



INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Malech Road Public Access Improvement Project

PREPARED FOR:

Santa Clara Valley Open Space Authority
33 Las Colinas Lane
San Jose, CA 95119

ATTENTION:

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MARCH 2022



Malech Road Public Access Improvement Project

Initial Study/Mitigated Negative Declaration

Prepared for:

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March 2022

MITIGATED NEGATIVE DECLARATION

PROJECT: MALECH ROAD PUBLIC ACCESS IMPROVEMENT PROJECT

LEAD AGENCY: SANTA CLARA VALLEY OPEN SPACE AUTHORITY

Under the California Environmental Quality Act (CEQA), the lead agency is the public agency with primary responsibility over approval of the project. The Santa Clara Valley Open Space Authority (Authority) is the CEQA lead agency because it is responsible for implementation and operation of the Malech Road Public Access Improvement Project (proposed project or project).

PROJECT DESCRIPTION SUMMARY

The proposed project includes the development of a parking area and staging area, and new public access features within the boundary of the Malech Road property. The project would establish a formal entrance with a paved access road and public parking areas; an Americans with Disabilities Act (ADA) accessible central gathering area and restroom; two walking/hiking trails compliant with the Architectural Barriers Act Accessibility Guidelines for Outdoor Developed Areas (ABA); and associated picnic areas, benches, and overlooks equipped with shade structures and interpretive signage. Additional features would include a small service vehicle parking area; bicycle racks; fencing; retaining walls; stormwater capture improvements; revegetation of disturbed areas with native stockpiled soils or an appropriate non-irrigated seed mix (to be approved by the Santa Clara Valley Habitat Agency or qualified biologist); interpretive signage; and a wayfinding kiosk.

FINDINGS

An Initial Study (IS) has been prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the IS, it has been determined that the project would not have any significant effects on the environment once mitigation measures are implemented. With the inclusion of revisions to the project directed by the mitigation measures, all potentially significant effects on the environment would be clearly reduced to a less-than-significant level. The conclusion is supported by the following findings:

1. The project would have no impact related to population and housing.
2. The project would have a less-than-significant impact on aesthetics, agriculture and forest resources, air quality, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, public services, recreation, transportation, utilities and service systems, and wildfire.
3. Mitigation is required to reduce potentially significant impacts related to biological resources, cultural resources, geology and soils, and tribal cultural resources to less-than-significant levels.

Biological Resources Mitigation Measures

Mitigation Measure BIO-1: Avoid and Minimize Impacts to Nesting Birds

If construction occurs during the nesting bird season (February 1 – August 31), a nesting bird survey will be conducted within 14 days of construction. The survey will encompass the area within a 250-foot radius for raptors and 50-foot-radius for other birds. If nesting birds are identified, work within these buffer areas will be postponed until the young have fledged or the nest is otherwise abandoned.

Mitigation Measure BIO-2: Avoid and Minimize Impacts to Swainson's Hawk Nests

If construction occurs during the nesting season for Swainson's hawk (March 1 – September 15), the Authority will survey for active nests prior to the implementation of any construction activities. If nests are identified, construction activities would be prohibited within 0.25 mile of the active nest during nesting season. This buffer may be adjusted as determined appropriate by a qualified biologist in coordination with CDFW.

Mitigation Measure BIO-3: Avoid and Minimize Impacts to American Badger Dens

No more than 14-days prior to implementation of construction activities that could disturb American badger, a qualified biologist shall conduct pre-construction surveys within 100 feet of ground disturbance for potential American badger dens. If any potentially occupied American badger dens are located during surveys, no work shall be performed within a 50-foot buffer around each den during the non-breeding season or within a 100-foot buffer around dens during the period when pups are potentially in the den (February 15 through July 1).

Cultural Resources, Tribal Cultural Resources, and Geology and Soils Mitigation Measure

Mitigation Measure CUL-1: Implement Cultural Report Protective Measures for the Project

In compliance with Habitat Plan Requirements, an Archaeological Resources Assessment Report was prepared for the project. The Authority will implement the project-specific protective measures included in the Report and developed during tribal consultation for cultural resource protection, which include the following:

- ▶ A cultural sensitivity training program will be provided to all construction personnel prior to the start of project construction. A representative or representatives from culturally affiliated Native American Tribe(s) will be invited to participate in the development and delivery of the cultural resources awareness and respect training program in coordination with a qualified archaeologist meeting the Secretary of Interior guidelines for professional archaeologists. The program will include relevant information regarding sensitive cultural and tribal cultural resources, including protocols for resource avoidance, applicable laws regulations, and the consequences of violating them. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans and protocols, consistent, to the extent feasible, with Native American Tribal values.
- ▶ In the event that a prehistoric archeological site (including midden soil, chipped stone, bone, or shell), historic-period archaeological site (such as concentrated deposits of bottles, amethyst glass, or historic refuse), or paleontological resource is uncovered during grading or other construction activities, all ground-disturbing activity within 50 feet of the discovery shall be halted until a qualified archaeologist can assess the significance of the find. The Authority will be notified of the potential find and a qualified archeologist shall be retained to investigate its significance. If the find is a prehistoric archeological site, the culturally affiliated Native American tribe shall be immediately notified. The tribal representative(s), in consultation with the archaeologist, shall determine if the find is a significant tribal cultural resource (pursuant to PRC Section 21074). The tribal representative will make recommendations for treatment, as necessary. Culturally appropriate treatment may be, but is not limited to, preservation in place, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project vicinity where they will not be subject to future impacts. If the find is a paleontological resource, all ground disturbance within 50 feet of the find shall stop immediately until a qualified professional paleontologist can assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation.
- ▶ Any previously undiscovered resources found during construction will be recorded on appropriate California Department of Parks and Recreation 523 forms and evaluated for significance under all applicable regulatory criteria. If the archaeologist determines that the find does not meet the CRHR standards of significance for cultural resources, construction may proceed. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the Authority to follow accepted professional standards such as further testing for evaluation or data recovery, as necessary. If artifacts are recovered from

significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, and analyzes and interprets the results.

- ▶ If any human remains are exposed during construction, they shall be treated in accordance with the California Health and Safety Code and California Public Resources Code (PRC) Sections 5097.94 and 5097.98, in consultation with the Native American Heritage Commission (NAHC).

Pursuant to Section 21082.1 of the California Environmental Quality Act, the Authority has independently reviewed and analyzed the IS and Mitigated Negative Declaration (MND) for the project and finds that the IS and MND reflects the independent judgment of the Authority. The Authority further finds that the project mitigation measures shall be implemented as stated in the MND.

I hereby approve this project:

DocuSigned by:

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Lucas Shellhammer, Senior Open Space Planner
Santa Clara Valley Open Space Authority

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LIST OF ABBREVIATIONS

ABA	Architectural Barriers Act Accessibility Guidelines for Outdoor Developed Areas
ADA	Americans with Disabilities Act
Authority	Santa Clara Valley Open Space Authority
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFÉ	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAP	criteria air pollutants
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH ₄	methane
CO	carbon monoxide
CO ₂	carbon dioxide
CRID	Coyote Ridge Open Space Preserve
CUPA	Certified Unified Program Agency
CWPP	Santa Clara County Community Wildfire Protection Plan
dB	decibel
dBA	A-weighted decibel
DTSC	California Department of Toxic Substances Control

EIR	Environmental Impact Report
EIR/EIS	Environmental Impact Report/Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPM	environmental protection measure
ESA	federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
GHG	greenhouse gas
GIS	geographic information system
GWMP	Groundwater Management Plan
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
LEA	Local Enforcement Agency
L_{eq}	equivalent noise level
L_{max}	maximum noise level
LOS	level of service
LUST	leaking underground storage tank
MGD	million gallons per day
MLD	most likely descendant
MTCO _{2e}	metric tons of carbon dioxide equivalent
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Center
NHTSA	National Highway Traffic Safety Administration
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service

OEM	Office of Emergency Management
OPR	Governor's Office of Planning and Research
PG&E	Pacific Gas and Electric
PM	particulate matter
PM ₁₀	respirable particulate matter
PM _{2.5}	fine particulate matter
PRC	Public Resources Code
PSE	Participating Special Entity
RMP	Resource Management Plan
ROG	reactive organic gases
ROW	right-of-way
RPS	Renewable Portfolio Standard
RWQCB	regional water quality control board
SB	Senate Bill
SCCSO	Santa Clara County Sheriff's Office
SCRWA	South County Regional Wastewater Authority
SCVWD	Santa Clara Valley Water District
SDG	stabilized decomposed granite
SFBAAB	San Francisco Bay Area Air Basin
SJFD	San José Fire Department
SO ₂	sulfur dioxide
SR	State Route
SVCE	Silicon Valley Clean Energy
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCP	Traffic Control Plan
US 101	U.S. Highway 101
UST	Underground Storage Tank

VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compounds
VTA	Santa Clara Valley Transportation Authority
WWTP	Wastewater Treatment Plant

1 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the Santa Clara Valley Open Space Authority (Authority) to evaluate the potential environmental effects resulting from the proposed Malech Road Public Access Improvement Project (proposed project or project). Section 2 “Project Description” presents detailed project information.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An IS prepared by a lead agency to evaluate if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a “public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) the Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant impact on the environment, or (b) The initial study identifies potentially significant effects, but: (1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.”

In one of these circumstances, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). As described in the environmental checklist (Section 3 of this IS), either potentially significant environmental impacts would not occur or they would be mitigated by project changes to a point that is clearly less than significant, depending on the environmental topic. Therefore, an IS/MND is the appropriate document for compliance with the requirements of CEQA. This IS/MND conforms to the content requirements of State CEQA Guidelines Section 15071.

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. The Authority is the CEQA lead agency because it is responsible for approving and implementing the project. The purpose of this document is to present to decision-makers and the public information about the environmental consequences of implementing the project. This disclosure document was made available to the public for review and comment on the Authority’s website at: <https://www.openspaceauthority.org/conservation/current-projects/coyote-ridge-open-space-preserve.html>

This IS/MND was available for a 30-day public review period from December 14, 2021 to January 14, 2022. Comments sent by postal mail were addressed to:

Lucas Shellhammer
Santa Clara Valley Open Space Authority
33 Las Colinas Lane
San Jose, CA 95119

E-mail comments were addressed to: lshellhammer@openspaceauthority.org

If you have questions regarding the IS/MND, please email or call Lucas Shellhammer at: (408) 224-7476. Written comments (including by e-mail or postal mail) needed to be postmarked by January 14, 2022. Supporting documentation referenced in this IS/MND is available for review upon request to the Authority.

After comments were received from the public and reviewing agencies, the Authority considered the environmental evaluation in the IS along with comments received and may (1) adopt the MND and approve the project; (2) undertake additional environmental studies to support the conclusions of the MND; (3) determine an EIR must be prepared; or (4) abandon the project. If the project is approved and funded, the Authority may proceed with the project after obtaining all necessary permits and other approvals.

1.2 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the project.

Based on the issues evaluated in that chapter, it was determined that the project would have either no impact or a less-than-significant impact related to most of the issue topics identified in the Environmental Checklist, included as Appendix G of the State CEQA Guidelines. These include the following topic areas:

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

Potentially significant impacts were identified for cultural resources, tribal cultural resources, and geology and soils; however, mitigation measures included in the IS/MND would reduce all potentially significant impacts clearly to a less-than-significant level.

1.3 DOCUMENT ORGANIZATION

This IS/MND is organized as follows:

Chapter 1: Introduction. This chapter provides an introduction to the environmental review process. It describes the purpose and organization of this document as well as presents a brief summary of findings.

Chapter 2: Project Description and Background. This chapter identifies project objectives and provides a detailed description of the project.

Chapter 3: Environmental Checklist. This chapter presents an analysis of the full range of environmental issues identified in the CEQA Environmental Checklist and determines if project actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of mitigation measures.

Chapter 4: References. This chapter lists the references used in preparation of this IS/MND.

Chapter 5: List of Preparers. This chapter identifies report preparers.

2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND AND OVERVIEW

The Malech Road Public Access Improvement Project (proposed project or project) is proposed by the Santa Clara Valley Open Space Authority (Authority) to develop a parking and staging area and new public access features within the boundary of the Malech Road property. The proposed project is the subject of this Initial Study. The Authority purchased two parcels (totaling 29.66 acres), with the intention to use them as a parking/staging area for the greater Coyote Ridge Open Space Preserve (CRID) trail system. In addition to providing important public access, the project would include the establishment of a formal entrance with a paved access road and public parking areas; an Americans with Disabilities Act (ADA) accessible central gathering area and restroom; and two walking/hiking trails compliant with the Architectural Barriers Act Accessibility Guidelines for Outdoor Developed Areas (ABA) and associated picnic areas, benches, and overlooks equipped with shade structures and interpretive signage. Additional features would include a small service vehicle parking area; bicycle racks; fencing; retaining walls; stormwater capture improvements; revegetation of disturbed areas with native stockpiled soils or an appropriate non-irrigated seed mix (to be approved by the Santa Clara Valley Habitat Agency or qualified biologist); interpretive signage; and a wayfinding kiosk. The proposed project features are described in detail in Section 2.3, "Description of the Project," below.

The project area includes the footprint of the proposed project features within the Malech property. It is located within the permit area of the Habitat Plan. The Authority proposes to seek coverage under the Habitat Plan for the project as a Participating Special Entity (PSE) by submitting an application to the Habitat Agency. The Authority would implement all applicable compliance conditions outlined in the Habitat Plan and the PSE permit issued by the Habitat Agency to minimize the potential environmental impacts of the project.

The Authority purchased the adjacent 1,831-acre CRID property in 2015 with the help of the Habitat Agency. The Authority owns the land and the Habitat Agency holds a conservation easement over the property; the property is enrolled in the Habitat Agency's Reserve System in accordance with the Santa Clara Valley Habitat Plan. Access and recreation-related projects within CRID were approved by the Habitat Agency through the conservation easement agreement for the property. They are later activities consistent with the Habitat Plan and are covered by the Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) that was prepared for the Habitat Plan. As consistent later activities covered by the EIR/EIS, they are within the scope of the Habitat Plan EIR and do not need to be evaluated in another environmental document, pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15168.

2.2 PROJECT LOCATION AND SETTING

The proposed project would be located within the boundary of the Malech Road property, which is an approximately 29-acre site located adjacent to the greater CRID in unincorporated Santa Clara County, southeast of the city of San Jose and northwest of the city of Morgan Hill (see Figure 2-1). The property is bounded on the west by Malech Road and by the existing CRID on all other sides. U.S. Highway 101 (US 101) is 0.25-mile southwest of the project area. Malech Road provides immediate access to the project area.

The project area is predominantly covered by non-native grasslands, although habitat conditions vary as a result of the relative concentration of serpentine minerals within the soils. Areas of higher concentrations of such minerals support native grasses and forbs, as well as a greater diversity of plant species in general. Areas dominated by native grasses and forbs constitute sensitive plant communities, in the form of Serpentine Bunchgrass Grassland and Needle Grass – Melic Grass Grassland, a community designated as sensitive by the California Department of Fish and Wildlife (CDFW). These conditions create high-quality habitat for special-status plants and wildlife.

The south-southeastern portion of the property is bisected by a tributary to Coyote Creek with riparian oak woodlands present along the creek channel, which is adjacent to the project area. A Pacific Gas and Electric power line, including associated towers and access roads, crosses the southern edge of the property. Currently, public access is allowed through docent-guided visits and seasonal "Open Access Days" programming within the project area; otherwise, it is used primarily for cattle grazing.

Few land uses other than open space exist in the immediate vicinity of the project area. The closest facility to the project area is the Santa Clara County Parks' Field Sports Park, which is a public shooting range located approximately 0.25-mile north-northwest of the project area boundary. Further from the project area boundary are the Santa Clara County Sheriff's Firearms Range and a women's wellness center, approximately 0.70-mile to the north-northwest; industrial and commercial facilities between 0.50 and 1 mile to the west-southwest on the opposite side of US 101 from the project area boundary; and the Charter School of Morgan Hill approximately 0.50-mile to the south-southwest.

2.3 DESCRIPTION OF THE PROJECT

The Authority proposes to open the project area for public use and recreation as a part of the greater CRID. Accordingly, the proposed project includes the implementation of several new features in the project area to support public access and low intensity recreation. The primary project features include the development of a formal gated entrance with an access road, pathway, and bicycle racks; a main public parking area and an overflow parking area with a combined total of 44 parking spaces; a central gathering area and restroom; and establishment of two new trails with overlooks, a picnic area, and benches. Additional features that would be installed within the project area include a service parking area; interpretive and wayfinding signage and bollards; shade structures; fencing; retaining walls; self-retaining stormwater capture areas, and revegetation of disturbed areas with native stockpiled soils onsite or an appropriate native seed mix. Table 2-1 includes the approximate size and materials that would be used for each of the primary project features, which are described in greater detail below. Figure 2-2 provides a conceptual overview of the proposed project.

Table 2-1 Overview of Primary Project Features

Project Component	Approximate Size	Surface Material
Access and Parking		
Entrance and Access Road	400 linear feet (13,000 square feet)	Asphalt
Entry Pathway (from entrance to Central Gathering Area)	350 linear feet (1,800 square feet)	Stabilized decomposed granite
Bicycle Parking Area	200 square feet	Stabilized decomposed granite
Main Parking Area	20,000 square feet	Asphalt
Overflow Parking Area	16,000 square feet	Aggregate paving
<i>Subtotal</i>	<i>51,000 square feet</i>	
Trails and Amenities		
Central Gathering Area	4,000 square feet (includes 90 linear foot concrete seat wall/retaining wall)	Concrete
North Ascent Overlook Trail (Central Gathering Area to the North Ascent Overlook)	250 linear feet (1,250 square feet)	Stabilized decomposed granite
North Ascent Overlook	800 square feet (includes 50 linear foot concrete retaining wall)	Stabilized decomposed granite
North Ascent Connector Trail (North Ascent Overlook to adjacent existing CRID trail system)	900 linear feet (4,500 square feet)	Natural surface (new trail)
Knoll Loop Trail	1,000 linear feet (5,000 square feet)	Stabilized decomposed granite
West Knoll Overlook	250 square feet	Stabilized decomposed granite

Project Component	Approximate Size	Surface Material
Picnic Area	650 square feet	Stabilized decomposed granite
East Ridge Overlook	400 square feet (includes 25 linear foot concrete retaining wall)	Stabilized decomposed granite
<i>Subtotal</i>	<i>16,850 square feet</i>	
Total Footprint ¹	68,000 square feet (1.56 acres)	

Notes: All numbers are rounded to the nearest ten. SDG = stabilized decomposed granite.

¹ This figure does not include the proposed stormwater drainage improvements, and other appurtenant facilities such as new fencing. However, it has been conservatively rounded up to the nearest hundred.

Source: data provided by Authority in 2021

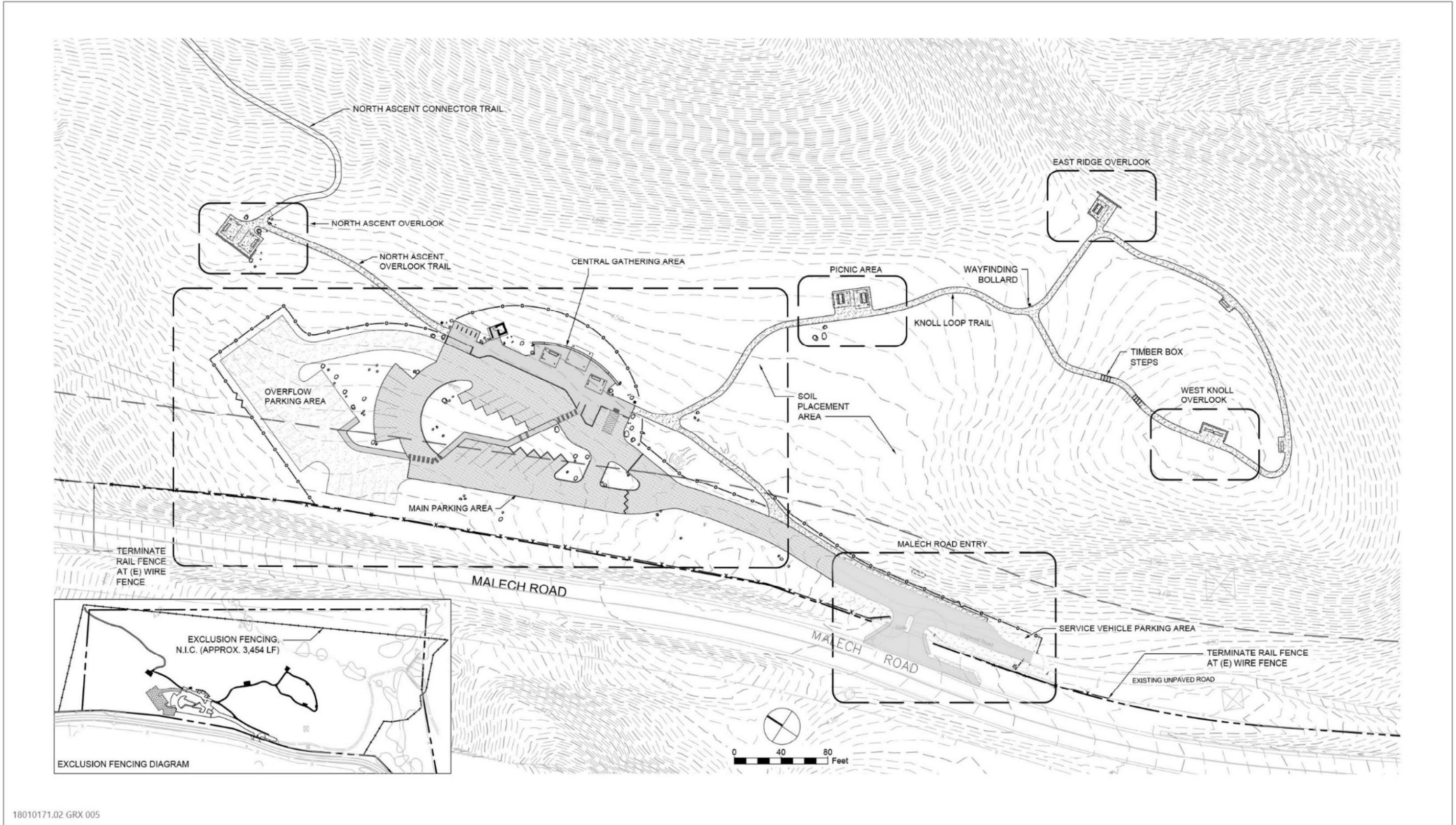
The project features are proposed to be sited and designed with consideration of views, exposure, user experience, accessibility, and topography, and to highlight the ecological values of the project area. The materials and colors used would be context-sensitive and visually compatible with the natural landscape. Surface materials, including asphalt and concrete would be limited to the parking and staging area and retaining walls. Other materials would include weathered steel, wood, and native stone; which would be situated to mimic the surrounding rolling hills and agrarian landscape. The shade structures would be constructed of simple, weathering rectangular steel modules that are ignition resistant, require very little maintenance, and are easily fabricated offsite and erected onsite by Authority staff or contractors. They would be constructed with thin beams supporting a roof of panels that provide a shading pattern. As viewed from a distance, the weathered steel is meant to visually dissolve into the landscape and take on the appearance of rustic agricultural buildings that are commonplace in the vicinity of the project area.

2.3.1 Access and Parking

Public access to the project area would be provided by a formalized entrance along Malech Road with preserve signage and a gate. A 50-foot-long portion of the Malech Road right-of-way would be paved and lead into a 20-foot-wide asphalt access road. The access road would be developed along an existing ranch road that heads to the left and north from the entrance off Malech Road. The access road would extend to a passenger drop-off area and loop around a 20-vehicle main parking area, including two ADA accessible parking stalls. The main parking area would be approximately 20,000 square feet and oval shaped with a center island that would remain undeveloped/natural surface (see Figure 2-2). An approximately 16,000 square foot overflow parking area made of permeable aggregate paving would be established further north of the main parking area to accommodate an additional 24 vehicles. These parking areas are referred to singularly as the parking and staging area.

Immediately to the right upon entering the project area, a small, paved service parking area would be established for staff use. The small service parking area would provide 1-2 parking stalls for operations staff. An ABA-accessible entry pathway made of stabilized decomposed granite (SDG) would provide pedestrian access into the project area from Malech Road and serve as a future Bay Area Ridge Trail connection. SDG is a permeable blend of granite aggregates mixed with a stabilizer to resist damage and erosion from use. The decomposed granite and stabilizer used would be pollutant-free, erosion-resistant, durable, and pervious. Stabilized decomposed granite is often used to meet trail guidelines for ADA and ABA accessibility (Campbell Grading, Inc. 2020).

The new onsite roadway would be designed to allow staff and emergency vehicles to access existing service/ranch roads and would provide a suitable turning radius to accommodate firetrucks and other emergency vehicles. Low fencing would be installed along the boundary of the access road and parking and staging area, and along the northeast side of the entry pathway to prevent the public from entering undisturbed areas of the project area. The fencing would be constructed of wood and extend up to 3 feet in height. Stormwater capture and treatment elements would be established on the south side of the entrance, in the undeveloped center of the main parking area (i.e., the parking island), and between the main parking area and the overflow parking area. These features are described in more detail in Section 2.3.3 below.



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Source: Image produced and provided by Restoration Design Group, Inc. in 2021

Figure 2-2 Conceptual Project Overview

2.3.2 Recreation Facilities and Amenities

Several new public use amenities are proposed to support passive recreation, including gathering areas, picnic tables, benches, restrooms, and informational kiosks and other interpretive elements. In addition, two new public trails would be developed within the project area, the North Ascent Overlook/Connector Trail and the Knoll Loop Trail. Three new overlook facilities would be constructed, one off the North Ascent Overlook Trail and two off the Knoll Loop Trail, providing seating, shade, and a combination of views into the lower valley west of the project area and east toward the interior of the preserve. Additional elements, such as fencing and low walls or curbs, would be installed in select locations to help guide visitors to stay on established trails and reduce grading. All the proposed public trails and amenities are described in more detail below.

CENTRAL GATHERING AREA

A gathering area would be created as a central feature of the project area, adjacent to the main parking and staging area, and would accommodate up to 40 people. The Central Gathering Area would be approximately 4,000 square feet in size; ADA accessible; and would include interpretive signage, seating, and multiple 10–12-foot-high shade structures. A small kiosk with wayfinding signage and a 100 square foot ADA accessible restroom with a vault toilet would also be located within the Central Gathering Area. The pre-fabricated vault toilet structure would be approximately 10-12 feet high with a vent pipe extending up to 15 feet high.

A concrete retaining wall would be installed east of and directly behind the Central Gathering Area to help stabilize the existing hillside and provide a place for visitors to sit. It would extend up to 24 inches in height at its center and curve downward toward each terminus to visually blend with the surrounding environment. Revegetation with native stockpiled soils or an appropriate native seed mix would occur in the disturbed and/or undeveloped areas surrounding the Central Gathering Area to encourage recolonization of existing, native vegetation. An illustrative rendering of the Central Gathering Area is provided in Figure 2-3.

TRAILS AND OVERLOOKS

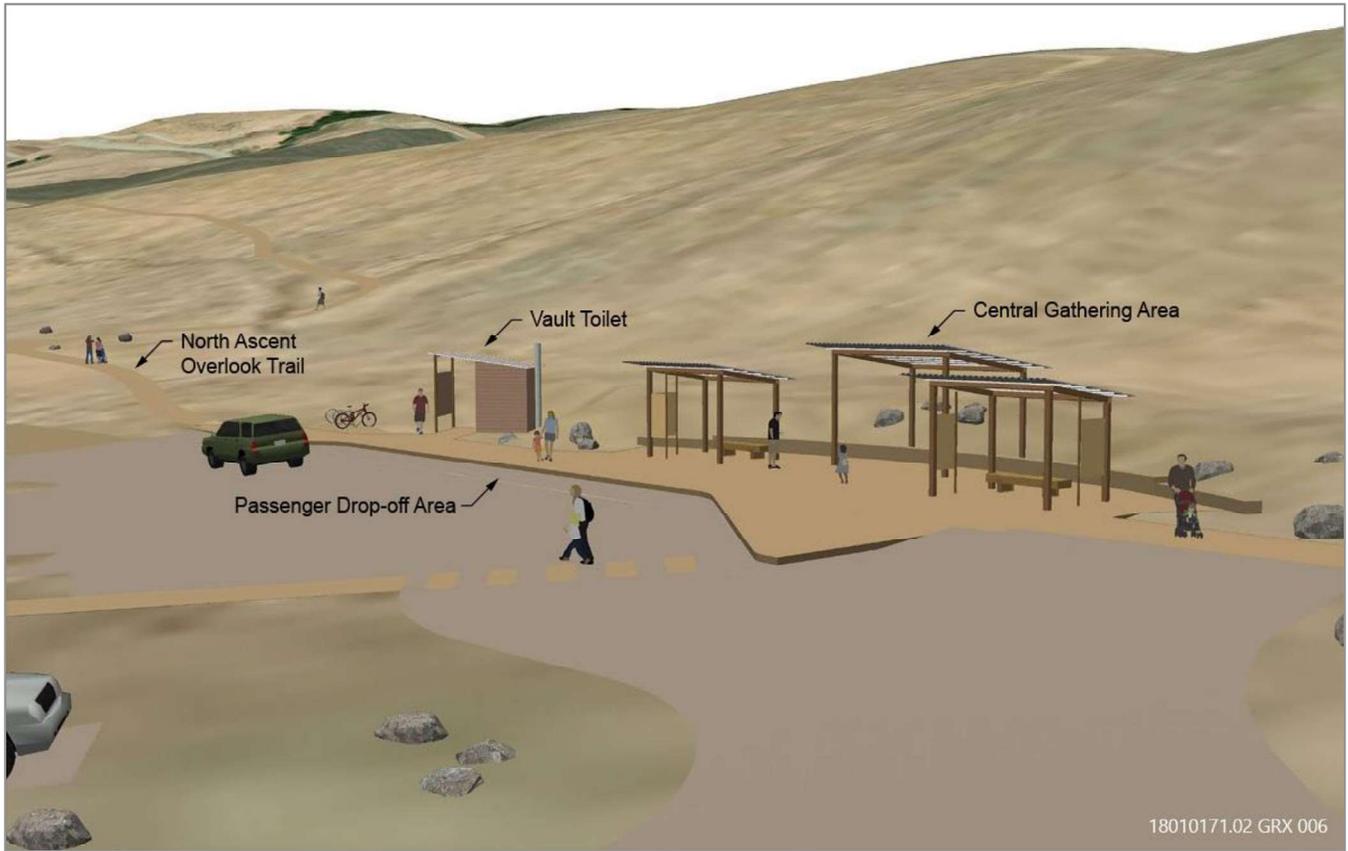
North Ascent Amenities and Trails

The North Ascent Overlook Trail would extend 250 feet from the Central Gathering Area north to an overlook that would serve as a small space for groups and visitors to meet, rest, and view the surrounding landscape. The trail leading to the overlook would be approximately 5 feet wide, the North Ascent Overlook would be approximately 1,250 square feet, and both would be designed to be ABA accessible on SDG. The North Ascent Overlook would include 10-12-foot-tall shade structures, benches, and interpretive elements (Figure 2-3).

Past the North Ascent Overlook, the North Ascent Connector Trail would be established to connect the North Ascent Overlook to a future public trail within the neighboring CRID. The trail would be approximately 900 linear feet, 5 feet wide, natural surface, and travel at a grade of approximately 10 percent. This trail segment would not be ABA accessible due to the steep terrain. Minor grading of the trail surface would be required to establish the trail.

Knoll Loop Amenities and Trails

The Knoll Loop Trail would extend approximately 1,000 feet east from the Central Gathering Area via a single alignment that diverges into a small loop. The trail would be approximately 5 feet wide and made of SDG. The segment of the trail extending from the Central Gathering Area past the East Ridge Overlook to the West Knoll Overlook would be designed to be ABA accessible. The remaining small portion of the trail (160 feet) would loop back to the main trail alignment from the West Knoll Overlook and would contain two sets of timber stairs; this segment would not be ABA accessible due to steep terrain.



Central Gathering Area



North Ascent Overlook

Figure 2-3 Rendering of the Central Gathering Area and North Ascent Overlook

A picnic area would be placed along the first segment of the ABA-accessible portion of the Knoll Loop Trail. The picnic area would be approximately 650 square feet with an SDG surface designed to also be ABA accessible. The picnic area would include two shade structures approximately 10–12 feet high and two ADA-accessible picnic tables (see Figure 2-4). The West Knoll Overlook would be atop of the highest point of the knoll, providing long-distance views of the valley below. It would be approximately 250 square feet, made of ABA-accessible SDG, and include benches and interpretive elements. A second ABA-accessible overlook, the East Ridge Overlook, would be 400 square feet and include several benches. A 2- to 3-foot-tall concrete retaining wall would be required to provide a level surface while limiting grading, providing for public safety and deterring off-trail public use.



Figure 2-4 Rendering of the Knoll Loop Trail Picnic Area

2.3.3 Stormwater Drainage and Landscaping

Because the footprint of the new trails, picnic and seating areas, and overlooks would be relatively small in relation to the local watershed and surrounded by large areas of undeveloped land, stormwater runoff would flow into the abundant surrounding natural areas and infiltrate into the ground. However, the project would require the placement of large areas of stabilizing and impervious materials in locations that are currently undeveloped, which warrants development of stormwater runoff controls. The new entrance and access road, main parking area, and Central Gathering Area together would result in up to 37,000 square feet (or 0.85 acre) of new impervious surfaces. To address the increase in paved areas and need for associated stormwater runoff controls, impervious site surfaces would be graded to direct stormwater surface flows towards "self-treating" landscape areas at the low points of the site. Self-treating landscape areas would be graded up to 4 inches deep and consist of native topsoil. After grading, they would be seeded with an approved seed mix (to be approved by the Habitat Agency or a qualified biologist) and water would naturally percolate through the soil into the ground. No stormwater retention or detention basins are proposed. These self-treating stormwater capture areas would be established in the center of the main parking area (i.e., the parking island), between the main parking area and the overflow parking area, and along the south side of the new entry/access road. The overflow parking area would be made of pervious compacted crushed rock/concrete aggregate, which would allow stormwater to percolate into the ground. The stormwater drainage features would be designed to meet the sizing and design criteria required by the National Pollutant Discharge Elimination System permit for the project.

Disturbed areas surrounding the central project features, including upslope of the Central Gathering Area, around the perimeter of the of the new access road and path, stormwater treatment areas, and around the entire perimeter of the parking and staging area would be revegetated using native stockpiled topsoil or an appropriate native seed mix following project construction.

2.3.4 Utilities

No new lighting or other features requiring utility hookups or relocations would be required for the project. The new restroom would include a vault toilet, which would be serviced up to twice a year by a third-party contractor and would not require any utility connections.

2.4 CONSTRUCTION ACTIVITIES AND TIMING

If approved, construction would be scheduled to begin in July 2022 and occur over 6 months, reaching completion in December 2022. The project would be constructed by one crew consisting of 5-10 personnel. Construction personnel, vehicles, and equipment would access the project area via the existing dirt road entry that would become the formal entry from Malech Road and all equipment staging would occur within the project footprint. Construction equipment would consist of a cement truck, pump truck, asphalt paver, excavator, loader, vibratory compactor, roller, trail dozer, skid steer, flatbed truck, and a water truck. Consistent with Section B11-154 of the Santa Clara County Code, construction would occur between 7:00 a.m. and 7:00 p.m. Monday through Saturday, and no work would occur on Sundays or legal holidays.

