conditions.

Morgan Hill, like most of California, is vulnerable to seismic activity due to the presence of several active earthquake faults in the region. According to the USGS, faults that have moved in Holocene time (the last 11,500 years) are considered the most active and dangerous faults. Based on age and historic movement, the most active seismic sources in the vicinity of the Project Area are the Calaveras, San Andreas, and Sargent-Berrocal faults. These faults are described in detail below:

- *Calaveras Fault*: This fault, located adjacent to the eastern boundary of the City of Morgan Hill and is the closest active fault, approximately 6.5 miles away from the Project site. It is considered a major strike-slip fault of the San Francisco Bay area that is part of the larger San Andreas fault system. The fault zone extends for approximately 93 miles from the San Ramon area southeast to approximately 18 miles south of the City of Hollister. Its last damaging earthquake was the so-called Morgan Hill earthquake of April 1984, a moderate-size Mw 6.2 event that was felt throughout central California. The earthquake resulted in property damage of approximately \$7.5 million, although no fatalities were reported. Damage was reportedly concentrated near the south end of the Anderson Reservoir and in the City of Morgan Hill (USGS 2025).
- *San Andreas Fault (Northern Segment)*: This well-known, right-lateral strike-slip fault is located approximately 5 miles southwest of the City of Morgan Hill, approximately 8.5 miles from the Project Site. The northern segment runs from the City of Hollister, through the Santa Cruz Mountains, and then through the San Francisco Peninsula. Prominent earthquakes on this fault include the April 1906 earthquake, estimated between Mw 7.7 and 8.3, was the largest seismic event in recorded history that affected the Project Area. More recently, the Mw 6.9 Loma Prieta earthquake of October 1989 on the San Andreas fault caused 63 deaths, 3,757 injuries, and more

than \$6 billion in property damage, although no deaths were reported in Santa Clara County (USGS 2025).

Landslides

Landslides are gravity-driven movements of earth materials that may include rock, soil, unconsolidated sediment, or combinations of such materials. The rate of landslide movement can vary considerably. Some move rapidly as in a soil or rock avalanche, while other landslides creep or move slowly for extended periods of time. The susceptibility of a given area to landslides depends on many variables, although the general characteristics that influence landslide hazards are well understood. The factors that influence the probability of a landslide and its relative level of risk include the following:

- Slope Material: Loose, unconsolidated soils and soft, weak rocks are more hazardous than are firm, consolidated soils or hard bedrock.
- Slope Steepness: Most landslides occur on moderate to steep slopes.
- Structure and Physical Properties of Materials: This includes the orientation of layering and zones of weakness relative to slope direction.
- Water Content: Increased water content increases landslide hazard by decreasing friction and adding weight to the materials on a slope.
- Vegetation Coverage: Abundant vegetation with deep roots promote slope stability.
- Proximity to Areas of Erosion or Man-made Cuts: Undercutting slopes can greatly increase landslide potential.
- Earthquake Ground Motions: Strong seismic ground motions can trigger landslides in marginally stable slopes or loosen slope materials, and also increase the risk of future landslides).

The California Geological Survey Landslides Maps have mapped the Project Area and it is not within an area of landslide susceptibility, however, other portions of the parcel have been identified as being susceptible (California Geological Survey [CGS] 2006).

Lateral Spreading

According to the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey, two soil types make up the Project Area (NRCS 2023). Most of the Project Area consists of Los Gatos gravelly loam with 30 to 50 percent slopes, which is well drained and has a parent material of residuum weathered from metamorphosed shale. The margins of the Project Area consist of rock land with 50 to 75 percent slopes. This soil unit is excessively drained and has a parent material of mixed alluvium and residuum. Los Gatos gravelly loam is not generally considered susceptible to lateral spreading (NRCS 2003).

Liquefaction

Liquefaction, which is primarily associated with loose, saturated materials, is most common in areas of sand and silt or on reclaimed lands. Cohesion between the loose materials that comprise the soil may be jeopardized during seismic events and the ground will take on liquid properties. Thus, specific soil characteristics and seismic shaking must exist for liquefaction to be possible.

Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. The potential for liquefaction is highest when groundwater levels are high, and loose, fine, sandy soils occur at depths of less than 50 feet. According to CGS, the Project Site is not within an area that has the potential for liquefaction (CGS 2025).

4.8.1.3 Soils

ECORP staff obtained soil survey mapping for the Project Area from the NRCS *Web Soil Survey* (NRCS 2025). Table 4.7-1 provides an overview of the soil map units within the Project Area, including parent materials, presence of hydric soils, and other key features. Soil distribution at the project site can be seen in Figure 4.7-1.

Table 4.7-1. Soil Series Mapped within the Project Area			
Map Unit Symbol	Map Unit Name	Rating	Hydric Soil Rating
LfF	Los Gatos gravelly loam, 30 to 50 percent slopes, thermic, low precipitation, MLRA 15	Residuum weathered from metamorphosed shale	None
RnG	Rock land	—	None



Figure 4.7-1. Natural Resources Conservation Service Soil Types

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4.8.1.4 Paleontological Resources

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

According to the City of Morgan Hill General Plan, a records search query through the University of California Museum of Paleontology was run and no paleontological resources have been identified as being found within the City of Morgan Hill (City of Morgan Hill 2017).

4.8.2 Regulatory Setting

4.8.2.1 State Policies

Alquist-Priolo Earthquake Fault Zoning Act of 1972

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Alquist-Priolo Earthquake Fault Zoning Act only pertains to geologic hazards associated with surface fault rupture. This law does not pertain to any other geologic hazards.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, which was passed by the California legislature in 1990, addresses earthquake hazards related to liquefaction and seismically-induced landslides. Under the Act, seismic hazard zones are mapped by the State Geologist in order to assist local governments in land use planning. The Act states that "it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety."4 Section 2697(a) of the Act states that "cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard".

California Building Standards Code

The State of California provides minimum standards for building design through the California Building Standards Code (CBC; CCR Title 24). Information on current code requirements can be found on the California Building Standard Commission's website (<http://www.bsc.ca.gov/>). The CBC applies to all occupancies throughout the state unless local amendments have been adopted, and includes regulations for seismic safety, excavation of foundations and retaining walls, and grading activities (including drainage and erosion control and construction on unstable soils).

4.8.2.2 Regional Policies

San Francisco Bay and Central Coast Regional Water Quality Control Boards

Regional authority for planning, permitting, and enforcement of water quality issues, including erosion, is delegated to the nine RWQCBs. The northern portion of Morgan Hill and the SOI lies within the jurisdiction of San Francisco Bay RWQCB (Region 2), which covers watersheds that drain primarily into San Francisco Bay. The Central Coast RWQCB (Region 3) covers the state's central coast, including most of Morgan Hill and its SOI, and continues south to Santa Barbara County and Ventura County. The watersheds within the Central Coast RWQCB jurisdiction drain primarily into the Pacific Ocean.

The San Francisco Bay RWQCB addresses region-wide water quality issues through the Water Quality Control Plan for San Francisco Bay Region (Basin Plan), which is reviewed for revisions at least once every three years. The Basin Plan was adopted in 1993 and updated most recently in March 2015. 6 The Basin Plan designates beneficial uses of the state waters within Region 2, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the standards established in the Basin Plan.

Santa Clara County Local Hazard Mitigation Plan

Hazard mitigation plans can address a range of natural and human-caused hazards. Plans can be developed for a single community or as a multi-jurisdictional plan that includes multiple communities across a county. The current Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan was approved by the Federal Emergency Management Agency (FEMA) on February of 2024. Mitigation plans have a 5-year lifecycle and as such the Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan expires in February of 2029.

4.8.3 Geology and Soils (VII) Environmental Checklist and Discussion

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

Would the Project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐

Less Than Significant Impact.

i) There are no known active or potentially active faults, or Alquist-Priolo Earthquake Fault Zones, located within the proposed Project area. However, there are numerous faults located in the region and the proposed Project area could experience considerable ground shaking generated by faults outside of the area.

The proposed Project would be required to comply with all provisions of the California Building Code which requires development projects to: perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues and use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements.

The proposed Project would construct a new replacement for the existing water tank. The new tank will provide improved fire flow and potable water storage for the City of Morgan Hill. As such, the proposed Project would not directly or indirectly result in the construction of occupied structures. For this reason, the proposed Project is not anticipated to have significant effects that could result in risk of loss, injury, or death due to fault rupture or strong seismic ground shaking. Any impacts would be less than significant and no mitigation measures are required.

ii) See the above discussion i). Any impacts that would result from ground shaking would be less than significant and no mitigation measures are required.

iii) Liquefaction is a phenomenon whereby granular material (i.e., silt and sand) is transformed from a stable state into a freely moving liquid-like state as a result of an increase in pore-water (water between the grains) pressure due to an earthquake. According to CGS, the Project site has not been identified as being susceptible to liquefaction. In addition, the proposed Project would comply with applicable State seismic safety standards to minimize risk from liquefaction. Lastly, as described in Items i and ii above, the project would not directly or indirectly result in the construction of occupied structures. For these reasons, the proposed Project will have no adverse effects that could result in risk of loss, injury, or death due to liquefaction that may occur during a seismic event. Any impact would be less than significant.

iv) Landslides refer to a wide variety of processes that result in the perceptible downward and outward movement of soil, rock, and vegetation under gravitational influence.

Construction of the new tank would require excavation activities within a relatively flat area on the Project site and would have little possibility of resulting in exposure of the site to increased incidence of erosion and site instability due to landslides. BMPs would be included as part of the SWPPP prepared for the

proposed Project and would be implemented to manage erosion and the loss of topsoil during construction-related activities (see *Section 4.10.3 Hydrology and Water Quality Environmental Checklist and Discussion*). With the implementation of the SWPPP, soils erosion during construction, project staging and the construction of related facilities would be minimized. With limited erosion anticipated from the project site due to the relatively flat nature of the site, the potential for project-induced landslides is considered less than significant. No mitigation is required.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

As mentioned above within Table 4.7-1 and Figure 4.7-1 there is two different types of soil located within the project area: Los Gatos gravelly loam, 30 to 50 percent slopes and rock land. During construction, trenching and fill on the project site could create locally unstable soil conditions that could result in a localized increase in wind- or water- related soil erosion.

All excavation activities, grading, and construction would be conducted according to standard construction practices and building codes. A NPDES permit would be required for construction activities from the RWQCB, requiring a SWPPP. Implementation of the SWPPP, including the use of stormwater quality BMPs, would prevent erosion of soil in storm water runoff during project construction. [See Hydrology and Water Quality: Section 4.10 of this Environmental Checklist]. Once construction is completed, soils would be stabilized and monitored according to the SWPPP until a Notice of Termination for the NPDES construction permit is filed with the RWQCB. Consequently, the Proposed Project would not result in substantial erosion and/or unstable earth conditions from project construction or operation. This is applicable to all proposed phases of construction. For these reasons, erosion-related impacts are considered to be less than significant. No mitigation is required.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

For reasons discussed in items a) and b) above, adequate measures would be employed during tank installation, temporary tank set ups, construction staging, and the construction of related facilities to control and limit on and off-site soil erosion. With the limited potential for on- and off-site erosion and

low depth to bedrock at the project site, the potential for project-induced landslides, lateral spreading, subsidence, liquefaction, and collapse is minimal. The impact, therefore, is considered less than significant. No mitigation is required.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

"Shrink-swell potential" is the potential for volume changes in a soil with a loss or gain in moisture. If the shrink-swell potential is rated moderate to high, damage to buildings, roads, and other structures can occur. These limitations can vary substantially over short distances. Some clayey soils tend to expand when wet and contract upon drying, which can cause structural damage if not accounted for in construction designs. Los Gatos gravelly loam soils have good drainage and a low shrink-swell potential and do not pose a hazard of this kind. Consequently, the potential effects due to shrink-swell characteristics of the soil within the project area is low. For these reasons, the impact is less than significant. No mitigation is required.

Would the Project:

- 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?

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

The proposed Project would not directly or indirectly result in the installation of any new septic systems or alternative wastewater disposal systems. Any impact would be less than significant and no mitigation required.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

Ground disturbance will take place during the construction of the new tank. Although the proposed excavation depth would be limited, excavations may result in penetration of the underlying rock.

Occurrences of fossil resources are closely tied to the geologic units, e.g., formations or members that contain them. Morgan Hill sits on a shallow rise centrally located in the Santa Clara Valley south of San Jose. This geologic area is unusual because Morgan Hill is located between two major active fault lines including, the San Andreas faults to the west in the Santa Cruz Mountains, and the Calaveras fault in the Diablo ranch to the east. A byproduct of this active geological area and the geologic units in the Morgan Hill area is the existence of a rare metamorphic stone, Poppy Jasper. However, as mentioned above a records search query through the University of California Museum of Paleontology was run as part of the City's General Plan and no paleontological resources have been identified as being found within the City of Morgan Hill.

Construction of the proposed Project may damage or destroy unknown paleontological resources. This potential impact can be mitigated to a level that is less than significant with the implementation of Mitigation Measure PALEO-1.

4.8.4 Mitigation Measures

PALEO-1: Discovery of Unknown Resources. If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until the City of Morgan Hill is notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources.

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

4.9.1.1 Hazardous Materials

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating illness. Or hazardous material could pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported, or disposed of. Hazardous materials are mainly present because of industries involving chemical byproducts from manufacturing, petrochemicals, and hazardous building materials.

4.9.1.2 Hazardous Waste

Hazardous waste is the subset of hazardous materials that has been abandoned, discarded, or recycled and is not properly contained, including soil or groundwater that is contaminated with concentrations of chemicals, infectious agents, or toxic elements sufficiently high to increase human mortality or to destroy the ecological environment. If hazardous material is spilled and cannot be effectively picked up and used as a product, it is a hazardous waste. If a hazardous material site is unused, and it is obvious there is no realistic intent to use the material, it is also considered to be a hazardous waste. Examples of hazardous materials include flammable and combustible materials, corrosive explosives, oxidizers, poisons, materials that react violently with water, radioactive materials, and chemicals.

4.9.1.3 Transportation of Hazardous Materials

The transportation of hazardous materials within California is subject to various Federal, State, and local regulations. It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery, or the loading of such materials (California Vehicle Code Sections 31602(b), 32104(a)). The California Highway Patrol designates through routes to be used for the transportation of hazardous materials. Transportation of hazardous materials is restricted to these routes except in cases where additional travel is required from that route to deliver or receive hazardous materials to and from users.

4.9.1.4 Hazardous Sites

Envirostor Data Management System and Cortese List

The California Department of Toxic Substances Control (DTSC) maintains the Envirostor Data Management System, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. This site cleanup information includes: Federal Superfund Sites, State Response Sites, Voluntary Cleanup Sites, School Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, and Evaluation/Investigation Sites. The hazardous waste facilities include permitted-Operating, Post-Closure Permitted, and Historical Non-Operating (DTSC 2025).

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. California DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

The proposed Project site is not listed by the DTSC as a hazardous substances site or within the Cortese list. The closest site is approximately 2 miles east of the Project site, at Depressurized Technologies at 335 Cochrane Circle, Morgan Hill, California.

GeoTracker

GeoTracker is the California Water Resources Control Board's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating underground storage tanks and land disposal sites.

The proposed Project is not listed on the State Water Resources Control Board (SWRCB) GeoTracker website but is within 2 miles of seven Leaking Underground Storage Tank (LUST) Cleanup sites (SWRCB 2025). The sites and their status can be found in Table 4.9.1:

Table 4.9.1. SWRCB GeoTracker LUST Cleanup Sites within 0.5 Mile of the Project Site				
Location Name	Address	Potential Contaminants of Concern	Status	Date
Morgan Hill Unified School District	11230 Monterey Road, Morgan Hill, CA 95037	Diesel	Case Closed	6/30/2005
Cochrane Plaza Chevrolet	19490 Monterey Road, Unincorporated, CA 95037 (Santa Clara County)	Waste Oil, Motor, Hydraulic, Lubricating	Case Closed	1/15/1998
Huntington (Formerly, Kernley Denova Homes)	19380 Monterey Road, Morgan Hill, CA 95038	None Specified	Open- Site Assessment	12/15/2022
Village at Madrone	18960 Monterey Road, Morgan Hill, CA 95037	None Specified	Case Closed	2/4/2025
Volp/Gaither Properties	17995 Monterey Road, Morgan Hill, CA 95037	Waste Oil, Motor, Hydraulic, Lubricating	Case Closed	8/9/1993
Shell Gas Station	17905 Monterey Road, Morgan Hill, CA 95037	Gasoline, Other Fuel Oxygenates	Case Closed	5/2/2016
Advance Cleaners	259 W. Main Avenue, Morgan Hill, CA 95037	Tetrachloroethylene	Open- Site Assessment	12/28/2023

Note: CA = California; LUST = Leaking Underground Storage Tank.

Source: State Water Resources Control Board 2025.

4.9.1.5 Fire Hazard Severity Zones

The state has charged the California Department of Forestry and Fire Protection (CAL FIRE) with the identification of Fire Hazard Severity Zones (FHSZ) within State Responsibility Areas (SRA). In addition, CAL FIRE must recommend Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas. The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards. The proposed Project is within a very high fire hazard severity zone within a Local Responsibility Area (LRA) (CAL FIRE 2025).

4.9.2 Regulatory Setting

4.9.2.1 Federal

United States Environmental Protection Agency

The USEPA laws and regulations ensure the safe production, handling, disposal, and transportation of hazardous materials. Laws and regulations established by the USEPA are enforced in Santa Clara County by the California Environmental Protection Agency.

United States Department of Transportation

The U.S. Department of Transportation (USDOT) has the regulatory responsibility for the safe transportation of hazardous materials between states and to foreign countries. The USDOT regulations govern all means of transportation, except for those packages shipped by mail, which are covered by United States Postal Service regulations. The federal Resource Conservation and Recovery Act of 1976 imposes additional standards for the transport of hazardous waste.

4.9.2.2 State Policies

Hazardous Waste and Substances Site List

The Hazardous Waste and Substances Sites List (Cortese list) is a planning document required by California Government Code Section 65962.5. DTSC is required to compile the list, which consists of potentially contaminated sites in the state. It is used by state agencies, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites.

4.9.2.3 Local Policies

Morgan Hill Municipal Code

The City has adopted, by reference, the California Code of Regulations, Title 24, Part 9 (2010 California Fire Code), some portions of which are deleted, modified, or amended by Chapter 15.44 of the Morgan Hill Municipal Code (Morgan Hill Fire Code). The Morgan Hill Fire Code is intended to regulate and govern the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings in Morgan Hill.

Morgan Hill Emergency Operation Plan

The City of Morgan Hill adopted an Emergency Operation Plan (EOP) in 2005, which outlines the roles and responsibilities of City staff and volunteers during a disaster. The City developed the City EOP to better prepare for responses to emergency situations that could result from natural disasters and technological incidents. The Morgan Hill Office of Emergency Services (City OES) staff maintains the City EOP in accordance with the State of California's Standardized Emergency Management System (SEMS).

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

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

Less Than Significant Impact.

Tank operations require ongoing transport, use, or disposal of limited amounts of hazardous materials. These will be stored according to the manufacturer's specifications for safe storage. Therefore, the impact of the proposed tank operations regarding ongoing transport, use, or disposal of hazardous materials is considered less than significant.

The Project would require demolition and construction activities that could involve disturbance and/or disposal of materials containing lead (including lead-based paint) and potentially other hazardous substances, and removal of the existing tank foundation and other earthwork involving soils that may require special handling or disposal. However, the Project would adhere to all regulations regarding hazardous material handling or disposal.

The proposed Project is anticipated to require the use of some hazardous materials such as diesel fuel during construction. The transport of hazardous materials by truck is regulated by federal safety standards under the jurisdiction of the U.S. Department of Transportation. The use of such materials would not create a significant hazard to the public and impacts would be less than significant.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

Less Than Significant Impact.

On-site storage and/or use of large quantities of hazardous materials capable of affecting soil and groundwater are not proposed. The potential risk associated with accidental discharge associated with use and storage of equipment-related hazardous materials during tank replacement is considered low because the handling of any such materials would be addressed through the implementation of BMPs associated with the SWPPP required for the project. The proposed Project is an infrastructure project that would not require the long-term use or storage of hazardous substances; therefore, no potential for the release of hazardous materials into the environment is expected. A less than significant impact would occur and no mitigation is required.

Would the Project:

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

Potentially
Significant
Impact

☐

Less than
Significant with
Mitigation
Incorporated

☐

Less than
Significant
Impact

☒

No
Impact

☐
Less Than Significant Impact.

The closest school to the proposed Project is the Walsh Steam Academy Elementary School, located at 353 W Main Avenue, approximately 1.75 miles away from the Project Site. The use of hazardous materials would be limited during construction activities and would include traditional materials typically associated with construction projects such as gasoline, diesel, oil, paint, resin and epoxy concrete. All hazardous materials, substances, or waste would be handled consistent with federal, state, and local regulations. Any impacts would be less than significant.

Would the Project:

- 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?

Potentially
Significant
Impact

☐

Less than
Significant with
Mitigation
Incorporated

☐

Less than
Significant
Impact

☐

No
Impact

☒
No Impact.

Under Government Code Section 65962.5, both DTSC and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the of the DTSC and SWRCB lists identified that the proposed Project Site is not located on a hazardous material site. The DTSC and SWRCB showed that there are sites within 2 miles of the Project site. Given that there are no existing hazardous waste sites are located within the Project Site area, the proposed Project will have no impact in this area and no mitigation is required.

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

No Impact.