Construction activities would consist of initial site preparation, grading, excavation, material laydown and placement, and site cleanup. Initial site preparation would include clearing and removing vegetation and installing construction stormwater capture elements consistent with the requirements of the Stormwater Pollution Prevention Plan (SWPPP) prepared for the project. Areas where new features would be located would be graded and smoothed to prepare for material laydown, such as asphalt and concrete for roads, parking areas, and other amenities. Varying depths of excavation would be required to install support features, such as footings/piers, foundations, and retaining walls associated new public amenities; and to lay materials to develop the access road, parking and staging area, Central Gathering Area, and trails. The maximum depth of excavation would be up to 15 feet, which would be required to construct the vault toilet pit and foundation structure. Footings/foundations to support overlook structures would

typically extend 6 to 8 feet below ground. Retaining walls would typically be 2 feet wide and extend 1 foot below ground. Wayfinding signage and fencing would typically extend 1 to 2.5 feet below ground.

Materials to construct the new public amenities would be transported to the project area by haul truck or all-terrain vehicle equipped with a utility trailer, and they would be erected onsite. A total of 50-60 haul truck trips are anticipated to bring equipment and materials to the project area. Following construction, construction related equipment and debris would be removed, disturbed areas would be graded consistent with the surrounding landscape, and native topsoil/seeding would be placed to restore disturbed areas and assist with erosion control.

In total, the project would result in up to 4.66 acres of ground disturbance; however, the ultimate total footprint of permanent project features would be approximately 1.56 acres. Temporarily disturbed ground would be revegetated. No import or export of soil is planned; all grading would be balanced onsite.

2.5 OPERATIONS AND MAINTENANCE

The Authority already owns, manages, and maintains the project area. Ongoing operations and maintenance activities include weekly property checks and trash pickup; invasive species removal during the months of March, April, May, June, October, and November; whipping and mowing to maintain the existing ranch roads; and continued site monitoring to support adaptive management. As needed maintenance activities typically include fence and gate repair and minor road repair.

The project would include the establishment of several new features for public passive recreation; therefore, existing management activities within the project area would be expanded to include maintenance of these features for safe public use and protection of natural resources. Ongoing maintenance would include the activities described above that occur under existing conditions, as well as daily bathroom cleaning, trash removal, and as-needed graffiti removal. The Authority would visually inspect and maintain trails and other infrastructure on an ongoing basis and make repairs as needed, particularly following storm events.

Once operational, daily visitation would be limited by available parking in the parking and staging area. The Authority may implement a parking reservation system in the future to help manage visitation. A reservation system would allow the Authority to manage the number of reservations available to reduce, minimize, or prevent resource damage from public use, if needed.

2.6 PERMITS AND APPROVALS

Table 2-2 below discloses the potential permits and approvals that would be required to implement the project following its approval by the Authority.

Table 2-2 Potential Permits and Approvals

Permit/Approval	Agency	Purpose/Applicability
PSE Application leading to Certificate of Inclusion	Habitat Agency (approval by USFWS and CDFW also required)	A PSE application is required to request coverage under the Habitat Plan for projects that are considered covered activities occurring within the Permit Area of the Habitat Plan that could affect special-status species.
Building Permit	Santa Clara County Building Department	A building permit is required to minimize impacts associated with construction of the vault toilet structure and overlook structures greater than 120 square feet. The Authority is exempt from needing a County grading permit and will provide a letter with the Building Permit package confirming the exemption.
Fire Safety Review for Land Development	Santa Clara County Fire Marshal's Office	Fire safety review is required to ensure that for any type of emergency, the local fire department will be able to reach a site quickly and safely in any conditions and have room to operate their equipment.
Land Use and Septic System Permit	Santa Clara County Department of Environmental Health (DEH)	The necessity of a septic permit will be evaluated with the building permit submittal. If required, these permits would be issued by the DEH for the vault toilet structure. An operating permit may be required after construction.

Permit/Approval	Agency	Purpose/Applicability
Drainage Permit and C.3 Stormwater Approval	Santa Clara County Land Development Engineering Division	Projects that create more than 2,000 square feet of new impervious area require a Drainage Permit and projects that create 10,000 square feet or more impervious area require C.3 Stormwater Approval. A stormwater management would be prepared and submitted for County review and approval, along with drainage plans and other required materials.
Encroachment Permit	Sant Clara County Roads and Airports Department	Development of the entrance to the project area and any other work occurring within the public ROW would require an encroachment permit.
Section 402 NPDES Construction General Permit	State Water Resources Control Board	Construction activities that disturb 1 acre or more of land must comply with the NPDES Construction General Permit. Site owners must notify the state, prepare and implement a SWPPP, and monitor the effectiveness of the plan.

Notes: CDFW = California Department of Fish and Wildlife; DEH = Santa Clara County Department of Environmental Health; NPDES = National Pollutant Discharge Elimination System; PSE = participating special entity; ROW = right-of-way; SDG = stabilized decomposed granite; SFBRWQCB = San Francisco Bay Regional Water Quality Control Board; SWPPP = Stormwater Pollution Prevention Plan; SWRCB = State Water Resources Control Board; USFWS = U.S. Fish and Wildlife Service.

Source: SANDIS 2020

2.7 ENVIRONMENTAL PROTECTION MEASURES

The environmental protection measures (EPMs) listed below would be incorporated into the project as part of its proposed design and operation, i.e., as built-in elements of the proposed project description. The EPMs are intended to avoid and minimize environmental impacts and comply with applicable laws and regulations. Although they are not mitigation, as defined by CEQA, because they are elements of project design and operation included in the project description, the EPMs will be incorporated into the mitigation monitoring and reporting program for the project and would be implemented and enforced in the same way as mitigation measures consistent with Section 15126.4 of the State CEQA Guidelines. For the purposes of these measures, references to the "Authority" also encompass any contractors hired to construct the project.

2.7.1 Aesthetics and Visual Resource Environmental Protection Measures

- ▶ EPM AES-1 Minimize the Visibility of Construction: The Authority will stage and store construction-related materials and equipment to minimize its visibility from public viewpoints.

2.7.2 Air Quality Environmental Protection Measures

- ▶ EPM AQ-1 Minimize Air Pollutant Emissions: The Authority will implement applicable measures from the Bay Area Air Quality Management District's *Basic Construction Mitigation Measures* for project related construction activities, including:
 - 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 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.
 - Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485

of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Authority regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number will also be visible to ensure compliance with applicable regulations.

2.7.3 Biological Resource Environmental Protection Measures

- ▶ EPM BIO-1 Implement Applicable Habitat Plan Conditions on Covered Activities: The Authority will implement applicable Habitat Plan Conditions on Covered Activities to avoid and minimize impacts to sensitive biological resources. In addition, the Authority will implement Habitat Plan Condition 1, "Avoid Direct Impacts on Legally Protected Plant and Wildlife Species," to fully protected wildlife species, species protected by the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act that could be negatively affected by the project.
- ▶ EPM BIO-2 Pre-Construction Surveys and Flagging for Special-Status Plants: The project area will be surveyed prior to ground disturbance to determine the potential presence of special-status plants. The survey will encompass the area within 50 feet of project features. Special-status plants within the survey area will be flagged and avoided.
- ▶ EPM BIO-3 Pre-construction Surveys and Flagging for Monarch Butterfly Host Plants: The project area will be surveyed prior to ground disturbance to determine the potential presence of the monarch butterfly host plant milkweed (*Asclepias* spp.). Milkweed plants within the project area will be mapped and/or flagged and avoided.

2.7.4 Geology, Soils, and Water Quality Environmental Protection Measures

- ▶ EPM GEO-1 Suspend Disturbance During and After Heavy Precipitation: Ground-disturbing activities will not occur when soils are saturated as defined in 14 CCR 895.1, or within one week following an inch or more of rain, unless the ground is consistently firm and can support the weight of machinery without creating ruts.
- ▶ EPM GEO-2 Implement Standard Construction Stormwater Runoff and Erosion Control BMPs: The Authority will implement BMPs consistent with the requirements of the SWPPP for the project prior to ground disturbing construction activities, including but not limited to the use of perimeter siltation fencing and wattles to prevent offsite erosion and sedimentation and use of erosion control mats to prevent exposed soils from being displaced by rain or wind and entering nearby waterbodies.

2.7.5 Hazardous Material and Public Health and Safety Environmental Protection Measures

- ▶ EPM HAZ-1 Inspect Equipment for Leaks: Before the start of construction activities, the Authority will inspect equipment for leaks and conduct a visual inspection everyday thereafter until equipment is removed from the project area. Equipment found leaking will be promptly removed from the site.
- ▶ EPM HAZ-2 Prohibit Smoking: Consistent with Authority regulations, smoking will be prohibited within the project area at all times to avoid accidental wildfire ignition.
- ▶ EPM HAZ-3 Require Spark Arrestors: and Fire Extinguishers: The Authority will require mechanized hand tools to have federal- or state-approved spark arrestors and each construction crew to carry at least one fire extinguisher.

2.8 HABITAT PLAN CONDITIONS ON COVERED ACTIVITIES

In accordance with PSE requirements, the Authority would incorporate and adhere to applicable Habitat Plan Conditions, as found in Part IV of the Application for PSEs and Chapter 6 of the Habitat Plan. The Conditions that are anticipated to be applicable to the project are included in Table 2-3 below.

Table 2-3 Applicable Habitat Plan Conditions on Covered Activities

Habitat Plan Condition	Summary of Requirements
Condition 1: Avoid direct impacts on legally protected plant and wildlife species	Direct impacts to one federally endangered plant species, multiple fully protected wildlife species, species protected by the MBTA, and species protected by the Bald and Golden Eagle Protection Act, must be avoided consistent with applicable legal protections. Fully protected special status wildlife and birds protected by the MBTA or Bald and Golden Eagle Protection Act with a potential to occur in the project area include golden eagle, white-tailed kite, western burrowing owl, Swainson's Hawk, loggerhead shrike, and grasshopper sparrow. Impacts to western burrowing owl are covered by the Habitat Plan and the Authority would implement Habitat Plan Condition 15 to avoid and minimize impacts to this species. To avoid and minimize direct impacts to the protected species not covered by the Habitat Plan that could be negatively impacted by the project, the Authority would implement EPMs as described above in Section 2.7.
Condition 3: Maintain hydrologic conditions and protect water quality	This condition applies to all projects. Several measures are included to protect water quality (Table 6-2 in the Habitat Plan) from design through post-construction. Applicable BMPs include, but are not limited to, preventing the accidental release of chemicals, fuels, and lubricants and removing any pollutants from surface runoff prior to reaching local streams; minimizing site erosion and sedimentation during construction; and washing vehicles only at approved sites outside of a project area.
Condition 7: Rural development	This condition applies to all private and public projects in rural areas (outside the urban service areas of cities). Several measures are included to minimize impacts from rural development projects on covered species and sensitive land cover types covered under the Plan. Applicable measures include, but are not limited to use of existing roads for access and disturbed areas for staging; runoff from impermeable surfaces must be directed to natural or landscaped areas; blend grading into the existing landform as much as possible; at project sites that are adjacent to any drainage, natural or human-made, stabilize exposed soils to prevent erosion and sedimentation; and revegetation of all temporarily disturbed soils with native plants and/or grasses, or sterile, nonnative species suitable for the soil conditions upon completion of construction.
Condition 8: Avoidance and minimization measures for rural road maintenance	This condition applies to maintenance of unpaved roads including those that serve primarily as recreational trails. This condition includes measures to minimize ground disturbance to the smallest area feasible, use of silt fencing or other sediment control devices when performing maintenance activities that disturb soil within the riparian setback zone as defined by the Habitat Plan, avoiding stockpiling of materials adjacent to stream banks, cleaning of equipment to avoid spread of noxious weeds, and other similar measures.
Condition 10: Fuel buffer	This condition applies to all public and private covered activities in the Diablo Range or Santa Cruz Mountains, or new structures built in grassland, chaparral, oak woodland, or conifer woodland land cover types. This condition also applies to structures built in areas designated by the County as a very high fire hazard severity zone pursuant to Section 51179 of the California Government Code. This condition requires that all structures covered under the Habitat Plan be maintained consistent with California Government Code Section 51182 and Public Resources Code 4291 regarding defensible space (any person who owns, leases, controls, operates or maintains a building or structure in, upon, or adjoining any land covered with flammable vegetation shall at all times maintain 100 feet of defensible space).
Condition 13: Serpentine and associated covered species avoidance and minimization	Applies in cases where serpentine areas are part of a project site. The project area and construction staging area must be located to avoid or minimize impacts to serpentine. The project must be designed to preserve large patches of serpentine and limit impacts to the smallest patches feasible. Where mapped serpentine cannot be avoided, minimization measures must be implemented, such as conducting surveys of the serpentine vegetation to inventory for covered species and evaluate habitat quality for covered species and locating the project footprint as far from the covered species or the highest-quality serpentine habitat as is feasible.

Habitat Plan Condition	Summary of Requirements
Condition 15: Western burrowing owl	Applies to projects that could adversely affect western burrowing owl. Requires habitat surveys and preconstruction surveys for burrowing owl burrows within 250 feet of construction activity, as well as specific avoidance measures for the breeding and non-breeding season in the event that active burrow nesting sites are present on site.
Condition 20: Avoid and minimize impacts to covered plant occurrences	To ensure that plants are adequately conserved relative to impacts of covered activities, covered plant surveys are required to identify occurrences of covered plants that may be affected by covered activities. Covered plant surveys are required in specific land cover types and habitats, including serpentine bunchgrass grassland, which is known to occur within the project area, and in suitable habitat with a 0.25-mile radius of a known occurrence of a covered plant. If covered plant occurrences are located on a project site, specific construction-period avoidance measures and long-term management and monitoring is required.

Notes: CDFW = California Department of Fish and Wildlife; PSE = participating special entity; SDG = stabilized decomposed granite; SFBRWQCB = San Francisco Bay Regional Water Quality Control Board; SWPPP = Stormwater Pollution Prevention Plan; SWRCB = State Water Resources Control Board; USFWS = U.S. Fish and Wildlife Service.

Source: Santa Clara County et al. 2012a

In addition to the Habitat Plan Conditions on Covered Activities, covered activities may also require payment of mitigation fees, land in lieu of mitigation fees, or habitat restoration or creation in lieu of wetland fees (Santa Clara County et al. 2012a). The Authority intends to exercise the land-in-lieu option to mitigate impacts to serpentine habitat. The Authority will convey a conservation easement to the Habitat Agency over approximately 46 acres of serpentine bunchgrass grassland habitat within the Authority's Coyote Valley Open Space Preserve. If a land-in-lieu conservation easement cannot be agreed upon to cover serpentine bunchgrass grassland habitat impacts, the Authority may alternatively pay Habitat Agency land cover disturbance fees for a portion or all of the mitigation.

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3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1. Project Title: Malech Road Public Access Improvement Project
2. Lead Agency Name and Address: Santa Clara Valley Open Space Authority
33 Las Colinas Lane, San Jose, CA 95119
3. Contact Person and Phone Number: Lucas Shellhammer, (408) 224-7476
4. Project Location: 9611 Malech Road, unincorporated Santa Clara County
5. Project Sponsor's Name and Address: N/A
6. General Plan Designation: Hillside Resource Conservation Area
7. Zoning: Hillside-Design Review Combining District (HS-d1)
8. Description of Project: Refer to Chapter 2, "Project Description."
9. Surrounding Land Uses and Setting: Refer to Section 2.2, "Project Location and Setting."
10. Other public agencies whose approval is required: Refer to Table 2-2 in Chapter 2, "Project Description."
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In accordance with Assembly Bill (AB) 52 (Statutes of 2014), Native American tribal contacts in Santa Clara County were sent letters via certified mail on October 13, 2020, and a follow-up email was sent on February 1, 2021. The Authority sent letters to the following tribal contacts: Valentin Lopez, chairperson, Amah Mutsun Tribal Band; Irenne Zwierlein, chairperson, Amah Mutsun Tribal Band of Mission San Juan Bautista; Ann Marie Sayers, chairperson, Indian Canyon Mutsun Band of Costanoan; Charlene Nijmeh, chairperson, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area; Katherine Erolinda Perez, chairperson, North Valley Yokuts Tribe; and Andrew Galvan, Ohlone Indian Tribe. Responses were received from the Amah Mutsun Tribal Band of Mission San Juan Bautista and the Muwekma Ohlone Tribe of the San Francisco Bay Area. The Authority integrated recommendations from tribes that were received during AB 52 consultation into mitigation measures to avoid impacts to inadvertent discoveries of tribal cultural resources (TCRs). Refer to Section 3.18, "Tribal Cultural Resources" for more details regarding tribal consultation and associated mitigation measures.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology / Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards / Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |
| | <input type="checkbox"/> None | <input checked="" type="checkbox"/> None with Mitigation Incorporated |

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

DocuSigned by:

59A4B3D38949491...

4/18/2022

Signature

Date

Lucas Shellhammer

Senior Open Space Planner

Printed Name

Title

Santa Clara Valley Open Space Authority

Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1 Environmental Setting

VISUAL CHARACTER AND QUALITY

The criteria for describing visual character and quality are vividness, intactness, and unity:

- ▶ Vividness: visual power or memorability of landscape components as they combine in striking or distinctive visual patterns.
- ▶ Intactness: visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes, as well as in natural settings.
- ▶ Unity: visual coherence and compositional harmony of the landscape considered as a whole.

The project area is within the 29-acre Malech property, which is surrounded by the larger undeveloped Coyote Ridge Open Space Preserve (CRID) and adjacent to the Diablo Range foothills. The project area is visually intact and consists of rolling hills covered in grasslands, with serpentine outcrops creating unique variation in the landscape by breaking up the otherwise visually consistent and dominant grasslands. The south-southeastern portion of the Malech property is bisected by a tributary to Coyote Creek with riparian oak woodlands present along the creek channel. The unique combination of grasslands and serpentine outcrops contributes to a vivid landscape with distinctive visual patterns. Views along the southern edge of the project area are disrupted by an existing Pacific Gas and Electric (PG&E) power line, along with associated towers and access roads which affects the visual unity of the landscape. Overall, because the project area is within and surrounded by a natural, undeveloped landscape with few human intrusions, vividness, intactness, and unity are generally high; therefore, visual quality in the project area is also high.

VIEWER SENSITIVITY AND VIEWER EXPOSURE

Viewer sensitivity is a measure of public expectation or concern for changes to scenic quality. Number of viewers from publicly accessible viewpoints, viewer activity, view duration, distance from seen objects (i.e., foreground versus background), and special planning designations, such as zoning and general plan designations, are used to characterize viewer sensitivity. Viewers of the project area primarily include recreationists using the Malech property or other nearby trails and motorists using nearby roadways.

Recreationists access the project area through docent-guided visits and seasonal "Open Access Days." The number of recreational viewers is currently limited by Authority programming. However, those who visit the site do so in part for the natural setting and high scenic quality of the project area, the surrounding area, and of the Santa Clara Valley. These viewers, while limited in the amount of time spent in the project area (i.e., low to moderate viewer exposure), have high viewer sensitivity because the recreational activities they engage in are largely dependent on the scenic quality of the landscape.

Motorists view the project area from nearby roadways and highways including U.S. Highway 101 (US 101) and Malech Road. US 101 is approximately 0.25-mile west of the project area, and Malech Road is directly adjacent to the project area. Motorists on either of these roadways would experience clear views of the project area, however, views by passengers would be momentary at typical vehicle speeds, and motorists would generally be focused on the road while driving, especially on US 101, due to the high driving speeds. Overall viewer exposure and sensitivity for motorists would be low to moderate.

Table 3.1-1 lists viewer groups that would be exposed to the project's visual changes; defines their geographic proximity to the project; qualitatively estimates the volume of viewers, duration of views, and frequency of views; and identifies the viewer sensitivity of each general viewer group. Visual sensitivity associated with views in a particular area is the combination of viewer sensitivity and viewer exposure.

Table 3.1-1 Sensitive Viewer Groups Near the Project

Viewer Group	Viewer Exposure			Viewer Sensitivity	
	Area	Usage Volume	Duration of Views		Frequency of Views
Recreationists	Project area and adjacent CRID	Low	High	Moderate	High
Motorists and vehicle passengers	Nearby roadways and highways	Moderate	Low	Moderate	Low to Moderate

SCENIC HIGHWAYS

A highway may be designated as "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view. The California Department of Transportation (Caltrans) maintains a list of eligible highways and officially designated scenic highways in California. No officially designated state scenic highways are within the vicinity of the project area (Caltrans 2015, Caltrans 2018). However, within the Santa Clara County General Plan, Metcalf Road, approximately 1.6 miles north of the project area, is designated as a "scenic rural route" and Bailey Avenue, approximately 0.2-mile west of the project area, is designated as a "local road needing scenic protection (Santa Clara County 2008).

ZONING GOVERNING SCENIC RESOURCES

The Santa Clara Valley Viewshed encompasses the hillsides and mountainous lands generally visible from the main Santa Clara Valley floors, for both the north and south valley areas, which includes the project area (Santa Clara County 2005). The project area is within the Santa Clara Viewshed and is zoned as HS-d1 (Santa Clara County 2003; Santa Clara County 2016b). The -d1 portion of the zoning designation relates to scenic resources. This zoning designation is a combining district that has a specific design review procedure intended to conserve the scenic

attributes of hillside lands by minimizing the visual impacts of structures and grading on the natural topography and landscape, using a combination of supplemental development standards, design guidelines, design review, and use of process incentives for smaller and less visible projects.

3.1.2 Discussion

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

Less than significant. A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. The project area is located within the Diablo Foothill range that provides expansive views of the Santa Clara Valley below. In addition, long range views of the project area may be visible from other scenic vistas in and around Santa Clara Valley.

Construction could result in temporary visual effects to surrounding scenic vistas. Construction equipment, including a cement truck, pump truck, asphalt paver, and excavator, along with other construction materials, could degrade the surrounding visual character and quality by reducing visual intactness and unity. However, construction equipment would only be present within the project area temporarily, for an approximately 6-month period, currently proposed to be between July 2022 and December 2022. The temporary visual impacts from construction would be contained to the 29-acre Malech property and long-range views from scenic vistas would be expansive and not dominated by construction equipment in the project area. The Authority would also incorporate Environmental Protection Measure (EPM) AES-1 into the project to minimize the visual impact of construction. Per EPM AES-1, all construction-related material and equipment would be staged and stored in areas to minimize their visibility from public views.

Long-term changes to the character of scenic vistas would occur from the permanent public features that would be constructed, such as the central gathering area, overlooks, and trails. As described in Chapter 2, "Project Description," project features would be designed to visually blend with the surrounding natural environment to limit their prominence and contrast in the broad hillside landscape, which would help maintain the high-level of visual intactness and unity of the project area. Architectural materials including weathered steel, wood, and native stone would be situated to mimic the surrounding rolling hills and agrarian landscape. The shade structures would be constructed of simple, weathering rectangular steel modules. When viewed from a distance, the weathered steel would visually dissolve into the landscape and resemble rustic agricultural buildings that are commonplace in the vicinity of the project area. Furthermore, existing natural features, such as the serpentine rock outcrops, would remain in place and maintain the high-level of scenic vividness created that add visual interest to the landscape (Authority 2020). Asphalt and concrete would be limited to the new entrance and access road, parking and staging area, central gathering area, and retaining walls. Overall, the project features would increase viewer access to views of the Santa Clara Valley, which would be beneficial for appreciation of the region's scenic quality.

Because visual effects of construction would be temporary and EPM AES-1 would be incorporated into the project and implemented during construction to minimize the visual impacts of construction-related materials and equipment, and the location and materials used for the project components were chosen to limit their visibility and change to scenic quality of the landscape, the project would have a less-than-significant impact on scenic vistas.

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

Less than significant. No designated state scenic highways are within the vicinity of the project area (Caltrans 2015, Caltrans 2019). However, within the Santa Clara County General Plan, Metcalf Road, approximately 1.6 miles north of the project area, is designated as a "scenic rural route" and Bailey Avenue, approximately 0.2-mile west of the project area, is designated as a "local road needing scenic protection (Santa Clara County 2008). Although the project would not damage any scenic resources within these roadways, motorists using these roadways may have intermittent views of the project area. The project involves constructing new public access features, such as picnic areas, overlooks, and trails. Although some grading and excavation would be required to install project components, the project would not remove any trees, or otherwise damage scenic resources. In addition, as discussed above under criterion a), the

project components have been designed to visually blend with the surrounding natural environment and any rocks outcroppings that are required to be moved to construct the parking and staging area would be repositioned within the landscape to maintain the high-level of visual vividness. Therefore, no scenic resources within a state scenic highway would be damaged and the impact would be less than significant.

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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than significant. Construction activities would temporarily reduce the vividness, unity, and intactness of the existing visual character by introducing encroaching human elements into the natural landscape for a finite period of time. Construction equipment and materials would be present in the project area and visible to sensitive viewer groups, including recreationists and motorists. However, as described above in criterion a), visual impacts from construction would be temporary and limited to the 6-month construction period. All construction equipment and materials would be confined to the Malech Road property, which is 29 acres of land within the expansive Diablo Range foothill range. The intactness and unity of the surrounding area would remain similar to existing conditions given the size of the project area compared to the surrounding natural landscape. Motorists' and recreationists' views of the larger Diablo Range foothill range would remain similar to existing conditions and the visual impacts from construction on the Malech Road property would be minimal. EPM AES-1 would also be incorporated into the project, and the Authority would stage and store all construction-related material and equipment in areas to minimize public views.

The project would construct several permanent features to support the public use of the project area including the central gathering area, trails, and overlooks. These project features could result in long-term visual impacts to the visual character and quality of the project area and its surroundings. However, as described above in criterion a), project features would visually blend with the existing visual character due to their placement and architectural materials, including weathered steel, wood, and native stone, limiting impacts to the visual intactness and unity of the project area. The project would also allow for greater access to the area, giving the public more opportunities to enjoy the high-quality natural views of the project area and Santa Clara Valley.

The visual impact from construction would be temporary and limited with implementation of EPM AES-1, and the long-term visual impacts from permanent project features would be minor due to their design and placement. The project would have a less-than-significant impact on the quality of public views of the site and its surroundings.

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

Less than significant. Construction of the project would take 6 months to complete, beginning in July 2022 and ending in December 2022. Construction activities would only occur between the hours of 7:00 a.m. and 7:00 p.m. limiting the need for exterior lighting. During the shorter days of the late fall and winter months, exterior lighting may be required, however, any construction lighting would be temporary and pointed toward construction activities. Construction equipment and vehicles may create glare that could adversely affect daytime views of the project area. However, glare created from construction equipment would be temporary and intermittent, and viewers would be limited mostly to motorists with low to moderate viewer sensitivity.

No new lighting would be installed for operation of the project; therefore, the project would not create a new, permanent source of light. The proposed architectural materials that would be used for the shade structures, gathering areas, restrooms, and other project elements would not cause glare. While weathered steel would be used for the roofs of the shade structures the material would not cause glare given its rough texture and dark color. Other architectural materials, such as wood and native stone, were chosen to visually blend in with the surrounding natural environment and would not cause glare. For these reasons, the project would have a less-than-significant impact related to light and glare.

3.2 AGRICULTURE AND FOREST RESOURCES

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

3.2.1 Environmental Setting

FARMLAND

The project area is mapped by the California Department of Conservation as Grazing Land (DOC 2016). Cattle grazing has been used as a management strategy within the project vicinity for over 200 years. The Authority manages cattle grazing within the project area in accordance with the Coyote Ridge Open Space Preserve Management and Monitoring Plan (Habitat Agency 2019). The project area is not under a Williamson Act contract (Santa Clara County n.d. a.).

FOREST LAND AND TIMBERLAND

"Forest land" is defined in Public Resources Code (PRC) Section 12220(g) as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Forest land on the Malech property is limited to the riparian oak woodlands present along the channel of the tributary to Coyote Creek. These riparian oak woodlands are outside of the project area, and no forest land is present within the project area.

"Timberland" is defined in PRC Section 4526 as land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. The Authority does not carry out timberland production activities on the project area or any of their managed lands, and no timberlands are located within the project area (Santa Clara County 2016a).

3.2.2 Discussion

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. The project area is currently used for cattle grazing, and the area is mapped by the California Department of Conservation as Grazing Land (DOC 2016). No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is present on the project area; therefore, the project would not convert these designated agricultural land types to non-agricultural use. Therefore, the project would have no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

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

No impact. The project area is not under a Williamson Act Contract; therefore, the project would not conflict with an existing Williamson Act. The Santa Clara County General Plan land use designation for the project area is Hillside Resource Conservation Area, and the area is zoned as HS-d1 (Santa Clara County 2016a, Santa Clara County 2016b). Neither of these designations are meant to preserve agricultural use. The project would therefore have no impact related to conflicts with existing zoning for agricultural use or a Williamson Act Contract.

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

No impact. No forestland or timberland is present on the project area. The project would therefore not conflict with existing zoning or cause rezoning of forest land, timberland, or timberland zoned as Timberland Production. No impact would occur.

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

No impact. No forestland is present on the project area; the project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

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?

Less than significant. As discussed above under criterion a), the project area is classified as Grazing Land by the Department of Conservation (DOC 2016). The Authority would continue to manage grazing during project operation and would implement several management approaches to maintain grazing management in tandem with public access, as detailed in the Coyote Ridge Open Space Preserve Management and Monitoring Plan (Habitat Agency 2019). Grazing infrastructure including troughs, corrals, and supplement feeders would be located away from recreational facilities, including those that would be developed for the project. Information about grazing management and guidelines for public safety around cattle would also be provided to the public on a variety of media, including interpretive signs, kiosks, and the Authority's website. The project would not substantially interrupt existing grazing operations, therefore, the impact to grazing land would be less than significant.

3.3 AIR QUALITY

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

3.3.1 Environmental Setting

The project area is located in the San Francisco Bay Area Air Basin (SFBAAB) within unincorporated Santa Clara County. The SFBAAB is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

CLIMATE AND TOPOGRAPHY

The climate of the SFBAAB is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean. High-pressure systems are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, resulting in subsidence inversions. During summer and fall, locally generated emissions can, under the restraining influences of topography and subsidence inversions, cause conditions that are conducive to the formation of photochemical pollutants, such as ozone and secondary particulates (e.g., nitrates and sulfates). In the winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the area (BAAQMD 2017).

Santa Clara County is bound by the San Francisco Bay to the north and by mountains to the east, south, and west. Temperatures are warm on summer days and cool on summer nights, and winter temperatures are fairly mild. At the northern end of the valley, mean maximum temperatures are in the low-80s during the summer and high 50s in the winter, and mean minimum temperatures range from the high 50s in the summer to the low 40s in the winter (degrees Fahrenheit [°F]). Further inland, where the moderating effect of the San Francisco Bay is not as strong, temperature extremes are greater. Winds in the valley are greatly influenced by the terrain, resulting in a prevailing flow that roughly parallels the valley's northwest-southeast axis. A north-northwesterly sea breeze flows through the valley during the afternoon and early evening, and a light south-southeasterly drainage flow occurs during the late evening and early morning. In the summer, the southern end of the valley sometimes becomes a "convergence zone," when air flowing from the Monterey Bay gets channeled northward into the southern end of the valley and

meets with the prevailing north-northwesterly winds. Wind speeds are greatest in the spring and summer and weakest in the fall and winter. Nighttime and early morning hours frequently have calm winds in all seasons, while summer afternoons and evenings are quite breezy. Strong winds are rare, associated mostly with the occasional winter storm (BAAQMD 2017)

The local meteorology of the project area and surrounding area is represented by measurements recorded at the Western Regional Climate Center Los Gatos station. Normal annual precipitation is approximately 26.91 inches. January temperatures range from a normal minimum of 38.6°F to a normal maximum of 56.9°F. July temperatures range from a normal minimum of 53.2°F to a normal maximum of 84.9°F (WRCC 2016). The prevailing wind direction is from the north (WRCC 2002).

AMBIENT AIR QUALITY

Air Pollutants

As required by the federal Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) has identified National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants (CAPs): ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable and fine particulate matter (PM₁₀ and PM_{2.5}, which are particulate matter (PM) that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively), and lead. The state of California has also established California Ambient Air Quality Standards (CAAQS) for these six pollutants as well as sulfates, hydrogen sulfide (H₂S), vinyl chloride, and visibility reducing particles. NAAQS and CAAQS were established to protect the public from adverse health impacts caused by exposure to air pollution. A brief description of the CAPs and their effects on public health is provided in Table 3.3-1.

Table 3.3-1 Air Pollutants

Pollutant	Sources	Effects
Ozone	Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG), also sometimes referred to as volatile organic compounds (VOCs) by some regulating agencies) and nitrogen oxides (NO _x). The main sources of ROG and NO _x , often referred to as ozone precursors, are products of combustion processes (including motor vehicle engines) and the evaporation of solvents, paints, and fuels.	Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.
Carbon monoxide	CO is usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicle engines; the highest emissions occur during low travel speeds, stop-and-go driving, cold starts, and hard acceleration.	Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue; impair central nervous system function; and induce angina (chest pain) in persons with serious heart disease. Very high levels of CO can be fatal.
Particulate matter	Some sources of PM, such as wood burning in fireplaces, demolition, and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect.	Scientific studies have suggested links between fine PM and numerous health problems, including asthma, bronchitis, and acute and chronic respiratory symptoms, such as shortness of breath and painful breathing. Recent studies have shown an association between morbidity and mortality and daily concentrations of PM in the air.
Nitrogen dioxide	NO ₂ is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO ₂ .	Aside from its contribution to ozone formation, NO ₂ can increase the risk of acute and chronic respiratory disease and reduce visibility.
Sulfur dioxide	SO ₂ is a combustion product of sulfur or sulfur-containing fuels such as coal and diesel. SO ₂ is also a precursor to the formation of PM, atmospheric sulfate, and atmospheric sulfuric acid formation that could precipitate downwind as acid rain.	Exposure can lead to the irritation of upper respiratory tract and heighten asthma symptoms.

Pollutant	Sources	Effects
Lead	Leaded gasoline, lead-based paint, smelters (metal refineries), and the manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere, with lead levels in the air decreasing substantially since leaded gasoline was eliminated in the United States.	Lead has a range of adverse neurotoxic health effects.

Notes: CO = carbon monoxide; NO₂ = nitrogen dioxide; NO_x = oxides of nitrogen; PM = particulate matter; ROG = reactive organic gases; SO₂ = sulfur dioxide; VOCs = volatile organic compounds.

Sources: EPA 2018

Attainment Area Designations

The CAA and the California Clean Air Act (CCAA) require all areas of California to be classified as attainment, non-attainment, or unclassified as to their status with regard to the NAAQS and CAAQS. Under the CAA and the CCAA, the California Air Resources Board (CARB) is to designate portions of the State based on air quality monitoring data. Attainment statuses for Santa Clara County are contained in Table 3.3-2. Santa Clara County is designated as nonattainment for ozone, PM₁₀, and PM_{2.5} with respect to the CAAQS and ozone and PM_{2.5} with respect to the NAAQS.