The Project Site is located approximately 11.8 miles northwest of the San Martin Airport and is not within the noise contours Figure of the San Martin Airport Comprehensive Land Use Plan (2020). Therefore, there would be no impact and no mitigation is required.

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

Less Than Significant Impact with Mitigation Incorporated.

The City of Morgan Hill adopted the EOP in 2023. The EOP defines the actions required of the City of Morgan Hill before, during, and after an emergency and to guide the City's response to major emergencies/disasters.

Traffic disruption may occur during project construction, and may adversely affect implementation of adopted plans including, but not limited to, the City EOP. This is considered a short-term but potentially significant impact. Implementation of Mitigation Measure TRA-1 will reduce this impact to less than significant with mitigation incorporated.

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

Less Than Significant Impact.

The proposed Project is in an area identified as a Very High Fire Hazard Severity zone within an LRA. The proposed Project would comply with all CAL FIRE SRA requirements including those for emergency vehicle access, turnarounds, and defensible space. All proposed construction would comply with County

fire code requirements and access would follow requirements by CAL FIRE. The Project would better serve the City of Morgan Hill, and would not be growth inducing, and would not create any new residences or occupied structures in an area susceptible to wildlife. Any impacts would be less than significant. Please see the discussion of wildfire in Section 4.20 of this Initial Study/Mitigated Negative Declaration for more information.

4.9.4 Mitigation Measures

Please refer to Section 4.17, Transportation, for the referenced mitigation measure.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

4.10.1.1 Regional Hydrology

Watershed

A watershed refers to the entire area that drains to a common waterway, such as a stream, lake, or ocean. Morgan Hill and its SOI lie within two watersheds: the Coyote Creek Watershed and the Uvas-Llagas Watershed. The majority of the City and surrounding area lies within the Uvas-Llagas Watershed, which drains southward to Monterey Bay. The Coyote Creek Watershed covers the northern portion of the City.

The Uvas-Llagas Watershed encompasses 104 square miles and includes parts of the cities of San Jose, Morgan Hill, and Gilroy. It is part of the larger Pajaro River Watershed. The creeks within this watershed are the only waterways in Santa Clara County that flow southward, ultimately draining into the Pajaro River and out to Monterey Bay (Santa Clara Valley Water District 2025).

Groundwater

Morgan Hill and its SOI lie within two groundwater subbasins of the Santa Clara Valley Groundwater Basin: the Santa Clara Subbasin and the Llagas Subbasin. The Santa Clara Subbasin extends from the southern edge of San Francisco Bay through the Coyote Valley, with the subbasin boundary located near Cochrane Road in Morgan Hill. The thickness of the aquifer materials ranges from about 150 feet near the Coyote Narrows to more than 1,500 feet in the interior of the subbasin. Groundwater movement generally follows surface water patterns flowing from the interior of the subbasin northerly toward San Francisco Bay (Santa Clara Valley Water 2021).

Water Quality

Surface water quality is affected by point source and non-point source pollutants. Point source pollutants are those emitted at a specific point, such as a pipe, while non-point source pollutants are typically generated by surface runoff from diffuse sources, such as streets, paved areas, and landscaped areas. Point source pollutants are mainly controlled with pollutant discharge regulations and the issuance of Waste Discharge Requirements (WDRs) to industrial sources. Non-point source pollutants are more

difficult to monitor and control although they are important contributors to surface water quality in urban areas.

Stormwater runoff pollutants vary based on land use, topography, the amount of impervious surface, and the amount and frequency of rainfall and irrigation practices. Runoff in developed areas typically contain oil, grease, and metals accumulated in streets, driveways, parking lots, and rooftops, as well as pesticides, herbicides, particulate matter, nutrients, animal waste, and other oxygen-demanding substances from landscaped areas. The highest pollutant concentrations usually occur at the beginning of the wet season during the “first flush”.

Santa Clara Valley streams do not receive discharges from industrial or municipal wastewater. Industrial and municipal wastewater discharges are routed to the City’s sanitary sewer system and then to the regional municipal wastewater treatment plant located in the City of Gilroy where it is treated and discharged. In general, pollutant concentrations in stormwater runoff do not vary significantly within an urbanized watershed. However, pollutant concentrations do increase when impervious cover is more than 40 to 50 percent of the drainage area. 24 Runoff volume is the most important variable in predicting pollutant loads (City of Morgan Hill 2017).

4.10.1.2 Site Hydrology and Onsite Drainage

As mentioned in Section 4.4.4 of this IS/MND, a biological resources assessment was conducted to identify potential Waters of the U.S./State within the Project Area concurrent with the reconnaissance-level field assessment and no aquatic features were identified onsite.

4.10.1.3 Flood Mapping

FEMA prepares maps of the 100-year flood hazard area of U.S. communities and establishes standards for development within the 100-year floodplain. For areas within the 100-year flood hazard zone, the risk of flooding in the designated area is 1 percent for any given year. Maps are also available for 500-year floods, which mean that in any given year, the risk of flooding in the designated area is 0.2 percent. A floodway is a smaller area within the floodplain, such as a river or stream, as well as the area in immediate proximity to the river or stream that is capable of conveying the 100-year flood with no more than a 1-foot rise in the water level.

FEMA Flood Insurance Rate Map Number 06085C0443H does not show the Project Area within a flood hazard zone (FEMA 2025).

4.10.2 Regulatory Setting

4.10.2.1 Federal Plans, Policies, Regulations, and Laws

Clean Water Act

The Clean Water Act of 1972 (CWA) is the primary federal law that governs and authorizes water quality control activities by the USEPA, the lead federal agency responsible for water quality management. By

establishing water quality standards, issuing permits, monitoring discharges, and managing polluted runoff, the CWA seeks to restore and maintain the chemical, physical, and biological integrity of surface waters to support “the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water.” The USEPA is the federal agency with primary authority for implementing regulations adopted pursuant to CWA and has delegated the state of California as the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the Porter-Cologne Water Quality Control Act of 1969 described below.

Water Quality Criteria and Standards

The USEPA has published water quality regulations under Volume 40 of the Code of Federal regulations (40 Code of Federal Regulations). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires the USEPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. Section 303(d) mandates the creation of a list of waterbodies and associated pollutants that exceed water quality criteria.

National Pollutant Discharge Elimination System Permit Program

The NPDES permit program was established to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges including point source municipal waste discharges and nonpoint source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Section 401 Water Quality Certification or Waiver

Under Section 401 of the CWA, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state’s water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirements is delegated by the SWRCB to the nine regional boards.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (USACE) is responsible for issuing permits for discharge of dredged or fill material into waters of the United States. These permits are required under Sections 401 and 404 of the Clean Water Act. Water supply projects that involve instream construction, such as dams or other types of diversion structures, trigger the need for these permits and related environmental reviews by USACE.

USACE is also responsible for flood control planning and assisting state and local agencies with the design and funding of local flood control projects.

4.10.2.2 State Policies

State Water Resources Control Board

In California, the SWRCB has broad authority over water-quality control issues for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the CWA. Other state agencies with jurisdiction over water quality regulation in California include California Department of Public Health (for drinking-water regulations), the California Department of Pesticide Regulation, CDFW, and the Office of Environmental Health and Hazard Assessment. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt Basin Plans for all areas in the region and establish water quality objectives in the plans. California water quality objectives (or “criteria” under the Clean Water Act) are found in the Basin Plans adopted by the State Water Resources Control Board and each of the nine Regional Water Quality Control Boards.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act is California’s statutory authority for the protection of water quality. Under the act, the state must adopt water quality policies, plans, and objectives that protect the state’s waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update Basin Plans. Basin Plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The act also requires waste dischargers to notify the RWQCBs of their activities through the filing of Reports of Waste Discharge (RWDs) and authorizes the SWRCB and RWQCBs to issue and enforce WDRs, NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWDs and/or WDRs for broad categories of “low threat” discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

California General Construction Activity Storm Water Permit

The USEPA and the SWRCB regulate point sources of pollution, such as construction sites, that have the potential to discharge pollutants into the waters of the United States. This is accomplished through the issuance of NPDES storm water discharge permits. NPDES Phase II regulations took effect in March 2003, requiring that applicants proposing construction activities involving disturbance of from one to five acres, and associated storm water discharge, must obtain an NPDES permit from the State. Construction activities larger than five acres were already regulated, under NPDES Phase I (1990). (Phase II also required that small [population of less than 100,000] MS4 operators obtain a NPDES permit.) Landowners are responsible for applying for coverage under the permit and complying with permit requirements but may delegate specific duties to developers and contractors by mutual consent.

Permit applicants are required to prepare, and retain at the construction site, a SWPPP, which describes the site, erosion and sediment controls, means of waste disposal, implementation of local plans, control of post-construction sediment and erosion control measures and maintenance responsibilities, and non-storm water management control. Dischargers are also required to inspect construction sites before and after storms to identify storm water discharge from construction activity, and to identify and implement controls where necessary.

4.10.2.3 Regional

San Francisco Bay and Central Coast Regional Water Quality Control Boards

Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. Each regional board is required to adopt a water quality control plan or basin plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. As previously stated, Morgan Hill is within the jurisdiction of both the San Francisco Bay RWQCB (Region 2) and the Central Coast RWQCB (Region 3). The northern portion of Morgan Hill and the SOI lies within the jurisdiction of San Francisco Bay RWQCB, which covers watersheds that drain primarily into San Francisco Bay. The Central Coast RWQCB covers the state's central coast, including most of Morgan Hill and its SOI and continues south to Santa Barbara County and Ventura County. The watersheds within the Central Coast RWQCB jurisdiction drain primarily into the Pacific Ocean.

Santa Clara Valley Water District

The Santa Clara Valley Water District (SCVWD) is a water resources agency responsible for balancing flood protection needs with the protection of natural watercourses and habitat in the Santa Clara Valley. The SCVWD serves 16 cities and 1.8 million residents, provides wholesale water supply, operates three water treatment plants, and provides flood protection along the creeks and rivers within the county. The Clean, Safe Creeks and Natural Flood Protection Plan was approved by Santa Clara County voters in November 2000 to create a countywide special parcel tax to accomplish the following four goals:

- 100-year flood protection for homes, schools, businesses, and transportation;
- Clean, safe water in Santa Clara County creeks and bays;
- Healthy creek and bay ecosystems; and
- Trails, parks, and open space along waterways.

Santa Clara Basin Watershed Management Initiative

The Watershed Management Initiative (WMI) was initiated in 1996 by the USEPA, the SWRCB, and the San Francisco Bay RWQCB to address all sources of pollution that threaten the Bay and to protect water quality throughout Santa Clara Basin watersheds. In the past, specific issues affecting watersheds had been addressed by separate regulatory actions, resulting in a "patchwork" approach. A major aim of the

WMI is to coordinate existing regulatory activities on a basin-wide scale, ensuring that problems are addressed efficiently and cost-effectively.