Table 3.3-2 Attainment Status Designations for Santa Clara County

Pollutant	NAAQS	CAAQS
Ozone	Attainment (1-hour) ¹	Nonattainment (1-hour) Classification ²
	Nonattainment (8-hour) ³ Classification – Marginal	Nonattainment (8-hour)
	Nonattainment (8-hour) ³ Classification – Marginal	Nonattainment (24-hour)
Respirable particulate matter (PM ₁₀)	Attainment (24-hour)	Nonattainment (24-hour)
	Attainment (24-hour)	Nonattainment (Annual)
Fine particulate matter (PM _{2.5})	Nonattainment (24-hour)	(No State Standard for 24-Hour)
	Nonattainment (Annual)	Nonattainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO ₂)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO ₂) ⁴	(Attainment) (1-Hour)	Attainment (1-hour)
	Attainment (3-month rolling avg.)	Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.)	Attainment (30-day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)
Vinyl Chloride		Unclassified (24-hour)

Notes: CAAQS = California ambient air quality standards; CO = carbon monoxide; NAAQS = national ambient air quality standards; NO₂ = nitrogen dioxide; NO_x = oxides of nitrogen; PM = particulate matter; ROG = reactive organic gases; SO₂ = sulfur dioxide; VOCs = volatile organic compounds.

¹ Air Quality meets federal 1-hour Ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply.

² Per Health and Safety Code Section 40921.5(c), the classification is based on 1989–1991 data, and therefore does not change.

³ 2015 Standard.

⁴ 2010 Standard.

Source: EPA 2019; CARB 2018

Air Quality Planning

The BAAQMD is responsible for assuring that the federal and state ambient air quality standards are attained and maintained in the Bay Area. 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, conducting public education campaigns, as well as many other activities.

The BAAQMD's significance thresholds in the May 2017 CEQA Air Quality Guidelines for project operations within the SFBAAB are the most appropriate thresholds for use in determining air quality impacts of the proposed project. Table 3.3-3 presents the significance thresholds for construction and operational-related CAPs and precursor emissions used for the purposes of this analysis. These thresholds were developed by BAAQMD to achieve and maintain the NAAQS and CAAQS, which are standards intended to protect public health. The thresholds represent the levels at which a project's individual emissions of CAPs or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing nonattainment air quality conditions.

Table 3.3-3 BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Average Daily Emissions (lb/day)	Operational Average Daily Emissions (lb/day)	Operational Maximum Annual Emissions (tpy)
Reactive Organic Compounds (ROG)	54	54	10
Oxides of Nitrogen (NO _x)	54	54	10
Respirable Particulate Matter (PM ₁₀)	82 (Exhaust)	82	15
Fine Particulate Matter (PM _{2.5})	54 (Exhaust)	54	10

Notes: tpy = tons per year; lb/day = pounds per day. PM₁₀ and PM_{2.5} fugitive dust emissions require implementation of best management practices (BMPs).

Source: BAAQMD 2017

TOXIC AIR CONTAMINANTS

According to the *2013 Edition of the California Almanac of Emissions and Air Quality*, health risks from toxic air contaminants (TACs) can largely be attributed to relatively few compounds, the most important being diesel PM (CARB 2013:5-2 to 5-4). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM₁₀ database, ambient PM₁₀ monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene. Overall, levels of most TACs, except para-dichlorobenzene and formaldehyde, have decreased since 1990 (CARB 2013).

ODORS

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

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants.

The closest sensitive receptors to the project area are a private residence off Malech Road approximately 850 feet from the project boundary and the Charter School of Morgan Hill approximately 0.50 mile from the project boundary.

3.3.2 Discussion

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

Less Than Significant. The emission inventories used to develop a region's air quality attainment plans are based primarily on projected population growth and vehicle miles traveled (VMT) for the region that are determined, in part, based on the planned growth identified in regional and community plans. Therefore, projects that would result in increases in population or employment growth beyond that projected in regional or community plans could result in increases in VMT above that planned in the attainment plan, further resulting in mobile-source emissions that could conflict with a region's air quality planning efforts. Increases in VMT beyond that projected in area plans generally would have a significant adverse incremental effect on the region's ability to attain or maintain the CAAQS and NAAQS.

The project would not result in any new long-term employment opportunities or new housing, and it would not change the amount of development projected in the SFBAAB. Therefore, the proposed project would be consistent with the population growth and VMT projections used in BAAQMD's 2017 Clean Air Plan. Also, the project would not result in any new stationary sources of emissions. Thus, implementation of the project would not conflict with or obstruct implementation of the BAAQMD 2017 Clean Air Plan and the impact would be less than significant.

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. Under a project level analysis, the BAAQMD CEQA Guidelines identifies whether a project would violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation through average pounds per day significance thresholds. The project level thresholds were developed to bring the SFBAAB into attainment for the NAAQS and CAAQS and to be protective of human health. Project generated construction and operational emissions, in comparison to BAAQMD thresholds, are presented below.

Construction Emissions of Criteria Pollutants and Precursor Emissions

Project construction would involve site preparation, grading, excavation, material laydown and placement, and site cleanup activities that have the potential to generate air pollutant emissions. Table 3.3-4 summarizes the estimated average daily emissions of ROG, NO_x, PM₁₀ and PM_{2.5} during project construction. As shown in Table 3.3-4, project construction emissions for all criteria pollutants would be below the BAAQMD average daily thresholds of significance and therefore impacts would be less than significant and would not result in adverse health impacts.

Table 3.3-4 Summary of Average Daily Pounds Per Day Construction Emissions of Criteria Pollutants and Precursor Emissions

Emissions Source	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	SO _x
2022	1	13	10	1	1	<1
2023	1	<1	<1	<1	<1	<1
Average Daily Emissions	1	12	9	1	1	<1
BAAQMD Emissions Threshold	54	54	N/A	82 ¹	54 ¹	N/A

Notes: ROG = Reactive Organic Gases; NO_x = Oxides of Nitrogen; PM₁₀ = Particulate matter 10 micrometers or less in diameter; PM_{2.5} = Fine particulate matter.

¹ Exhaust emissions only

Source: Appendix A (calculations by Ascent Environmental in 2021).

Fugitive Dust and Exhaust Emissions

The construction activities of site preparation, grading, excavation, material laydown and placement, and site cleanup would result in fugitive dust and exhaust emissions from soil movement and equipment use. For all proposed projects, BAAQMD recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable thresholds of significance. To satisfy this requirement and to reduce emissions from construction-related sources, EPM AQ-1 would be incorporated into the project, which requires the implementation of BAAQMD's applicable Basic Construction Mitigation Measures.

Operational Emissions of Criteria Pollutants and Precursor Emissions

Long-term emissions sources associated with project operation would include area sources (landscape equipment, consumer products, maintenance activities) and mobile sources (vehicle trips to the project area). As shown in Table 3.3-5, operational emissions are well below the BAAQMD daily and annual thresholds for all criteria pollutants.

Table 3.3-5 Summary of Operational Emissions of Criteria Pollutants and Precursor Emissions

Emissions Source	ROG lb/day	NO _x lb/day	CO lb/day	PM ₁₀ lb/day	PM _{2.5} lb/day	SO _x lb/day
Area	<1	<1	<1	<1	<1	<1
Mobile	<1	<1	1	<1	<1	<1
Average Daily Emissions	<1	<1	1	<1	<1	<1
BAAQMD Emissions Threshold	54	54	N/A	82 ¹	54 ¹	N/A
Emissions Source	ROG tons/year	NO _x tons/year	CO tons/year	PM ₁₀ tons/year	PM _{2.5} tons/year	SO _x tons/year
Area	<1	<1	<1	<1	<1	<1
Mobile	<1	<1	<1	<1	<1	<1
Maximum Annual Emissions	<1	<1	<1	<1	<1	<1
BAAQMD Emissions Threshold	10	10	N/A	15	10	N/A

Notes: ROG = Reactive Organic Gases; NO_x = Oxides of Nitrogen; PM₁₀ = Particulate matter 10 micrometers or less in diameter; PM_{2.5} = Fine particulate matter.

¹ Exhaust emissions only

Source: Appendix A (calculations by Ascent Environmental in 2021).

Conclusion

The project would not exceed BAAQMD's construction-related or operational thresholds or result in substantial fugitive dust, and no adverse impacts to public health would occur. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under federal or state ambient air quality standards and the impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant. The closest sensitive receptors to the project area are a residence off Malech Road approximately 850 feet west of the project boundary and the Charter School of Morgan Hill approximately 0.50-mile from the project boundary.

The potential cancer risk from inhaling diesel PM outweighs the potential for all other diesel PM-related health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003:K-1). With regard to exposure to diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure

period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, when a health risk assessment is prepared to project the results of exposure of sensitive receptors to selected compounds, exposure of sensitive receptors to TAC emissions should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the duration of activities associated with the proposed project if emissions occur for shorter periods (OEHHA 2015:5-23, 5-24).

Construction

Construction-related activities would result in temporary, intermittent emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment. Construction activities would occur at a minimum of 850 feet away from the nearest sensitive receptor.

The results of emissions modeling show that average daily emissions of exhaust PM_{2.5} would not exceed 1 lb/day during construction compared to BAAQMD's threshold of 54 lb/day. Considering the low level of emissions relative to BAAQMD's threshold, the highly dispersive properties of diesel PM, the relatively low mass of diesel PM emissions that would be generated at any single place during project construction, the relatively short period during which diesel PM-emitting construction activities would take place (i.e., approximately 6 months), and the fact that the nearest sensitive receptor (occupied residence) is 850 feet away, construction-related TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a Health Index greater or equal to 1.0.

Operations

Project operations would result in the long-term emissions of diesel PM from the increase in vehicle trips and associated diesel PM emissions. In particular, diesel-powered trucks associated with project maintenance could emit diesel PM. However, the frequency of diesel-powered truck trips to and from the project area would be intermittent, few in quantity, and occur a substantial distance away from receptors (850 feet or more). As a result, operation of the project would not result in a substantial increase in concentrations of diesel PM at or near the project area. Thus, operational TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a Health Index greater or equal to 1.0.

Conclusion

Because of the dispersive properties of diesel PM, the relatively low mass diesel PM emissions that would be generated in one place during the construction and operation of the project, and the relatively short construction period, project related TACs would expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a Hazard Index of 1.0 or greater. As a result, this impact would be less than significant.

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

Less than significant. The project would include the development of public access and recreation features within an undeveloped area and would not result in the introduction of any new permanent sources of odors to the area. Because construction-related odors would be intermittent, temporary, and would disperse rapidly with distance from the source, construction-related odors would not result in the frequent exposure of a substantial number of individuals to objectionable odors.

With respect to operation, BAAQMD's CEQA Air Quality Guidelines (2017) identifies land uses associated with odor complaints to include, but are not limited to, wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. Open space recreational uses are not land uses that typically generate odors. There would be a vault toilet onsite that may generate odors, however the restroom would be serviced routinely, and odors would be generated intermittently and would not affect a substantial number of people given the remote nature of the project area. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people, and the impact would be less than significant.

3.4 BIOLOGICAL RESOURCES

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

3.4.1 Environmental Setting

This section describes biological resources in the project area and evaluates potential impacts to such resources as a result of project implementation. The account of biological resources within the project area is based on the 2019/2020 Biological Resources Survey Report for the project prepared by Vollmar Natural Lands Consulting and Creekside Science (Vollmar 2021), and the CRID Project Biological Resources Report prepared by H.T. Harvey and Associates (Authority 2021a).

The analysis of biological resource impacts includes the disturbance footprint associated with the project and the standard development buffer used in the Habitat Plan. The development buffer represents the limit of direct effects

from the project on biological resources, which consists of 50 feet around permanent project features and 10 feet around temporary impact areas. Together, the disturbance footprint and development buffer total 5.6 acres.

VEGETATION AND HABITAT TYPES

The project area is located in rural central Santa Clara County adjacent to CRID and east of the US 101 (Figure 2-1). Elevation within the project area ranges from approximately 340 feet to 515 feet above sea level. Valley and foothill grassland is the dominate vegetation type in the project area. The quality of the grassland habitat, percentage of native species, as well as the species present varies with the serpentine influence of the underlying soils. The medium and high-quality serpentine habitat, with higher concentrations of serpentine minerals in the soil, supports serpentine bunchgrass grassland and needle grass – melic grass grassland, a California Sensitive Natural Community (Santa Clara County et. al. 2012a). The lower quality habitat within the project area, including approximately 1 acre that is subject to regular mowing, is dominated by invasive grasses and weedy forbs and is not classified as serpentine bunchgrass grassland (Vollmar 2021).

In addition to grassland vegetation, a small un-named seasonal stream flows through the southeastern portion of the project area. This stream supports additional species that are more common in wetter habitats, and trees such as coast live oak (*Quercus agrifolia*) and valley oak (*Q. lobata*); however, no distinct woodland or forest habitat is present within the project area (Vollmar 2021).

SPECIAL-STATUS SPECIES

Special-status species include botanical species (plants, lichen, and fungi) and animals that are legally protected or otherwise considered sensitive by federal, state, or local resource agencies and conservation organizations. In this document, special-status species are defined as botanical species and animals in the following categories.

- ▶ Listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA).
- ▶ Designated as a candidate for listing as threatened or endangered under ESA.
- ▶ Listed, proposed for listing, or a candidate for listing as threatened or endangered under the California Endangered Species Act (CESA).
- ▶ Listed as fully protected under the California Fish and Game Code.
- ▶ Animals identified by California Department of Fish and Wildlife (CDFW) as species of special concern.
- ▶ Plants considered by CDFW to be “rare, threatened or endangered in California” (California Rare Plant Ranks of 1A, presumed extinct in California; 1B, considered rare or endangered in California and elsewhere; and 2, considered rare or endangered in California but more common elsewhere). The California Rare Plant Ranks correspond with and replace former California Native Plant Society listings. While these rankings do not afford the same type of legal protection as ESA or CESA, the uniqueness of these species requires special consideration under the California Environmental Quality Act (CEQA).
- ▶ Covered Species under the Santa Clara Valley Habitat Plan (Habitat Plan) (Santa Clara County et al. 2012a).
- ▶ Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA Section 15125 [c]) or is so designated in local or regional plans, policies, or ordinances (State CEQA Guidelines, Appendix G).
- ▶ Otherwise meet the definition of rare or endangered under CEQA Sections 15380(b) and (d).

3.4.2 Discussion

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

Less than significant (special-status botanical species and some special-status wildlife); Less than significant with mitigation incorporated (some special-status wildlife).

Special-Status Botanical Species

There are 10 special-status plants that are known to occur or could occur in the project area, no special-status mosses, lichens, or fungi are known to occur or could occur. Refer to Appendix B, "Special-Status Species" for the legal status of these species. Four special-status plants covered under the Habitat Plan were documented within the project area during botanical surveys in 2019 and 2020: Mount Hamilton fountain thistle (*Cirsium fontinale* var. *campylon*), Metcalf Canyon jewel-flower (*Streptanthus albidus* ssp. *albidus*), Santa Clara Valley dudleya (*Dudleya abramsii* ssp. *setchellii*), and smooth lessingia (*Lessingia micradenia* var. *glabrata*) (Vollmar 2021). These species are associated with serpentine habitats.

Mount Hamilton fountain thistle is associated with wet habitats such as those found along streams, and the known occurrences of Mount Hamilton thistle are located along the seasonal stream within the southeastern portion of the project area. However, this portion of the project area is outside of the project's disturbance footprint and the development buffer (50 feet around permanent project features and 10 feet around temporary impact areas). Habitat for this species is not found in the drier portions of the project area or within the disturbance footprint and development buffer; therefore, this species and its habitat would not be directly or indirectly affected by the project.

The population of Metcalf Canyon jewel-flower within the project area was also documented to occur outside of the disturbance footprint and development buffer in 2019 and 2020 (Vollmar 2021); however, because suitable habitat for this species occurs within the disturbance footprint and development buffer, individual plants may occur within the footprint and buffer at the time of construction. Therefore, project construction would result in permanent removal of habitat, and trampling or removal of individual plants could occur if individual plants are present.

Serpentine habitat for Santa Clara Valley dudleya and individual plants were documented to occur within the disturbance footprint and development buffer during surveys in 2019 and 2020. Project construction would result in permanent removal of serpentine habitat suitable for this species. While only approximately three percent of the population of Santa Clara Valley dudleya within 0.25 mile of the project area would occur within the disturbance footprint and development buffer (Vollmar 2021), individual Santa Clara Valley dudleya plants within the disturbance footprint and development buffer would be subject to trampling or removal during construction. Similarly, under five percent of the population of smooth lessingia within the project vicinity is within the disturbance footprint and development buffer (Vollmar 2021), and would be subject to trampling and removal during project construction.

Six special-status plant species (bent-flowered fiddleneck [*Amsinckia lunaris*], big-scale balsamorhiza [*Balsamorhiza macrolepis*], Tiburon paintbrush [*Castilleja affinis* var. *neglecta*], fragrant fritillary [*Fritillaria liliacea*], most beautiful jewelflower [*Streptanthus albidus* ssp. *peramoenus*], and woodland woollythreads [*Monolopia gracilens*]) were not documented during surveys in 2019-2020 (Vollmar 2021); although suitable habitat for these species is present in the disturbance footprint and development buffer. Tiburon paintbrush, fragrant fritillary, and most beautiful jewelflower are covered species under the Habitat Plan. The project would result in permanent removal of habitat for these six species. In addition, while they were not documented during surveys, they may occur in the disturbance footprint and development buffer by the time construction is initiated and be subject to trampling and removal.

The Authority has designed the project to minimize potential impacts to special-status species through the incorporation of EPMs and Habitat Plan Conditions on Covered Activities into the project. Per EPM BIO-2, the Authority would conduct pre-construction surveys, and flag and avoid special-status plants. The Authority is also in the process of obtaining coverage under the Habitat Plan as a PSE. The Authority would implement all applicable

compliance conditions outlined in the PSE permit as a part of the project, including Condition 13, which requires avoidance and minimization of impacts to serpentine habitat and associated covered species. As part of the PSE application the Authority intends to exercise the land-in-lieu option to mitigate impacts to serpentine habitat. The Authority will convey a conservation easement to the Habitat Agency over approximately 46 acres of serpentine bunchgrass grassland habitat within the Authority's Coyote Valley Open Space Preserve. If a land-in-lieu conservation easement cannot be agreed upon to cover serpentine bunchgrass grassland habitat impacts, the Authority may alternatively pay Habitat Agency land cover disturbance fees for a portion or all of the mitigation. Therefore, the project would not have a substantial effect on the population abundance or viability locally or regionally of special-status botanical species, and the impact would be less than significant.

Special Status Animals

There are two special status invertebrates, two special-status amphibians and reptiles, six special-status birds, and four special-status mammals that are known to occur or could occur in the project area (Appendix B, "Special-Status Species").

Bay Checkerspot Butterfly

Bay Checkerspot butterfly (*Euphydryas editha bayensis*), which occurs almost entirely within serpentine grasslands, is listed under the ESA as threatened. Habitat for this species is present within the project area, and the Coyote Ridge area where the project is located is home to one of the main populations of the species (Vollmar 2021). The project area is also located within designated critical habitat for the species and host plants are a primary constituent element (PCE) of critical habitat for the Bay checkerspot butterfly (66 FR, 21450). The Bay checkerspot butterfly has three larval host plants: dwarf plantain (*Plantago erecta*), dense flower owl's clover (*Castilleja densiflora*), and purple owl's clover (*C. exserta* spp. *exserta*). Surveys conducted in 2019 found all three host plants, as well as individual bay checkerspot butterflies within the project area (Vollmar 2021). Construction of the project could result in the trampling and removal of hostplants and the potential loss of larvae that occur in the 5.6-acre disturbance footprint and development buffer.

The Authority is in the process of obtaining coverage under the Habitat Plan as a PSE, and would implement all applicable compliance conditions outlined in the PSE permit as a part of the project. Specifically, the Authority must incorporate Condition 13 into the project, which requires avoidance and minimization of impacts to serpentine habitat where bay checkerspot butterfly, larvae, and hostplants occur. In addition, as part of the PSE application the Authority intends to exercise the land-in-lieu option to mitigate impacts to serpentine habitat. The Authority will convey a conservation easement to the Habitat Agency over approximately 46 acres of serpentine bunchgrass grassland habitat within the Authority's Coyote Valley Open Space Preserve. If a land-in-lieu conservation easement cannot be agreed upon to cover serpentine bunchgrass grassland habitat impacts, the Authority may alternatively pay Habitat Agency land cover disturbance fees for a portion or all of the mitigation. Therefore, the project would not substantially affect viability of the local or regional population of bay checkerspot butterfly, and the impact would be less than significant.

Monarch Butterfly

Monarch butterfly is a candidate for listing under the federal ESA. Due to documented decreases in overwintering populations, the U.S. Fish and Wildlife Service determined that the listing of monarch as threatened or endangered was warranted, but precluded by work on other higher priority species (USFWS 2020a). The western population of monarch butterfly overwinters within wind protected eucalyptus, Monterey pine, and cypress groves along the coast. Suitable protected groves are not present in the project area. Adult monarch butterflies require a diversity of nectar resources for feeding during migration and breeding, and milkweed host plants (*Asclepias* spp.) to complete its lifecycle (USFWS 2020b). No milkweed host plants were documented during botanical surveys of the project area conducted in 2020 (Authority 2021a). However, although unlikely, milkweed plants could be present in the disturbance footprint and development buffer at the time of construction. Grading and excavation for construction of the project could remove milkweed that occur within the disturbance footprint and development buffer of the project, which monarch butterflies depend on for reproduction.

The Authority has designed the project to minimize potential impacts to special-status species through the incorporation of EPMs and Habitat Plan Conditions on Covered Activities into the project. Per EPM BIO-3, the Authority would conduct a pre-construction survey of the project area, and map and/or flag and avoid any milkweed plants within the project area. Habitat Plan Condition 13 has also been incorporated into the project, which requires avoidance and minimization of impacts to serpentine habitat where milkweed may occur. Therefore, loss of milkweed hostplants would be avoided, and the effect of the project on the local and regional population of monarch butterfly would be less than significant.

Special-Status Amphibians

Grasslands within the project area provide suitable upland habitat for the California red-legged frog (*Rana draytonii*), which is listed under the ESA as threatened; and the California tiger salamander (*Ambystoma californiense*), which is listed under the ESA and CESA as threatened. Both California red-legged frog and California tiger salamander are covered species under the Habitat Plan. These species are known to breed within aquatic habitats on CRID (Vollmar 2021), and ground squirrel burrows within the project area may be used for underground refugia during the summer months.

Grading and excavation during construction of the project may collapse small mammal burrows within the 5.6-acre disturbance footprint and development buffer, which could result in the death or injury of California red-legged frogs and California tiger salamanders. In addition, use of heavy equipment that occurs following the first rains of the season may crush, injure, or kill California red-legged frogs and California tiger salamanders that are dispersing above ground to their breeding habitat.

The Authority has designed the project to minimize potential impacts to special-status species through the incorporation of EPMs and Habitat Plan Conditions on Covered Activities into the project. The Authority is in the process of obtaining coverage under the Habitat Plan as a PSE, and would implement all applicable compliance conditions outlined in the PSE permit as a part of the project. Habitat Plan Condition 13 would be implemented, which requires avoidance and minimization of impacts to serpentine habitat, which within the project area, is upland habitat for California red-legged frog and California tiger salamander. In addition, as part of the PSE application the Authority intends to exercise the land-in-lieu option to mitigate impacts to serpentine habitat. The Authority will convey a conservation easement to the Habitat Agency over approximately 46 acres of serpentine bunchgrass grassland habitat within the Authority's Coyote Valley Open Space Preserve. If a land-in-lieu conservation easement cannot be agreed upon to cover serpentine bunchgrass grassland habitat impacts, the Authority may alternatively pay Habitat Agency land cover disturbance fees for a portion or all of the mitigation. By preserving serpentine habitat on CRID, this PSE permit conditions would also result in the preservation of upland habitat for California red-legged frog and California tiger salamander. Therefore, the project would not have a substantial effect on the local or regional population of California red-legged frog and California tiger salamander, and the impact would be less than significant.

Common Raptors and Other Nesting Birds

While common raptors and other nesting birds do not fit the criteria for special-status species as defined in this analysis, it is standard for land management agencies such as the Authority to analyze project impacts to common raptors and other common nesting birds protected under Section 3503 and Section 3503.5 of the California Fish and Game Code and the Migratory Bird Treaty Act. Therefore, they are considered special-status for the purposes of this analysis.

The construction of the parking and staging area, central gathering area, overlooks, and other public access features could result in the disturbance or destruction of nests of ground nesting birds within the project area, and potentially disturb the nests of raptors that may use the few oak trees along the seasonal stream within the project area.

The Authority has designed the project to minimize potential impacts to special-status species through the incorporation of EPMs and Habitat Plan Conditions on Covered Activities into the project. Per EPM BIO-1, the Authority would avoid direct impacts on legally protected plant and wildlife species including those protected by the Migratory Bird Treaty Act (e.g., from the destruction of nests through vegetation removal). While EPM BIO-1 would avoid direct impacts to common raptors and other nesting birds, the project could result in the indirect disturbance of nests during construction that could lead nest abandonment and the loss of eggs and young. The loss of eggs and

young could be a substantial adverse effect on the local populations of these species; therefore, impacts to grasshopper sparrow would be potentially significant. Mitigation Measure BIO-1 would reduce the impact to less than significant with mitigation incorporated.

Mitigation Measure BIO-1: Avoid and Minimize Impacts to Nesting Birds

If construction occurs during the nesting bird season (February 1 – August 31), a nesting bird survey will be conducted within 14 days of construction. The survey will encompass the area within a 250-foot radius for raptors and 50-foot-radius for other birds. If nesting birds are identified, work within these buffer areas will be postponed until the young have fledged or the nest is otherwise abandoned.

Significance after Mitigation

Mitigation Measure BIO-1 would avoid and minimize adverse effects on common raptors and other nesting birds from the implementation of the proposed project by conducting surveys for nests prior to construction, and implementation of non-disturbance buffers. Therefore, with the implementation Mitigation Measure BIO-1, the impact to common raptors and other nesting birds would be less than significant with mitigation incorporated.

Loggerhead Shrike

Small trees and shrubs along the seasonal stream within the southeastern portion of the project area may provide suitable nesting habitat for loggerhead shrike (*Lanius ludovicianus*), a CDFW Species of Special Concern. This species is known to breed in the project vicinity, and the grasslands within the project area provide foraging habitat (Authority 2021a). The loss of foraging habitat from the construction of permanent project features, such as the parking and staging area, central gathering area, and overlooks, along with increased human presence in the project area, would not be substantial. This is due to the comparatively large amount of suitable foraging habitat within CRID and other areas in the vicinity when compared to the project area. In addition, the project footprint is greater than 50 feet from suitable nesting habitat that is located along the seasonal stream. Therefore, disturbance of loggerhead shrike nests would not occur. The project would not result in a substantial loss of foraging habitat, and therefore the impact to loggerhead shrike from the project would be less than significant.

Golden Eagle

Golden Eagle (*Aquila chrysaetos*) is a Fully Protected Species under the California Fish and Game Code and protected under the federal Bald and Golden Eagle Protection Act. Golden eagles have been documented to nest within Santa Clara County, but not in the immediate vicinity of the project area. The trees within the southeastern portion of the project area and within the adjacent oak woodland on CRID are not large enough to be suitable nesting habitat for golden eagle; however, the grassland habitat within the project area is suitable foraging habitat for this species. The loss of foraging habitat from the construction of permanent project features, such as the parking and staging area, central gathering area, and overlooks, as well as increased human presence within the project area would not be substantial given the comparatively large amount of suitable foraging habitat within CRID and other areas in the vicinity the project. Also, construction activities would not result in the death or injury of this highly mobile species, because eagles would avoid the area during construction. The project would not result in a substantial loss of foraging habitat, or injury or death of individuals; therefore, the impact to golden eagle would be less than significant.

Grasshopper Sparrow

Grasshopper sparrow (*Ammodramus savannarum*), a CDFW Species of Special Concern, nests and forages within grasslands, and the species has been documented within the project area (Vollmar 2021). Although the species is vulnerable to habitat loss, the loss of habitat from construction of the project and increased human presence in the area would not be substantial given the relatively small size of the project area when compared to the relatively large amount of suitable grassland habitat within CRID and other areas in the vicinity of the project. However, if construction occurs during the nesting season (May 1 – August 31), disturbance of grasshopper sparrow nests could result. Disturbance of nests could result in loss of eggs and young, which would be a substantial adverse effect on the local population of the species.

The Authority has designed the project to minimize potential impacts to special-status species through the incorporation of EPMs and Habitat Plan Conditions on Covered Activities into the project. Per EPM BIO-1, the Authority would avoid direct impacts on legally protected plant and wildlife species including those protected by the Migratory Bird Treaty Act (e.g., from the destruction of nests through vegetation removal). While EPM BIO-1 would avoid direct impacts to grasshopper sparrow, the project could result in indirect disturbance of nests during construction that could lead to nest abandonment and the loss of eggs and young. The loss of eggs and young would be a substantial adverse effect on the local population; therefore, impacts to grasshopper sparrow would be potentially significant. However, with implementation of Mitigation Measure BIO-1 described above, the impact would be reduced to less than significant with mitigation incorporated.

Mitigation Measure BIO-1: Avoid and Minimize Impacts to Nesting Birds

Significance after Mitigation

Mitigation Measure BIO-1 would avoid and minimize adverse effects on grasshopper sparrow from the implementation of the proposed project by conducting surveys for nests prior to construction, and implementation of non-disturbance buffers. Therefore, with the implementation Mitigation Measure BIO-1, the impact to grasshopper sparrow would be less than significant with mitigation incorporated.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is a CDFW Species of Special Concern and a covered species under the Habitat Plan. While individual owls or occupied burrows were not detected during surveys of the project area in 2019 and 2020, the species has been detected in the project vicinity (Vollmar 2021). The grassland habitat within the project area is suitable for foraging, and the many ground squirrel burrows provide suitable nesting habitat for the species. The small amount of nesting and foraging habitat that would be lost as a result of project construction and increased human presence would not be substantial due to the comparatively large amount of habitat within CRID and other areas in the vicinity the project. However, construction activities could result in the destruction or disturbance of occupied burrowing owl nests if any are located within or near the disturbance footprint and development buffer. The destruction or disturbance of occupied nests could result in injury or death of adults, chicks, and eggs.

The Authority is in the process of obtaining coverage under the Habitat Plan as a PSE, and would implement all applicable compliance conditions outlined in the PSE permit as a part of the project, to avoid and minimize injury, death, or disturbance to burrowing owl, including Condition 15. Condition 15 of the Habitat Plan requires habitat surveys and pre-construction surveys for burrowing owl burrows within 250 feet of construction activity, as well as specific avoidance measures for the breeding and non-breeding season in the event that active burrow nesting sites are present onsite. Therefore, the project would not result in a substantial loss of foraging habitat or other adverse effects to burrowing owl and the impact to burrowing owl would be less than significant.

Other Special-Status Raptors

Swainson's hawk is listed as threatened under CESA. A pair of Swainson's hawks are known to nest along the tributary to Coyote Creek and forage along the tributary and the adjacent agricultural fields in the vicinity of the project. This is the only current record of successful nesting within Santa Clara County (Authority 2021a). White-tailed kite (*Elanus leucurus*) is a Fully Protected Species under the California Fish and Game Code. This species has also been documented to nest in the project vicinity (CNDDDB 2021). The grassland habitat within the project area is suitable foraging habitat for Swainson's hawk and white-tailed kite, and oak trees along the southeastern edge of the project area, as well as the oak woodland habitat adjacent to the project area on CRID, are potentially suitable nesting habitat for these species.

The loss of foraging habitat for Swainson's hawk and white-tailed kite from the construction of permanent project features, such as the parking and staging area, central gathering area, and overlooks, as well as increased human presence, would not be substantial given the comparatively large amount of suitable foraging habitat within CRID and other areas in the vicinity of the project. The potential nest trees within the project area are outside of the development footprint and would not be removed. However, if Swainson's hawks or white-tailed kites establish a nest within these trees, or if Swainson's hawks nest in the oak woodland habitat on CRID prior to project implementation, the construction

of the trails on the southern end of the project area could result in nest disturbance and the loss of eggs and young if construction occurs during the nesting season. The oak woodland habitat on CRID is greater than 250 feet from the development footprint, and white-tailed kite nests in that area would not be disturbed by project activities.

The Authority has designed the project to minimize potential impacts to special-status species through the incorporation of EPMs and Habitat Plan Conditions on Covered Activities into the project. Per EPM BIO-1, the Authority would implement measures to avoid and minimize direct impacts to Swainson's hawk and white-tailed kite nests (e.g., from the destruction of nests through vegetation removal). EPM BIO-1 requires avoidance of direct impacts on legally protected plant and wildlife species including those Fully Protected Species under the California Fish and Game Code. While EPM BIO-1 would reduce direct impacts to Swainson's hawk and white-tailed kite, the project could result in indirect disturbance of nests during construction that could lead to nest abandonment and the loss of eggs and young. The loss of eggs and young would be a substantial adverse effect on the local population; therefore, impacts to Swainson's hawk and white-tailed kite would be potentially significant. Implementation of Mitigation Measure BIO-1 described above, and Mitigation Measure BIO-2 described below would reduce to the impact to less than significant with mitigation incorporated.

Mitigation Measure BIO-1: Avoid and Minimize Impacts to Nesting Birds

Mitigation Measure BIO-2: Avoid and Minimize Impacts to Swainson's Hawk Nests

If construction occurs during the nesting season for Swainson's hawk (March 1 – September 15), the Authority will survey for active nests prior to the implementation of any construction activities. If nests are identified, construction activities would be prohibited within 0.25 mile of the active nest during nesting season. This buffer may be adjusted as determined appropriate by a qualified biologist in coordination with CDFW.

Significance after Mitigation

Mitigation Measure BIO-1 and Mitigation Measure BIO-2 would avoid and minimize adverse effects on Swainson's hawk and white-tailed kite from the implementation of the proposed project by conducting surveys for nests prior to construction, and implementation of non-disturbance buffers. Therefore, with the implementation Mitigation Measure BIO-1 and Mitigation Measure BIO-2, the impact to Swainson's hawk and white-tailed kite would be less than significant with mitigation incorporated.

American Badger

American badger, a CDFW Species of Special Concern, has been documented less than 1 mile from the project area (Vollmar 2021), and suitable denning and foraging habitat exists within and adjacent to the project area. The loss of denning and foraging habitat for American badger from the construction of permanent project features, such as the parking and staging area, central gathering area, and overlooks, as well as increased human presence would not be substantial, due to the comparatively large amount of habitat within CRID and other areas in the vicinity the project. However, construction activities could result in the destruction or disturbance of occupied American badger dens should they occur within or near the disturbance footprint or development buffer. The destruction or disturbance of occupied dens during the breeding season when pups are in the den could result in injury or death, which would be a substantial impact on the local population of the species. Therefore, the impact of the project on American badger would be potentially significant. There are no relevant EPMs or Habitat Plan Conditions on Covered Activities that address impacts to American badger. However, with implementation of Mitigation Measure BIO-3 the impact would be reduced to less than significant with mitigation incorporated.

Mitigation Measure BIO-3: Avoid and Minimize Impacts to American Badger Dens

No more than 14-days prior to implementation of construction activities that could disturb American badger, a qualified biologist shall conduct pre-construction surveys within 100 feet of ground disturbance for potential American badger dens. If any potentially occupied American badger dens are located during surveys, no work shall be performed within a 50-foot buffer around each den during the non-breeding season or within a 100-foot buffer around dens during the period when pups are potentially in the den (February 15 through July 1).

Significance after Mitigation

Mitigation Measure BIO-3 would avoid and minimize adverse effects on American badger from the implementation of the proposed project by conducting surveys for dens prior to construction, and implementation of non-disturbance buffers. Therefore, with the implementation Mitigation Measure BIO-3, the impact to American badger would be less than significant with mitigation incorporated.