The Santa Clara Basin WMI consists of 34 collaborative groups from regional and local public agencies; civic, environmental, resource conservation and agricultural groups; professional and trade organizations; business and industrial sectors; and the general public. The purpose of the WMI is “to develop and implement a comprehensive watershed management program – one that recognizes that healthy watersheds mean addressing water quality problems and quality of life issues for the people, animals, and plants that live in the watershed.” The WMI has continued to develop its foundation by producing a watershed assessment report (2003), a watershed action plan (2003), plastics pollution prevention summit (2011), impacts of homelessness on creeks (2011), and educational materials to reduce water usage by the general public.

4.10.2.4 Local

Morgan Hill Municipal Code Chapter 13.12 – Water, Sewer, and Drainage Charges

This chapter outlines the requirements for the payment of fees to conserve and protect the City’s storm drain system from the burden placed on it by the increasing flow of non-point source runoff and is known as the “Service Connection Charge Ordinance.” It includes charges for installing storm drain facilities and connection fees to the storm drainage facilities.

Morgan Hill Municipal Code Chapter 13.30 – Urban Storm Water Quality Management and Discharge Control

The purpose and intent of this chapter is to protect and enhance the water quality of watercourses and water bodies in a manner consistent with the federal Clean Water Act and the Porter-Cologne Water Quality Control Act by reducing pollutants in stormwater discharges to the maximum extent practicable and by prohibiting non-stormwater discharges to the storm drain system. Section 13.30.200, Watercourse Protection, requires owners or lessees to maintain structures within or adjacent to a watercourse in a manner that preserves the use, function, or physical integrity of the watercourse and to not remove bank vegetation beyond maintenance activities in a manner that would increase the vulnerability of the watercourse to erosion. Section 13.30.250, NPDES General Permit No. CAS000002 for Construction Activities, requires all projects disturbing one acre or more of soil to comply with the SRWCB’s WDRs for construction activities and prepare a SWPPP. Section 13.30.270, Water Pollution Control, requires project applicants to submit an erosion and sediment control plan for review by the City prior to the issuance of grading permits.

Morgan Hill Municipal Code Chapter 18.42 – Flood Damage Prevention

Chapter 18.42 of the Morgan Hill Municipal Code establishes flood damage prevention measures, which seek to promote public health and safety and to minimize losses due to flooding. This chapter applies to all areas of special flood hazard (i.e., 100-year floodplain) within the City or SOI. It also contains construction standards that must be implemented within the 100-year floodplain to protect buildings and redevelopment projects from flood damage. The ordinance also restricts or prohibits uses which are

dangerous to health, safety, and property due to water or erosion hazards or result in damaging increases in erosion, flood heights, or velocities. The construction of flood barriers, which unnaturally divert flood waters or increase flood hazards in other areas is also restricted and prohibited. The areas of special flood hazard to which this ordinance applies are designated on FEMA's Flood Insurance Study, Flood Boundary and Floodway Maps and Flood Insurance Rate Maps.

City of Morgan Hill Storm Drain Master Plan

The capacity of the storm drain facilities within the City of Morgan Hill was evaluated and documented in the 2002 Storm Drain Master Plan.¹⁰ The City collects Storm Drain Fees for new construction projects to fund improvements to the storm drain system. The analysis indicated that the City's vast system of retention and detention ponds function well to meet the City's drainage needs and the capacities of the Butterfield Channel, West Little Llagas Creek Channel, Madrone Channel, and Tennant Channel would accommodate 100-year design storms at buildout land use conditions. The study recommended new or increased capacity storm drain pipelines and new ponds in currently undeveloped areas and operational modifications at both stormwater pump stations. According to the Capital Improvement Plan, the City is planning to update the Storm Drain Master Plan in the near future.

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

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

Less Than Significant Impact.

4.10.3.1 Project Operation

The proposed Project would replace the existing water tank. This would result in no alteration in water source or treatment relative to current conditions. The project as designed will increase storage capacity and will allow for improved fire flow in the system. As such, long-term operation of the proposed Project will have no impact on existing water quality standards or waste discharge requirements.

Project Construction

Site preparation and construction activities associated with the Project will involve temporary/short-term earth-moving activities including trenching and grading. Construction activities that are subject to the NPDES Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, which result in soil disturbances of at least one acre of total land area. The SWRCB permits all regulated construction activities under Order No. 98-08-DWQ (1999). This Order requires that prior to beginning any construction activities, the permit applicant must obtain coverage under the General Construction Permit by preparing and submitting a Notice of Intent (NOI) and

appropriate fee to the SWRCB. Additionally, coverage will not occur until an adequate SWPPP has been prepared. A separate NOI shall be submitted to the SWRCB for each construction site.

Required elements of a SWPPP include (1) site description addressing the elements and characteristics specific to the site; (2) descriptions of BMPs for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements; and (6) non-stormwater management.

Typical construction BMPs include, but are not necessarily limited to, scheduling or limiting activities to certain times of year; prohibiting certain construction practices; implementing equipment maintenance schedules and procedures; implementing a monitoring program; other management practices to prevent or reduce pollution, such as using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks do not enter the storm drain system or surface waters; developing and implementing a spill prevention and cleanup plan; installing traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and using barriers, such as straw bales or plastic, to minimize the amount of uncontrolled runoff that could enter drains or surface water. Typical operation BMPs include, but are not necessarily limited to, controlling roadway and parking lot contaminants by installing oil and grease separators at storm drain inlets, incorporating peak-flow reduction and infiltration features (such as grass swales, infiltration trenches, and grass filter strips) into landscaping, and implementing educational programs. Because construction of the Proposed Project would cumulatively disturb more than one acre, all activities would be subject to these permit requirements.

With preparation of the required SWPPP, implementation of BMPs associated with that plan and listed above and compliance with the City of Morgan Hill ordinances, the construction activities for the proposed Project would fully comply with all relevant water quality standards and waste discharge requirements as described above. The impact, therefore, is less than significant and no mitigation is required.

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

Less Than Significant Impact.

The Project proposes to replace a structurally deficient water tank with a larger water tank. The Project would not interfere would groundwater supplies or groundwater recharge such that the Project may impede sustainable groundwater management of the basin or create demand for water supply. Any impacts would be less than significant and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
i) result in substantial erosion or siltation onsite or offsite;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐

Less Than Significant Impact.

Construction of the proposed Project will not alter the existing drainage pattern of the area nor will it alter the course of a stream or river through addition of impervious surfaces. Project construction and staging activities will result in soil disturbances of at least one acre of total land area. As such, an NPDES Construction General Permit will be required prior to the start of construction. Additionally, coverage will not occur until an adequate SWPPP has been prepared.

As noted, required elements of a SWPPP include (1) site description addressing the elements and characteristics specific to the site; (2) descriptions of BMPs for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements; and (6) non-stormwater management.

Excavation and grading activities associated with the Proposed Project will expose bare soil surfaces making these surfaces more susceptible to erosion and sediment transport. To comply with the requirements of the NPDES Construction General Permit will be required to file an NOI with the State of California and submit a SWPPP defining BMPs for construction and post-construction related control of the Proposed Project site runoff and sediment transport. Requirements for the SWPPP include incorporation of both erosion and sediment control BMPs. The SWPPP should include the following applicable elements:

- diversion of offsite run-off away from the construction area;

- prompt revegetation of proposed landscaped areas;
- perimeter straw wattles or silt fences and/or temporary basins to trap sediment before it leaves the site;
- regular sprinkling of exposed soils to control dust during construction during the dry season;
- installation of a minor retention basin(s) to alleviate discharge of increased flows;
- specifications for construction waste handling and disposal;
- erosion control measures maintained throughout the construction period;
- preparation of stabilized construction entrances to avoid trucks from imprinting debris on surrounding roadways;
- contained wash out and vehicle maintenance areas;
- training of subcontractors on general construction area housekeeping;
- construction scheduling to minimize soil disturbance during the wet weather season; and
- regular maintenance and storm event monitoring.

Note that the SWPPP is a "live" document and should be kept current by the person responsible for its implementation. Preparation of, and compliance with a required SWPPP would effectively prevent Proposed Project on-site erosion and sediment transport off-site. This will reduce potential runoff, erosion, and siltation associated with construction and operation of the proposed Project. The effects of the proposed Project on on-site and off-site erosion and siltation, therefore, would be less than significant and no mitigation is required.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less than Significant Impact.

The Project is located within FEMA Flood Zone X, which is defined as an area with minimal flood hazard (FEMA 2025).

A tsunami is a large tidal wave generated by an earthquake, landslide, or volcanic eruption. Tsunami inundation maps have been developed for the San Francisco Bay area. The project site is not within a tsunami inundation zone (DOC 2025c), and therefore, it would not be subject to flooding from a tsunami.

Seiches are waves that oscillate in enclosed water bodies, such as reservoirs, lakes, ponds, swimming pools, or semi-enclosed bodies of water. No reservoirs, lakes, ponds, or enclosed bodies of water are located near the project site that could affect the project site to cause a release of pollutants due to

inundation. As noted above, the proposed hazardous materials stored at the site would be stored according to the manufacture's specifications for safe storage. Therefore, this impact would be less than significant.

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

Less Than Significant Impact.

As discussed under a) and c) above, with acquisition of the required SWPPP, and compliance with standard permit measures for the control and management of construction-related erosion and polluted runoff, the proposed Project impacts on the quality and quantity of runoff during construction would be less than significant. With restoration of the project site to pre-project conditions relative to topography and cover after project completion, the long-term impact of the Project on water quality is less than significant. No mitigation is required.

4.10.4 Mitigation Measures

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

4.11 Land Use and Planning

4.11.1 Environmental Setting

The proposed Project is located within the City of Morgan Hill within of Santa Clara County. The Morgan Hill General Plan Designation for the project site is Residential Estate (Morgan Hill 2017). The proposed Project is an allowed use.

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

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

No Impact.

The proposed Project consists of the replacement of installation of a new water Tank and demolition of the existing tank, with associated site improvements. Project activities would be confined to the Project site. The site does not include any physical barriers such as roads, structures, or fences such that existing

land use patterns would change resulting in a division of an established community. Therefore, no impact would occur.

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

Less than Significant Impact.

As mentioned above, the Project proposes to replace a structurally deficient water tank. The use of the property would not change. The Project would have to obtain an expanded easement for the expansion of the water tank, however, this would not conflict with the goals, policies, or actions of the City of Morgan Hill General Plan or the City of Morgan Hill Municipal Code. Any impacts would be less than significant and no mitigation is required.

4.11.3 Mitigation Measures

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

4.12 Mineral Resources

4.12.1 Environmental Setting

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

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

SMARA requires the State Geologist to classify land into Mineral Resource Zones (MRZ) according to the known or inferred mineral potential of that land. The process is based solely on geology, without regard to existing land use or land ownership. The primary goal of mineral land classification is to ensure that the mineral potential of land is recognized by local government decision makers and considered before land use decisions, which could preclude mining, are made. Areas subject to California mineral land

classification studies are divided into the following MRZ categories that reflect varying degrees of mineral potential:

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

According to the Department of Conservation mapping and City of Morgan Hill General Plan, the Project Area is listed as MRZ-1, which are areas of no mineral resource significance (DOC 1987).