Mountain Lion

The Southern California and Central Coast Evolutionary Significant units of mountain lion (*Puma concolor*) are candidates for listing under CESA. The project is located within the range of the Central Coast Evolutionary Significant Unit, and grasslands within the project area provide suitable foraging and movement habitat for mountain lions. In addition, a possible mountain lion kill has been observed in the project area (Vollmar 2021). However, the project area does not contain suitable denning habitat for mountain lions. Additionally, the proximity of the project area to human activity, such as the nearby shooting range and US 101, makes it unlikely that mountain lions would den within the woodlands adjacent to the project area (Authority 2021a). The small amount of foraging habitat that would be lost as a result of project construction and increased human presence would not be substantial, due to the comparatively large amount of foraging habitat within CRID and other areas in the vicinity the project. The construction of permanent project features, such as the parking and staging area, central gathering area, overlooks, and trails would not create barriers to movement of mountain lion within the project area or between other suitable habitats (also refer to criterion d) below for additional information on mountain lion movement).

The construction of the project would not result in substantial impacts to mountain lion dens, result in a substantial reduction in foraging habitat for mountain lion, or result in any inhibition of movement between suitable habitats; therefore, the impact to mountain lion would be less than significant.

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

Less than significant. A large portion of the 5.6-acre disturbance footprint and development buffer for the project contains serpentine bunchgrass grassland, which is given special consideration under the Habitat Plan due to the high number of rare, threatened, and endangered species that are endemic to this vegetation community (Vollmar 2021, Santa Clara County et. al. 2012a). In addition, a portion of the disturbance footprint and development buffer meets the definition of needle grass – melic grass grassland, which is part of serpentine bunchgrass grassland under the Holland vegetation classification system (Holland 1986). Needle grass – melic grass grassland is classified as a separate alliance under the Manual of California Vegetation (CNPS 2021), which is used by CDFW to determine the list of California Sensitive Natural Communities.

In addition to these grasslands within the project area, riparian habitat is located adjacent to the project area on CRID along Coyote Creek; however, no other sensitive natural communities have been identified within the project area itself. Grading, excavation, and other project construction activities would occur within serpentine bunchgrass grassland and needle grass – melic grass grassland, which would result in permanent removal of a portion of these sensitive natural communities. However, the Authority is in the process of obtaining coverage under the Habitat Plan as a PSE, and would implement all applicable compliance conditions outlined in the PSE permit as a part of the project, including Condition 13. Condition 13 requires that the project be designed to limit impacts to serpentine habitats to the extent feasible, as well as other avoidance measures such as evaluating serpentine habitat for covered species and locating the project footprint as far from covered species as feasible. In addition, as part of the PSE application, the Authority intends to exercise the land-in-lieu option to mitigate impacts to serpentine habitat. The Authority will convey a conservation easement to the Habitat Agency over approximately 46 acres of serpentine bunchgrass grassland habitat within the Authority's Coyote Valley Open Space Preserve (which provides the same habitat for special-status plants and animals as needle grass – melic grass grassland). If a land-in-lieu conservation easement cannot be agreed upon to cover serpentine bunchgrass grassland habitat impacts, the Authority may alternatively pay Habitat Agency land cover disturbance fees for a portion or all of the mitigation. Therefore, this impact would be less than significant.

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?

Less than significant. A small seasonal stream runs through the southeastern portion of the project area, and the tributary to Coyote Creek is located just outside of the project area on CRID. However, both of these potentially jurisdictional waters are outside of the disturbance footprint and development buffer, and therefore would not be subject to dredging, fill, or other direct impacts. In addition, the Authority has designed the project to minimize potential impacts to wetlands through the incorporation of EPMs and Habitat Plan Conditions on Covered Activities into the project. The Authority would implement EPM GEO-1 and EPM GEO-2. EPM GEO-1 restricts ground-disturbing activities from occurring when soils are saturated or within one week following an inch or more of rain unless the ground is consistently firm and can support the weight of machinery without creating ruts. EPM GEO-2 requires implementation of best management practices (BMPs) including, but not limited to, the use of perimeter siltation fencing and wattles to prevent offsite erosion and sedimentation and use of erosion control mats to prevent exposed soils from being displaced by rain or wind and entering nearby waterbodies. The Authority would also implement Habitat Plan Conditions 3, 7, and 8. Condition 3 involves implementing a range of measures to protect water quality from design through postconstruction, such as preventing the accidental release of chemicals, fuels, and lubricants and removing pollutants from surface runoff before it reaches local streams. Condition 7 includes measures that require directing runoff from impermeable surfaces to natural or landscaped areas and, at project area adjacent to any natural or human-made drainage, and stabilizing exposed soils to prevent erosion and sedimentation. Condition 8, which applies to maintenance of unpaved roads, including those that serve as recreational trails, includes measures that require that ground disturbance be kept to the smallest area feasible, and that silt fencing or other sediment control devices be used during maintenance activities that disturb soil within the riparian setback zone as defined by the Habitat Plan. Refer also to the discussion under criterion a) in Section 3.10, "Hydrology and Water Quality." Therefore, the project's impacts on protected waters would be less than significant.

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?

Less than significant. The project area does not contain suitable habitat to support wildlife nursery sites, such as shorebird colonies or rookeries. However, the project is located with the eastern portion of Coyote Valley, which is an important wildlife corridor that allows movement between the Diablo Range to the east and the Santa Cruz Mountains to the west. This corridor is known to be used by wildlife such as bobcat (*Lynx rufus*), mule deer (*Odocoileus hemionus*), and coyote (*Canis latrans*), and may be critical to the dispersal and migration of other species such as mountain lion (Authority and CBI 2017). While the project is located within this important corridor, the construction of trails, the parking and staging area, central gathering area, overlooks, and picnic area would not result in any substantial physical barriers to wildlife because they would be small and dispersed throughout the project area. In addition, other dispersed public access features of the project, (i.e., trails, low walls, fencing and curbs) would not be tall or continuous enough to prevent the passage of wildlife through the project area. Therefore, the project would not interfere substantially with wildlife movement through the Coyote Valley corridor, and the impact on movement of native wildlife, migratory corridors, or nursery sites would be less than significant.

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

Less than significant. The project is located within rural Santa Clara County and therefore subject to the policies of the Santa Clara County General Plan (Santa Clara County 1994) and County ordinances. The County General Plan contains policies related to riparian areas and natural streams, and Section C16 of the Santa Clara County Code contains regulations related to tree removal. The project area does not contain riparian habitat, and as discussed in criterion c) above, the project includes the implementation of EPMs that would avoid impacts to the seasonal stream within the project area. Although the project area contains several individual coast live oaks and valley oaks, these trees are located outside of the disturbance footprint and development buffer and would not be trimmed or removed as part

of the project. The project would not adversely affect riparian habitat or natural streams that could potentially conflict with the Santa Clara County General Plan, or result in any tree trimming or removal that may conflict with County Code; therefore, this impact would be less than significant.

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

No impact. The project area falls within the Plan Area of the Habitat Plan, which is a habitat conservation plan and a natural community conservation plan (Santa Clara County et al. 2012a). The project area provides habitat for species covered by the Habitat Plan, and impacts to those covered species are addressed under the discussion of impacts to special-status species (refer to criteria a) and b) above). CRID, which is located adjacent to the project area, is part of the reserve system for the Habitat Plan. The objectives of the Habitat Plan include providing comprehensive species, natural community, landscape, and ecosystem conservation in the Plan Area; contributing to the recovery of endangered species; protecting and enhancing biological and ecological diversity; establishing a regional system of habitat reserves to preserve, enhance, restore, manage, and monitor native species and the habitats and ecosystems upon which they depend; and enhancing and restoring stream and riparian systems for native fish and other species (Santa Clara County et al. 2012a).

Construction of the project would not result in a reduction of open space preserves or interfere with the establishment of habitat reserves. The Authority is in the process of obtaining coverage under the Habitat Plan as a PSE and would implement all applicable compliance conditions outlined in the PSE permit as a part of the project. In addition, the EPMs that would be implemented as part of the project would avoid and minimize adverse effects to sensitive and protected biological resources, including species covered by the Habitat Plan.

Because the project is obtaining coverage under the Habitat Plan and would adhere to all Habitat Plan and PSE permit conditions, the project would be consistent with the Habitat Plan and there would be no impact.

3.5 CULTURAL RESOURCES

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

3.5.1 Environmental Setting

DEFINITIONS

Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include archaeological resources and historic built or architectural resources. Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). Historic (or architectural) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts) that are 50 years or older.

CULTURAL AND HISTORIC RESOURCE SETTING

A cultural resources report was prepared for the project by Basin Research Associates (Basin 2019). The first recorded settlement of the Santa Clara Valley was by the Ohlone around 250 AD. The Ohlone were a nonagricultural society, dependent on their surroundings for food and basic necessities. In 1769, the Moncado Party of Spanish explorers discovered the Santa Clara Valley by accident while searching for Monterey Bay. The initial Spanish settlements three years later were missions, presidios, and pueblos, colonized "to save the souls of Indians and to secure the territory against foreign intrusion" (Santa Clara County 1994:5P1). The mission lands were secularized in the early 1800s and large land holdings were granted to prominent Mexican families between 1810 and 1840. A few English-speaking settlers came to Santa Clara Valley beginning in 1813; however, the first big wave of American pioneers (the Bidwell Party and the Stevens-Townsend party) did not arrive until the 1840s.

Approximately 7 miles long and 2 miles wide, the Coyote Valley forms part of southern Santa Clara Valley in Santa Clara County. The project area is within the general area inhabited by the Ohlone. The Ohlone were subdivided into tribelets, and the project area was in the southern portion of the *Tamyen (Tamien)* and northern portion of the *Mutsun* territory of the Ohlone (Basin 2019). During the Spanish-Mexican Colonial period, the principal road between Monterey and San Jose passed through the Santa Clara Valley, which was divided into ranchos.

The area began to develop as a farming district after the Gold Rush in the early 1850s. The village of Coyote had its origins in the 1850s as a stop on the line of the Butterfield Overland Stage, later becoming a station on the line of the

Santa Clara & Pajaro Valley Railroad, soon absorbed by the Central/Southern Pacific system. Coyote is situated roughly midway between the historic centers of San Jose (12 miles to the north) and Morgan Hill (8 miles to the south).

Following American settlement, the valley developed a diversified agricultural economy based on the cultivation of wheat and fruit. Prune and seed farms became dominant by the early 20th century. Coyote served as a shipping and receiving point for the surrounding area; after World War I, the village waned in importance as nearby Morgan Hill prospered. Coyote Valley retains a rural character, with an incursion of post-1950s development in the form of small residential subdivisions, a corporate campus, and a country club (Basin 2019).

RECORDS SEARCH

As part of the Archaeological Resources Assessment Report prepared by Basin Research Associated (Basin) in 2019, an archival records search using the California Historical Resources Information System, Northwest Information Center, Sonoma State University was conducted (Basin 2019). Reference material from the Bancroft Library, University of California, Berkeley was also consulted. From this records search, it was determined that one prehistoric site, P-43-000178 (CA-SCL-167), a lithic scatter with five flakes was recorded approximately 100-250 feet west of the project area. This lithic scatter is described as located "along and adjacent to road built along west side of aqueduct – near pear orchard." No other prehistoric, combined prehistoric/historic, historic era, or built environment sites have been recorded within the project area. Furthermore, no archaeologically, historically or architecturally significant sites, structures, landmarks, or points of interest are located in or adjacent to the project area.

FIELD INVESTIGATION

A field investigation was conducted by Basin as a part research for the Archaeological Resources Assessment Report (Basin 2019). An archaeologist meeting the Standards of the Secretary of the Interior, completed the pedestrian field inventory of the Malech Road property, including the project area, on December 12, 2018. Field transects were oriented northwest to southeast and spaced approximately 20 meters apart within the Malech Road property, including the project area.

No prehistoric or significant historic cultural materials or culturally modified sediments were observed within or near the proposed project during the field investigation. No evidence of the lithic scatter with five flakes recorded approximately 100-250 feet west of the project area was found. Basin determined that the lithic scatter was recorded during a transmission line survey in the 1970s which has since been constructed. A review of the site record form in association with a recent aerial photograph shows transmission line towers west of the Malech Road right-of-way (ROW) opposite the proposed parking area and it is probable that this was location of the lithic scatter.

3.5.2 Discussion

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

No impact. Historic resources are defined as standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts) that are 50 years or older. No historic resources are present within the project area. Implementation of the project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. No impact would occur.

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

Less than significant with mitigation incorporated. Archaeological resources are defined as locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). The records search conducted by Basin identified one prehistoric site, P-43-000178 (CA-SCL-167), recorded in the 1970s, approximately 100-250 feet west of the project area (Basin

2019). This site is not within the project area and was not located during the field investigation conducted by Basin. No other archeological resources have been recorded in the vicinity of the project area or were discovered on or near the project area during Basin's field investigation. The project is in a region that was previously inhabited by the Ohlone, specifically within the southern portion of the *Tamyen (Tamien)* and northern portion of the *Mutsun* territory of the Ohlone (Basin 2019), and therefore, it is possible that unrecorded prehistoric archaeological materials may be located within the project area. Impacts to undiscovered archaeological resources could occur during ground disturbing construction activities and from use of heavy equipment, which would be a potentially significant impact. The following mitigation measure would be implemented and would reduce the impact to unknown archaeological resources to less than significant with mitigation incorporated:

Mitigation Measure CUL-1: Implement Cultural Report Protective Measures for the Project

In compliance with Habitat Plan Requirements, an Archaeological Resources Assessment Report was prepared for the project. The Authority will implement the project-specific protective measures included in the Report and developed during tribal consultation for cultural resource protection, which include the following:

- ▶ A cultural sensitivity training program will be provided to all construction personnel prior to the start of project construction. A representative or representatives from culturally affiliated Native American Tribe(s) will be invited to participate in the development and delivery of the cultural resources awareness and respect training program in coordination with a qualified archaeologist meeting the Secretary of Interior guidelines for professional archaeologists. The program will include relevant information regarding sensitive cultural and tribal cultural resources, including protocols for resource avoidance, applicable laws regulations, and the consequences of violating them. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans and protocols, consistent, to the extent feasible, with Native American Tribal values.
- ▶ In the event that a prehistoric archeological site (including midden soil, chipped stone, bone, or shell), historic-period archaeological site (such as concentrated deposits of bottles, amethyst glass, or historic refuse), or paleontological resource is uncovered during grading or other construction activities, all ground-disturbing activity within 50 feet of the discovery shall be halted until a qualified archaeologist can assess the significance of the find. The Authority will be notified of the potential find and a qualified archeologist shall be retained to investigate its significance. If the find is a prehistoric archeological site, the culturally affiliated Native American tribe shall be immediately notified. The tribal representative(s), in consultation with the archaeologist, shall determine if the find is a significant tribal cultural resource (pursuant to PRC Section 21074). The tribal representative will make recommendations for treatment, as necessary. Culturally appropriate treatment may be, but is not limited to, preservation in place, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project vicinity where they will not be subject to future impacts. If the find is a paleontological resource, all ground disturbance within 50 feet of the find shall stop immediately until a qualified professional paleontologist can assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation.
- ▶ Any previously undiscovered resources found during construction will be recorded on appropriate California Department of Parks and Recreation 523 forms and evaluated for significance under all applicable regulatory criteria. If the archaeologist determines that the find does not meet the CRHR standards of significance for cultural resources, construction may proceed. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the Authority to follow accepted professional standards such as further testing for evaluation or data recovery, as necessary. If artifacts are recovered from significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, and analyzes and interprets the results.

- ▶ If any human remains are exposed during construction, they shall be treated in accordance with the California Health and Safety Code and California PRC Sections 5097.94 and 5097.98, in consultation with the Native American Heritage Commission.

Significance after Mitigation

No project activities would occur in the area where the previously recorded prehistoric site is located, and Mitigation Measure CUL-1 would reduce impacts to any unknown archaeological resources discovered during construction. Per Mitigation Measure CUL-1, all construction personnel would be required to participate in a cultural resources training program prior to construction; if a prehistoric archeological site or a historic-period archaeological site is uncovered during construction activities, the Authority would be required to halt all ground-disturbing activity within 50 feet of the discovery until a qualified archaeologist can assess the find. Depending on the significance and type of find, specific actions would be implemented, which could include notification of the culturally affiliated tribe and resource documentation using the appropriate California Department of Parks and Recreation 523 forms. Therefore, the project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5, and impact would clearly be less than significant with mitigation incorporated.

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

Less than significant with mitigation incorporated. As described under criterion b) above, the project is within an area that was historically inhabited by the Ohlone, specifically within the southern portion of the *Tamyen (Tamien)* and northern portion of the *Mutsun* territory of the Ohlone (Basin 2019). Therefore, human remains could be located within the project area. The project includes grading and other ground disturbing activities during construction, which could encounter human remains, if present in the project area. However, Mitigation Measure CUL-1 would be implemented to avoid and minimize impacts to unknown human remains. Mitigation Measure CUL-1 requires cultural sensitivity training for all construction personnel prior to project construction. This mitigation measure also requires that discovered human remains are treated in accordance with the California Health and Safety Code and PRC Sections 5097.94 and 5097.98, in consultation with the Native American Heritage Center (NAHC). The California Health and Safety Code and PRC Sections 5097.94 and 5097.98 require the implementation of procedures to avoid and minimize the disturbance of human remains and the appropriate treatment of any remains determined to be Native American that are discovered, including notifying the NAHC within 24 hours and adhering to the NAHC's guidelines regarding the treatment and disposition of the remains. If the coroner's finding the humans remains to be Native American, the NAHC-designated most likely descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94. Implementation of Mitigation Measure CUL-1 would limit disturbance to human remains, including those interred outside of formal cemeteries, and the impact would clearly be less than significant with mitigation incorporated.

3.6 ENERGY

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

3.6.1 Environmental Setting

California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable, hydroelectric, and nuclear generation resources:

- ▶ Natural gas: Almost two-thirds of California households use natural gas for home heating, and about half of California's utility-scale net electricity generation is fueled by natural gas (EIA 2021).
- ▶ Petroleum: Petroleum products (gasoline, diesel, jet fuel), which are consumed almost exclusively by the transportation sector, account for almost 99 percent of the energy used in California by the transportation sector, with the rest provided by ethanol, natural gas, and electricity (Bureau of Transportation Statistics 2017). Between January 2007 and May 2016, an average of approximately 672 billion gallons of gasoline were purchased in California (California State Board of Equalization 2016). Gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet specific formulations required by the CARB (EIA 2021).
- ▶ Electricity and renewables: The California Energy Commission (CEC) estimates that 34 percent of California's retail electricity sales in 2018 was provided by Renewable Portfolio Standard (RPS)-eligible renewable resources (EIA 2021).
- ▶ Alternative fuels: Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many alternative transportation fuels (e.g., biodiesel, hydrogen, electricity). Use of alternative fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, 2017 Scoping Plan).

ENERGY FACILITIES AND SERVICES IN THE COUNTY

The unincorporated Santa Clara County as well as the cities of Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Saratoga and Sunnyvale are members of Silicon Valley Clean Energy (SVCE), which serves as the Community Choice Aggregation for its member jurisdictions. SVCE was established in March 2016 and works in partnership with PG&E to deliver greenhouse gas (GHG)-efficient electricity to customers within its member jurisdictions. Consistent with state law, all electricity customers in the unincorporated Santa Clara County were automatically enrolled in SVCE; however, customers can choose to opt out and be served by PG&E. Currently, all power supplied by SVCE is carbon-free. PG&E supplies natural gas service to the County through state-regulated public utility contracts. The project would not require use of natural gas or electricity during operations.

REGULATORY SETTING

Federal Regulations

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Under this act, the National Highway Traffic and Safety Administration is responsible for revising fuel economy standards and establishing new vehicle economy standards. The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Three Energy Policy Acts have been passed, in 1992, 2005, and 2007, to reduce dependence on foreign petroleum, provide tax incentives for the development of alternative fuels, and support energy conservation.

State Regulations

California's 2017 Climate Change Scoping Plan

The 2017 Climate Change Scoping Plan (Scoping Plan) addresses Executive Order (EO) B-30-15 and Senate Bill (SB) 32, which extend the goals of AB 32 and set a 2030 goal of reducing GHG emissions 40 percent below 2020 levels. The 2017 Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals. The Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constrains and reduces emissions at covered sources (CARB 2017).

Warren-Alquist Act

The 1974 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the CEC. The act was created as a response to the state legislature's review of studies projecting an increase in statewide energy demand, which would potentially encourage the development of power plants in environmentally sensitive areas. The act introduced state policy for siting power plants to reduce potential environmental impacts and sought to reduce demand for these facilities by directing CEC to develop statewide energy conservation measures to reduce wasteful, inefficient, and unnecessary uses of energy. Conservation measures recommended establishing design standards for energy conservation in buildings that ultimately resulted in the creation of the Title 24 Building Energy Efficiency Standards (California Energy Code), which have been updated regularly and remain in effect today. The act additionally directed CEC to cooperate with the Office of Planning and Research, the California Natural Resources Agency, and other interested parties in ensuring that a discussion of wasteful, inefficient, and unnecessary consumption of energy is included in all environmental impact reports required on local projects.

State of California Energy Action Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current plan is the 2003 California Energy Action Plan (2008 update). The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, and encouragement of urban design that reduces VMT and accommodates pedestrian and bicycle access.

Transportation-Related Regulations

The EPA and National Highway Traffic Safety Administration (NHTSA) have issued rules to reduce GHG emissions and improve CAFE standards for light-duty vehicles for model years 2017 and beyond (77 *Federal Register* 62624). NHTSA's CAFE standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. The purpose of this program is to

increase fuel economy and limit vehicle emissions, including carbon dioxide (CO₂) emissions, of cars and light-duty trucks (77 *Federal Register* 62630).

The Safer Affordable Fuel-Efficient Vehicles Rule, promulgated by NHTSA and EPA in 2020, set new CAFE standards for passenger cars and light-duty trucks, model years 2021–2026 (NHTSA and EPA 2020). This rule also revoked a waiver granted by EPA to the State of California under Section 209 of the CAA to enforce more stringent emission standards for motor vehicles than those required by EPA for the explicit purpose of GHG reduction and, indirectly, CAP and ozone precursor emission reduction (NHTSA and EPA 2020). Various regulatory and planning efforts are aimed at reducing dependency on fossil fuels, increasing the use of alternative fuels, and improving California's vehicle fleet. SB 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. CARB, in consultation with the metropolitan planning organizations, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Under AB 2076 (Chapter 936, Statutes of 2000), CEC and CARB prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003).

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare the State Alternative Fuels Plan to increase the use of alternative fuels in California.

In January 2012, CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and CAPs, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017–2025. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

Local Regulations

Santa Clara County

Santa Clara County identifies GHG emission reduction goals in its Sustainability Master Plan adopted in January 2021. The Sustainability Master Plan has four Priority Areas of sustainability which include: Climate Protection and Defense, Natural Resources and the Environment, Community Health and Well-Being, and Prosperous and Just Economy. Within these Priority Areas, the County includes strategies that will result in the reduction of GHG emissions such as carbon neutrality by 2045. In addition, the County strives for clean energy, building decarbonization, smart growth, and clean transportation.

3.6.2 Discussion

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

Less than significant. The proposed project would increase energy use from existing conditions from both construction and operational activities.

Construction

Energy would be required to operate and maintain construction equipment and transport construction materials. The one-time energy expenditure required to construct the infrastructure associated with the project would be nonrecoverable. Most energy consumption would result from operation of off-road construction equipment and on-road vehicle trips associated with commutes by construction workers and haul trucks trips.

Table 3.6-1 summarizes the levels of energy consumption associated with the construction of the project by construction year. Most of the construction-related energy consumption would be associated with off-road

equipment and the transport of equipment and waste using on-road haul trucks for all phases of construction. An estimated 610 gallons of gasoline and 7,375 gallons of diesel fuel would be used during construction of the project (see Appendix C).

Table 3.6-1 Construction Energy Consumption

Year	Diesel (Gallons)	Gasoline (Gallons)
2022	6,810	558
2023	565	52
Total	7,375	610

Notes: Gasoline gallons include on-road gallons from worker trips. Diesel gallons include off-road equipment and on-road gallons from worker and vendor trips.

Source: Appendix C (calculations by Ascent Environmental in 2021).

The energy needs for project construction would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Associated energy consumption would be typical of that associated with recreational projects of this size in a rural setting. Although the one-time energy expenditure required to construct the project would be nonrecoverable, it would not be consumed in a wasteful, inefficient, or unnecessary manner. In addition, the project would be beneficial by providing a new regional recreational resource.

Operational

The project would not require the use of electricity or natural gas during operations. Increased fuel use would occur as a result of increased vehicle-based visitation to the project area. Table 3.6-2 summarizes the levels of energy consumption associated with the operation of the project for the first full year (2024) of operations. Fuel consumption associated with project-related vehicle trips would not be wasteful, inefficient, or unnecessary because the project would provide a high-quality public access and recreation resource for the region. In addition, this increase in energy use would not be substantial given that there would be no other permanent ongoing energy use as a result of the project, such as facilities requiring electricity or natural gas.

Table 3.6-2 Operational Energy Consumption

Energy Type	Energy Consumption	Units
Gasoline	5,474	gal/year
Diesel	145	gal/year

Notes: gal/year = gallons per year.

Source: Appendix C (calculations by Ascent Environmental in 2021).

Conclusion

Although the project would result in increased energy use that is nonrecoverable, for the reasons described above, it would be wasteful, inefficient, or unnecessary energy consumption. This impact would be less than significant.

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

No impact. The County's Sustainability Master Plan provides energy use and conservation goals to promote a sustainable future through strategies that save energy and promote green buildings. The County's strategies towards energy conservation and renewable energy include the following:

- ▶ Strategy 1.1: Transition to a zero-emission energy system.
- ▶ Strategy 1.2: Enhance energy efficiency of and electrify new and existing buildings.

- ▶ Strategy 1.3: Expand zero-emission transportation/travel choices and create safe and accessible streets for all users.
- ▶ Strategy 1.4: Promote smart growth development patterns to reduce land consumption, lower VMT, and support active transportation.

Because the project includes the construction of minor infrastructure (e.g., parking and staging area, trails, and picnic areas), the policies on conservation and energy efficiency in buildings do not apply. As discussed in Section 3.17, "Transportation," the project involves the construction of new public access features within an undeveloped open space area, including new trails to support public access and low intensity recreation and a parking area where bicycle racks would be provided promoting the County's zero-emission transportation strategies. Therefore, the project would not conflict with or obstruct the County's Sustainability Master Plan strategies outlined above, and there would be no impact.

3.7 GEOLOGY AND SOILS

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

3.7.1 Environmental Setting

GEOLOGIC CONDITIONS

The project area is within the Coast Ranges Geomorphic Province, which consists of mountain ranges varying in elevation from 2,000 to 4,000 feet, and occasionally up to 6,000 feet above sea level. Valleys trend northwest, subparallel to the San Andreas Fault, however the Santa Clara Valley runs south-southeast from the southern end of San Francisco Bay. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata (CGS 2002).

The project area is located within the foothills of the Diablo Range within the Santa Clara Valley. The elevation on the project area varies from approximately 340 feet near a tributary to Coyote Creek to 515 feet at the northern end of the project area.

The project area is largely underlain by sheared serpentinite rock—an intensely stressed, foliate, and shiny metamorphic rock comprised of hydrous magnesium silicate minerals, that ranges in color from light green to a moderately deep green in fresh exposures (Bailey and Everhart 1964). California’s state rock, serpentinite is well known for giving rise to diverse and unique communities of plants and animals owing the generally inimical conditions for plant growth and unique microhabitat conditions that it creates (Kruckeberg 1984).

SOILS

The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil surveys data contains information about soil properties and qualities within the project area. A soil association mapped by the NRCS is made up of two or more geographically associated soils that are grouped together for the practicality of mapping. The project area is composed of three soil associations: Montara rocky clay loam, 15 to 50 percent slopes; San Benito clay loam, 15 to 30 percent slopes; and San Benito clay loam, 30 to 50 percent slopes (NRCS 2021). Montara rocky clay loam, 15 to 50 percent slopes comprise the majority of the project area (67.2 percent) and is a soil series that consists of somewhat excessively drained clay loams that are underlain by serpentine bedrock at a depth of 10 to 16 inches (NRCS 1974). San Benito clay loam, 15 to 30 percent slopes and 30 to 50 percent slopes comprise the rest of the project area. These two-soil series consist of well-drained clay loams that are underlain by calcareous interbedded sandstone and shale at a depth of 20 to 48 inches (NRCS 1974). Table 3.7-1 lists these three soil associations along with their available water holding capacity, runoff potential, and hazard of erosion.

Table 3.7-1 Soil Associations within the Project Area

Soil Association	Percent of Project Area	Available Water Holding Capacity	Runoff Potential	Hazard of Erosion
Montara rocky clay loam, 15 to 50 percent slopes	67.2	2 to 3 inches	Medium to rapid	Moderate to high
San Benito clay loam, 15 to 30 percent slopes	24.4	6 to 9 inches	Medium to rapid	Moderate to high
San Benito clay loam, 30 to 50 percent slopes	8.3	6 to 9 inches	Rapid	High

Source: NRCS 2021; NRCS 1974

GEOLOGIC HAZARDS

Subsidence

Regional subsidence is the settling or sinking of the land surface because of ongoing groundwater extraction from alluvial geologic formations. The Santa Clara Valley was regularly irrigated between the 1800s until the late 1920s. During this time water flowed freely from wells. The Santa Clara Valley experienced water-level declines of more than 200 feet from the early 1900s to the mid-1960s (Fowler 1981). Land subsidence was first detected in 1933 (Poland and Ireland 1988). Groundwater levels continued to decline and surveys in 1967 identified subsidence of as much as 8 feet. The Santa Clara Valley Water District (SCVWD) began aquifer recharge efforts in the mid-1930s by building dams, importing water, and implementing a pumping tax in 1964. These projects proved successful; as the groundwater levels began to recover, some long-dry wells started flowing again, and subsidence was halted (USGS n.d. a). Due to the efforts of the SCVWD, the project area is no longer within an area classified as being at risk of subsidence (USGS n.d. b).

Expansive Soils

Expansive soils are typically composed of clay which changes in volume with the addition removal of moisture (Asuri and Keshavamurthy 2016). Expansive soils are deposited in a loose, highly porous state, then harden and remain dry after deposition. Upon contact with moisture, the weak cementation between the loose soil particles softens and can

result in settlement or collapse. The project area is not designated as being within or adjacent to an expansive soil hazard zone (Santa Clara County 2012a).

Landslides

A landslide is the movement of a mass of rock, debris, or earth down a slope. The term "landslide" encompasses five modes of slope movement: falls, topples, slides, spreads, and flows. These are further subdivided by the type of geologic material (bedrock, debris, or earth). Debris flows (commonly referred to as mudflows or mudslides) and rock falls are examples of common landslide types (USGS n.d. c). The USGS Landslide Inventory Map designates an area along Coyote Creek, adjacent to the project area, as having a "likely" chance of a landslide occurring at or near the location (USGS n.d. d). However, Santa Clara County does not designate any portion of the project area or the surrounding area as being within a landslide hazard zone (Santa Clara County 2012a).

PRIMARY SEISMIC HAZARDS

The region surrounding the project area has historically experienced a high level of seismic activity. There are no Alquist-Priolo zones located in the project area; however, the project area is located near several faults recognized as active by the state of California and zoned pursuant to the Alquist-Priolo Act. The Calaveras and Hayward faults are approximately 3.8 miles east of the project area and the Sergeant and San Andreas faults are approximately 13 miles west of the project area (DOC 2019). These faults are capable of generating strong earthquake-induced ground shaking within the project area.

SECONDARY SEISMIC HAZARDS

When strong ground shaking results from a nearby or distant earthquake, several secondary seismic hazards can occur. These seismic hazards can include liquefaction and seismically induced landslides. Seismically induced flooding from tsunami, seiche, and dam failure are discussed in Section 3.10, "Hydrology and Water Quality." The project area is not classified as being subject to liquefaction or earthquake-induced landslides, therefore it is assumed that the potential of secondary seismic hazards in the project area is low (Santa Clara County 2012a).

3.7.2 Discussion

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

No impact. No delineated Alquist-Priolo Earthquake Fault Zones are within or near the project area (DOC 2019). Furthermore, no Alquist-Priolo Earthquake Fault Zones are located immediately adjacent to the project area. Because the project area is not located on or immediately adjacent to an active fault, no impact would occur.

- ii) **Strong seismic ground shaking?**

Less than significant. While the project area is not within or immediately adjacent to an active Alquist-Priolo Earthquake Fault Zones, the Calaveras, Hayward, Sergeant, and San Andreas faults are located east and west of the project area, which could cause strong seismic ground shaking at the project area. The project would result in increased visitation to the project area; however, no habitable structures would be developed. New structures and amenities would be limited to a parking and staging area, shade structures, picnic areas and overlooks, trails, and a vault toilet. While these new structures and amenities would be present within the project area, they would be relatively small, accommodating at most up to 40 people at any one time, and few overhead structures or structures

with the potential to collapse would be present. Furthermore, most of the public's use of the area would be outdoors. If strong ground shaking were to occur at the project area, the risk of loss, injury, or death would be low due to the limited quantity of new structures onsite presenting associated fall or collapse hazards. Furthermore, the Authority would be required to obtain a Building Permit from the Santa Clara County Building Department. The engineering plans for vault toilet and the shade structures would be reviewed to ensure compliance with all relevant provisions of the current California Building Code (CBC), including potential hazards caused from strong seismic ground shaking. Given the primarily outdoor use of the project area and project compliance with the CBC, the project would have a less-than-significant impact related to risk of loss, injury, or death from strong seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction?

Less than significant. The project area is not designated by Santa Clara County as being subject to liquefaction. However, the project area is within a region susceptible to seismic ground shaking due to the Calaveras, Hayward, Sergeant, and San Andreas faults to the east and west. Although unlikely, adverse impacts to people or structures could occur from seismic-related ground failure including liquefaction. However, as discussed above under criterion a) (ii), visitors to the project area would be primarily outdoors and the quantity and size of new structures is relatively minor. Furthermore, the Authority would need to comply with all relevant provisions of the current CBC, including potential hazards caused from seismic-related ground failure and liquefaction. Therefore, impact to people or structures relating to the loss, injury, or death from seismic related ground failure, including liquefaction, would be less than significant.

iv) Landslides?

Less than significant. While Santa Clara County does not designate any portion of the project area or the surrounding area as being within a landslide hazard zone, an area adjacent to the project area along a tributary to Coyote Creek is designated as having a "likely" chance of a landslide occurring at or near the location by the USGS Landslide Inventory Map (Santa Clara County 2012a, USGS n.d. b). The East Ridge Overlook would be closest project feature to this designated landslide area, and given the topography, if a landslide were to occur, the debris would slide away from the project area into the tributary to Coyote Creek. In addition, the construction and operation of the project features would not substantially increase the risk of a landslide due to the low impact nature of the project and low intensity recreation that would occur. Therefore, the impact would be less than significant.

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

Less than significant. Project activities that could cause soil erosion and the loss of topsoil include grading and excavation. Areas where new structures and other project features would be built would be graded and smoothed to prepare for material laydown, such as asphalt and concrete for roads, parking areas, and other amenities. Varying quantities of grading and depths of excavation would be required to install support features, such as footings/piers, foundations, and retaining walls associated new public amenities; and to lay materials to develop the access road, the parking and staging area, the Central Gathering Area, and trails. The three-soil series found on the project area range in erosion potential from high to moderate to high. The project could therefore result in soil erosion or the loss of topsoil during construction activities. Following construction, disturbed areas would be graded consistent with the surrounding landscape, and native topsoil/seeding would be placed to restore disturbed areas and assist with erosion control.