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

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

Less Than Significant Impact.

The proposed Project is located within an MRZ-1 classification. As defined above in 4.12.1 Environmental Setting, MRZ-1 is known as "Areas containing no mineral resource significance". Therefore, implementation of the proposed Project would not result in the loss of availability of a known mineral resource. As less than significant impact would occur and no mitigation is required.

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

Less Than Significant Impact.

The proposed Project site is not located within a current locally important mineral resources recovery site and it has not been historically mined (City of Morgan Hill 2017). As described in item a), the proposed Project site is classified as MRZ-1, and it has not been delineated within the general plan or other land use plans as a locally important mineral resource recovery site. No mitigation is required.

4.12.3 Mitigation Measures

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

4.13 Noise

4.13.1 Environmental Setting

4.13.1.1 Noise Fundamentals

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

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

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

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 decibels (dB) for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2018). Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed (FHWA 2018).

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

Human Response to Noise

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

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

- Except in carefully controlled laboratory experiments, a change of 1.0 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3.0 dBA change is considered a just-perceivable difference.
- A change in level of at least 5.0 dBA is required before any noticeable change in community response would be expected. An increase of 5.0 dBA is typically considered substantial.
- A 10.0 dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Sensitive Noise Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The Proposed Project involves the installation of a new water tank and associated infrastructure varying distances to sensitive receptors, as it is a linear project spanning multiple acres. Sensitive receptors in the Project Area consist of rural single-family residences, some of which are located directly adjacent to the proposed improvements.

4.13.1.2 Vibration Sources and Characteristics

Ground vibration can be measured several ways to quantify the amplitude of vibration produced, including through Peak Particle Velocity (PPV) or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively.

Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.1.3 Existing Ambient Noise Environment

The Project Area is within the City of Morgan Hill and is impacted by noise sources typical of a small city. The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 *Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present* provides a table of approximate background sound levels in L_{dn} , daytime L_{eq} , and nighttime L_{eq} , based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in Table 4.13-1. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, "95% prediction interval [confidence interval] is on the order of ± 10 dB." The majority of the Project Area would be considered ambient noise Category 5.

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density						
Category	Land Use	Description	People per Square Mile	dBA		
				Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67	66	58
2	Moderate Commercial & Industrial Areas and Noisy Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62	61	54
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass-transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic, compose this category.	6,384	57	55	49
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52	50	44

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density						
5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small wooded valley.	638	47	45	39
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42	40	34

Source: The American National Standards Institute (ANSI) 2013

Note: L_{dn} = Day-Night Average Sound Level; L_{eq} = Equivalent Noise Level

The City of Morgan Hill General Plan contains a map of projected noise contours from 2015 (Figure SSI-7, Future Noise Contours) to help assess the compatibility between land uses and future noise levels in the city. This map is used to determine whether a proposed development or land use is in an area that requires special noise mitigating measures. The Project Site falls outside of the noise contour of 60 dBA L_{dn} . The projected noise level of below 60 dBA CNEL generally verifies the identification of the Project Site as located in ANSI Category 5 (47 dBA L_{dn}), as the Project area is located distantly from the nearest 60 dBA contour. Thus, for the purposes of this analysis the ambient noise environment affecting the Project Area is considered to be 47 dBA L_{dn} with daytime and nighttime noise levels of 45 dBA L_{eq} and 39 dBA L_{eq} , respectively.

4.13.2 Noise (XIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐

Less Than Significant Impact with Mitigation Incorporated.

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Sensitive receptors in the Project Area consist of single-family residences, the closest of which is located directly across Glen Ayre Drive, 75 feet to the south.

4.13.2.1 Onsite Construction Noise Impacts

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

Section 8.28.040 of the City's Municipal Code states that construction (including drilling, repair, alteration, and demolition work) between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, 6:00 p.m. and 9:00 a.m.

on Saturdays or at any time on Sundays or holidays is prohibited. In order to remain compliant with the City's regulations, the Proposed Project would be required to follow these construction guidelines.

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

A previous appellate court decision held that the use of an absolute noise threshold for evaluating all ambient noise impacts violated CEQA because it did not provide a "complete picture" of the noise impacts that may result from implementation of the ordinance. As such, the Proposed Project's construction noise is estimated and then added to the average daily ambient noise level in the Project Area as determined by referencing the ANSI Standard 12.9-2013/Part 3 *Quantities and Procedures for Description and Measurement of Environmental Sound* identified in Table 4.13-1 above. As identified, the majority of the Project Area would be considered ambient noise Category 5, which generally experiences 45 dBA L_{eq} during the daytime. As previously described, the dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Furthermore, when combining two separate sources where one of the noise sources is 10 dB or greater than the other noise source, the noise contribution of the quieter source is virtually completely obscured by the louder source.

The anticipated short-term construction noise levels generated for the necessary equipment are presented in Table 4.13-2.

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Receptors (75 Feet Distant)				
Construction Phase	Average Ambient Noise Level* (dBA L_{eq})	Existing Ambient Noise + Exterior Construction Noise Levels (dBA L_{eq})	Construction Noise Standard (dBA L_{eq})	Exceeds Standards?
Demolition	45.0	83.8	85	No
Site Preparation		77.5	85	No
Grading		82.3	85	No
Building Construction, Paving, Painting		84.1	85	No

Source: Construction noise levels were calculated by ECORP using the Federal Highway Administration (FHWA) Roadway Noise Construction Model (FHWA 2006). Refer to Appendix F for Model Data Outputs.

Notes: *Ambient noise levels of the Project Area were estimated using the ANSI Standard 12.9-2013/ Part 3 *Quantities and Procedures for Description and Measurement of Environmental Sound* identified in Table 4.13-1 above. This noise level is generally verified by the projected noise contours identified in the City General Plan Noise Element.

Construction equipment used during construction derived from the California Emissions Estimator Model (CalEEMod). CalEEMod is designed to calculate air pollutant emissions from construction activity and contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters.

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

dBA = A-weighted decibels

As shown in Table 4.13-2, the Project's contribution of construction noise combined with the ambient noise environment would not exceed the 85 dBA NIOSH construction noise threshold during any phase of construction at the nearby noise-sensitive receptors. It is noted that construction noise was modeled on a worst-case basis and is considered in addition to ambient noise levels currently experienced in the Project Area. It is very unlikely that all pieces of construction equipment would be operating at the same time for the various phases of Project construction.

Project construction noise would be less than significant.

4.13.2.2 Offsite Project Construction Traffic Noise

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to the California Emissions Estimator Model, which is used to predict the number of construction-related automotive trips, the maximum number of Project construction trips traveling to and from the Project Site during a single construction phase would not be expected to exceed 18 daily trips in total. According to Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (2013), a doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3 dBA change is considered a just-perceivable difference). The Project Site would be accessible via Glen Ayre Drive during construction. Using aerial imagery and the California Emissions

Estimator Model, which contains the latest Institute of Transportation Engineers' Trip Generation Manual, existing average daily trips were estimated to be 66 for the segment of Glen Ayre Drive between the Project Site and Scott Drive. The contribution of an additional 18 daily trips during a single construction phase for the Project would not result in a doubling of traffic on adjacent roadways, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and construction-related trips would cease upon completion of construction.

4.13.2.3 Operational Offsite Traffic Noise

The Project is proposing to replace the existing 100,000-gallon water reservoir at the terminus of Glen Ayre Drive with a new 250,000-gallon steel, ground-level potable water reservoir. The Project will include a temporary water tank, an expansion of the existing utility easement, and basic screening landscaping around the tank to reduce visual impacts for homes around the tank. The Proposed Project is conservatively estimated to generate 1 trip a day. According to the Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (2013), doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3 dBA change is considered a just-perceivable difference). The Proposed Project would not result in a doubling of traffic on vicinity roadways, and therefore its contribution to existing traffic noise would not be perceptible.

4.13.2.4 Operational Onsite Noise

The primary noise producing piece of equipment associated with the Proposed Project would be the booster pump. ECORP staff regularly conducts noise measurements within various land uses, at specific noise-generating events, and at individual pieces of noise-generating equipment in order to develop a wide sampling of potential noise levels. Previous noise measurements conducted by ECORP staff within five feet of an operating booster pump identified a sound power level of 52.8 dBA L_{eq} . The Project's proposed booster pump station would be positioned more than five feet from the nearest residential receptor. Sound propagates uniformly outward in a spherical pattern, and the sound level attenuates at a rate of approximately 6 dBA for each doubling of distance from a stationary or point source. As such, the maximum noise level at the nearest sensitive receptor 75 feet distant would be under the City's 60 dBA standard for stationary noise sources.

The Project also proposes an emergency backup, diesel-powered generator. This generator would not be operational during the majority of days and would only operate during a citywide emergency involving a power outage. The diesel-powered generator included in this analysis is assumed to provide 100 kilowatt (kW) of energy. Various 100 kW generators are described to generate an average of 71 dB.8 dBA from a distance of 23 feet, which can be expected to attenuate to 60.7 dBA at the nearest noise-sensitive land use 75 feet distant, which is over the City's 60 dBA standard for stationary noise sources. A distance of 82 feet is required for the sound level to attenuate to 60 dBA. Therefore, mitigation measure NOI-1 must be applied in order to reduce noise levels below the City's standards.

Project operational noise would be less than significant with mitigation incorporated.

Would the Project:

- b) Result in generation of excessive ground-borne vibration or ground-borne noise levels?

Potentially
Significant
Impact☐Less than
Significant with
Mitigation
Incorporated☐Less than
Significant
Impact☒No
Impact☐**Less Than Significant Impact.****4.13.2.5 Construction Vibration Impacts**

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

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is not anticipated that pile drivers would be necessary during Project construction. Vibration decreases rapidly with distance, and it is acknowledged that construction activities would occur throughout the Project Area and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 4.13-3.

Table 4.13-3. Typical Construction Equipment Vibration Levels	
Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Federal Transit Administration 2018

Per Section 18.76.130 of the City of Morgan Hill Municipal Code, vibration from temporary demolition/construction is exempt from City standards. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, Caltrans recommended standard of 0.3 inches per second PPV with respect to the prevention of structural damage for older residential buildings is used as a

threshold. This is also the level at which vibrations may begin to annoy people in buildings (Caltrans 2020).

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

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

Table 4.13-4 presents the expected Project related vibration levels at a distance of 75 feet.

Table 4.13-4. Construction Vibration Levels at 75 Feet							
Receiver PPV Levels (in/sec)¹					Peak Vibration	Threshold	Exceed Threshold?
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jack-hammer	Small Bulldozer/ Tractor	Vibratory Roller			
0.0171	0.0146	0.0067	0.0327	0.0404	0.0404	0.3	No

Source: California Department of Transportation 2020, Federal Transit Administration 2018

Note: in/sec = inches per second; PPV = Peak Particle Velocity

As shown in Table 4.13-4, vibration as a result of onsite construction activities in the Project Area would not exceed 0.3 PPV at the nearest structure. As mentioned previously, the City's Municipal Code exempts all vibration generated by construction and construction vehicles. Thus, Project construction would have no impact.