To limit erosion and loss of topsoil associated with ground disturbing activities during construction, the Authority would incorporate EPM GEO-1 and EPM GEO-2 into the project during construction. EPM GEO-1 requires that no ground disturbing activities occur when soils are saturated or within one week of rain, until the ground is consistently firm enough to support the weight of construction equipment without creating ruts. The Authority would also implement BMPs consistent with the requirements of the Storm Water Pollution Prevention Plan (SWPPP) for the project prior to ground disturbing construction activities, per EPM GEO-2. These BMPs could include, but are not limited to, the use of perimeter siltation fencing and wattles to prevent offsite erosion and sedimentation and use of erosion control mats to prevent exposed soils from being displaced by rain or wind and entering the tributary to Coyote Creek. Implementation of EPM GEO-1 and EPM GEO-2 would limit the amount of erosion and loss of topsoil during construction, and the impact would be less than significant.

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

Less than significant. The soil series underlying the majority of the project area is Montara rocky clay loam, 15 to 50 percent slopes. This soil series is itself underlain by serpentine bedrock and is therefore not considered an unstable soil (NRCS 1974). Furthermore, the project area is not in an area classified as being of risk of subsidence or liquefaction (USGS n.d. b, Santa Clara County 2012a). While the project includes the construction of a few new structures, including a vault toilet and three overlooks, the project area is not located on unstable soils that could result in landslides, lateral spreading, subsistence, liquefaction, or collapse. The structures would also be built in accordance with the relevant provisions of the current CBC, further reducing potential impacts caused by potentially unstable soils. The impact would therefore be less than significant.

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

Less than significant. As described above under "Expansive Soils," the project area is not designated as being within or adjacent to an expansive soil hazard zone (Santa Clara County 2012a). However, all three soil types within the project area contain clay and may be expansive (NRCS 2021). Foundations of buildings are typically most affected by expansive soils, and the project would construct new structures (e.g., a vault toilet, overlooks) that would require foundations and/or footings that could be affected by expansive soils. However, there would only be one vault toilet and three overlooks, which would not accommodate large numbers of people simultaneously. In addition, the structures would be built in accordance with the relevant provisions of the current CBC, further reducing potential impacts caused by potentially expansive soils. Therefore, the impact would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Less than significant. The vault toilet that would be constructed as a part of the project would be a non-discharging wastewater disposal unit composed of an underground, self-contained, watertight container designed to hold the wastewater until it is pumped out (SWRCB 2016). As described under criterion c) above, the soil series underlying the majority of the project area is Montara rocky clay loam, 15 to 50 percent slopes. This soil series is itself underlain by serpentine bedrock and is therefore not considered an unstable soil (NRCS 1974). Furthermore, during the Building Permit review process, the project would be evaluated to determine if a Land Use and Septic System Permit is required for the vault toilet. If this permit is required, the Authority would prepare a septic/onsite wastewater treatment system feasibility study which would include a soil assessment, soil analysis, percolation testing to ensure the project area is capable to supporting the vault toilet (Santa Clara County n.d. b). This permit requires that the location chosen for the vault toilet is capable of adequately supporting the toilet, which would further reduce the potential for inadequate placement or construction of the vault toilet. Because the vault toilet would not be constructed on unstable soils, the impact would be less than significant.

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

Less than significant with mitigation incorporated. Serpentine outcrops are present within the project area and are considered a unique geologic feature. These serpentine outcrops would remain in place where possible. Where serpentine rocks must be moved to construct the staging area, the rocks would be repositioned within the landscape and would remain onsite (Authority 2020). Serpentine outcrops would therefore not be destroyed by the project, and no other unique geologic features are known to occur on the project area.

No paleontological resources or sites are known to occur in the project area (Basin 2019). During construction of the project, ground disturbing activities including grading and excavation could potentially unearth an unknown unique paleontological resource or site, which could damage the resource. However, Mitigation Measure CUL-1 would be

implemented to avoid and minimize impacts to unknown paleontological resources. Mitigation Measure CUL-1 would require that, if a paleontological resource is uncovered during construction activities, the Authority would halt all ground-disturbing activity within 50 feet of the discovery until a qualified professional paleontologist can assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation. Implementation of Mitigation Measure CUL-1 would avoid and minimize project impacts to unknown paleontological resources and the impact would clearly be less than significant with mitigation incorporated.

3.8 GREENHOUSE GAS EMISSIONS

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

3.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014: 5).

Climate change is a global problem. GHGs are global pollutants because even local GHG emissions contribute to global impacts. GHGs have long atmospheric lifetimes (one to several thousand years) and persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration (IPCC 2013:467).

GREENHOUSE GAS EMISSION SOURCES AND SINKS

As discussed previously, GHG emissions are attributable in large part to human activities. CO₂ is the main byproduct of fossil fuel combustion. CH₄, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, organic material decomposition in landfills, and the burning of forest fires (Black et al. 2017). N₂O emissions are largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water); respectively, these are the two of the most common processes for removing CO₂ from the atmosphere.

The total GHG inventory for unincorporated Santa Clara County was 405,090.83 million metric tons of CO₂ equivalents in 2017 (Santa Clara County 2021a). The most recent local GHG inventory for unincorporated Santa Clara County is presented in Table 3.8-1 to provide context for the GHG emissions associated with the project.

Table 3.8-1 Unincorporated Santa Clara County 2017 GHG Emissions Inventory

Sector	Percent
Electricity	27
Natural Gas	43
On-Road Transportation	10
Off-Road Equipment	8
Waste	10
Water and Wastewater	2

Source: Santa Clara County 2021a

REGULATORY SETTING

State Regulations

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (AB 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (SB 32 of 2016). EO S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. EO B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets align with the scientifically established levels needed globally to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (UN 2015:3).

The 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by the CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and “substantially advance toward our 2050 climate goals” (CARB 2017:1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). The state has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption.

Local Regulations

Bay Area Air Quality Management District

BAAQMD is the primary agency responsible for addressing air quality concerns in the San Francisco Bay Area, including Santa Clara County. BAAQMD also recommends methods for analyzing project related GHGs in CEQA analyses and recommends multiple GHG reduction measures for land use development projects. BAAQMD developed thresholds of significance to provide a uniform scale to determine the CEQA significance of GHG emissions associated with land use and stationary source projects that align with the statewide GHG target mandated by AB 32 (BAAQMD 2017). BAAQMD’s goals in developing GHG thresholds include ease of implementation; use of standard analysis tools; and emissions mitigation consistent with AB 32. However, BAAQMD has not adopted thresholds of significance or guidance for determining whether a project’s GHG emissions would be consistent with the statewide GHG target established by SB 32 (i.e., 40 percent below 1990 levels by 2030).

Santa Clara County

Santa Clara County identifies GHG emission reduction goals in its Sustainability Master Plan adopted in January 2021. The Sustainability Master Plan has four Priority Areas of sustainability which include: Climate Protection and Defense, Natural Resources and the Environment, Community Health and Well-Being, and Prosperous and Just Economy.

Within these Priority Areas, the County includes strategies that will result in the reduction of GHG emissions such as carbon neutrality by 2045.

3.8.2 Discussion

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

Less than significant. BAAQMD has developed a bright-line threshold of 1,100 metric tons of carbon dioxide equivalent (MTCO_{2e}) regarding operational GHG emissions with the intention of attributing an appropriate share of GHG emission reductions necessary to reach AB 32 goals for proposed land use development projects under CEQA. However, AB 32's GHG reduction target date of 2020 has passed and GHG emissions reduction are now to be analyzed in meeting updated targets provided by SB 32. At the time of preparing this analysis, BAAQMD has not updated its bright-line threshold to be consistent with SB 32 reduction targets. Thus, a project-specific threshold has been developed by applying SB 32's reduction target of 40 percent below 1990 GHG emissions level to the 1,100 MTCO_{2e} bright-line threshold, which brings the threshold of significance for operational GHG emissions to 660 MTCO_{2e}. This threshold is presented to demonstrate consistency with SB 32. However, this linear reduction approach oversimplifies the threshold development process. It is not the intent of this document to propose the adoption of this threshold as a mass emissions limit or CEQA GHG threshold for general use, but rather to provide this additional information to put the project generated GHG emissions in the appropriate statewide context. BAAQMD had not developed any thresholds regarding construction period GHG emissions.

During construction, the project would generate 129 MTCO_{2e} from equipment use and vehicle trips. During operations, the project is estimated to generate less than 47 MTCO_{2e} per year from area sources (i.e., landscape equipment), solid waste generation, wastewater generation, and mobile sources (i.e., vehicle trips). Table 3.8-2 provides a comparison of estimated project-generated GHG emissions relative to the project-specific target of 660 MTCO_{2e} (40 percent below 1,100 MTCO_{2e}).

Table 3.8-2 Estimated Annual Operational GHG Emissions

Emissions Source	GHG Emissions (MTCO _{2e} /year)
Area	<1
Solid Waste	<1
Wastewater	<1
Mobile	44
Total	<47
Project-Specific Threshold	660

Notes: MTCO_{2e} = metric tons of carbon dioxide equivalent

Source: Appendix A (calculations by Ascent Environmental in 2021).

As shown in Table 3.8-2, the annual operational emissions under the project would be less than 47 MTCO_{2e} per year; this would not exceed BAAQMD's adopted significance threshold of 1,100 MTCO_{2e} per year, or the adjusted SB 32 threshold of 660 MTCO_{2e} per year. In addition, the project would promote the conservation of open space and carbon sequestration through participation in the Habitat Plan's Reserve System. Therefore, GHG emissions generated either directly or indirectly under the project would not result in a cumulatively considerable contribution to a significant impact on the environment and the impact would be less than significant.

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

No impact. Consistency with the emissions targets provided by SB 32 would also result in consistency with emissions targets provided by AB 32 of 2006, which are less stringent. The 2017 Scoping Plan lays out the framework for achieving the 2030 statewide GHG reduction target of 40 percent below 1990 levels and progress toward additional reductions. Appendix B of the 2017 Scoping Plan includes detailed GHG reduction measures and local actions that land use development projects and municipalities can implement to support the statewide goal. Because the project would promote the conservation of open space and promote carbon sequestration through restoration efforts, the project would not conflict with the 2017 Scoping Plan measures. In addition, the 2017 Scoping Plan, the County's Sustainability Master Plan promotes the reduction in GHG emissions through clean energy use, decarbonization of buildings, active transportation, smart growth, and carbon sequestration. Because the project would not result in substantial ongoing energy use, it would be a local serving use for low intensity recreational activities, and would promote restoration of land, it would not conflict with the County's efforts to reduce GHG emissions. This would result in no impact.

3.9 HAZARDS AND HAZARDOUS MATERIALS

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

3.9.1 Environmental Setting

HAZARDOUS MATERIALS

The State Water Resources Control Board's (SWRCB) GeoTracker website provides data relating to leaking underground storage tanks and other types of soil and groundwater contamination, along with associated cleanup activities. No hazardous materials sites are within 1,000 feet of the project area (SWRCB 2021). The California Department of Toxic Substances Control's (DTSC) EnviroStor website provides data related to hazardous materials spills and clean ups. No hazardous material spills or clean ups are recorded within 1,000 feet of the project area (DTSC 2021).

SCHOOLS

The closest school to the project area is the Charter School of Morgan Hill located approximately 0.5 mile west. Other schools in proximity to the project area are located in San Jose approximately 2 to 3 miles to the northwest including Martin Murphy Middle School, Los Paseos Elementary School, and Baldwin Elementary School.

AIRPORTS

No airports or private airstrips are within the project vicinity. The closest public airport is the Reid View Airport located approximately 9 miles northeast of the project area.

EMERGENCY RESPONSE AND EVACUATION PLANS

The Santa Clara County Office of Emergency Management (OEM), the agency responsible for supporting emergency response and disaster readiness within the County, prepared the Operational Area's Emergency Operations Plan. This emergency response plan was prepared to ensure the most effective and efficient allocation of resources for the maximum benefit and protection of the civilian population during times of emergency (Santa Clara County 2017).

REGULATORY SETTING

California Department of Toxic Substances Control

DTSC, a division of the California Environmental Protection Agency (CalEPA), has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. DTSC can delegate enforcement responsibilities to local jurisdictions. The hazardous waste management program enforced by DTSC was created by the Hazardous Waste Control Account (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in the CCR Title 26. The state program is similar to, but more stringent than, the federal program under the Resource Conservation and Recovery Act. The regulations list materials that may be hazardous and establish criteria for their identification, packaging, and disposal. Environmental health standards for management of hazardous waste are contained in CCR Title 22, Division 4.5. In addition, as required by California Government Code Section 65962.5, DTSC maintains a Hazardous Waste and Substances Site List on EnviroStor, an online database that contains hazardous material sites that meet the criteria to be on the Cortese List. Hazardous material sites listed on EnviroStor include federal and state response sites, voluntary, school, and military cleanups and corrective actions, and permitted sites.

California's Secretary for Environmental Protection has established a unified hazardous waste and hazardous materials management regulatory program (Unified Program) as required by SB 1082 (1993). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental programs:

- ▶ hazardous waste generator and hazardous waste on-site treatment programs;
- ▶ Underground Storage Tank (UST) program;
- ▶ hazardous materials release response plans and inventories;
- ▶ California Accidental Release Prevention Program;
- ▶ Aboveground Petroleum Storage Act requirements for spill prevention, control, and countermeasure plans; and
- ▶ California Uniform Fire Code hazardous material management plans and inventories.

The six environmental programs within the Unified Program are implemented at the local level by local agencies—Certified Unified Program Agencies (CUPAs). CUPAs carry out the responsibilities previously handled by approximately 1,300 State and local agencies, providing a central permitting and regulatory agency for permits, reporting, and

compliance enforcement. DTSC regulations would be applicable to the project through the enforcement of spill prevention requirements that the construction contractor would comply with during construction.

State Water Resources Control Board and Regional Water Quality Control Boards

SWRCB and nine regional water quality control boards (RWQCBs) are responsible for ensuring implementation and compliance with the provisions of the federal Clean Water Act and the State Porter-Cologne Act. The Porter-Cologne Act of 1969 is California's statutory authority for the protection of water quality. Along with the SWRCB and RWQCBs, water quality protection is the responsibility of numerous water supply and wastewater management agencies, as well as city and county governments, and requires the coordinated efforts of these various entities.

The SWRCB maintains GeoTracker, an online database used to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from USTs. GeoTracker was initially developed in 2000 pursuant to a mandate by the California State Legislature (AB 592 and SB 1189) to investigate the feasibility of establishing a statewide geographic information system (GIS) for leaking underground storage tank (LUST) sites (SWRCB 2020). The GeoTracker database tracks regulatory data for designated Cortese List sites including LUST cleanup sites, solid waste disposal sites, and active Cease and Desist Orders and Cleanup and Abatement Orders (CalEPA 2021).

3.9.2 Discussion

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

Less than significant. Construction of the project would consist of initial site preparation, grading, excavation, material laydown and placement, and site cleanup. These activities would require the use of limited quantities of hazardous materials, such as fuels, oils, lubricants, or other fluids associated with the operation and maintenance of vehicles or mechanical equipment. Use of these hazardous materials would be temporary and intermittent over the project construction period (i.e., up to 6 months). All hazardous materials would be used, stored, and disposed of in accordance with applicable federal, state, and local laws. However, the transport, use, or disposal of hazardous materials could result in accidents or upset of hazardous materials that could create hazards to people or the environment. The extent of the hazard would depend in large part on the type of material, the volume released, and the mechanism of release (e.g., spill on the ground in the project area versus a spill on a road during transport). Construction activities would comply with the CalEPA's Unified Program, which requires any significant vehicle oil spills to be reported to the local CUPA, which is the Santa Clara County Hazardous Materials Compliance Division for the project area (CalOES 2014, HMCD n.d.). Habitat Plan Condition 3 and EPM HAZ-1 would be incorporated into the project to reduce the potential of hazardous material spills from construction equipment and vehicles. Habitat Plan Condition 3 requires the prevention of the accidental release of chemicals, fuels, and lubricants and the removal of pollutants from surface runoff before they reaches local streams. EPM HAZ-1 requires all equipment to be inspected for leaks before the start of construction activities every day. If leaks are found, the equipment or vehicle would be and immediately removed from the project area.

During operation, the only routine use or transport of hazardous materials would be operating vehicles and equipment within the project area to conduct maintenance activities and servicing of the vault toilet, which would be conducted by a third-party contractor up to twice a year. Operations and maintenance activities would be the same as under existing conditions, with the addition of daily bathroom cleaning, trash removal, and as-needed graffiti removal. The Authority would also visually inspect and maintain trails and other infrastructure on an ongoing basis and make repairs as needed, particularly following storm events. These types of maintenance activities require little mechanical equipment or use of hazardous materials. Servicing the vault toilet would involve the removal and transport of wastewater, which is a hazardous material. Accidental spills during these servicing events could lead to hazards to the public or environment. However, this would occur only twice per year using a professional third-party contractor with proper training in servicing vault toilets and immediately responding to spills should they occur. Therefore, the risk of an accidental spill and substantial contamination would be low. The project would not create a

significant hazard to the public or environmental through the transport, use, or disposal of hazardous materials and the impact would be less than significant.

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

Less than significant. Construction would involve ground-disturbing activities including grading and excavation, which could potentially release hazardous materials into the environment if present. No hazardous materials sites are known to occur in the project area as discussed below under criterion d), and because the project area is undeveloped, it is unlikely that unknown hazardous materials are present within the project area. However, if an unknown hazardous waste site is uncovered, it could create a significant hazard to the environment or public if accidentally released during ground-disturbing activities. If evidence of hazardous waste is encountered during construction, the Authority would implement the applicable requirements of the Comprehensive Environmental Release Compensation and Liability Act and the California Code of Regulations Title 22 regarding the safe handling and disposal of waste. Therefore, this impact would be less than significant.

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

No impact. The project area is not within 0.25 mile of an existing or proposed school. The closest school to the project area is the Charter School of Morgan Hill located approximately 0.5 mile to the west. The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. No impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No impact. No hazardous materials sites listed on the SWRCB's GeoTracker database or the DTSC's EnviroStor database are present within the project area or within 1,000 feet of the project area. The project would therefore not create a significant hazard to the public or the environment from being located on or near a hazardous materials site. No impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No impact. The project area is not within an airport land use plan, or within 2 miles of an existing airport. The project would not result in a safety hazard or excessive noise for people residing or working in the project area. No impact would occur.

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

Less than significant. The project involves the construction of new amenities to support public access and recreation, including a formal entrance and access road, an entry pathway, and bicycle racks; a main public parking area and an overflow parking area; a central gathering area and restroom; and establishment of two new trails with overlooks, a picnic area, and benches. The project area is within the jurisdiction of the Santa Clara County OEM, the agency responsible for supporting emergency response and disaster readiness within the County, which has prepared the Operational Area's Emergency Operations Plan. The emergency response plan allocates emergency response resources and identifies emergency access routes (Santa Clara County 2017).

The project could impair the implementation of OEM's emergency response plan if the new access road impaired emergency access to the project area or prevented evacuation from the project area in an emergency. The new access road has been designed to be at least 20-feet wide and allow staff and emergency vehicles to access existing service/ranch roads and provide a suitable turning radius to accommodate firetrucks and other emergency vehicles. In addition, the project must be reviewed and approved by the Santa Clara County Fire Marshal's Office (Fire Marshall) prior to construction to confirm that for any type of emergency, the local fire department will be able to reach the project area quickly and safely in any conditions and have room to operate their equipment. The project would therefore have a less-than-significant impact related to impairing the implementation of an emergency response plan.

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

Less than significant. As discussed in Section 3.20, "Wildfire," the project area is within a Fire Hazard Severity Zone (FHSZ) designated as High (CAL FIRE 2007a). The High FHSZ is used to designate wildland areas that support medium to high hazard fire behavior and roughly average burn probabilities (CAL FIRE 2007b).

The project would increase public access to the area and build new structures to support low intensity recreation, both of which would increase the exposure of people and structures to hazards involving wildfires. Project structures would be designed to minimize fire risk and maximize emergency access to the site in the case of a wildfire. The shade structures would be constructed of simple, weathering rectangular steel modules that are ignition resistant. Furthermore, the Authority would employ various fire prevention measures to reduce fire risk during project construction and operations. The Authority would implement applicable Habitat Plan Conditions, including Condition 10. This condition requires that fuel buffers of at least 30 feet and up to 100 feet be maintained around new structures. Accordingly, vegetation surrounding all the structures associated with the project, including the shade structures and restroom, would have a fuel buffer in compliance with Condition 10. In addition, the Authority incorporate EPMs into the project to further reduce the risk of wildfire, including EPM HAZ-2, which prohibits smoking in the project area at all times to avoid accidental wildfire ignition, and EPM HAZ-3, which requires that all mechanized hand tools have federal- or state-approved spark arrestors and that each construction crew carry at least one fire extinguisher. Also, the new roadway onsite has been designed to accommodate emergency vehicle access to existing service/ranch roads and provide a suitable turning radius to accommodate firetrucks and other emergency vehicles. Therefore, the project would not expose people or structures to significant hazards involving wildfires and the impact would be less than significant.

3.10 HYDROLOGY AND WATER QUALITY

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

3.10.1 Environmental Setting

HYDROLOGIC SETTING

The project area is within the Coyote Creek Watershed that comprises a 370-square mile area along the southwestern slope of the Diablo Range Mountains to the north, through the Coyote Valley to the southern tip of the San Francisco Bay. Within this large watershed, the project area largely drains to the west and is located in the South Coyote Creek subwatershed—a 25,514-acre area from the southern tip of the Anderson Valley Reservoir to just north of the project area (Authority 2015). The south-southeastern portion of the property, adjacent to the project area, is bisected by a tributary to Coyote Creek with riparian oak woodlands present along the creek channel.

WATER QUALITY

The SWRCB and nine RWQCBs are responsible for ensuring implementation and compliance with the provisions of the federal Clean Water Act and the State Porter-Cologne Act. The project area is within the jurisdiction of the San Francisco Bay RWCQB, which prepared and periodically updates the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan describes beneficial uses of water bodies within the San Francisco Bay RWQCB's jurisdiction including the services and qualities of these aquatic systems. The beneficial uses of inland surface waters described within the Basin Plan include municipal and domestic supply, agricultural supply, commercial and sport fishing, freshwater replenishment, industrial process supply, groundwater recharge, preservation of rare and endangered species, water contact recreation, noncontact water recreation, wildlife habitat, cold freshwater habitat, warm freshwater habitat, fish migration, and fish spawning (SWRCB 2019).

In addition to preparing and updating the Basin Plan, the San Francisco Bay RWQCB administers the adoption of waste discharge requirements, manages groundwater quality, and approves projects within its boundaries under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.

Impaired water bodies are surface waters that are not meeting water quality standards established by the EPA (303(d) list). Coyote Creek is designated under Section 303(d) of the Clean Water Act as an impaired waterbody because of the presence of diazinon, trash, and toxicity issues from unknown sources (SWRCB 2017a; SWRCB 2017b).

GROUNDWATER BASIN

The Sustainable Groundwater Management Act requires all groundwater basins designated as medium or high priority to develop a Groundwater Sustainability Plan. The project area is within the Santa Clara Valley Groundwater Basin. The SCVWD prepared the 2016 Groundwater Management Plan (GWMP) which describes SCVWD's comprehensive groundwater management framework, including existing and potential actions to achieve basin sustainability goals and ensure continued sustainable groundwater management. The GWMP covers the Santa Clara and Llagas subbasins, located entirely in Santa Clara County (SCVWD 2016a).

Groundwater within the Santa Clara Groundwater Basin is typically of very good quality, although some areas in the shallow aquifers adjacent to salt ponds and tidal creeks near San Francisco Bay have been affected by salt water intrusion (SCVWD 2016a). The Priority Basin Project of the Groundwater Ambient Monitoring and Assessment (GAMA) study was conducted for the 620-square mile San Francisco Bay study unit, which includes the Santa Clara Valley Groundwater Basin. This study tested raw water samples for a variety of organic and inorganic constituents. Fourteen VOCs and six pesticides were detected in the wells sampled; however, all detections of VOCs and pesticides in study area wells were below health-based thresholds, and most were less than one-tenth of the threshold values (USGS 2009).

FLOOD HAZARDS

The Pacific Ocean is approximately 35 miles west of the project area and is separated by the Santa Cruz Mountain Range. Thus, a tsunami would not be capable of reaching project area. The project area is not within a flood hazard zone designated by the Federal Emergency Management Agency (FEMA 2009).

A seiche occurs when strong wind events or rapid changes in atmospheric pressure push water from one end of a body of water to the other (NOAA 2021). These typically occur in large bodies of water such as lakes or reservoirs. The project area is approximately 4.5 miles northwest of the 1,271-acre Anderson Reservoir, but outside of the dam failure inundation zone for the reservoir due to its elevation and positioning within the Diablo Foothills (SCVWD 2016b). SCVWD is implementing the Anderson Dam Seismic Retrofit Project to retrofit and strengthen the dam against potential earthquake damage and dam failure (SCVWD 2018). Efforts to retrofit the Anderson Dam began in 2014 and are expected to be complete in 2031. The project includes seismically retrofitting the dam embankment; replacing the existing outlet pipe that runs below the dam; replacing a major section of the concrete spillway and

raising the wall height 9 feet; and increasing the height of the dam crest by 7 feet to provide more freeboard for runoff from larger storms (SCVWD 2018).

3.10.2 Discussion

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

Less than significant. Construction activities involving equipment and/or ground disturbance could degrade water quality if pollutants or contaminants entered the tributary to Coyote Creek, a Section 303(d) impaired waterbody, or any of the other water bodies within the Coyote Creek Watershed (SWRCB 2017a; SWRCB 2017b). In total, the project would result in up to 4.66 acres of ground disturbance. The Authority would be required to obtain coverage under the NPDES Construction General Permit given that ground disturbance exceeds 1 acre in size. To receive coverage under the Construction General Permit, the Authority would be required to develop a SWPPP and demonstrate conformance with applicable BMPs to minimize construction impacts on surface and groundwater quality. BMPs of the SWPPP could include the installation of perimeter siltation fencing and wattles to prevent offsite erosion and sedimentation and use of erosion control mats to prevent exposed soils from being displaced by rain or wind and entering the nearby tributary to Coyote Creek. During construction, the Authority would also incorporate EPM GEO-1 into the project, which involves suspending ground disturbance following heavy precipitation, and EPM GEO-2, which involves implementing standard construction stormwater runoff and erosion control BMPs. The Authority would also incorporate and adhere to Habitat Plan Conditions 3, 7, and 8. Condition 3 involves implementing a range of measures to protect water quality from design through postconstruction, such as preventing the accidental release of chemicals, fuels, and lubricants and removing pollutants from surface runoff before it reaches local streams. Condition 7 includes measures that require directing runoff from impermeable surfaces to natural or landscaped areas and, at project areas adjacent to any natural or human-made drainage, and stabilizing exposed soils to prevent erosion and sedimentation. Condition 8, which applies to maintenance of unpaved roads, including those that serve as recreational trails, includes measures that require that ground disturbance be kept to the smallest area feasible, and that silt fencing or other sediment control devices be used during maintenance activities that disturb soil within the riparian setback zone as defined by the Habitat Plan. Together, these measures would minimize the runoff of pollutants and contaminants during project construction.

The project would require the placement of large areas of stabilizing and impervious materials in locations that are currently undeveloped, which would increase the amount of impervious surface on the project area up to 36,000 square feet. To minimize potential runoff and associated impacts to water quality from this increase in impervious surface, the Authority would install stormwater runoff controls including "self-treating" landscape areas and pervious pavement within the overflow parking area. Impervious site surfaces would be graded to direct stormwater surface flows towards the "self-treating" landscape areas at the low points of the project area. Self-treating landscape areas would be graded up to 4 inches deep and consist of native topsoil. After grading, they would be seeded with an approved seed mix (to be approved by the Habitat Agency or a qualified biologist) and water would naturally percolate through the soil into the ground. These self-treating stormwater capture areas would be established in the center of the main parking area (i.e., the parking island), between the main parking area and the overflow parking area, and along the south side of the new entry/access road. The overflow parking area would be made of pervious pavement, which would allow stormwater to percolate into the ground. The stormwater drainage features would be designed to meet the sizing and design criteria required by the NPDES permit for the project. The "self-treating" landscape areas and pervious pavement would help minimize potential impact during operation of the project. The Authority would also be required to obtain a Drainage Permit and C.3 Stormwater Approval from the Santa Clara County Land Development Engineering Division because of the 36,000 square feet increase in impervious surfaces. A stormwater management plan would be prepared and submitted for County review and approval, along with drainage plans and other required materials. The project would therefore not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

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

Less than significant. The project would implement several new features to support public access and recreation. No water would be required for operation; however, water would be used for dust abatement during construction via a water truck. Dust abatement activities would be temporary and intermittent and would not involve the substantial use of groundwater or otherwise affect recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Furthermore, no new permanent increase in water demand would result from the project and the increase in impervious surfaces in the project area would not be substantial relative to the surrounding undeveloped areas that allow groundwater recharge. Thus, the impact would be less than significant.

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

i) Result in substantial on- or offsite erosion or siltation;

Less than significant. Ground-disturbing construction activities and the permanent increase in impervious surface within the project area could lead to increased on- or offsite erosion or siltation. However, as discussed above under criterion a), the Authority would implement various stormwater and water quality control measures which would limit erosion and siltation. The SWPPP that would be developed for the project would include BMPs to minimize erosion and siltation such as the installation of perimeter siltation fencing and wattles and the use of erosion control mats. The Authority has designed the project to minimize potential impacts from on- or offsite erosion or siltation through the incorporation of EPM GEO-1, which involves suspending ground disturbance following heavy precipitation, and EPM GEO-2, which involves implementing standard construction stormwater runoff and erosion control BMPs. All applicable Habitat Plan Conditions would also be incorporated into the project, including Conditions 3, 7, and 8, which would further limit erosion and siltation during project construction and operation. Therefore, the project would have a less-than-significant impact related to substantial on- or offsite erosion or siltation.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less than significant. The project would result in a 36,000 square-foot increase in impervious surfaces in the project area. This increase in impervious surfaces could result in an increase in the rate or amount of surface runoff. As discussed above in criterion a), the Authority would implement various stormwater and water quality control measures which would also help reduce the rate and amount of surface runoff. For example, the Authority would install stormwater runoff controls including "self-treating" landscape areas and pervious pavement within the overflow parking area. The new impervious areas would be designed to direct runoff to the self-treating landscape areas where it would be captured and percolate into the ground. The Authority would also be required to obtain a Drainage Permit and C.3 Stormwater Approval from the Santa Clara County Land Development Engineering Division, which would require the preparation of a stormwater management plan to minimize increased stormwater runoff from the project. Therefore, the project would not result in any flooding on- or offsite and the impact would be less than significant.

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

Less than significant. The project would not require the use of existing or planned stormwater drainage systems. As described under criterion c)(ii) above, the Authority would install "self-treating" landscape areas where runoff from new impervious areas would be directed and use pervious materials in certain areas such as in the overflow parking area. These stormwater control features would allow runoff to percolate into the ground. Furthermore, as described above in criterion a), the Authority would implement various stormwater and water quality control measures during

construction which would reduce additional sources of polluted runoff caused by the project. Therefore, the impact would be less than significant.

iv) Impede or redirect flood flows?

Less than significant. The project would result in the development of new structures and amenities to support public access and recreation, which could potentially impede or redirect flood flows. However, the project would result in a total of approximately 1.5 acres of new, permanent project features consisting of a new access road, parking areas, trails, overlooks, picnic areas, and other features that don't have walls or other solid structures that could impede or redirect flows. In addition, the project is not within a flood hazard zone, therefore the likelihood of flooding is low (FEMA 2009). Therefore, the project would not substantially impede or redirect flows and the impact would be less than significant.

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

No impact. The project is not within a flood hazard, tsunami, or seiche zone, where the risk of release of pollutants from project inundation could occur. The project area is approximately 4.5 miles northwest of the Anderson Reservoir; however, the project is outside of the flood inundation zone and would not be inundated by a dam failure. The project would therefore have no impact.

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

Less than significant. The project is within the jurisdiction of the San Francisco Bay RWQCB and the Authority is required to comply with the Basin Plan. If the project were to significantly impact water quality and diminish the beneficial uses listed in the Basin Plan, the project could conflict with or obstruct the implementation of the Basin Plan. However, as discussed above in criterion a), the Authority would implement various water quality control measures to limit potential water quality impacts to the tributary to Coyote Creek and the Santa Clara Valley Groundwater Basin. These measures would include the BMPs listed in the SWPPP, EPM GEO-1, EPM GEO-2, along with Habitat Plan Conditions 3, 7, and 8. The BMPs listed in the SWPPP would protect the water quality of the tributary to Coyote Creek and the Santa Clara Valley Groundwater Basin by requiring the implementation of several erosion and siltation prevention measures such as the installation of perimeter siltation fencing and wattles to prevent offsite erosion and sedimentation and use of erosion control mats to prevent exposed soils from being displaced by rain or wind. EPM GEO-2 would further support the BMPs of the SWPPP by requiring the implementation of standard construction stormwater runoff and erosion control BMPs. Habitat Plan Conditions 3, 7, and 8 would also be adhered to during construction and operation. Condition 3 would require various water quality measures to be implemented from project design through postconstruction, such as preventing the accidental release of chemicals, fuels, and lubricants and removing pollutants from surface runoff before it reaches local streams. Condition 7 includes measures that require directing runoff from impermeable surfaces to natural or landscaped areas and stabilizing exposed soil to prevent erosion and sedimentation in project areas adjacent to the tributary to Coyote Creek or human-made drainages. Condition 8, which applies to maintenance of unpaved roads, including those that serve as recreational trails, includes measures that require that ground disturbance be kept to the smallest area feasible, and that silt fencing or other sediment control devices be used during maintenance activities that disturb soil within the riparian setback zone as defined by the Habitat Plan.

In addition to the water quality control measures detailed above, the project design includes the construction of "self-treating" landscape areas and pervious pavement within the overflow parking area that would be designed to capture stormwater runoff and allow it to infiltrate into the ground. This would minimize offsite runoff of stormwater that could potentially enter the tributary to Coyote Creek and aid in recharging the Santa Clara Valley Groundwater Basin. Therefore, the project would not conflict with or obstruct implementation of the Basin Plan.

The project is also within the jurisdiction of the SCVWD, which prepared the 2016 GWMP which describes SCVWD's actions and goals ensure continued sustainable groundwater management. The project could conflict with or

obstruct the implementation of the 2016 GWMP if it required substantial groundwater for construction or operation. As described above in criterion b), no water would be required for operation. During construction, water would be used for dust abatement via a water truck. Dust abatement activities would be temporary and intermittent and would not involve the substantial use of groundwater or otherwise affect the recharge of the Santa Clara Groundwater Basin. The project would therefore not conflict with or obstruct a sustainable groundwater management plan or the Basin Plan, and the impact would be less than significant.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.11.1 Environmental Setting

The project would be located within the boundary of the Malech Road property, which is an approximately 29-acre site located adjacent to the greater CRID in unincorporated Santa Clara County, southeast of the city of San Jose and northwest of the city of Morgan Hill. The property is undeveloped and currently used for occasional cattle grazing by local ranchers and docent-guided public visits led by Authority staff. The closest facility to the project area is the Santa Clara County Parks' Field Sports Park, a public shooting range, which is located approximately 0.25-mile north-northwest of the project area boundary. Further from the project area boundary, the Santa Clara County Sheriff's Firearms Range and a women's wellness center are approximately 0.70-mile north-northwest of the project area boundary; industrial and commercial facilities are between 0.50 and 1 mile west-southwest and on the opposite side of U.S. 101 from the project area boundary, and the Charter School of Morgan Hill is approximately 0.50-mile south-southwest of the project area boundary.