4.13.2.6 Operational Vibration Impacts

Project operations would not include the use of any large-scale, stationary equipment that would result in excessive vibration levels; therefore, the Project would not result in ground-borne vibration impacts during operations. For this reason, no impact would occur.

Would the Project:

- c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project Area to excessive noise levels?

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☐	☒

No Impact.

The Project Site is located approximately 11.8 miles northwest of the San Martin Airport and is not within the noise contours of the San Martin Airport Comprehensive Land Use Plan (2020). Aircraft noise does not significantly impact the City of Morgan Hill and the Proposed Project would not expose people visiting the Project area to excess airport noise levels. Therefore, no impact would occur.

4.13.3 Mitigation Measures

NOI-1: Emergency Generator Noise-Reduction

The Project improvement and building plans will include the following requirements for the placement of the onsite emergency generator:

- All emergency generator sets shall be positioned at least 83 feet from the nearest sensitive receptor in order to reduce potential noise exposure to residents.

4.14 Population and Housing

4.14.1 Environmental Setting

According to the Department of Finance, in 2020 the total population for Morgan Hill was estimated to be 45,283 and in 2025, the estimate is 46,599 (California Department of Finance 2025).

4.14.2 Regulatory Setting

4.14.2.1 Local

Morgan Hill General Plan

Each local government in California is required to adopt a comprehensive, long-term general plan for the physical development of the city or county. The Housing Element is one of the mandated elements of the City's General Plan. State law requires that local governments address the existing and projected housing needs of all economic segments of the community through their housing elements.

The most recent Morgan Hill Housing Element was adopted on January 25, 2023, and California Department of Housing and Community Development has certified that it meets state requirements (City of Morgan Hill 2023).

4.14.3 Population and Housing (XIV) Environmental Checklist and Discussion

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

No Impact.

Implementation of the proposed Project would not extend service to areas that do not currently have service. The proposed Project would upgrade existing deficient infrastructure and would not induce substantial population growth in the area. Furthermore, minimal operation and maintenance would be required and no permanent employees would be hired as a result of the proposed Project. No impact would occur and no mitigation is required.

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

No Impact.

The proposed Project would not displace any existing housing, and would not impact any existing housing. Therefore, no impact would occur and no mitigation is required.

4.14.4 Mitigation Measures

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

4.15 Public Services

4.15.1 Environmental Setting

4.15.1.1 Police Services

Police service is provided to the site by the City of Morgan Hill Police Department. The headquarters of the Morgan Hill Police Department is located at 16200 Vineyard Boulevard. The department has three divisions: Field Operations; Special Operation; and Support Services (City of Morgan Hill 2025a).

The Police Station is approximately 4.0 miles away from the Project Site.

4.15.1.2 Fire Services

The Morgan Hill Fire Department (MHFD) provides fire protection and emergency services for residential, commercial, and wildland firefighting; for medical emergencies; automobile and technical rescue; and other hazardous conditions. The MHFD operates two fire stations: the El Toro Fire Station, located at 18300 Old Monterey Road, and the Dunne Hill Fire Station, located at 2100 E. Dunne Avenue. The City shares personnel through an agreement with the South Santa Clara County Fire District at this station but the City does not own any of the equipment at this location (City of Morgan Hill 2025b).

The closest fire station to the proposed Project is the El Toro Fire Station, approximately 2.5 miles away from the Project Site.

4.15.1.3 Schools

The Morgan Hill Unified School District (MHUSD) encompasses nearly 300 square miles and serves the City of Morgan Hill, San Martin, and a small portion of South San Jose. MHUSD serves approximately 8,100 students and is composed of six elementary schools (TK-5), two elementary/middle schools (K-8), one Dual Immersion magnet program (K-8), two middle schools (6-8), two comprehensive high schools (9-12), one continuation high school and a community adult school (MHUSD 2025).

The closest school to the proposed Project is the Walsh Steam Academy Elementary School, located at 353 W Main Avenue, approximately 1.75 miles away from the Project Site.

4.15.2 Public Services (XV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire Protection?	☐	☐	☐	☒
Police Protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other Public Facilities?	☐	☐	☐	☒

No Impact.

The proposed Project consists of the installation of a new water tank with associated Project Site work. The proposed Project would be maintained by the City of Morgan Hill and would not require public services beyond existing conditions. The increased fire flow would assist local firefighters in providing improved fire protection service to the local community. Implementation would not interfere with emergency response times or the use of schools, parks, or other facilities. There would be no impact and no mitigation is required.

4.15.3 Mitigation Measures

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

4.16 Recreation**4.16.1 Environmental Setting**

The City of Morgan Hill currently has approximately 147 acres of developed public parklands, which consists of open space, community parks, neighborhood parks, school parks, mini parks, and community recreational centers. Additionally, there are approximately 323 acres of undeveloped public lands, most of which are within open spaces (City of Morgan Hill 2017).

4.16.2 Regulatory Setting

4.16.2.1 Local

Bikeways, Trails, Parks and Recreation Master Plan

The Bikeways, Trails, Parks and Recreation Master Plan (Master Plan) guides the improvement and future development of the City's bikeways, trail, parks and recreation system in Morgan Hill. It is a community-driven tool for staff and decision-makers to prioritize improvements and investments. The Master Plan supports goals and programs to improve our city's health, environment, connectivity and recreation options.

4.16.3 Recreation (XVI) Materials Checklist

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

No Impact.

The proposed Project consists of the installation of a new water tank and associated Project Site work. The population would not increase as a result of the project; and therefore, use of the existing neighborhood, regional parks, or other recreational facilities would not change from the current use. As such, the proposed Project would not increase the use of existing recreational facilities that could cause substantial physical deterioration of the facilities. Therefore, no impact would occur and no mitigation is required.

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

No Impact.

See discussion under item a). No recreational facilities are proposed as part of the project, and therefore, no impact would occur and no mitigation is required.

4.16.4 Mitigation Measures

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

4.17 Transportation

4.17.1 Environmental Setting

Morgan Hill is served by an extensive roadway network of freeways, arterials, and local roads. These roadways provide access to the surrounding municipalities and to local destinations, such as employment areas, shopping centers, schools, recreational opportunities, and residential communities. Regional and local roadways in the City include U.S. Route 101, Monterey Road, Butterfield Boulevard, Cochrane Road, Dunne Avenue, and Tennant Avenue.

Glen Ayre Drive, which the Project is accessed from, is considered a local street.

4.17.2 Regulatory Setting

4.17.2.1 Local

Metropolitan Transportation Commission

The Metropolitan Transportation Commission is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including Santa Clara County. It also functions as the federally mandated metropolitan planning organization for the region. It is responsible for regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities.

Plan Bay Area 2050 is the Bay Area's regional long-range plan adopted by the Metropolitan Transportation Commission and the Association of Bay Area Governments. The plan was developed in collaboration with Bay Area residents, partner agencies, and nonprofit organizations. It lays out a \$1.4 trillion vision for a more equitable and resilient future for Bay Area residents.

City of Morgan Hill Emergency Operations Plan

The City of Morgan Hill's Emergency Operations Center follows California's SEMS and the National Incident Management System as the emergency management response structure for disaster operations. These systems provide for Management, Operations, Logistics, Planning and Intelligence, and Finance and Administration sections of the organization.

The operational priorities are protecting lives, meeting human welfare needs, temporary restoration of publicly provided facilities and services, as well as those provided by private organizations and special districts, protecting property, preserving the environment, and permanent restoration of facilities.

The OES identifies potential threats to life, property and the environment, and then develops plans, procedures, and guidelines to minimize or respond to those threats. Together these documents will help coordinate and support emergency response and recovery and will be tested through exercises and validated by the results of actual response. The goal is to maintain a robust emergency management organization with collaborative ties among governments, community based organizations, volunteers, public service agencies and the private sector (City of Morgan Hill 2025c).

Design Standards and Standard Details for Construction

Title 17 of the City of Morgan Hill Municipal Code establishes the City's design standards for local streets. Chapter 17.34 identifies local street standards including standards for roadway right-of-way width, curbs, gutters, driveways, sidewalks, complete paving to curb.

4.17.3 Transportation (XVII) Environmental Checklist and Discussion

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

Less Than Significant Impact with Mitigation Incorporated.

Because the proposed Project would not directly or indirectly introduce a new population into the region, the total number of trips generated by the project is not expected to change significantly from existing conditions. Project construction will, however, result in temporary increases in local traffic due to the transport of construction personnel, equipment and material to the project site.

As noted in Section 2 of this document, the proposed Project would be completed in approximately 12 months. Construction activities would require the use of diesel construction equipment such as cranes, excavators, loaders, cement mixers, rollers, pavers, and other paving equipment.

Project construction would have a temporary impact on traffic flow in the vicinity of the proposed Project. Existing traffic levels would increase on the project roadways due to deliveries of materials and equipment to the project site and by workers commuting to the site on a daily basis. It is assumed that construction workers would travel to and from the construction site in personal vehicles.

Although construction is considered to have only short-term effects on traffic and circulation conditions within the project area, the proposed project's impact on local traffic conditions during construction is considered potentially significant. With implementation of mitigation measure TRA-1 below, this impact is considered less than significant with mitigation incorporated.

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

Less Than Significant Impact with Mitigation Incorporated.

As noted, the proposed Project would not directly or indirectly result in long-term increases in vehicle traffic in the Project Area or within the City of Morgan Hill. As such, the proposed Project would not be

inconsistent with any adopted local or regional transportation plans or CEQA guidelines. Traffic disruption that may occur during project construction, however, may adversely affect implementation of adopted plans including, but not limited to, the City of Morgan Hill Emergency Operations Plan. This is considered a short-term but potentially significant impact. Implementation of Mitigation Measure TRA-1 will reduce this impact to less than significant with mitigation incorporated.

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

Less Than Significant Impact.

No long-term modifications to roadway features are proposed as part of the project. Traffic disruption that may occur during project construction, however, could exacerbate existing roadway hazards, and adversely affect roadway safety due to tank construction and the transport of construction equipment and materials. However, there would not be a substantial increase of hazards due to design features or incompatible use. Any impacts would be less than significant impact. .

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

Less Than Significant Impact With Mitigation Incorporated.

No long-term modifications to roadway features are proposed as part of the project. Therefore, implementation of the proposed Project would not result in any long-term adverse impact on emergency access. Traffic disruption during project construction, however, may adversely affect emergency access due to lane closures and the transport of construction equipment and materials. This is considered a short-term but potentially significant impact. Implementation of Mitigation Measure TRA-1 will reduce this impact to less than significant with mitigation incorporated.