The project area is zoned as HS-d1 by Santa Clara County (Santa Clara County 2003; Santa Clara County 2016b). The purpose of the HS district is to preserve areas that are unplanned or unsuited for urban development primarily in open space and to promote uses which support and enhance a rural character, which protect and promote wise use of natural resources, and which avoid the risks imposed by natural hazards found in these areas. Development is limited to avoid the need for additional public services and facilities. Permitted uses include agriculture and grazing; very low-density residential use; low density, low intensity recreation; mineral and other resource extraction; and land in its natural state. The purpose of the -d Design Review combining districts is to designate certain visually and environmentally sensitive areas as requiring design review, with the intention of mitigating adverse visual impacts of development and encouraging quality design. The -d1 combining district has a specific design review procedure for the "Santa Clara Valley Viewshed," which is intended to conserve the scenic attributes of hillside lands most immediately visible from the valley floor by minimizing the visual impacts of structures and grading on the natural topography and landscape, using a combination of supplemental development standards, design guidelines, design review, and use of process incentives for smaller and less visible projects. The Santa Clara Valley Viewshed encompasses the hillsides and mountainous lands generally visible from the main Santa Clara Valley floors, for both the north and south valley areas, which includes the project area (Santa Clara County 2005).

The lands directly adjacent to the project area to the northwest are zoned Hillside-Scenic Road Combining District (HS-sr) and the lands directly south and southwest of the project area boundary are zoned Hillside-Design Review-Scenic Road Combining District (HS-d1-sr). Further from the project area boundary, from U.S. 101 to the southwest, lands are zoned General Use-Scenic Road Combining District (A1-20s-sr) as well as varying types of Exclusive Agriculture combining districts (A-20ac, A-20ac-ar, A-40ac, and A-40ac-sr) (Santa Clara County 2003; Santa Clara County 2016b).

3.11.2 Discussion

a) Physically divide an established community?

No impact. No established communities are located within or adjacent to the project area. Therefore, the project would not physically divide an established community. No impact would occur.

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. The project area is zoned HS-d1 by Santa Clara County, which permits low intensity recreation (Santa Clara County 2003; Santa Clara County 2016b). According to the Santa Clara County zoning ordinance, low-intensity recreation is allowed in areas designated as HS if the recreational opportunities support the study, appreciation, or enhancement of the natural environment (Santa Clara County 2003). The project would create public access features to allow the public to enjoy and recreate on the project area. The project features are proposed to be sited and designed with consideration of user experience, accessibility, and topography, and to highlight the ecological values of the project area. Only low intensity recreational activities would be permitted, such as hiking, nature appreciation, and photography. Furthermore, the project would install interpretive signage to educate the public on the ecological features of the project area.

The -d1 combining district is intended to conserve the scenic attributes of hillside lands most immediately visible from the valley floor. As described in Section 3.1, "Aesthetics," project features would be sited and designed with consideration of views and exposure. The materials and colors used would be context-sensitive and visually compatible with the natural landscape. Surface materials, including asphalt and concrete would be limited to the parking and staging area and retaining walls. Other materials would include weathered steel, wood, and native stone; which would be situated to mimic the surrounding rolling hills and agrarian landscape. These architectural materials would fade into the existing landscape from a distance. Therefore, the project would conserve the scenic attributes of hillside lands in the Santa Clara Valley.

The project would be consistent with the HS-d1 land use designation. Therefore, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation, and the impact would be less than significant.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Environmental Setting

No locally important mineral resource recovery sites are known to be located within the project area. The project area is classified as Mineral Resource Zone (MRZ)-3 and MRZ-4 (Kohler-Antablin 1999). The MRZ-3 classification is used to designate areas that contain mineral deposits, but their significance cannot be determined, and the MRZ-4 classification is used to designate areas where available information is inadequate to assign any other MRZ classification, but mineral resources may be present based on existing geologic information (DOC 1987).

3.12.2 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less than significant. While no mineral resource recovery sites are known to occur in the project area, the project area is classified as MRZ-3 and MRZ-4 (Kohler-Antablin 1999). These two designations indicate that portions of the project area contain mineral deposits of unknown significance (MRZ-3), while other portions may or may not contain mineral resources (MRZ-4). If mineral resources are present, the project would not result in their loss. The project would implement several new features in the project area to support public access and recreation. No mineral resources would be extracted or removed. The project would therefore have a less-than-significant impact related to the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No impact. The project area's general plan land use designation is Hillside Resource Conservation Area and the area is zoned HS-d1 (Santa Clara County 2016a, Santa Clara County 2016b). Neither of these designations relate to important mineral resource recovery sites, therefore the project would have no impact of resulting 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.

3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 Environmental Setting

ACOUSTIC FUNDAMENTALS

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Noise is typically expressed in decibels (dB), which is a common measurement of sound energy. Definitions of acoustical terms used in this section are provided in Table 3.13-1.

Table 3.13-1 Acoustic Term Definitions

Term	Definition
Noise	Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted.
Decibel (dB)	Sound levels are measured using the decibel scale, developed to relate to the range of human hearing. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. 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). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.
A-weighted decibel (dBA)	The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed, identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels. For this reason, the A-weighted sound levels are used to predict community response to noise from the environment, including noise from transportation and stationary sources, and are expressed as A-weighted decibels. All sound levels discussed in this section are A-weighted decibels unless otherwise noted.
Equivalent Noise Level (L_{eq})	The average noise level during a specified time period; that is, the equivalent steady-state noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level).
Maximum Noise Level (L_{max})	The highest instantaneous noise level during a specified time period.

Source: Caltrans 2013a

Noise Generation and Attenuation

Noise can be generated by many sources, including mobile sources such as automobiles, trucks, and airplanes and stationary sources such as activity at construction sites, machinery, and commercial and industrial operations. As sound travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers. Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates at a rate of 6 dB for each doubling of distance from a point source. Noise from a line source, such as a road or highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. For acoustically absorptive sites such as soft dirt, grass, or scattered bushes and trees, additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuation rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric conditions such as wind speed, wind direction, turbulence, temperature gradients, and humidity also alter the propagation of noise and affect levels at a receiver. Furthermore, the presence of a barrier (e.g., topographic feature, intervening building, and dense vegetation) between the source and the receptor can provide substantial attenuation of noise levels at the receiver. Natural (e.g., berms, hills, and dense vegetation) and human-made features (e.g., buildings and walls) may function as noise barriers.

To provide some context to noise levels described throughout this section, common sources of noise and associated noise levels are presented in Table 3.13-2.

Table 3.13-2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, garbage disposal at 3 feet
Noisy urban area, gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet, normal speech at 3 feet
Commercial area, heavy traffic at 300 feet	60	
Quiet urban daytime	50	Large business office, dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library, bedroom at night, concert hall (background)
Quiet rural nighttime	20	Broadcast/recording studio
	10	
Threshold of human hearing	0	Threshold of human hearing

Notes: dB = A-weighted decibels; mph = miles per hour

Source: Caltrans 2013a

Effects of Noise on Humans

Exposure to excessive noise may result in physical damage to the auditory system, which may lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over a period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a short period. Non-auditory behavioral effects of noise on humans are primarily subjective effects such as annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning.

EXISTING NOISE SOURCES AND LEVELS

The project is located adjacent to the Santa Clara County Sports Park, shooting range, and US 101. The noise environment within the project area results primarily from shooting within the Sports Park and from vehicle traffic along the US 101. The traffic noise levels 100 feet from the centerline of US 101 was estimated to be 59.3 dBA (Appendix D).

NOISE- AND VIBRATION-SENSITIVE LAND USES AND RECEPTORS

Noise- and vibration-sensitive land uses generally include those uses where noise exposure could result in health-related risks to individuals, places where a quiet setting is an essential element of the intended purpose (e.g., schools and libraries), and historic buildings that could sustain structural damage due to vibration. The project is in a sparsely populated area where land is generally undeveloped. Noise- and vibration-sensitive receptors in the vicinity of the project area include nearby residents and the Charter School of Morgan Hill. The closest sensitive receptor to the project area is an existing residence, which is 850 feet west of the project area, between the project area and US 101. The Charter School of Morgan Hill is located 0.50-mile from the project area and on the opposite side of US 101; thus, it is not discussed further.

AIRPORTS AND PRIVATE AIRSTRIPS

There are no public airports or private airstrips within the project vicinity. The nearest airport is the Reid-Hillview Airport, which is located approximately 9 miles northwest of the project area.

REGULATORY SETTING

Federal Regulations

Federal Transit Administration

The Federal Transit Administration (FTA) provides guidance on evaluating human response to ground vibration. The FTA has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses where people live or work. These guidelines are presented in Table 3.13-3.

Table 3.13-3 Groundborne Vibration Impact Criteria for Human Response

Land Use Category	Ground-Borne Vibration Impact Levels for Human Response (VdB re 1 microinch/second)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Category 1: Buildings where vibration would interfere with interior operations.	65 ⁴	65 ⁴	65 ⁴
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB re 1 microinch/second = vibration decibels referenced to 1 microinch/second and based on the root mean square (RMS) velocity amplitude.

¹ "Frequent Events" is defined as more than 70 vibration events of the same source per day.

² "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

³ "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

⁴ This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018

State Regulations

California Department of Transportation

In 2013, Caltrans published the Transportation and Construction Vibration Manual, which provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage (Caltrans 2013b). Table 3.13-4 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 3.13-4 Structural Damage Potential to Buildings at Various Groundborne Vibration Levels

Structure and Condition	PPV (in/sec)	
	Transient Sources	Transient Sources
Extremely Fragile Historic Buildings, Ruins, Ancient Monuments	0.12	0.08
Fragile Buildings	0.2	0.1
Historic and Some Old Buildings	0.5	0.25
Older Residential Structures	0.5	0.3
New Residential Structures	1.0	0.5
Modern Industrial/Commercial Buildings	2.0	0.5

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2013b

Local Regulations

According to the County's Noise Ordinance, a project would have a significant impact based on the following standards.

1. The noise standards for the various receiving land use categories as presented in Table 3.13-5 will apply to all property within any zoning district.
2. No person may operate or cause to be operated any source of sound at any location within the unincorporated territory of the County or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by the person, which causes the noise level when measured on any other property either incorporated or unincorporated, to exceed:
 - a. The noise standard for that land use as specified in Table 3.13-5 for a cumulative period of more than 30 minutes in any hour; or the noise standard plus five dB for a cumulative period of more than 15 minutes in any hour; or
 - b. The noise standard plus ten dB for a cumulative period of more than five minutes in any hour; or the noise standard plus 15 dB for a cumulative period of more than one minute in any hour; or
 - c. The noise standard plus 20 dB or the maximum measured ambient, for any period of time.
3. If the measured ambient level exceeds that permissible within any of the first four noise limit categories above, the allowable noise exposure standard will be increased in five dB increments in each category as appropriate to encompass or reflect the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under the category will be increased to reflect the maximum ambient noise level.
4. If the noise measurement occurs on a property adjoining a different land use category, the noise level limit applicable to the lower land use category, plus five dB, will apply.
5. If for any reason the alleged offending noise source cannot be shutdown, the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance that the noise from the source is at least ten dB below the ambient in order that only the ambient level be measured. If the

difference between the ambient and the noise source is five to ten dB, then the level of the ambient itself can be reasonably determined by subtracting a one-decibel correction to account for the contribution of the source.

6. Correction for character of sound. In the event the alleged offensive noise contains a steady, audible tone such as a whine, screech or hum, or contains music or speech conveying informational content, the standard limits set forth in Table 3.13-5 will be reduced by five dB.

Table 3.13-5 Exterior Noise Limits

Receiving Land Use Category	Time Period	Noise Level (dBA)
One- and Two-Family Residential	10:00 p.m.—7:00 a.m.	45
	7:00 a.m.—10:00 p.m.	55
Multiple-Family Dwelling	10:00 p.m.—7:00 a.m.	50
Residential Public Space	7:00 a.m.—10:00 p.m.	55
Commercial	10:00 p.m.—7:00 a.m.	60
	7:00 a.m.—10:00 p.m.	65
Light Industrial	Any Time	70
Heavy Industrial	Any Time	75

Notes: dBA = A-weighted decibels

Source: Santa Clara County 2021b

Santa Clara County Code (Section B11-154(b)(6)) prohibits the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekdays and Saturday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, that would generate a noise disturbance across a residential or commercial real property line. Where technically and economically feasible, construction activities must be conducted in a manner such that the maximum noise levels at affected properties will not exceed those listed Table 3.13-6 and Table 3.13-7.

Table 3.13-6 Mobile Equipment – Maximum Noise Levels for Nonscheduled, Intermittent, Short-Term Operation (Less Than Ten Days)

Item	Single- and Two-Family Dwelling Residential Area (dBA)	Multifamily Dwelling Residential Area (dBA)	Commercial Area (dBA)
Daily, except Sundays and legal holidays 7:00 a.m.—7:00 p.m.	75	80	85
Daily, 7:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50	55	60

Notes: dBA = A-weighted decibels

Source: Santa Clara County 2021b

Table 3.13-7 Stationary Equipment – Maximum Noise Levels for Repetitively Scheduled and Relatively Long-Term Operation (Periods of Ten Days or More)

Item	Single- and Two-Family Dwelling Residential Area (dBA)	Multifamily Dwelling Residential Area (dBA)	Commercial Area (dBA)
Daily, except Sundays and legal holidays 7:00 a.m.—7:00 p.m.	60	65	70
Daily, 7:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50	55	60

Notes: dBA = A-weighted decibels

Source: Santa Clara County 2021b

As shown above in Table 3.13-6 and 3.13-7, Santa Clara County identifies one set of standards for short-term (i.e., less than 10 days) construction activities using mobile equipment and one set for period longer than 10 days using stationary equipment. Furthermore, the standards do not specify noise units. All construction work would occur for much longer than 10 days and both mobile and stationary equipment would be utilized, so the lower thresholds (Table 3.13-5) are more applicable because as a temporary noise source occurs for longer periods of time, people may be more sensitive to it. Secondly, because construction occurs over multiple hours/day with activities and noise levels fluctuating during the day, the noise limits were applied as hourly averages (i.e., L_{eq}).

Ground Vibration

Santa Clara County Code (Section B11-154(b)(7)) prohibits operating or permitting the operation of any device that creates a vibrating or quivering effect that endangers or injures the safety or health of human beings or animals, annoys or disturbs a person of normal sensitivities, or endangers or injures personal or real properties.

3.13.2 Discussion

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

Less than significant. Project-related noise would be generated by heavy equipment used onsite during project construction and by increased vehicle trips associated with project operation. These types of noise sources are discussed separately below.

Temporary Construction Noise

The use of heavy equipment during project construction would generate noise, resulting in a temporary increase in noise levels on and around the project area. Construction of the project would occur over approximately 6 months, Monday through Saturday between 7:00 a.m. and 7:00 p.m., consistent with Santa Clara County Code (Section B11-154(b)(6)). All construction staging areas for equipment storage, personnel vehicles, and materials would be located within the project area.

Project construction activities would involve the use of heavy equipment, such as graders, cranes, dozers, tractors, forklifts, generator sets, paving equipment, rollers, welders, mixers, and air compressors. However, the specific construction equipment used would vary depending on the project phase and specific activities occurring. The loudest pieces of equipment that would be used during construction would be dozers, graders and tractors, all which generate noise levels ranging from 84 to 85 dBA L_{max} at 50 feet (FHWA 2006:3). Noise modeling conservatively assumed the simultaneous operation of the three loudest pieces of heavy construction equipment (i.e., a grader, a dozer, and a tractor) operating at the boundary of the project area (see Appendix D). Based on the reference noise levels for these pieces of equipment and accounting for typical attenuation rates, noise levels would attenuate to 53.1 dBA L_{eq} at the nearest sensitive receptors, located 850 feet from the boundary of the project area. Based on the modeling conducted, construction noise levels would not exceed applicable Santa Clara County noise standard of 60 dBA L_{eq} .

Noise generated by construction activities would be temporary and periodic in nature and would only occur during daytime hours when people are less sensitive to noise. Construction activities would only occur between 7:00 a.m. to 7:00 p.m., Monday through Saturday, and no work would occur on Sundays. The noise level generated by construction equipment would not exceed the applicable construction noise standard of 60 dBA at nearby sensitive receptors.

Operational Noise

As described below in Section 3.17, "Transportation," operation of the project would result in an increase of up to 65 daily vehicle trips, which could be audible to nearby sensitive receptors (i.e., residents). However, the project area would only be open to the public during daytime hours, thus increased traffic would occur during the busier times of the day when background noise levels are typically at their highest and receptors are less sensitive. In addition, given that primarily light-duty vehicles would be used by project visitors, and high traffic volumes and associated noise is

present from US 101, the increase in traffic volumes on any project-affected roadway would not result in a noticeable increase in noise relative to existing conditions. Further, the nearest offsite receptors are located approximately 850 feet from the project area, further reducing the potential noise exposure from project operations at existing receptors. Operational trip increases would not result in a substantial increase in ambient noise levels or expose any offsite receptors to excessive noise levels that would exceed the applicable standard or disturb people during the sensitive times of the day.

Conclusion

Construction activities associated with the project would occur during the less sensitive daytime hours, as required in the Santa Clara County Code and would not exceed applicable standards (i.e., 60 dBA L_{eq}). Project operation would not expose offsite sensitive receptors to excessive traffic or other operational noise that would exceed County standards or disturb residents during the sensitive evening and nighttime hours. Therefore, this impact would be less than significant.

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

Less than significant. Project construction would not involve the use of ground vibration-intensive activities, such as pile driving or blasting. Pieces of equipment that generate lower levels of ground vibration, such as dozers and pavers, would be used during construction. These types of common construction equipment do not generate substantial levels of ground vibration that could result in structural damage, except at extremely close distances (i.e., within at least 10 feet). Construction activities would not occur close to any vibration-sensitive land uses and thus would not generate ground vibration that exceeds the Caltrans-recommended criterion of 0.5 in/sec PPV with respect to structural damage. A bulldozer operating at the boundary of the project area would expose the closest sensitive receptor, a single-family residence located approximately 850 feet west of the project area, to a vibration level of 40 vibration decibels (VdB). This level is well below the FTA's maximum-acceptable-vibration standard 80 VdB with respect to human response. Additionally, construction activities would occur during the less sensitive daytime hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. For these reasons, project construction would not result in vibration levels at sensitive receptors that would exceed the Caltrans-recommended criterion of 0.5 in/sec PPV with respect to the prevention of structural damage or FTA's recommended criterion of 80 VdB for assessing human annoyance. Because vibration generated by construction would not exceed Caltrans's or FTA's recommended criterion, this impact would be less than significant.

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

No impact. The project is not located within an airport land use plan or within 2 miles of a public airport or public use airport. Additionally, the project is not located within 2 miles of a private airstrip. Reid-Hillview Airport, the closest airport, is located approximately 9 miles northwest of the project area. Also, the project would not include any new land uses where people would live. Thus, the project would have no impact regarding the exposure of people residing or working in the project area to excessive aircraft-related noise levels.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing. Would the project:				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Environmental Setting

The project is within the boundary of the Malech Road property, which is adjacent to the greater CRID in unincorporated Santa Clara County, southeast of the city of San Jose and northwest of the city of Morgan Hill. No housing or communities are on or adjacent to the project area, and it is currently undeveloped. Directly southwest of the project area is the unincorporated community of Coyote. The community of Coyote is small with a population of 85, and is abutted on either side by larger population centers that comprise San Jose and Morgan Hill (U.S. Census 2019). San Jose has a population of approximately 1.2 million and Morgan Hill has a population of approximately 44,000 (U.S. Census 2019).

3.14.2 Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No impact. The project does not involve the development of new housing or commercial businesses that could lead to direct population growth. A 50-foot-long portion of the Malech Road right-of-way would be paved and lead into a new 20-foot-wide asphalt access road to provide access to the project area. The new road would end in the project area and would not create a new through road or extend transportation routes that could allow for the development of new housing or businesses. All of the new project features would be constructed to allow for public access within the project area and would not contribute to infrastructure that could lead to unplanned population growth.

The Authority would hire contractors to implement the project, but crews would be small, consisting of up to 10 personnel, and the work would be temporary, lasting only the length of construction (i.e., 6 months). Construction workers would be pulled from the local labor force, and the need for temporary workers would not induce substantial population growth. The Authority may also need to hire a few new staff members to implement the additional management activities required for operation of the project. Because only a few new positions would be generated, the project would not be a major source of employment for the region that could induce substantial unplanned population growth. The project would not result in direct or indirect unplanned population growth, and no impact would occur.

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

No impact. The project area is currently undeveloped open space lands. No housing is present; therefore, the project would not displace existing people or housing and there would be no impact.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Environmental Setting

FIRE PROTECTION

The project area is within the East Foothills Planning Area of the Santa Clara County Community Wildfire Protection Plan (CWPP). The Santa Clara County Fire Department does not have fire stations within the East Foothills planning area to cover their jurisdictional area, so first response fire protection and prevention is contracted to the City of Milpitas and San Jose for the respective unincorporated areas adjacent to the two cities. Land use planning, building permits, and policy and ordinances are still the responsibility of Santa Clara County (Santa Clara County 2016c). The project area is closest to the City of San Jose, and the San José Fire Department (SJFD) would be responsible for responding the fire emergencies for the project. The project area is also within a State Responsibility Area where the California Department of Forestry and Fire Protection (CAL FIRE) has jurisdiction for wildland fire protection (CAL FIRE 2007a). As designated in the CWPP, wildland fires within the project area are the shared responsibility of SJFD and CAL FIRE. All other fire emergencies within the project area are the sole responsibility of SJFD.

As shown in Table 2-2 in Chapter 2, "Project Description," the Fire Marshall would review the project plans during the building permit application to confirm that the fire department will be able to reach a site quickly and safely and have room to operate their equipment. The Authority is required to receive approval from the Fire Marshall prior to issuance of the building permit for the project.

POLICE PROTECTION

The Santa Clara County Sheriff's Office (SCCSO) provides police protection services for the county and is composed of four major bureaus: Administrative Services, Enforcement, Custody, and Support Services (SCCSO n.d. a). The Headquarters Patrol, a division of the Enforcement Bureau, provides 24-hour uniformed law enforcement patrol services to unincorporated portions of the county, which includes the project area (SCCSO n.d. b). The headquarters for the Headquarters Patrol is located at 55 West Younger Ave, San Jose, CA 95110, approximately 14 miles north of the project area.

SCHOOLS

The closest school to the project area is the Charter School of Morgan Hill located approximately 0.5 mile west. Other schools in the vicinity of the project area are located in San Jose approximately 2 to 3 miles to the northwest including Martin Murphy Middle School, Los Paseos Elementary School, and Baldwin Elementary School.

PARKS

The project area is adjacent to CRID, an 1,859-acre open space preserve that the public can access during docent-led hikes in the spring (Authority n.d. a; Authority n.d. b). Other parks nearby include Anderson Lake County Park to the southeast, Coyote Creek Parkway directly west of the project area on the other side of the U.S. 101, and Coyote Valley Open Space Preserve further west. To the northwest in San Jose are several parks managed by the City of San Jose including George Page Park, Silver Leaf Park, and Shady Oaks Park (City of San Jose n.d. a).

3.15.2 Discussion

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

Fire protection?

Less than significant. The project is not growth inducing and does not include the development of new residences requiring increased fire protection. The project would result in increased visitation to the Malech Road property through the development of public access features including trails and overlooks. The additional visitors to the project area could increase the need for fire protection services over existing conditions. However, daily visitation would be limited by available parking in the parking and staging area, which provides parking for a total of 44 vehicles. In addition, no smoking would be allowed onsite (EPM HAZ-2) and only low intensity recreation would be permitted in the project area, accordingly, visitors would not introduce new ignition sources to the project area and not substantially increase the demand for fire protection services.

All project features would be reviewed and approved by the Fire Marshall prior to issuance of the building permit. The review of the project is required by Fire Marshall to confirm that SJFD can successfully respond to an incident within the project area. Furthermore, the new entrance, access road, and parking and staging area are designed to give emergency services adequate access to and within the project area.

The project would not result in the need for new or altered fire protection services and the impact would be less than significant.

Police protection?

Less than significant. The project is not growth inducing and does not include the development of new residences requiring increased police protection. However, as described above under criterion a), the project would increase the number of visitors to the area over existing conditions. This increase could lead to the need for additional police protection services. However, the project area would only be open to the public from sunrise to sunset, and the entry gate would be closed every evening after sunset to prevent individuals from entering the project area afterhours. In addition, Authority staff would be present onsite during operating hours and would be the first to respond to incidents. Therefore, the increase in police protection services would be minor and would not result in the need for new or altered police protection services to accommodate the project. The impact would therefore be less than significant.

Schools?

No impact. The project is not growth inducing and does not include the development of new residences requiring increased school services. Because the project would not induce population growth, the project would not result in an increase in demand for educational services such that new or physically altered schools would be necessary to maintain current service levels. No impact would occur.

Parks?

No impact. The project is not growth inducing and does not include the development of new residences that could require the development of new parks. Furthermore, the project would allow for increased public access to the Malech Road property, increasing the number of parks in the region. No impact would occur.

Other public facilities?

No impact. The project is not growth inducing and does not include the development of new residences. Because the project would not induce population growth, the project would not result in an increase in demand for other public facilities, such as libraries and community centers. No impact would occur.

3.16 RECREATION

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

3.16.1 Environmental Setting

The project is adjacent to CRID, which offers the public access to the preserve through seasonal, docent-led hikes. Recreational opportunities surrounding the project include the Metcalf Motorcycle County Park, located approximately 1.5 mile north of the project area in the Diablo Foothills along with the Coyote Creek Golf Club approximately 0.5 mile to the southeast. As described above in Section 3.15, "Public Services," several parks are near the project area including Anderson Lake County Park, Coyote Creek Parkway, and Coyote Valley Open Space Preserve.

3.16.2 Discussion

- a) **Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No impact. The project would not induce population growth in the region or develop new residences which could lead to the increased use of existing neighborhood and regional parks or other recreational facilities. The project would create a new recreational opportunity for the region by providing public access and recreation features within the Malech Road property, including trails, picnic areas, overlooks, and parking. The project would not cause a substantial physical deterioration to existing recreational facilities. No impact would occur.

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

Less than significant. The project includes the construction of public access and recreation features and opening the project area to public use. The potential environmental effects of implementing these public access and recreation features are evaluated within this environmental document which determined that, with application of the mitigation measures identified herein, no significant environmental impacts would occur. Because impacts are addressed in other sections of this document, the impact here is considered less than significant.

3.17 TRANSPORTATION

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

3.17.1 Environmental Setting

ROADWAY NETWORK

Regionally, the unincorporated portions of Santa Clara County are served by a roadway network consisting of federal and state highways, expressways, major and minor arterials, and local roadways. General descriptions of the roadways located in the vicinity of the project area and their intended function are provided below.

Highway System

The project area is served by three federal and state highways which are operated and maintained by Caltrans: U.S. Interstate (US) 101, State Route (SR) 85, and SR 87. A description of each is provided below:

- ▶ US 101, running from far northern California to Los Angeles, is a bi-directional four-lane freeway located approximately 0.25-mile west of the project area at its closest point. US 101 is also known as the South Valley Freeway south of San Jose.
- ▶ SR 85 is a four lane north-south freeway extending through the City of San Jose from the SR 85/US 101 interchange in the City of Mountain View to the SR 85/US 101 interchange in south San Jose. The terminus in south San Jose is approximately 3 miles northwest of the project area.
- ▶ SR 87 is a north-south freeway extending from the SR 85/SR 87 interchange to the US 101/SR 87 interchange. This facility includes three mixed-flow lanes per direction plus carpool lanes during peak periods and is located entirely within the City of San Jose. The southernmost terminus is approximately 8 miles northwest of the project area.

County Roadways

Currently, the County's Roads Administration operates and maintains approximately 635 miles of rural and urban roadways in unincorporated areas. Major County roads are also part of the regional roadway system and typically provide connections to the highway and freeway systems. The following County roadways provide access to the project area:

- ▶ Monterey Road is a north-south bidirectional four-lane arterial roadway east of U.S. 101. Monterey Road connects to Bailey Avenue by way of an on/off ramp providing access to the project area.

- ▶ Bailey Avenue is a southwest-northeast bi-directional six-lane roadway located east of the project area. Bailey Avenue connects to the southern end of Malech Road which provides access to the project area. Sidewalks are present on the northern segment of Bailey Avenue.
- ▶ Metcalf Road is a southwest-northeast bi-directional two-lane roadway located north of the project area. Metcalf Road intersects with the northern end of Malech Road which provides access to the project area.
- ▶ Malech Road is a north-south bi-directional two-lane roadway located, with one segment located east of the project area and segment located directly west and immediately adjacent to the project area, providing direct access.

BICYCLE AND PEDESTRIAN FACILITIES

The bicycle and pedestrian transportation system in Santa Clara County is composed of local and regional bikeways and trails. The Santa Clara Countywide Bicycle Plan classifies bicycle facilities into the following four types:

- ▶ Bicycle Paths (Caltrans Class I): Completely separated from streets. Provide two-way bicycle travel. Often shared with pedestrians.
- ▶ Cycle Tracks (Caltrans Class IV): Bicycle lane physically separated from motor vehicle traffic by a vertical barrier, such as an adjacent parking lane, median, or raised curb. May be one-way or two-way. Can be raised or level with auto travel lanes.
- ▶ Bicycle Lanes (Caltrans Class II): Provide dedicated roadway space for bicyclists, separate from motor vehicle traffic and parking lanes. Designated using striping, pavement markings, and signs. Includes standard and buffered bike lanes.
- ▶ Bicycle Routes (Caltrans Class III): Streets specifically designated for bicyclists to share with motor vehicle traffic. Designated using signs. Bicyclists ride in the travel lane with motorists or on the shoulder. May include shared lane pavement markings or warning signage. Bicycle boulevards are an enhanced type of bicycle route: low-speed, low-volume streets optimized for bicyclists using traffic calming infrastructure, such as traffic circles.

Santa Clara County has over 800 miles of existing bikeways with more than 80 percent providing bicyclists with dedicated space separated from motorists. As of 2016, Santa Clara County had 195 miles of bicycle paths, 2 miles of cycles tracks, 520 miles of bicycle lanes, and 150 miles of bicycle routes (VTA 2018). There are no on-street bike facilities present in the project area. Coyote Creek Trail is a Bicycle Path/Class I recreational trail that is located south of the project area meandering along Coyote Creek for 15 miles. The nearest point of access to the Coyote Creek Trail is at the intersection of Bailey Avenue and southbound U.S. 101, approximately 0.50-mile from the project area. There are no pedestrian facilities present in the project area. The nearest pedestrian facilities are located approximately 1,400 feet south of the project area at the Bailey Avenue US 101 ramps.

TRANSIT SYSTEM

The VTA operates light rail, bus, and paratransit services throughout Santa Clara County. The nearest bus stop, which serves the 68 bus route that operates between San Jose Diridon Station and Gilroy Transit Center, is located over 1 mile from the project area at Santa Teresa Boulevard and Bailey Avenue.

Caltrain and Amtrak provide passenger rail services in the area. Amtrak operates the Coast Starlight between Seattle and Los Angeles and Caltrain between San Francisco and Gilroy. The train tracks serving each operator run east of the project area; however, there are no train stations in the vicinity of the project area.

REGULATORY SETTING

Senate Bill 743 and CEQA

SB 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new State CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

These updates indicated that VMT would be the primary metric used to identify transportation impacts. State CEQA Guidelines Section 15064.3 was added on December 28, 2018, to address the determination of significance for transportation impacts, which requires VMT as the basis of transportation analysis instead of congestion (such as LOS). The updated State CEQA Guidelines were approved and lead agencies had an opt-in period until July 1, 2020 to implement the updated guidelines regarding VMT. As of July 1, 2020, implementation of Section 15064.3 of the updated CEQA Guidelines apply statewide.

State CEQA Guidelines Section 15064.3(b) identifies criteria for analyzing the transportation impacts of a project. Section 15064.3(b)(1) addresses land use projects and describes that projects with specified proximity (i.e., 0.5-mile or less) to "major" or "high quality" transit should be presumed to cause a less-than-significant transportation impact. Additionally, Section 15064.3(b)(1) also describes that projects resulting in a decrease in VMT in the project area as compared to existing conditions should also be presumed to have a less than significant effect. Section 15064.3(b)(3), "Qualitative Analysis," explains that there may be conditions under which a qualitative rather than quantitative analysis of VMT is appropriate. This section states that if existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may qualitatively analyze VMT generated by a project. Additionally, this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate. Section 15064.3(b)(4), "Methodology," explains that the lead agency has discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards such as CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses).

In December of 2018, OPR published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory), which provides guidance for VMT analysis. The 2018 Technical Advisory provides guidance related to screening thresholds for small projects to indicate when detailed analysis is needed or if a project can be presumed to result in a less-than-significant VMT impact. The Technical Advisory notes that projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact, absent substantial evidence indicating otherwise (OPR 2018).

Santa Clara County

County Roads and Airports Department

All work within the ROW, expressways, and unincorporated roads, requires an encroachment permit from the County Roads and Airports Department and must conform to County Standards. Santa Clara County provides the Standard Details Manual and the Standards Specifications Manual which detail the requirements pertaining to design and standard specifications for roadway improvements. The proposed access road and parking area design are required to comply with applicable standards and regulations identified in the Standards Details Manual and Standards Specifications Manual.

An encroachment permit from the County will also be required for the driveway approach to the project area and for any additional work in the public ROW. Additionally, the County requires a Traffic Control Plan (TCP) to demonstrate traffic handling during construction activities for all work that will or may impact the traveling public (vehicular, pedestrian, and bicyclist). The TCP may be site specific or a "Typical Application" from Part 6 Temporary Traffic Control, of the 2014 Edition of the California Manual on Uniform Traffic Control Devices, as appropriate.

County Fire Department Standard Details and Specifications

The Santa Clara County Fire Department provides Standards and Specifications documents addressing several emergency response regulations including fire department apparatus access as well as specifications for driveways, turnarounds, and turnouts. The project is required to meet any applicable regulations presented in the County Fire Department Standards and Specifications related to project design and/or construction activity to maintain adequate emergency access during construction and operations and will require County Fire Department review and approval.

3.17.2 Discussion

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

Less than significant. There are no existing transit, bicycle, or pedestrian facilities in the vicinity of the project area. Further, there are no planned transit, bicycle, or pedestrian facilities in the vicinity of the project area. The project involves the construction of new public access features within an undeveloped open space area, including new trails to support public access and recreation and a parking area where bicycle racks would be provided. Therefore, the project would not adversely affect any existing or planned transit, bicycle, or pedestrian facility, or conflict with a program, plan, ordinance, or policy addressing pedestrian, bicycle, transit, or roadway facilities. This impact would be less than significant.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less than significant. The Authority does not have their own VMT guidelines and thresholds to meet the State requirements set by SB 743 and that address CEQA Guidelines Section 15064.3. Therefore, in the absence of adopted VMT guidelines and thresholds of significance, the VMT analysis herein relies on the guidance provided in CEQA Guidelines Section 15064.3 and the 2018 Technical Advisory (OPR 2018).