4.17.4 Mitigation Measures

TRA-1: TRA-1: Construction Traffic Management Plan. If construction activities require roadway closures, a construction traffic management plan (Traffic Plan) shall be prepared, prior to construction, by the Contractor, in coordination with the City of Morgan Hill. The management plan shall be detailed and comprehensive to adequately mitigate potential conflicts between baseline and construction-related traffic. The Traffic Plan will include, at a minimum, the following measures:

- Adequate off-street worker parking shall be provided.
- A flagman or signal-controlled one-way traffic-control operation shall be provided where two-way traffic operation is impractical or unsafe.
- Construction staging areas shall be provided to minimize storage of equipment and materials in the traffic lanes.
- All paved surfaces disturbed during construction shall be repaved when work is complete.
- The Contractor shall provide traffic control and diversion plans for review and approval by each appropriate jurisdiction.
- To minimize delays in emergency response during project construction, emergency providers shall be notified in advance. Police, fire protection, and ambulance services shall be notified in advance of the times, duration, and location of construction activities throughout the project's construction process.

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

When Europeans made first contact with the Project Area, it was occupied by the Ohlone group of Native Americans, specifically, the Tamyen triblet. The Ohlone group of Native Americans are a designated linguistic family made up of eight related languages. The various Ohlone tribes subsisted as hunter-gatherers that relied on local terrestrial and marine flora and fauna. The main plant food source was the acorn, but they also used a range of other plants, including various seeds, buckeye, berries, and roots. Protein sources included grizzly bear, elk, sea lions, antelope and black-tailed deer as well as smaller mammals such as raccoon, brush rabbit, ground squirrels, and wood rats. Fish also played an important role in the Tamyen diet, and included steelhead, salmon, and sturgeon (City of Morgan Hill 2017).

4.18.2 Regulatory Setting

CEQA, as amended in 2014 by AB 52, requires that City provide notice to any California Native American tribes that have requested notice of projects subject to CEQA review, and consult with tribes that responded to the notice within 30 days of receipt with a request for consultation. Section 21073 of the PRC defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

The purpose of consultation is to identify TCRs that may be significantly impacted by the Proposed Project and to allow the City to avoid or mitigate significant impacts prior to Project approval and implementation. Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

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

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

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

c) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1, for the purposes of this paragraph the lead agency shall consider the significance of the resource to a California Native American tribe.

Because the first two criteria also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators and can only be identified by a culturally affiliated tribe, which has been determined under State law to be the subject matter expert for TCRs.

CEQA requires that the City initiate consultation with tribes at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures. Therefore, in accordance with the requirements summarized above, the City conducted or attempted to conduct tribal consultation for the Project. The methods and results of tribal consultation are summarized below.

4.18.2.1 Summary of Consultation

The City of Morgan Hill requested a list of contacts from the Native American Heritage Commission. On January 19, 2026, the City notified the following California Native American tribes traditionally and culturally affiliated with the geographic area of the Proposed Project: Tamien Nation, Amah Mutsun Tribal Band of Mission San Juan Bautista, Costanoan Rumsen Carmel Tribe, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Indian Tribe of San Francisco Bay Area, North Valley Yokuts Tribe, and the Ohlone Indian Tribe. The letter provided each tribe with a brief description of the Project and its location, the contact information for the City, and a notification that the tribe has 30 days to request consultation. The Tamien Nation responded on February 3, 2026 and requested consultation. At this time, consultation is ongoing.

4.18.3 Tribal Cultural Resources (XVIII) Environmental Checklist and Discussion

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

Less Than Significant Impact with Mitigation Incorporated.

Written notice was given to the Tamien Nation, Amah Mutsun Tribal Band of Mission San Juan Bautista, Costanoan Rumsen Carmel Tribe, Indian Canyon Mutsum Band of Costanoan, Muwekma Ohlone Indian Tribe of San Francisco Bay Area, North Valley Yokuts Tribe, and the Ohlone Indian Tribe, as required by AB 52 and codified in Public Resources Code Section 21080.3.1 et seq. Consultation was requested by the Tamien Nation within the 30-days of notice, and as of the public circulation of the document, consultation is still on going.

No known tribal resource is located on the Project site (ECORP 2025b). In the event that resources are unearthed during project subsurface activities, all earth-disturbing work must be temporarily suspended or redirected until NAHC has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. With implementation of this standard requirement, no significant impact is anticipated. This has been included as Mitigation Measure TCR-1. Any impacts would be less than significant with the mitigation incorporated.

4.18.4 Mitigation Measures

TCR-1: Unanticipated Discovery of Tribal Cultural Resources. If potentially significant TCRs are discovered during ground disturbing activities, all work shall cease within 50 feet of the find. A Native American Representative from traditionally and culturally affiliated Native American Tribes that requested consultation on the Project shall be immediately contacted and invited to assess the significance of the find and make recommendations for further evaluation and treatment, as necessary. If deemed necessary by the City, a qualified cultural resources specialist, who meets the Secretary of Interior's Standards and Qualifications for Archaeology, may also assess the significance of the find in joint consultation with Native American representatives to ensure that tribal values are considered. Work at the discovery location cannot resume until the City, in consultation as appropriate and in good faith, determines that the discovery is either not a TCR, or has been subjected to culturally appropriate treatment, if avoidance and preservation cannot be accommodated.

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

4.19.1.1 Potable Water Service

The City provides water service to over 13,300 metered customers inside and outside the City limits. About 85 percent of customers are residential (single and multi-family) and are responsible for approximately 70 percent of total water consumption. Commercial, industrial, government, and institutional users account for the remaining customers and usage (City of Morgan Hill 2017).

The City of Morgan Hill receives its water from groundwater wells that feed an interconnected grid of pipelines to deliver water to homes and businesses in the community. The sources (and percentages) of groundwater recharge are local rainfall (40 percent), local reservoirs (34 percent), and imported water (26 percent). Imported water for replenishing groundwater is provided by the SCVWD. The SCVWD manages groundwater in Santa Clara County, including the Santa Clara sub-basin (Coyote Valley subarea) and the Llagas sub-basin; these are the sources of Morgan Hill's groundwater (City of Morgan Hill 2017).

The SCVWD and the City depend on regional, state, and federal water agencies to supply additional water to replenish the groundwater. Imported water originates from natural runoff and releases from statewide reservoirs and is pumped out of the Sacramento San Joaquin Delta by the State Water Project and the federal Central Valley Project. The SCVWD manages water recharge by releasing water captured and stored in local reservoirs, and water imported from the Delta, to creeks and recharge ponds.

4.19.1.2 Wastewater

Wastewater from Morgan Hill is collected in the City's sewer collection system and treated at the South County Regional Wastewater Authority Wastewater Treatment Plant.

The City of Morgan Hill sewer collection system consists of approximately 135 miles of 6-inch through 30-inch diameter sewers and includes 15 sewage lift stations and associated force mains. The system includes trunk sewers, generally 12-inches in diameter and larger, that convey the collected wastewater flows to the South County Regional Wastewater Authority treatment facility in Gilroy. The City's existing sewer collection system meets the needs of existing customers (City of Morgan Hill 2017).

4.19.1.3 Solid Waste

An outside vendor, Recology, provides garbage service, including recycling, composting, and garbage collection to the City of Morgan Hill. The City of Morgan Hill uses single-stream recycling, meaning that all types of recyclable materials are mixed together upon collection and sorted later at a materials recovery facility.

Waste collected in the City of Morgan Hill is primarily taken to the Kirby Canyon Recycling and Disposal Facility, located at 910 Coyote Creek Golf Drive, Morgan Hill. The solid waste landfill is permitted to accept 2,600 tons of material per day. Based on current disposal volume rates, Kirby Canyon is estimated to be in operation until 2059 and beyond (Waste Management 2025).

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

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

Less Than Significant Impact.

The proposed Project involves the construction of a replacement water tank in order to increase fire flow and improve the water distribution system reliability in the City of Morgan Hill. Installation of the proposed water tank would not generate an increase in population and therefore, would not exceed wastewater treatment requirements as stipulated by the RWQCB. Any impact would be less than significant, and no mitigation is required.

Would the Project:

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

Potentially
Significant
Impact

☐

Less than
Significant with
Mitigation
Incorporated

☐

Less than
Significant
Impact

☒

No
Impact

☐
Less Than Significant Impact.

As previously stated in discussion item a), the proposed Project includes construction of a replacement water tank in order to increase fire flow and improve the water distribution system reliability in the City of Morgan Hill. The proposed Project would not have a substantial impact on the water supply for the area. Therefore, a less than significant impact would occur and no mitigation is required.

Would the Project:

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

Potentially
Significant
Impact

☐

Less than
Significant with
Mitigation
Incorporated

☐

Less than
Significant
Impact

☐

No
Impact

☒
No Impact.

The proposed Project does not require wastewater services. Therefore, no Impact would occur and no mitigation is required.

Would the Project:

- 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?

Potentially
Significant
Impact

☐

Less than
Significant with
Mitigation
Incorporated

☐

Less than
Significant
Impact

☒

No
Impact

☐
Less Than Significant Impact.

No recycling or waste disposal would be required for operation and maintenance of the proposed Project and therefore would not affect landfill capacity because waste disposal would be limited to construction debris which would be minor and would only be generated during the construction and demolition period. The Project contractors would be responsible for disposing of construction-related debris in local construction-material receiving areas. A less than significant impact would occur. No mitigation is required.

Would the Project:

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

As previously described, no recycling or waste disposal would be required for operation and maintenance of the proposed Project. City of Morgan Hill contractors would be responsible for disposing of demolition and construction-related debris in local construction-material receiving facilities and would comply with all federal, state, and local statutes and regulations related to solid waste. Therefore, any impacts would be less than significant and no mitigation is required.

4.19.3 Mitigation Measures

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

4.20 Wildfire**4.20.1 Environmental Setting**

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

The state has charged CAL FIRE with the identification of FHSZs within SRA. In addition, CAL FIRE must recommend VHFHSZ identified within any Local Responsibility Areas (LRA). The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards. The proposed Project is within a very high fire hazard severity zone within an LRA (CAL FIRE 2025).

4.20.2 Wildfire (XX) Environmental Checklist and Discussion**If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:**

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☒	☐	☐

Less Than Significant Impact with Mitigation Incorporated.

The proposed Project is in an area identified as a Very High Fire Hazard Severity zone within an LRA. No long-term modifications to roadway features are proposed as part of the project. Therefore, implementation of the proposed Project would not result in any long-term adverse impact on emergency

access. Traffic disruption during project construction, however, may adversely affect emergency access due to lane closures and the transport of construction equipment and materials. This is considered a short-term but potentially significant impact. Implementation of Mitigation Measure TRA-1, above, will reduce this impact to less than significant with mitigation incorporated.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

- 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?

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

The proposed Project includes replacing the existing Glen Ayre water tank within generally the same location. The tank site will be cleared of vegetation and will have security fencing around the perimeter, which will create a fire break in the area in case a wildfire does break out. The new tank will provide a larger storage capacity and will help increase fire flow conditions in the existing system. The tank will not be made of non-flammable materials and the surrounding area will be cleared of flammable materials as well. Therefore, the proposed Project would not expose nearby occupants to pollutants or increased wildfire risk. Impacts are less than significant.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

- 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?

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
☐	☐	☒	☐

Less Than Significant Impact.

The Project site for the replacement water tank would be accessed via Glen Ayre Road. The actual Project Site of the tank would be within an easement. The Project would not exacerbate wildfire hazards within the area nor require any new fuel breaks outside of what is already. The proposed Project does not include the installation of transmission lines or fire hydrants.

During construction and operation of the proposed facility, the presence of humans and associated equipment may expose the area to increased risk of fire ignition. However, staff and contractors would follow all best management practices to reduce fire risk, including avoiding smoking in non-designated areas; using spark arrestors as warranted; maintaining equipment in its proper working order; ensuring

that all loads are properly secured and no chains or metal drag; avoiding work that could potentially produce sparks during red flag warnings; and adhering to all requirements for burn permits. Fire suppression equipment, including fire extinguishers and hand tools, would be available onsite for the containment of small, incipient fires if it is safe for workers to do so and they have received proper training in the use of such tools. The Project would be required to comply with local requirements during construction. Compliance with these requirements, along with the above measures, would reduce any impacts to less than significant.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less Than Significant Impact.

The proposed construction of the Project would comply with the CBC requirements and would follow all recommendations outlined within the BMPs that are included as part of the SWPPP prepared for the proposed Project. This would manage erosion and the loss of topsoil during construction-related activities (see *Section 4.10.3 Hydrology and Water Quality Environmental Checklist and Discussion*). With the implementation of the SWPPP, soil erosion during construction, project staging, and the construction of related facilities would be minimized. With limited erosion anticipated from the Project site due to the relatively flat nature of the site, the potential for Project-induced landslides is considered less than significant. No mitigation is required.

4.20.3 Mitigation Measures

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

4.21 Mandatory Findings of Significance

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

Does the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

As stated previously in Section 4.4, Biological Resources, with implementation of Mitigation Measures BIO-1 through BIO-6 the proposed Project would result in a less than significant impact on the habitat of wildlife species or population, on any plant or animal community, and would not restrict the range of a rare or endangered plant or animal. Furthermore, as stated above in Section 4.5, Cultural Resources, with the implementation of proposed Mitigation Measures CUL-1, development of the Proposed Project would not result in significant impacts to Cultural Resources.

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

Less Than Significant Impact.

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

For natural resource subjects (Aesthetics, Agriculture and Forest Resources, Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, and Mineral Resources), there would be no cumulative effects because all impacts would be less than significant or would be reduced to less than

significant with mitigation incorporated. The project would temporarily involve minimal hazardous materials use associated with construction and would not result in a cumulative effect on the environment.

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

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

Less Than Significant Impact With Mitigation Incorporated.

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

5.0 LIST OF PREPARERS

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6.0 BIBLIOGRAPHY

Bay Area Air Quality Management District (BAAQMD). 2023. *2022 CEQA Guidelines*.

California Department of Conservation (DOC). 2025a. California Important Farmland Finder. Available at <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed November 10, 2025.

_____. 2025b. California Williamson Act Enrollment Finder. Available at <https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html>. Accessed November 10, 2025.

_____. 2025c. Tsunami Hazard Area Map. https://maps.conservation.ca.gov/cgs/informationwarehouse/ts_evacuation/#data_s=id%3AdataSource_3-1918f9f263a-layer-15%3A9. Accessed November 10, 2025.

_____. 1987. Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area, Special Report 146, Part IV, page 50 and 51.

California Department of Finance. 2025. E-1 Cities, Counties, and the State Population and Housing Estimates with Annual Percent Change – January 1, 2024 and 2025. <https://dof.ca.gov/Forecasting/Demographics/Estimates/>. Accessed November 10, 2025.

California Department of Forestry and Fire Protection (CAL FIRE). 2025. Fire Hazard Severity Zone Viewer. https://experience.arcgis.com/experience/6a9cb66bb1824cd98756812af41292a0#data_s=id%3AdataSource_2-1948c2c2a09-layer-56%3A13168. Accessed November 10, 2025.

California Department of Transportation (Caltrans). 2020. Transportation- and Construction-Induced Vibration Guidance Manual.

_____. 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.

_____. 2002. California Airport Land Use Planning Handbook.

California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimator Model (CalEEMod), version 2022.1.

_____. 2008. CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.

California Air Resources Board (CARB). 2025. Emission Factor Model 2025 version.

_____. 2023a. State and Federal Area Designation Maps. <http://www.arb.ca.gov/desig/adm/adm.htm>. Accessed November 10, 2025.

_____. 2023b. California Greenhouse Gas Emission Inventory 2023 Edition. <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed November 10, 2025.

California Department of Toxic Substances Control (DTSC). 2025. EnviroStor. Available at <https://www.envirostor.dtsc.ca.gov/public/map/>. Accessed November 10, 2025.

- California Energy Commission (CEC). 2025. Website: California Electricity Consumption: Santa Clara County. <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0>. Accessed November 10, 2025.
- _____. 2023. Integrated Energy Policy Report – IEPR. October.
- _____. 2007. Refining Estimates of Water Related Energy Use in California.
- California Geological Survey (CGS). 2025. <https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/>. Accessed November 10, 2025.
- City of Morgan Hill. 2025. Municipal Code. https://library.municode.com/ca/morgan_hill/codes/code_of_ordinances. Accessed November 10, 2025.
- _____. 2025a. Police Department – Our Department. <https://www.morganhill.ca.gov/2198/Our-Department>. Accessed July 15, 2025.
- _____. 2025b. Fire Department About Us. <https://www.morganhill.ca.gov/1089/About-Us>. Accessed July 15, 2025.
- _____. 2025c. City of Morgan Hill Emergency Operations Plan. March.
- _____. 2023. *City of Morgan Hill Housing Element*.
- _____. 2017. General Plan. <https://www.morganhill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId=>.
- Crockett, Alexander G. 2011. Addressing the Significance of Greenhouse Gas Emissions Under CEQA: California’s Search for Regulatory Certainty in an Uncertain World.
- ECORP Consulting, Inc. (ECORP) 2025a. Biological Resources Assessment for the Glen Ayre Hillside Water Reservoir Project.
- _____. 2025b. Cultural Resources Records Search Result for the Glen Ayre Hillside Water Reservoir Project.
- Federal Emergency Management Agency (FEMA). 2025. FEMA Flood Map Service Center. <https://msc.fema.gov/portal/search?AddressQuery=glen%20ayre%20road%2C%20morgan%20hill%2C%20CA>. Accessed June 2025.
- Federal Highway Administration (FHWA). 2017a. Construction Noise Handbook. https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook02.cfm.
- _____. 2017b. Noise Barriers: Technical Considerations and Barrier Effectiveness. https://www.fhwa.dot.gov/Environment/noise/regulations_and_guidance/polguide/polguide05.cfm#:~:text=Effective%20noise%20barriers%20can%20reduce%20noise%20levels%20by,%28usually%20called%20earthberms%29%20or%20from%20high%2C%20vertical%20walls.
- _____. 2018. Transit Noise and Vibration Impact Assessment.

- _____. 2006. Roadway Construction Noise Model.
- Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment.
- Harris Miller, Miller & Hanson Inc. 2006. Transit Noise and Vibration Impact Assessment, Final Report.
- Morgan Hill Unified School District (MHUSD) 2025. About. <https://www.mhusd.org/about>. Accessed July 15, 2025.
- Natural Resources Conservation Service (NRCS). 2025. Soil Data Access Hydric Soils List. <https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soil/hydric-soils>. Accessed August 25, 2025.
- _____. 2003. Los Gatos Series. https://soilseries.sc.egov.usda.gov/OSD_Docs/L/LOS_GATOS.html. Accessed August 25, 2025.
- Natural Resources Conservation Service (NRCS), U.S. Geological Survey (USGS), and U.S. Environmental Protection Agency (USEPA). 2024. Watershed Boundary Dataset. Data refreshed July 2024.
- Pacific Gas and Electric Company (PG&E). 2024. About Pacific Gas and Electric Company. <https://www.pge.com/en/about.html>. Accessed November 10, 2025.
- _____. 2022a. PG&E's Climate Strategy Report. <https://www.pge.com/en/about/corporate-responsibility-and-sustainability/taking-responsibility.html>.
- _____. 2022b. PG&E Energy Efficiency 2024-2031 Strategic Business Plan, https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A2202005/4532/452751515.pdf?WT.mc_id=Vanity_eeplan2024-2031.
- Santa Clara County. 2020. San Martin Airport Comprehensive Land Use Plan. November.
- Santa Clara Valley Water District. 2021. 2025. Watersheds of Santa Clara Valley. <https://www.valleywater.org/learning-center/watersheds-santa-clara-valley>. June 2025
- _____. Groundwater Management Plan for the Santa Clara and Llagas Subbasins. https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2021_GWMP.pdf. Accessed June 2025.
- State Water Resources Control Board (SWRCB). 2025. GeoTracker. https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000018691. Accessed December 2025.
- U.S. Environmental Protection Agency (USEPA) 2021. Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P1013KWQ.PDF?Dockey=P1013KWQ.PDF>.
- U.S. Geological Survey (USGS) 2025. Earthquake Zones of Required Investigation. <https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/>. Accessed September 2, 2025.

Waste Management. 2025. Kirby Canyon Recycling and Disposal Facility.

<https://www.wm.com/us/en/facilities/kirby-canyon-recycling-disposal>. Accessed August 25, 2025.

Santa Clara Basin Watershed Management Initiative. 2003. Watershed Management Initiative (WMI).

LIST OF APPENDICES (AVAILABLE UPON REQUEST)

Appendix A – Air Quality and Greenhouse Gas Emissions Report ECORP Consulting, Inc. 2025

Appendix B – Biological Resources Assessment for the Glen Ayre Hillside Water Reservoir Project, ECORP Consulting, Inc. 2025

Appendix C – Records Search Results for the Glen Ayre Hillside Water Reservoir Project. ECORP Consulting, Inc. 2025

Appendix D – Energy Consumption Analysis, ECORP Consulting, Inc. 2025

Appendix E – Noise Impact Results, ECORP Consulting, Inc. 2025

APPENDIX A

Air Quality and Greenhouse Gas Emissions
Report ECORP Consulting, Inc. 2025
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Biological Resources Assessment for the Glen Ayre Hillside Water Reservoir Project,
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Records Search Results for the Glen Ayre Hillside Water Reservoir
Project. ECORP Consulting, Inc. 2025 **(Confidential)**

APPENDIX D

Energy Consumption
Analysis, ECORP Consulting,
Inc. 2025
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APPENDIX E

Noise Impact Results, ECORP
Consulting, Inc. 2025
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