Construction

As detailed in Chapter 2, "Project Description," construction is scheduled to occur between July 2022 and December 2022, and the project construction would be completed by one crew consisting of 5-10 personnel. Project construction activities would be temporary and intermittent in nature; and thus, would not result in long-term increases in vehicular trips. Additionally, no phase of construction would overlap with operation of the project.

The VMT of construction workers is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites in which workers travel to each day. Therefore, construction workers are not generating new VMT each day, only redistributing it. Additionally, even if the trips generated during project construction were considered to be new trips, construction workers are expected to generate a total of 10-20 average daily trips, assuming that construction workers would not carpool and would generate two trips per worker per day. Therefore, the number of daily construction trips generated would be fewer than 110 trips per day; thus, satisfying the screening threshold for small projects as detailed in the OPR Technical Advisory. Therefore, construction activities are not expected to significantly increase VMT in the region.

Operations

As detailed in Chapter 2, "Project Description," the project area consists of two parcels totaling 29.66 acres. Of those 29.66 acres, 1.56 acres would be developed with active uses (i.e., recreation facilities and amenities). The number of new trips that would be generated by the project was estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual 10th edition (ITE 2017).

The ITE Trip Generation Manual (10th Edition) provides weekday, Saturday, and Sunday average daily trip generation rates for the land use category "Public Parks" (ITE Land Use Code 411). As defined in the ITE Trip Generation Manual (10th Edition), public parks are defined as being owned and operated by a municipal, county, state, or federal agency, and could include boating or swimming facilities, beaches, hiking trails, ball fields, soccer fields, campsites, and picnic

facilities. Table 3.17-1 shows the weekday, Saturday, and Sunday daily trip generation rates for the "Public Parks" land use category.

Table 3.17-1 Project Trip Generation Rates

Land Use	ITE Land Use Code	Quantity	Weekday Daily Trip Rate	Saturday Daily Trip Rate	Sunday Daily Trip Rate
Public Parks	411	Acres	.78	1.96	2.19

Source: ITE Trip Generation Manual 2017

To provide a conservative estimate of the number of average daily trips potentially generated by the project, the highest daily trip rate from Table 3.17-1 (i.e., Sunday daily trip rate) was utilized for the purpose of this analysis. Therefore, based on the Sunday daily trip rate shown in Table 3.17-1 above, the proposed project is estimated to generate approximately 65 trips per day. Using OPR guidance, because the project would generate fewer than 110 trips per day the screening threshold for small projects as detailed in the OPR Technical Advisory would not be exceeded. Thus, operational activities would not significantly change VMT in the region.

Summary

The construction and operational activities of the project would each generate fewer than 110 daily trips; thus, the project meets the screening criteria established in the OPR Technical Advisory to recognize that small projects do not cause a significant impact. For this reason, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). This impact would be less than significant.

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. The project would not require the re-design or alteration of any existing travel lanes on Malech Road or other public roadways. A 50-foot-long portion of the Malech Road right-of-way would be paved and lead into a 29-foot-wide entry driveway connecting a new 20-foot-wide access road that would extend to a passenger drop off area in the parking area. The main parking area would include 20 standard parking stalls and two ADA-accessible stalls and an overflow parking lot would accommodate an additional 24 vehicles. The newly paved portion of Malech Road, the new driveway, access road, and parking areas would be required to comply with all County design standards and regulations including provisions regarding adequate sight distance at all access points. According to the traffic operations analysis conducted for the project, vertical and horizontal geometry of Malech Road and the intersection with the entrance driveway would not obstruct the sight and stopping distance recommended for a trailing vehicle to yield to a stopped or slowing leading vehicle entering the project area. The traffic operations analysis concluded that:

- ▶ Vehicles trailing leading vehicles which are stopped or slowing to turn into project driveway have adequate sight distance to slow down and queue if needed.
- ▶ Vehicles stopped at the project exit can see far enough down the roadway to ensure there is an adequate gap in traffic present for them to safely turn onto the road and accelerate up to speed (Appendix E).

A one-way spike strip would be installed in the parking area exit to ensure traffic flows in one direction. Additionally, sidewalks and crosswalks would be implemented to provide safe travel for pedestrians navigating the parking area. In addition, an encroachment permit from the County would be required for the project, and the County requires that a TCP be prepared and submitted with the encroachment permit application. The TCP would demonstrate appropriate traffic handling during construction activities for all work that will or may impact the traveling public (e.g., the transport of equipment and materials to the project area). Therefore, the Authority would prepare and implement a TCP, which would minimize any increased hazards related to traffic and transportation during construction.

All access and roadway related improvements associated with the project would be constructed in accordance with applicable County design, safety standards, and permit requirements. For these reasons, the project would not

substantially increase hazards due to geometric design features or incompatible uses; therefore, the impact would be less than significant.

d) Result in inadequate emergency access?

Less than significant. The project area's primary vehicular ingress/egress point would be provided via a new formalized access road off of Malech Road, a County operated and maintained roadway. Therefore, emergency access to the project area would be subject to review by the County and the responsible emergency service agencies.

As discussed in Chapter 2, "Project Description", the project will undergo fire safety review for land development by the County Fire Marshal's Office, thus ensuring that the project would be designed to meet all County emergency access and design standards. In addition, the proposed internal roadway has been designed to be 20-feet-wide, which complies with the County Fire Department Standard Details and Specifications. Furthermore, as detailed in Section 2.3, "Description of the Project," the new access road would be constructed to accommodate emergency vehicle access to the project area and existing ranch roads and would include an adequate turning radius for firetrucks and other emergency vehicles. Additionally, the traffic operations analysis concluded that a County fire department truck would have adequate space to access and navigate the project area (Appendix E). Therefore, adequate emergency access would be provided within the project area and the impact would be less than significant.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Would the project 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:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.18.1 Environmental Setting

TRIBAL CULTURAL RESOURCE SETTING

The project area is within the general area inhabited by the Ohlone. The Ohlone were subdivided into tribelets, and the project area was in the southern portion of the *Tamyen (Tamien)* and northern portion of the *Mutsun* territory of the Ohlone (Basin 2019). Refer to Section 3.5, "Cultural Resources," above for more information about previous occupation of Santa Clara Valley.

ASSEMBLY BILL 52 CONSULTATION

AB 52 establishes a formal consultation process for California Indian tribes as part of CEQA, and equates significant impacts on TCRs with significant environmental impacts. TCRs include site features, places, cultural landscapes, sacred places or objects, which are of cultural value to a tribe. Several new PRC sections have been written to codify the law's requirements. PRC Section 21080.3.2 provides that if the California tribe requests consultation to include project alternatives and mitigation measures, such consultation would be required; PRC Section 21082.3 provides that any mitigation measures agreed upon during consultation shall be recommended for inclusion in the environmental document and affirms the lead agency's obligation to keep confidential any information obtained from a Native American tribe during the consultation process; and, PRC Section 21083.4 provides examples of mitigation measures for impacts to TCRs.

OUTREACH TO TRIBAL REPRESENTATIVES

In accordance with AB 52, the Authority sent letters via certified mail to Native American tribal contacts in Santa Clara County on October 13, 2020. The Authority sent letters to the following tribal contacts: Valentin Lopez, chairperson, Amah Mutsun Tribal Band; Irenne Zwierlein, chairperson, Amah Mutsun Tribal Band of Mission San Juan Bautista; Ann Marie Sayers, chairperson, Indian Canyon Mutsun Band of Costanoan; Charlene Nijmeh, chairperson, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area; Katherine Erolinda Perez, chairperson, North Valley Yokuts Tribe; and Andrew Galvan, Ohlone Indian Tribe. Responses were received from the Amah Mutsun Tribal Band of Mission San Juan Bautista and the Muwekma Ohlone Tribe of the San Francisco Bay Area.

No responses were received within the 30-day consultation period; however, due to the COVID-19 pandemic, the Authority decided to send follow-up emails on February 1, 2021. Responses were then received from the Muwekma Ohlone Indian Tribe and the Amah Mutsun Tribal Band of Mission Ban Juan Bautista. The Muwekma Ohlone Indian Tribe indicated that they are not aware of ancestral cultural resources specifically within the project area, however, given that the project is within the greater aboriginal territory of Thámien Ohlone-speaking tribal groups of the greater Santa Clara Valley, there is the possibility that unknown TCRs are present in the project area. The Muwekma Ohlone Indian Tribe recommended measures to be incorporated into the project to protect unknown TCRs (Arellano 2021). The Amah Mutsun Tribal Band of Mission Ban Juan Bautista also recommended measures to be incorporated into the project to avoid impacts to unknown TCRs (Zimmer 2021). Through this AB 52 consultation, the Authority developed Mitigation Measure CUL-1 presented herein.

3.18.2 Discussion

Would the project 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:

- a) **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

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

Less-than-significant with mitigation incorporated. No tribal cultural resources, as defined by PRC Section 5024.1, are known to occur in the project area. However, the history of the region including the project area is known to have included Native American use and there is a potential for unknown TCRs to be present within the project area, which could be encountered by the project. However, the Authority would implement Mitigation Measure CUL-1, which would avoid impacts to TCRs by requiring the Authority to provide a cultural sensitivity training program to all construction personnel, halt all work if a potential TCR identified by a tribe in the future is encountered, and consult with NAHC if human remains of Native American origin are discovered. The cultural sensitivity training program would include relevant information regarding tribal cultural resources, such as protocols for resource avoidance, applicable laws regulations, and the consequences of violating them. The program would also underscore the requirement for confidentiality and culturally appropriate treatment of TCRs, consistent, to the extent feasible, with Native American Tribal values. This training would ensure that construction personnel are aware of what constitutes a

TCR, and the appropriate actions to take if a potential TCR is uncovered during ground disturbing activities. Mitigation Measure CUL-1 would also require all ground disturbing activity to stop within 50 feet of any discovered prehistoric archeological site (including midden soil, chipped stone, bone, or shell) that could contain TCRs. A qualified archeologist would be retained to investigate its significance. If the qualified archaeologist determines the archaeological material to be Native American in nature, the Authority would contact the appropriate Native American tribe for their input on the preferred treatment of the find. Mitigation Measure CUL-1 also requires human remains discovered during construction to be treated in accordance with the California Health and Safety Code and PRC Sections 5097.94 and 5097.98. As described in Section 3.5, "Cultural Resources," if the human remains are determined to be of Native American origin, the NAHC would be notified within 24 hours. The NAHC-designated MLD would then be responsible for determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed.

The Authority would adhere to all professionally accepted and legally compliant procedures regarding the treatment of any important archaeological resources and any TCRs identified by involved tribes, and the impact would clearly be less than significant with mitigation incorporated.

3.19 UTILITIES AND SERVICE SYSTEMS

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

3.19.1 Environmental Setting

The project is adjacent to the larger, undeveloped CRID, with no major utility services, such as water, wastewater treatment, electricity, natural gas, or stormwater drainage facilities (Authority 2018). The Santa Clara County Department of Environmental Health Solid Waste Program is certified by the California Department of Resources, Recycling and Recovery as the Local Enforcement Agency (LEA) for the unincorporated areas of Santa Clara County, which encompasses the project area. The LEA regulates solid waste facilities and landfills to ensure compliance with state minimum standards. The LEA is also responsible for permitting and inspecting landfills, transfer stations, composting facilities, and refuse collection vehicles and yards (DEH n.d.).

The closest solid waste facility to the project area is the Kirby Canyon Landfill, an 852-acre waste disposal site operated by Waste Management located approximately 3 miles to the southeast. The landfill accepts non-hazardous solid waste including construction and demolition debris, industrial and special waste, and municipal solid waste (Waste Management n.d.). The maximum daily throughput for Kirby Canyon Landfill is 2,600 tons and it has a remaining capacity of 16,191,600 tons as of 2015. The landfill is expected to reach capacity in 2059 (CalRecycle n.d.).

3.19.2 Discussion

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?**

Less than significant. The project would not require the relocation or construction of new or expanded water, wastewater treatment, electric power, natural gas, or telecommunication facilities. The project would provide "self-treating" stormwater drainage facilities to capture stormwater runoff and install a vault toilet that does not require water or sewer hookups. A third-party contractor would service the vault toilet up to two times per year to remove wastewater. Therefore, the project would not require the relocation or construction of new or expanded utilities and the impact would be less than significant.

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

No impact. The project would not require permanent or ongoing use of existing water supplies. The restroom onsite would be a vault toilet; it would be serviced up to two times per year by a third-party contractor and would not require any water utility connections. Therefore, no impact to existing water supplies would occur.

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

Less than significant. A 100-square-foot ADA accessible restroom with a vault toilet would be installed, which would result in the generation of wastewater. While no utility connections would be required for the restroom, a third-party contractor would service the vault toilet up to twice per year. The third-party contractor would be required to apply for a liquid waste pumper permit from Santa Clara County to operate a pumping vehicle designed to siphon and transport septage from the vault toilet. As required by the liquid waste pumper permit, the amount of wastewater pumped and the location where the wastewater is dumped must be recorded by the third-party contractor and reported regularly to Santa Clara County. Wastewater from the project would be disposed of at the South County Regional Wastewater Treatment Plant (WWTP) (DEH 2011). Currently, the WWTP's wastewater treatment capacity is 8.5 million gallons per day (MGD). The South County Regional Wastewater Authority (SCRWA) is in the process of expanding the WWTP's treatment capacity to 11 MGD through the SCRWA WWTP Facility Expansion Project (SCRWA 2020). The project's wastewater generation from the single vault toilet would be a fraction of the WWTP's wastewater treatment capacity of 8.5 MGD and future treatment capacity of 11 MGD. The WWTP would have adequate capacity to serve the project's wastewater generation, and the impact would be less than significant.

- 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 and comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

Less than significant. The closest landfill is the Kirby Canyon Landfill, which has a daily throughput of 2,600 tons and a remaining capacity of 16,191,600 tons (CalRecycle n.d.). Solid waste produced during construction of the project would be limited to trash generated by construction personnel, because there would be no demolition and removal of existing structures or materials, and all grading would be balanced onsite. Construction crews would be small, consisting of 5-10 personnel. Therefore, solid waste generated during construction would be minimal.

During operation, the number of visitors to the project area would increase over existing conditions given that the Authority currently only allows public access through docent-guided visits and seasonal "Open Access" days. Visitation would be limited by available parking in the parking and staging area, and trash generated by recreational users would be minimal, typically consisting of food and beverage waste. Nonetheless, the project would generate

ongoing solid waste above existing conditions. However, the closest landfill to the project area, the Kirby Canyon Landfill, has a remaining capacity of 16,191,600 tons (CalRecycle n.d.). Given the ample existing capacity of the Kirby Canyon Landfill and the limited amount of solid waste that would be generated during construction and operation, the impact would be less than significant.

3.20 WILDFIRE

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

3.20.1 Environmental Setting

Some areas of Santa Clara County are in “high or extreme fire hazard areas” due to a combination of factors including climatic variables, such as rainfall, humidity, and wind patterns; the amount of naturally occurring “fuel” for fires, such as brush, dead trees, and grasses that ignite easily and burn hotly; steepness of slopes; and inaccessibility and lack of available water supplies for fire suppression (Santa Clara County 1994). CAL FIRE wildfire statistics for 2020 show that there was a total of six wildfires in the County, five of which were larger than 100 acres (CAL FIRE 2021).

CAL FIRE has mapped FHSZs for the entire state, including the project area. FHSZ delineations are based on an evaluation of fuels, fire history, terrain, housing density, and occurrence of severe fire weather. They are intended to identify areas where urban fires could result in catastrophic losses. FHSZs are categorized as: Moderate, High, and Very High. The project area is within a FHSZ classified as High. The High FHSZ is used to designate wildland areas that support medium to high hazard fire behavior and roughly average burn probabilities (CAL FIRE 2007b).

Santa Clara County’s Emergency Operations Plan is described in Section 3.9, “Hazards and Hazardous Materials,” above. To further assist with wildfire issues within the County, a CWPP was prepared (Santa Clara County 2016c). The project area is within the East Foothills Planning Area of the CWPP. An issue noted in the CWPP is that ingress and egress is a concern due to the remoteness of some areas (distance from fire stations), steep terrain, and narrow roads may impact fire response capabilities, and some private roads have narrow road widths and inadequate turnarounds for emergency vehicles. To combat access issues, Mitigation Measure EF-FC8.1 of the CWPP requires improvement of ingress/egress capabilities within the County (Santa Clara County 2016c: 83).

3.20.2 Discussion

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

Less than significant. The project area is within the jurisdiction of both the Santa Clara County OEM and the CWPP (Santa Clara County 2017, Santa Clara County 2016c). The project would not impair the OEM's emergency response plan as described under criterion f) in Section 3.9, "Hazards and Hazardous Materials."

Implementation of the project would increase the number of visitors to the project area, which could potentially impair implementation of the CWPP by increasing the likelihood of a human-caused fire and limiting emergency access to the project area. However, project features would be designed to minimize fire risk and maximize emergency access to the site in the case of a wildfire. The shade structures would be constructed of simple, weathering rectangular steel modules that are ignition resistant. The new roadway onsite would be designed to be wide enough to allow emergency vehicle access to the project area and suitable turning radius to accommodate firetrucks and other emergency vehicles. The design of the new roadway would be in compliance with the CWPP, which requires the improvement of ingress/egress capabilities within the County (Santa Clara County 2016c: 83). Furthermore, the Authority has designed the project to reduce wildfire risk through the incorporation of EPM HAZ-2 and EPM HAZ-3. EMP HAZ-2 prohibits smoking within the project area at all times, and EPM HAZ-3 requires construction crews to carry at least one fire extinguisher at all times and that all mechanized hand tools used in the project area be equipped with federal- or state-approved spark arrestors. For these reasons, the project would not substantially impair an emergency response or emergency evacuation plan and the impact would be less than significant.

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

Less than significant. The project area consists of dry serpentine bunchgrass-covered foothills. This type of landscape, due to slope and vegetation, provides ideal conditions for wildfires, especially during the hottest temperatures in summer and fall (Habitat Agency 2019:7-24). Although fires are a natural occurrence in the upland communities that comprise the project area, human activities, such as vehicle and equipment use, may cause fires to occur more frequently than they otherwise would. Most ignitions in Santa Clara County, including the three recorded wildfires at the adjacent CRID, were caused by humans (Habitat Agency 2019:7-24).

As described above in criterion a), the project would increase public access to the site, which could increase the potential for ignitions in the area. Various fire prevention measures would be implemented to reduce fire risk during project implementation and operations. The Authority would implement applicable Habitat Plan Conditions, including Condition 10. This condition requires that fuel buffers of at least 30 feet and up to 100 feet be maintained around new dwellings or structures. All of the structures associated with the project, including the shade structures and restrooms would be maintained with this fuel buffer in compliance with Condition 10. In addition, as a part of the project, the Authority would implement EPMs to reduce the risk of wildfire, including EPM HAZ-2, which prohibits smoking in the project area at all times to avoid accidental wildfire ignition, and EPM HAZ-3, which requires that all mechanized hand tools have federal- or state-approved spark arrestors and that each construction crew carry at least one fire extinguisher. While slopes that could exacerbate fire risk are present on the project area and the project would increase visitation to the area, there would be no residents or project occupants present in the project area. For the reasons described above, the impact would be less than significant.

c) **Require the installation 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?**

Less than significant. The project would include the installation of a new access road and parking and staging area, which could exacerbate fire risk through increased ignition opportunities from vehicle use. However, the road and main parking area would be paved, the overflow parking area would be made of aggregate paving, and the public

would not be allowed to drive within undeveloped and/or vegetated parts of the project area. In addition, the Authority would minimize the risk of wildfire during operations by maintaining vegetative growth around the access road along with the existing ranch roads. The Authority would also visually inspect and maintain trails and roads on an ongoing basis. The installation of the new access road and parking and staging area would not substantially exacerbate fire risk; therefore, the impact would be less than significant.

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. The project would result in new public access features and increased visitation to the project area, which could potentially expose people and structures to risks from flooding or landslides due to runoff, post-fire slope instability, or drainage changes. However, as described under criterion b) and c) above, the project would not substantially exacerbate fire risk. Therefore, no substantial post-fire slope instability would occur. In addition, as described under criterion c) and d) in Section 3.10, "Hydrology and Water Quality," the project would not substantially alter drainage or expose people to risks related to runoff or floods. Furthermore, as described under criterion a) in Section 3.7, "Geology and Soils," the project would not expose people to significant risks related to landslides. Therefore, no substantial risks related to runoff, post-fire slope instability, or drainage changes would occur and the impact would be less than significant.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

3.21.1 Discussion

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

Less than significant with mitigation incorporated (important examples of California prehistory and certain biological resource effects); Less than significant (for all other topics). As described in Chapter 2 “Project Description,” the project would result in the disturbance of up to 4.66 acres to construct project features including the access road, parking lot, staging area, trails, and overlooks. Temporarily disturbed ground would be revegetated. However, the ultimate total footprint of permanent project features would be approximately 1.56 acres. A large portion of the 1.56-acre disturbance footprint contains serpentine bunchgrass grassland, which is given special consideration under the Habitat Plan due to the high number of rare, threatened, and endangered species that are endemic to this vegetation community (Authority 2021a). In addition, a portion of the project area meets the definition of needle grass – melic grass grassland, a California Sensitive Natural Community (Authority 2021a, Santa Clara County et. al. 2012a). The project would therefore have the potential to degrade wildlife habitat, adversely affect wildlife populations, or restrict the range of special-status species.

Ten special-status plants that are known to occur or could occur in the project area which could be trampled or removed during construction if individual plants are present within the disturbance footprint. Furthermore, suitable habitat for six of the special-status species (bent-flowered fiddleneck [*Amsinckia lunaris*], big-scale balsamroot [*Balsamorhiza macrolepis*], Tiburon paintbrush [*Castilleja affinis* var. *neglecta*], fragrant fritillary [*Fritillaria liliacea*], most beautiful jewelflower [*Streptanthus albidus* ssp. *peramoenus*], and woodland woollythreads [*Monolopia gracilens*]) is present in the project area, and the project would result in the permanent removal of habitat for these six species.

Additionally, two special-status invertebrates, two special-status amphibians and reptiles, six special-status birds, and four special-status mammals are known to occur or could occur in the project area. The two special-status invertebrates (Bay Checkerspot butterfly [*Euphydryas editha bayensis*] and Monarch butterfly [*Danaus plexippus*]) could be affected by project construction if hostplants are trampled or removed. Grasslands within the project area provide suitable upland habitat for the California red-legged frog (*Rana draytonii*) and the California tiger salamander (*Ambystoma californiense*). Both of these species are known to breed within aquatic habitats on CRID (Authority 2021a), and ground squirrel burrows within the project area may be used for underground refugia during the summer months. Small trees and shrubs along the seasonal stream within the southeastern portion of the project area may provide suitable nesting habitat for loggerhead shrike (*Lanius ludovicianus*). The loss of foraging and nesting habitat from the construction of permanent project features, could affect the six special-status bird species that are known to occur or could occur on the project site. The four special-status mammals could be affected by the project from the loss of foraging, denning, movement habitat.

The Authority has designed the project to minimize potential impacts to biological resources through the incorporation of EPMs and Habitat Plan Conditions on Covered Activities into the project, including EPM BIO-1, EPM BIO-2, and EPM BIO-3. EPM BIO-1 requires implementation of specific Habitat Plan Conditions to reduce effects on special-status species, including avoidance of direct impacts on species protected by the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and California Fish and Game Code. EPM BIO-2 requires pre-construction surveys, flagging, and avoiding special-status plants within 50 feet of project features. The Authority has also incorporated pre-construction surveys and flagging for monarch butterfly host plants into the project through EPM BIO-3 to reduce potential impacts on monarch butterflies. The Authority is in the process of obtaining coverage under the Habitat Plan as a PSE. All applicable compliance conditions outlined in the PSE permit would be incorporated into the project, including Condition 13, which requires avoidance and minimization of impacts on serpentine habitat and associated covered species. As part of the PSE application, the Authority intends to exercise the land-in-lieu option to mitigate impacts to serpentine habitat. The Authority will convey a conservation easement to the Habitat Agency over approximately 46 acres of serpentine bunchgrass grassland habitat within the Authority's Coyote Valley Open Space Preserve. If a land-in-lieu conservation easement cannot be agreed upon to cover serpentine bunchgrass grassland habitat impacts, the Authority may alternatively pay Habitat Agency land cover disturbance fees for a portion or all of the mitigation.

While incorporation of EPM BIO-1, EPM BIO-2, and EPM BIO-3, and applicable Habitat Plan Conditions into the project design would reduce potential impacts to many biological resources, potentially significant impacts on nesting birds, Swainson's Hawk, and American badger could still occur. The Authority would implement Mitigation Measure BIO-1, Mitigation Measure BIO-2, and Mitigation Measure BIO-3 to clearly reduce potential impacts from project implementation to less than significant. Mitigation Measure BIO-1 would avoid and minimize impacts to nesting birds, including special-status nesting bird species, by requiring a nesting bird survey within 14 days of construction if work occurs within the nesting bird season (February 1 – August 31), and avoidance of any discovered nests. Mitigation Measure BIO-2 would require pre-construction surveys for Swainson's Hawk nests and avoidance of any discovered active nests, and Mitigation Measure BIO-3 would require pre-construction surveys for American badger dens and avoidance of dens. With implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3, the project would avoid mandatory significance findings and would be less than significant with mitigation incorporated.

As described in Section 3.5 "Cultural Resources" criteria a) and b), and Section 3.18 "Tribal Cultural Resources" criteria a) and b), ground disturbing activities would have the potential to damage cultural and tribal cultural resources if present in the project area. The Authority would implement Mitigation Measure CUL-1 to reduce impacts to cultural and tribal cultural resources from ground disturbance. Per Mitigation Measure CUL-1, all construction personnel

would be required to participate in a cultural resources training program prior to construction; if a prehistoric archeological site or a historic-period archaeological site is uncovered during ground disturbance, the Authority would be required to halt all ground-disturbing activity within 50 feet of the discovery until a qualified archaeologist can assess the find. Depending on the significance and type of find, specific actions would be implemented, which could include notification of the culturally affiliated tribe and resource documentation using the appropriate California Department of Parks and Recreation 523 forms. With implementation of Mitigation Measure CUL-1, the project would not risk the elimination of important examples of the major periods of California history or prehistory. The impact would be less than significant with mitigation incorporated.

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

Less than significant. In accordance with CEQA (CEQA Guidelines Section 15130) this Initial Study analyzes the cumulative impacts of the project. A cumulative impact is when “two or more individual effects which, when considered together, are considerable or which compound or increase environmental impacts” (CEQA Guidelines Section 15355).

Methods

Cumulative Scenario

To comply with CEQA, a cumulative scenario has been developed that identifies and evaluates past, present, and reasonably foreseeable future projects within the defined cumulative study area that would be constructed or commence operation during the timeframe of activity associated with the project. In discussing cumulative impacts, the CEQA Guidelines outline two approaches for characterizing the projects that may occur in the vicinity of a project:

- ▶ Project list: A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, projects outside the control of the agency (CEQA Guidelines Section 15130(b)(1)(A)).
- ▶ Summary of Projections: A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect (CEQA Guidelines Section 15130(b)(1)(B)). This summary can be supplemented with additional information, including a regional modeling program.

This document uses both approaches, depending on which one is more appropriate for the resource area being analyzed. The rationale for selecting an approach is provided in the cumulative impacts discussion for each resource area. Because the area within which a cumulative effect can occur varies by resource area, for the purposes of this analysis, the geographic boundary also varies by the resource being evaluated. For example, traffic and noise impacts tend to be localized, while air quality and GHG impacts can be more widespread.

Projects Considered

Projects considered include past projects, projects under construction and approved, pending projects that are anticipated to be either under construction or operational by the time of the completion of the proposed project, and reasonably foreseeable future projects. Information pertaining to past, present, and reasonably foreseeable future projects was obtained by reviewing projects undertaken or under review by the Authority and by reviewing the projects undertaken by the following agencies:

- ▶ City of Morgan Hill Parks Department
- ▶ City of San Jose Parks Department
- ▶ Santa Clara County Parks Department
- ▶ Midpeninsula Regional Open Space District (District)
- ▶ Peninsula Open Space Trust

As shown in Table 3.21-1, eight projects are considered for cumulative purposes and are included in the cumulative scenario for impacts evaluated using the project list approach.

Table 3.21-1 Cumulative Projects List

Project Name	Agency	Description	Status/Timing	Location
CRID Public Access Improvement Project	Authority	The Authority proposes to implement public access features within CRID and open CRID to public use and dispersed, low-intensity recreation. The project includes the establishment of an approximately 7.5-mile trail network with three rest areas and two overlooks. Approximately 85 percent of the 7.5-mile trail system would be located on existing ranch roads and trails and would require little to no grading. All of these trails would be unpaved, natural surface, and up to 5 feet wide. Additional appurtenant features would include service vehicle pullouts; interpretive and wayfinding signage, and restoration of disturbed areas with stockpiled native soils or application of an appropriate non-irrigated seed mix.	The project is currently in the planning and design stage, and CEQA compliance is underway. First phase of construction planned for July 2022 – December 2022.	CRID, directly adjacent to the project area
Heart's Delight Trail Improvements Project	Authority	The project would improve the 0.25-mile Heart's Delight Trail by stabilizing the trail surface for use by visitors with mobility impairments. Additional trailside amenities would include seating with interpretive learning stations for individual and small group use.	The project is currently in the planning and design stage.	North Coyote Valley Open Space Preserve, approximately 3 miles southwest of the project area.
Llagas Creek Bridge & Day-use Area Project	Authority	The project would connect the existing Llagas Creek Loop Trail to a new day use area via a newly installed bridge over Llagas Creek. The new day use area would include a loop trail and trail-side amenities, such as benches and picnic tables.	The project is currently in the planning and design stage, and CEQA compliance is underway. Construction is anticipated to begin in summer 2023.	Rancho Cañada del Oro Open Space Preserve, approximately 5.5 miles southwest of the project area.
Coyote Valley Conservation Areas Master Plan	Authority	The Coyote Valley Conservation Areas Master Plan will restore Coyote Valley to sustain biodiversity and facilitate wildlife movement. The Master Plan will also manage and improve water resources, provide public access opportunities, and support local infrastructure.	The project is currently in the planning and design stage.	North Coyote Valley Open Space Preserve, approximately 3 miles southwest of the project area.
Integrated Pest Management (IPM) Program	Authority	The IPM Program will comprehensively manage pests on Authority open space preserves in order to protect natural resources and public health. The IPM Program includes manual, mechanical, and chemical IPM treatments, and upon approval, will increase the extent and frequency of IPM on Authority lands.	The CEQA document is scheduled for Board approval in August 2021. IPM implementation would be ongoing.	All Authority lands, including the project area.
Operations and Maintenance Activities	Authority	Continue to implement operations and maintenance activities. Activities include road and trail maintenance; vegetation management around structures, parking lots, and other paved surfaces; and vegetation management in orchards. These activities require the use of vehicles and manual and mechanical equipment.	Ongoing activity.	All Authority lands, including the project area.

Project Name	Agency	Description	Status/Timing	Location
Bikeways, Trails, Parks, and Recreation Master Plan	City of Morgan Hill Parks Department	The Bikeways, Trails, Parks, and Recreation Master Plan guides the development of the City's bikeways, trail, parks and recreation system in Morgan Hill.	The Master Plan was adopted in 2017 and is being implemented by the City of Morgan Hill.	City of Morgan Hill, approximately 4.5 miles southeast of the project area.
Coyote Canyon Natural Resources Management (NRM) Plan & Interim Access Plan	Santa Clara County Parks Department	Under the NRM Plan, the Parks Department would manage the 2,741-acre Coyote Canyon property in accordance with applicable guidelines and policies, including, but not limited to, the Santa Clara County General Plan, Santa Clara County Parks 2018 Strategic Plan, and the Habitat Plan. The Plan seeks to develop a recreational trail network for hiking, equestrian use, and bicycling.	The Santa Clara County Board of Supervisors approved the Coyote Canyon NRM Plan & Interim Access Plan in December 2019 and adopted the IS/MND.	Santa Clara County, east of the City of Morgan Hill, in the foothills of the Diablo Range, approximately 9 miles southeast of the project area
Coyote Creek Trail	City of San Jose	The Coyote Creek Trail is planned and partially developed as one of the network's longest trail systems, ultimately extending from the Bay to the City's southern boundary. At this time, the northern, central, and southern portions of the trail system are accessible.	Under construction, approximately 70 percent of the trail is complete.	The southern extent, from Tully Road to Morgan Hill, near Anderson County Park, is closest to the project area, approximately 5 miles to the northwest.

Notes: CEQA = California Environmental Quality Act; CRID = Coyote Ridge Open Space Preserve; IPM = integrated pest management; NRM = Natural Resources Management.

Source: Authority 2019, Authority 2021b, Authority n.d. c, Authority n.d. d, City of Morgan Hill 2017, District 2019, Santa Clara County Parks Department 2019, POST 2020, City of San Jose n.d. b

Cumulative Impact Analysis

As summarized above in Section 3.14, "Population and Housing," the project would have no impact on population and housing. Therefore, the project would not cause or contribute to any cumulative impact to these resources areas, and no corresponding cumulative analysis is provided.

Aesthetics

The list approach is used to evaluate potential impacts to aesthetics because aesthetic and visual resource impacts are highly localized. The geographic extent for considering cumulative aesthetic impacts includes all projects within the same viewshed as the project (i.e., area visible from a viewer's location). The cumulative projects within the same viewshed as the project are operations and maintenance activities and IPM Program activities occurring within the project area and the adjacent CRID, along with the CRID Public Access Improvement Project. The ongoing maintenance and IPM activities include intermittent activities requiring a few staff and minor equipment, such as pick-up trucks, mowers, weed whips, and all-terrain vehicles. The intermittent presence of vehicles and equipment for maintenance and IPM activities would not substantially degrade the visual character and quality of the area and the undeveloped and open space visual landscape would remain intact. Similar to the project, the CRID Public Access Improvement Project would also build low-intensity public access and recreation features including trails, overlooks, interpretive features, and signage. Similar to the proposed project, construction and operation of the CRID Public Access Improvement Project could degrade the visual character and quality of the viewshed by reducing visual intactness and unity. However, construction would be temporary, lasting around 6 months for phase I, and the permanent project features would be few, small, and spread throughout the preserve such that they would not substantially degrade views. Thus, the cumulative scenario for aesthetics and visual resources when considering the project and the cumulative projects in the same viewshed is not significant. Similarly, the project would not substantially degrade the visual character and quality of the project area. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Agriculture and Forest Systems

The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use (significance criterion "a"); conflict with existing zoning for agricultural use or a Williamson Act contract (significance criterion "b"); conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production (significance criterion "c"); or result in the loss of forest land or conversion of forest land to non-forest use (significance criterion "d"); therefore, the project would not contribute to corresponding cumulative impacts. These impacts are not discussed further.

The list approach is used to evaluate potential impacts from 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 (significance criterion "e"). The conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use is a localized impact related to development projects on areas containing Farmland or forest land. The CRID Public Access Improvement Project, Heart's Delight Trail Improvements Project, Coyote Valley Conservation Areas Master Plan, Regional Trail Connections, and the Coyote Canyon NRM Plan & Interim Access Plan contain grazing land as designated by the DOC (DOC 2016). Each of these projects includes a public access component that could place the public in close proximity to current grazing operations. However, the projects managed by the Authority (CRID Public Access Improvement Project, Heart's Delight Trail Improvements Project, and Coyote Valley Conservation Areas Master Plan) would comply with the existing grazing management plans developed for the area (Authority 2013). Compliance with each of the applicable grazing management plans would ensure that the projects would not significantly convert existing grazing lands to non-agricultural use. Furthermore, the Coyote Valley Conservation Areas Master Plan managed by the Authority would improve grazing by installing new fencing and additional water sources in pasture areas further away from the recreational trail network. Given that both the project and the cumulative projects containing grazing land would implement management approaches so that grazing can continue in tandem with the public access improvements, the cumulative scenario related to conversion of agricultural lands to non-agricultural use would not be significant. Similarly, the project would not substantially affect grazing in the project area. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Air Quality

Past, present, and future development projects contribute to a region's adverse air quality on a cumulative basis. A project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Therefore, the projections approach is used to determine cumulative impacts related to obstructing the implementation of the BAAQMD 2017 Clean Air Plan (significance criterion "a") and resulting in a net increase in criteria pollutants for which the region is in nonattainment (significance criterion "b"). To assess basin-wide impacts related to air quality standards, this analysis evaluates emissions compared to significance thresholds adopted by BAAQMD for the SFBAAB, per the projections approach.

As shown in Table 3.3-2 of Section 3.3, "Air Quality", Santa Clara County is in nonattainment for ozone, PM₁₀, and PM_{2.5} with respect to the CAAQS and ozone and PM_{2.5} with respect to the NAAQS. Therefore, for these criteria pollutants, there is a significant cumulative impact in the SFBAAB. The BAAQMD's significance thresholds in the May 2017 CEQA Air Quality Guidelines for project operations within the SFBAAB are the most appropriate thresholds for use in determining cumulative air quality impacts of the project. The thresholds represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing nonattainment air quality conditions. As shown in Table 3.3-4, project construction emissions for all criteria pollutants would be well below the BAAQMD average daily thresholds of significance, indicating that the project's individual emissions would not result in a cumulatively considerable contribution to the SFBAAB's existing nonattainment air quality conditions. Therefore, the project would not conflict with the Clean Air Plan and the project's contribution to a net increase in criteria pollutants for which the region is in nonattainment (significance criteria "a" and "b") would not be a considerable contribution to this cumulative impact.

The list approach was used to determine localized air quality impacts including exposure of sensitive receptors to substantial pollutant concentrations (significance criterion "c") and odor impacts (significance criterion "d"). The geographic extent for exposure of receptors to substantial pollutant concentrations and odors is conservatively set at

0.50-mile to adequately cover impacts associated with the temporary, intermittent emissions that would be generated during construction of the project. The projects within the geographic extent are operations and maintenance and IPM Program activities occurring within the project area and the adjacent CRID, along with the CRID Public Access Improvement Project. The ongoing operation and maintenance and IPM Program activities include intermittent actions requiring a few staff and minor equipment, such as pick-up trucks, mowers, weed whips, and all-terrain vehicles. Use of these types of vehicles and equipment would generate temporary and periodic exhaust that could lead to odors and expose sensitive receptors to pollutant concentrations. However, these activities would generally be short in duration, involve minimal pieces of emissions-generating equipment, and require only one to three Authority staff members to implement. In addition, sensitive receptors are sparse in the vicinity of the geographic extent (i.e., within 0.50-mile of the project area). The CRID Public Access Improvement Project involves construction of public access features that require site preparation, grading, excavation, material laydown and placement, and site cleanup activities that have the potential to generate air pollutant emissions. However, similar to the proposed project, construction would be minor and limited to a few dispersed features, such as trails and a few picnic areas and overlooks. Thus, the cumulative scenario for exposing sensitive receptors to substantial pollutant concentrations and odors is not significant. Similarly, the project would not result in substantial pollutant emissions or odors in the vicinity of the project area. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Biological Resources

The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (significance criterion "f"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

The projection approach is used for the cumulative analysis of the remaining biological resources criteria: species identified as a candidate, sensitive, or special-status species in local or regional plans (significance criterion "a"); riparian habitat or other sensitive natural communities (significance criterion "b"), state and federally protected wetlands (significance criterion "c"), the movement wildlife species (significance criterion "d"); conflicting with local policies or ordinances protecting biological resources (significance criterion "e"). The projection approach was used because impacts on special-status species, habitat, wetlands, and the movement of wildlife within the project area could have region-wide effects that extend beyond the project area. The cumulative impact section of the 2012 Santa Clara Valley Habitat Plan Final Environmental Impact Report/Environmental Impact Statement (Habitat Plan EIR/EIS) is relied upon to evaluate the cumulative scenario because it addresses the conservation needs of 18 covered species while allowing for specific covered activities to occur within the Plan Area, which encompasses the majority of Santa Clara County, including the project area (Santa Clara County et. al. 2012b). All of the cumulative projects listed in Table 3.21-1 are within the Plan Area of the Habitat Plan and therefore are considered in this cumulative analysis.

Special-Status Species

According to the Habitat Plan EIR/EIS, cumulative impacts were determined to be significant for the San Joaquin kitfox (*Vulpes macrotis mutica*) and the American badger (*Taxidea taxus*) due to regional loss of habitat, barriers to movement, pesticide toxicity and other factors (Santa Clara County et. al 2012b). Impacts to other special-status species were not determined to be cumulatively significant and because the project would not result in any significant and unavoidable impacts to any special-status species, it would not cause a cumulatively significant impact. In addition, this Initial Study considers the monarch butterfly to be special-status species due to evidence of a substantial decline in populations, which are not covered in the Habitat Plan EIR/EIS. For these reasons, the cumulative scenario for San Joaquin kitfox, American badger, and monarch butterfly is significant.

The project would not impact San Joaquin kitfox and therefore, would not contribute to the cumulative impact. As discussed in Section 3.4, criterion a), "Biological Resources," the project has the potential to result in the destruction or disturbance of occupied American badger dens and removal of monarch butterfly host plants (i.e., milkweed) during construction. The destruction or disturbance of occupied American badger dens during the breeding season when pups are in the den could result in injury or death, which would be a substantial impact on the local population of the species. Mitigation Measure BIO-3 would be implemented which requires pre-construction surveys for

potential American badger dens and the establishment of a 50-foot buffer around each den during the non-breeding season or a 100-foot buffer during the period when pups are potentially in the den (February 15 through July 1). With implementation of Mitigation Measure BIO-3, the project would not result in a substantial loss of foraging habitat or disturbance or destruction of active American badger dens and the impact is clearly reduced to less than significant.

Regarding monarch butterflies, as a part of the project, Habitat Plan Condition 13 and EPM BIO-3 would be implemented. Habitat Plan Condition 13 requires avoidance and minimization of impacts to serpentine habitat where milkweed may occur. EPM BIO-3 would avoid potential adverse effects on monarch butterflies by requiring a pre-construction survey of the project area, and mapping and avoiding any areas that milkweed plants occur. With implementation of the applicable Habitat Plan Conditions and EPMs into the project design, along with applicable mitigation measures to reduce impacts to American badger, significant impacts on American Badger and monarch butterfly would be avoided or substantially minimized. Therefore, the project's impact would not be a considerable contribution to this cumulative impact.

Riparian Habitat and Other Sensitive Natural Communities

According to the Habitat Plan EIR/EIS, urbanization and associated infrastructure development in the region has resulted in and is projected to continue to result in impacts to and loss of riparian habitat (Santa Clara County et. al 2012b). The cumulative projects listed in Table 3.21-1 include activities that require vegetation removal, use of equipment and vehicles in natural areas, and pesticide use, which could damage riparian habitat or other sensitive natural communities if conducted in those area. However, the projects and programs have been developed to improve habitat function through invasive species removal, which would likely result in habitat improvement within sensitive communities through the removal of invasive plants that compete with native vegetation for resources. Furthermore, none of the plans or programs would result in new development or urbanization that would permanently convert riparian habitat and other sensitive communities to urban uses. Thus, the cumulative scenario for riparian habitat and other sensitive natural communities is not significant. Although the project would result in permanent loss of serpentine bunchgrass grassland and needle grass – melic grass grassland, the implementation of Habitat Plan Conditions, including Condition 13, would preserve serpentine habitat on other Authority-owned preserves. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

State and Federally Protected Wetlands and Waters

According to the Habitat Plan EIR/EIS, urbanization and associated infrastructure development in the region has resulted in and is projected to continue to result in impacts to federally protected wetlands and other waters (Santa Clara County et. al 2012b). The cumulative projects and programs include manual, mechanical, and chemical activities that may be conducted near aquatic resources, which could result in runoff of sediment and pesticides to potentially protected wetlands and other waters. Thus, the cumulative scenario for federally protected wetland and other waters in the region is significant.

As described in Section 3.4, "Biological Resources," criterion c), the project would not dredge, fill, or otherwise directly impact riparian habitat or state and federally protected wetlands. Two waterbodies are located just outside of the project area: a small seasonal stream that runs through the southeastern portion of the Malech Road property and a tributary to Coyote Creek located just outside of the project area on CRID. To avoid sedimentation of these waters, the Authority would incorporate EPM GEO-1 and EPM GEO-2 into the project. EPM GEO-1 restricts ground-disturbing activities from occurring when soils are saturated or within one week following an inch or more of rain unless the ground is consistently firm and can support the weight of machinery without creating ruts. EPM GEO-2 requires implementation of BMPs including, but not limited to, the use of perimeter siltation fencing and wattles to prevent offsite erosion and sedimentation and use of erosion control mats to prevent exposed soils from being displaced by rain or wind and entering nearby waterbodies. The Authority is also in the process of obtaining coverage under the Habitat Plan as a PSE, accordingly, the Authority would be required to implement Habitat Plan Conditions 3, 7, and 8 as a part of the project. Condition 3 involves implementing a range of measures to protect water quality from design through postconstruction, such as preventing the accidental release of chemicals, fuels, and lubricants and removing pollutants from surface runoff before it reaches local streams. Condition 7 includes measures that require directing runoff from

impermeable surfaces to natural or landscaped areas and, at project sites adjacent to any natural or human-made drainage, and stabilizing exposed soils to prevent erosion and sedimentation. Condition 8, which applies to maintenance of unpaved roads, including those that serve as recreational trails, includes measures that require that ground disturbance be kept to the smallest area feasible, and that silt fencing or other sediment control devices be used during maintenance activities that disturb soil within the riparian setback zone as defined by the Habitat Plan. For these reasons, the project's impact would not be a considerable contribution to this cumulative impact.

Movement of Wildlife Species

The Habitat Plan EIR/EIS indicates that barriers such as fences and roads, small culverts that prevent wildlife from passing through, and median barriers can result in impacts on the movement of wildlife species (Santa Clara County et. al. 2012b). The seven public access cumulative projects and programs listed in Table 3.21-1 and the proposed project would include the construction of linear features such as trails and roads, however these features would be dispersed and would not substantially affect wildlife movement. In addition, other dispersed public access features typical of public access projects (i.e., low walls, fencing and curbs) would not be tall or continuous enough to prevent the passage of wildlife. Thus, the cumulative scenario for movement of wildlife species in the region is not cumulatively significant. Similarly, the project's dispersed public access features, such as the trails, low walls, fencing and curbs, would not be tall or continuous enough to prevent the passage of wildlife through the project area. Therefore, the project would not create a cumulatively significant impact and there is no cumulative impact.

Conflicts with Local Policies and the Habitat Plan

The project is within rural Santa Clara County and is therefore subject to the policies of the Santa Clara County General Plan (Santa Clara County 1994) and County ordinances. The County General Plan contains policies related to riparian areas and natural streams, and Section C16 of the Santa Clara County Code contains regulations related to tree removal. Projects occurring within the jurisdiction of the Santa Clara County General Plan would be required to comply with these policies and ordinances protecting biological resources unless exceptions are granted (e.g., hazard trees in Santa Clara County). Similarly, projects occurring within the Plan Area of the Habitat Plan would be required to assess and mitigate potential biological resource impacts or follow conservation measures from the Habitat Plan in the case of Habitat Plan Permittee projects. For these reasons, conflicts with local policies or the Habitat Plan do not occur such that a significant cumulative impact scenario would result. Similarly, the project would be consistent with applicable local policies for biological resource protection and would follow the applicable conservation measures of the Habitat Plan. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Cultural Resources

The project would not cause a substantial adverse change in the significance of a historical resource (significance criterion "a"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

Because all significant cultural and tribal cultural resources are unique and nonrenewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. The loss of any one archaeological or historic site affects all others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. Because the projects listed in Table 3.21-1 cover the Santa Clara Valley and foothills region, the geographic extent for the cumulative cultural resources analysis uses the project list approach. All of the cumulative projects listed in Table 3.21-1 are included in this analysis.

Archeological Resources

The cumulative projects involving ground disturbing activities could result in an impact to unknown archeological resources. Given increasing development in the region and the potential for the projects and programs listed in Table 3.21-1 to affect archaeological resources, the cumulative scenario for archaeological resource impacts in the region is significant.

As discussed in Section 3.5.2 criterion b), ground disturbing construction activities have the potential to adversely affect unknown archaeological resources if present within the project area. However, the Authority would implement Mitigation Measure CUL-1 to reduce impacts to any unknown archaeological resources that are discovered. Per Mitigation Measure CUL-1, all construction personnel would be required to participate in a cultural resources training program prior to construction; if a prehistoric archeological site or a historic-period archaeological site is uncovered during construction activities, the Authority would be required to halt all ground-disturbing activity within 50 feet of the discovery until a qualified archaeologist can assess the find. Depending on the significance and type of find, specific actions would be implemented, which could include notification of the culturally affiliated tribe and resource documentation using the appropriate California Department of Parks and Recreation 523 forms. Potential impacts to archeological resources would be avoided and minimized such that archaeological resources would maintain their integrity. Therefore, the project's impact would not be a considerable contribution to this cumulative impact.

Human Remains

California Health and Safety Code and California Public Resources Code Section 5097 protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. Additionally, the Santa Clara County Ordinance Code includes Sections B6-18 through B6-20, which describe the protocol should any human remains be uncovered during project activities. All of the cumulative projects would be required to comply with state and County regulations. These regulations avoid or minimize the disturbance of human remains, and appropriately treat any remains that are discovered. Thus, the cumulative scenario is not significant for this impact. Similarly, the Authority would comply with Mitigation Measure CUL-1, which requires that discovered human remains are treated in accordance with the California Health and Safety Code and PRC Sections 5097, in consultation with the NAHC. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Energy

The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency (significance criterion "b"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

The projection approach is used that analyze energy impacts because energy resources are used on a regional basis. California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable, hydroelectric, and nuclear generation resources. 2003 California Energy Action Plan is relied upon to evaluate the cumulative scenario because it addresses several energy efficiency strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, and encouragement of urban design that reduces VMT and accommodates pedestrian and bicycle access. All of the cumulative projects listed in Table 3.21-1 are included in the cumulative analysis.

According to the 2003 California Energy Action Plan (2008 Update), inefficient energy appliances and buildings and inefficient vehicles and equipment requiring fuel could lead to the wasteful, inefficient, or unnecessary consumption of energy resources (CEC 2008). Several of the cumulative projects' public access features include structures such as restrooms and overlooks. These buildings would be small, relatively dispersed, and would not require substantial energy use. Construction associated with these projects would require construction vehicles and equipment that use fuel. Additionally, energy consumption associated with the IPM Program and general operations and maintenance activities conducted by the Authority would result from operation of off-road equipment and on-road vehicle trips associated with commutes by Authority staff. Fuel consumption from these cumulative projects would not be wasteful, inefficient, or unnecessary because these projects would provide a high-quality public access and recreation resource for the region or manage vegetation and Authority-owned preserves in an environmentally beneficial way. Thus, the cumulative scenario is not significant for this impact. Construction and operation of the proposed project would result in increased energy use. However, energy consumption would not be wasteful, inefficient, or unnecessary because the project would provide a high-quality public access and recreation resource, similar to the cumulative projects described above. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Geology and Soils

The project would not directly or indirectly cause potential substantial adverse effects resulting from the rupture of a known earthquake fault (significance criterion "a i"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

For all other geologic impacts associated with seismic ground shaking (significance criterion "a ii"), seismic-related ground failure (significance criterion "a iii"), landslides (significance criterion "a iv"), soil erosion and loss of topsoil (significance criterion "b"), unstable geologic unit or soil (significance criterion "c"), expansive soil (significance criterion "d"), soils incapable of supporting the use of septic tanks or alternative waste water disposal systems (significance criterion "e"), and paleontological resources (significance criterion "f") the list approach was used. This approach was used to evaluate potential cumulative impacts because soil impacts are highly localized. Thus, the geographic extent for considering cumulative geological impacts is a 0.1-mile radius from the project area. Within 0.1 mile of the project area are general operation and maintenance activities implemented by the Authority, pest management activities implemented under the IPM Program, and the CRID Public Access Improvement Project.

The IPM Program and the operation and maintenance activities conducted by the Authority do not require the construction of buildings, cut, fill, or other grading activities that could be subject to geologic and seismic hazards. The CRID Public Access Improvement Project would construct public access features similar to the proposed project, such as trails, overlooks, and picnic areas. The overlooks and picnic areas would be small, dispersed, and completely outdoors. If strong ground shaking were to occur, the risk of loss, injury, or death would be low due to the limited quantity and dispersed nature of the overlooks/picnic areas, and lack of structures that could inflict harm. Thus, no cumulative impact would occur related to seismic ground shaking, seismic-related ground failure, unstable geologic units or soil, expansive soil, soils incapable of supporting the use of septic tanks or alternative waste water disposal systems, and paleontological resources.

Although some pest management and maintenance activities such as grubbing and removal of targeted invasive plant species could potentially expose soil to increased erosion, the IPM Manual, which would be implemented with the IPM Program, specifies selection of appropriate treatment types for site-specific conditions and includes restoration measures where invasive plant control has rendered the soil vulnerable to erosion. Construction of the CRID Public Access Improvement Project could also potentially expose soil to increased erosion, however the disturbance would be minimal given the small footprint of the project and that 80 percent of the trails would be on existing ranch roads, and the majority of CRID would not be disturbed. Thus, the cumulative scenario for geologic and seismic hazards is not cumulatively significant. Similarly, the proposed project's cumulative contribution to seismic hazards would be minimal because project structures would be relatively small, accommodating at most up to 40 people at any one time, and few overhead structures or structures with the potential to collapse would be present. Erosion from construction of the project would be minimal because the Authority would incorporate EPM GEO-1 and EPM GEO-2 into the project, which would prevent ground disturbance following heavy rain and require compliance with the BMPs of the SWPPP. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Greenhouse Gas Emissions

The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (significance criterion "b"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

The cumulative scenario includes all GHG emission sources in California, which includes sources such as transportation, manufacturing, energy production, and agriculture. Regional and global development patterns continue to rely on methods and practices that contribute large volumes of GHGs to the atmosphere, and impacts related to GHGs have widespread and potentially harmful consequences. The increase in GHGs in the atmosphere, caused in large part by human activity, is now considered one of the key causes of global climate change. Current scientific research indicates that potential effects of climate change include variations in temperature and precipitation, sea-level rise, impacts on biodiversity and habitat, impacts on agriculture and forestry, and human health and social impacts. As described in the state's Climate Change Scoping Plan of 2014, GHG sources in the state

collectively result in emissions that are higher than the targets established by AB 32, which indicates that GHG emissions in the state continue to contribute to a total significant state-wide cumulative impact. The cumulative scenario for GHG emissions in the region is therefore significant.

As described in Section 3.8.2, criterion a), the project would generate 129 MTCO₂e during construction from equipment use and vehicle trips. During operation, the project is estimated to generate less than 47 MTCO₂e per year from area sources (i.e., landscape equipment), solid waste generation, wastewater generation, and mobile sources (i.e., vehicle trips). Annual operational emissions under the project would be well below BAAQMD's adopted significance threshold of 1,100 MTCO₂e per year, or the adjusted SB 32 threshold of 660 MTCO₂e per year. In addition, the project would promote the conservation of open space and promote carbon sequestration through participation in the Habitat Plan's Reserve System. Therefore, the project's impact would not be a considerable contribution to this cumulative impact.

Hazards and Hazardous Materials

The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (significance criterion "c"); 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 (significance criterion "d"); be located within an airport land use plan or within two miles of a public or private airport/airstrip (significance criterion "e"); therefore, the project would not contribute to corresponding cumulative impacts. These impacts are not discussed further.

Hazards and hazardous materials impacts are project-specific and highly localized. Therefore, the cumulative hazards and hazardous materials analysis uses the list approach. The geographic scope of hazardous material cumulative impacts would be the area within 0.25-mile of the project area because there is low risk for a geographically large and dispersed hazardous material spill or release, uncontrolled and widespread wildland fire, or regional effects to implementation of an emergency response or evacuation plan as a result of the project. The cumulative projects within 0.25-mile of the project area are the IPM Program activities and general operation and maintenance work conducted on CRID, along with the CRID Public Access Improvement Project.

Operations and maintenance, IPM Program activities, and construction of public access features associated with the CRID Public Access Improvement Project may involve the routine use and storage of small quantities of common household hazardous materials such as fuels, oils, and lubricants, which would be used to operate, mechanical equipment and vehicles. However, no large quantities of hazardous materials would be transported, used, or stored under these projects and no large hazardous materials spills or dispersal could occur. Furthermore, these projects would occur within the project area and CRID, which is far from urban or residential areas where large quantities of people are present. In addition, the use of these common household hazardous materials is subject to numerous laws, regulations, and policies that control the use of hazardous materials and protect public health and safety. The Authority would comply with laws, regulations, and policies relevant to the use, transport, storage, and disposal of hazardous materials to minimize potential health risks when implementing the CRID Public Access Improvement Project, activities associated with the IPM Program, and general operations and maintenance of the project area and CRID. For these reasons, the cumulative scenario is not significant.

Similarly, construction of the proposed project would require the use of limited quantities of hazardous materials, such as fuels, oils, lubricants, and other fluids associated with the operation and maintenance of vehicles or mechanical equipment. Use of these hazardous materials would be temporary and all hazardous materials would be used, stored, and disposed of in accordance with applicable federal, state, and local laws. Furthermore, the Authority would incorporate Habitat Plan Condition 3 and EPM HAZ-1 into the project to reduce the potential of hazardous material spills from construction equipment and vehicles. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Hydrology and Water Quality

The project would not risk release of pollutants due to project inundation from being within a flood hazard, tsunami, or seiche zone (significance criterion "d"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

The project-related hydrology and water quality impacts are project-specific and highly localized. Therefore, impacts on water quality (significance criterion "a"), groundwater supply (significance criterion "b"), erosion (significance criterion "c i"), surface runoff (significance criterion "c ii"), stormwater drainage (significance criterion "c iii"), flood flows (significance criterion "c iv"), and conflicting or obstructing with a water quality control plan or sustainable groundwater management plan (significance criterion "e") are analyzed using the project list approach. The geographic extent for considering project-related cumulative impacts on hydrology and water quality includes projects within 0.50-mile of the project because this distance encompasses the nearest drainages where local impacts to hydrology and water quality could combine. The cumulative projects within 0.50-mile of the project area are the IPM Program activities, general operations and maintenance activities, and the CRID Public Access Improvement Project.

Operations and maintenance activities and manual and mechanical IPM treatments conducted within the project area and the adjacent CRID include vehicle and equipment use for road and trail maintenance and vegetation management. These activities be minor and intermittent, limited to the areas requiring upkeep, and would not result in substantial ground disturbance or erosion/sedimentation. Herbicide application under the IPM Program would comply with all regulations related to the use of pesticides and herbicides, such as measures regarding proper storage, handling, and cleanup of any accidental spills. In addition, adherence to herbicide label requirements would prevent herbicide drift and offsite runoff which could lead to water quality impacts to nearby waterbodies. Construction of public access features associated with the proposed project and the CRID Public Access Improvement Project would require ground disturbance that could result in erosion or siltation that could impact water quality. However, construction would be temporary, occurring over 6 months for each project, and would be required to implement water quality protection measures consistent with a SWPPP. Furthermore, project features (e.g. trails, overlooks) would be dispersed and limited in size, and erosion impacts would be minimal. The presence of dispersed overlooks, picnic areas, and addition of trails would not substantially increase runoff, negatively affect the groundwater supply, or conflict or obstruct the implementation of the Basin Plan or the 2016 GWMP. For these reasons, the cumulative scenario would not be significant.

Similarly, the proposed project would not construct large buildings or areas of impervious surfaces that could lead to water quality impacts, and the Authority would develop a SWPPP and demonstrate conformance with applicable BMPs. Habitat Plan Conditions 3, 7, and 8 would also be adhered to during construction to further minimize water quality impacts. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Land Use and Planning

The project would not physically divide an established community (significance criterion "a"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

A project list approach is used to analyze the cumulative impact related to conflicting with a land use plan (significance criterion "b") because the impact would be localized to the same areas designated within a land use plan or zoning designation. The geographic extent for considering project-related cumulative impacts on land use and planning are the projects within the HS-d1 zoning designation by the County, which permits low intensity recreation (Santa Clara County 2003; Santa Clara County 2016b). The cumulative projects within the HS-d1 zoning designation are the IPM Program activities, general operations and maintenance work, and the CRID Public Access Improvement Project.

According to the Santa Clara County zoning ordinance, low-intensity recreation is allowed in areas designated as HS if the recreational opportunities support the study, appreciation, or enhancement of the natural environment (Santa Clara County 2003). The -d1 combining district is intended to conserve the scenic attributes of hillside lands most immediately visible from the valley floor. The proposed project and all of the cumulative projects support continued use of the area as a passive recreational resource. For this reason, the cumulative scenario related to land use would not be significant. Similarly, the project would comply with the HS-d1 zoning designation because it would develop create public access features to allow the public to enjoy and recreate on the project area. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Mineral Resources

The project would not 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 (significance criterion "b"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

The cumulative impact on the loss of availability of a known mineral resource (significance criterion "a") is analyzed using the project list approach because cumulative impacts would be limited to mineral resources within similar geographic regions. The geographic extent for considering project-related cumulative impacts on mineral resources are areas within MRZs in Santa Clara County. All of the cumulative projects listed in Table 3.21-1 are fully or partially within areas designated as mineral resource zones (Kohler-Antablin 1999).

The cumulative projects either involve public access improvements, operations and maintenance activities, or pest management activities. The public access projects have a construction component that would require ground disturbance; however, no mineral resources would be extracted or removed and none of the projects would occur in an area where minerals are currently extracted. Furthermore, operations and maintenance activities and pest management activities would not extract or remove mineral resources or prevent the future removal of mineral resources. Therefore, the cumulative scenario for mineral resources would not be significant. Similarly, the project would not extract or remove mineral resources or prevent the future removal of mineral resources. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Noise

The project would not be 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 (significance criterion "c"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

For noise and vibration impacts, the cumulative noise and vibration analysis uses the project list approach because noise and vibration impacts are highly localized. The geographic extent for considering cumulative noise impacts is any project within 0.25-mile of the project area. This extent was chosen because the maximum noise and vibration levels generated from the project would be below their respective thresholds from the closest sensitive receptor, which is 850 feet from the project boundary. Within 0.25-mile of the project are the IPM Program activities and general operation and maintenance work conducted at CRID and within the project area, along with the CRID Public Access Improvement Project.

IPM treatments and operations and maintenance activities could generate noise as a result of mechanical equipment use, such as mowers, weed whips, and occasional ATVs. However, the use of noise generating equipment would be limited, dispersed, and intermittent in nature. Additionally, all operation, maintenance, and pest management activities would occur during daytime hours when people are less sensitive to noise impacts and would be spread out across CRID. The CRID Public Access Improvement Project and the proposed project would involve construction of public access features. The use of heavy equipment during construction would generate noise, resulting in a temporary increase in noise levels on and around the project area. Construction noise would be temporary and periodic in nature and would only occur during daytime hours when people are less sensitive to noise. Furthermore, construction would be limited to dispersed public access features, such as the installation of overlooks and trails, in undeveloped open space preserves with very few sensitive receptors in the area. Therefore, the cumulative scenario for noise would not be significant.

While the project would generate construction noise and vibration, noise levels would not exceed the applicable construction noise standard of 60 dBA and vibration levels would not exceed the Caltrans-recommended criterion of 0.5 in/sec PPV with respect to the prevention of structural damage or FTA's recommended criterion of 80 VdB for assessing human annoyance. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Public Services

The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools, parks, or other public facilities; therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

The list approach is used to evaluate potential impacts on police and fire protection because impacts on these two public services are limited to the jurisdiction of the SJFD and SCCSO. Therefore, geographic extent for considering cumulative impacts is the jurisdiction of the SJFD and SCCSO. All of the cumulative projects listed in Table 3.21-1 are within at least the jurisdiction of the SCCSO and are considered in this cumulative analysis.

The cumulative projects either involve public access improvements, operations and maintenance, and pest management activities. The operations, maintenance, and pest management activities would not result in increased visitation, which could require increased fire and police protection. The public access improvement projects would result in increased visitation to natural areas, which could increase the need for fire and police protection services. However, public access to these projects would generally be limited to daytime hours and would involve passive recreation, such as hiking and nature appreciation. Furthermore, many of these areas are currently accessible to the public, so any increase in need for police and fire protection would be minimal. For these reasons, the cumulative scenario for public services would not be significant. While the proposed project would increase visitation on the Malech Road property, the project area would only be open to the public from sunrise to sunset and Authority staff would be present onsite during operating hours and would be the first to respond to incidents, which would limit the need for police protection. Furthermore, all project features would be reviewed and approved by the Fire Marshall to confirm that SJFD can successfully respond to an incident within the project area. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Recreation

The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (significance criterion "a"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

The project list approach was used to determine cumulative impacts related to construction or expansion of recreational facilities, which could have an adverse physical effect on the environment (significance criterion "b") because potential environmental impacts on recreational resources are generally limited to the communities surrounding the project that would use those recreational resources. The geographic extent for considering cumulative impacts is Santa Clara Valley Region, therefore, all of the cumulative projects listed in Table 3.21-1 are included in this analysis.

The cumulative projects either involve public access improvements, operations and maintenance activities, or pest management activities. The operation, maintenance, and pest management activities would not construct new recreational facilities that could lead to an adverse physical effect on the environment. The other seven cumulative projects involve the construction of recreational facilities that could lead to an adverse effect on the physical environment. However, many of the projects, including Heart's Delight Trail Improvements Project and the Llagas Creek Bridge & Day-use Area Project, include improvements to existing public access and recreation features. The environmental impacts associated with these types of projects are relatively minor and in the long-term, benefit the public by providing high quality access to nature. Thus, the cumulative scenario for recreational resources is not cumulatively considerable. Similarly, the project would develop public access features to allow the public to enjoy the Malech Road property, and the environmental effects are addressed throughout this Initial Study. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Transportation

The list approach is used because potential transportation impacts would generally be limited to the roadways surrounding the project. The geographic extent for considering cumulative impacts is 0.50-mile to encompass the roadways immediately surrounding the project area including Malech Road, U.S. Highway 101, Bailey Avenue, and Monterey Road. Cumulative projects within 0.50-mile of the project area are operations and maintenance activities and IPM Program activities occurring within the project area and the adjacent CRID, along with the CRID Public Access Improvement Project.

None of the cumulative projects would construct transportation facilities that could conflict with a program, plan, ordinance, or policy addressing the circulation system; increase hazards due to a geometric design; or result in inadequate emergency access. Daily trips associated with operation, maintenance, and pest management activities are limited to only a few intermittent trips and would not lead to cumulative transportation impacts on local roadways. The CRID Public Access Improvement Project would involve developing new public access and recreation features, which would result in new project-related trips on local roadways during construction and operation. However, construction crew sizes would be small, consisting of 5-10 personnel, and construction-related trips would be temporary, lasting only the duration of the construction period. In addition, once operational, new project trips would be created; however, they would be incremental above trips generated by the project itself because CRID is immediately adjacent and they would share the parking and staging area. Therefore, the cumulative scenario for transportation would not be significant.

Similarly, construction activities and operations associated with the project are not expected to conflict with a program, plan, ordinance, or policy addressing the circulation system; increase hazards due to a geometric design; result in inadequate emergency access; or significantly increase VMT in the region. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Tribal Cultural Resources

Because all significant TCRs are unique and nonrenewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. The loss of any TCRs affects all others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. The cumulative TCR analysis uses the project list approach, and the geographic extent includes the Santa Clara Valley region. Therefore, all of the cumulative projects listed in Table 3.21-1 are included in this analysis.

Native Americans are known to have historically occupied the Santa Clara Valley and foothills region and there is a potential for unknown TCRs to be present in the area. Many of the cumulative public access improvement projects involve activities within Santa Clara Valley that could result in the inadvertent discovery or damage of unknown TCRs, if present. Given increasing development in the region and the potential for the cumulative projects listed in Table 3.21-1 to affect tribal cultural resources, the cumulative scenario for tribal cultural resources in the region would be significant.

Similarly, the project is in an area known to have included previous Native American use and there is a potential for unknown TCRs to be present within the project area, which could be encountered by the project. To limit accidental damage to unknown TCRs, the Authority would implement Mitigation Measure CUL-1, which would require all construction personnel to attend a cultural sensitivity training program, halt all work if a potential TCR identified by a tribe in the future is encountered, consult with the appropriate tribe, and contact the NAHC if human remains of Native American origin are discovered. Thus, potential impacts to TCRs from project implementation would be avoided and minimized such that tribal cultural resources would maintain their integrity. Therefore, the project's impact would not be a considerable contribution to this cumulative impact.

Utilities and Service Systems

The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years (significance criterion "b"), and result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments (significance criterion "c"); therefore, the project would not contribute to corresponding cumulative impacts. This impact is not discussed further.

The list approach is used to evaluate potential impacts to utilities and services systems because utilities, including electric power, water and wastewater, and natural gas are generally provided within a distinct service area. The geographic extent for considering cumulative utilities and service system impacts is Santa Clara County, therefore, all cumulative projects listed in Table 3.21-1 are included in the analysis.

The cumulative projects either involve public access improvements, operation and maintenance, or pest management activities. Operations, maintenance, and pest management activities would not develop new facilities, infrastructure, or services that would require the use of existing utilities or development of new utility infrastructure. Structures would be limited to dispersed restrooms requiring minimal water and wastewater service. Other public access features, such as trails, picnic benches, and overlooks would not require any utilities. In addition, no new housing would be constructed that could lead to population growth and in increased demand on existing utilities. Therefore, the cumulative scenario for utilities and service systems would not be significant. Similarly, the project would not require the use of existing utilities, with the exception of occasional (i.e., 2 times/year) wastewater service for the vault toilet. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

Wildfire

The project list approach is used to evaluate potential wildfire impacts because these impacts generally affect specific areas. Although wildfire ignition is site-specific, it can spread and produce smoke outside of the initial area where it starts. The geographic scope for evaluating fire risk and the exposure of people to wildfire pollutants or the uncontrolled spread of wildfire is the Santa Clara County. All of the cumulative projects listed in Table 3.21-1 are included in the cumulative analysis of wildfire.

The cumulative projects either involve public access improvements, operations and maintenance activities, or pest management activities. Sources of ignition from operations and maintenance and pest management activities would be limited to the intermittent mechanical equipment use. However, all diesel- and gasoline-powered equipment used on forest-, brush, or grass-covered lands are required use spark arrestors to reduce the likelihood of ignition (PRC Section 4442). The cumulative projects involving public access and recreation may increase public use of natural areas, which could increase wildfire risk. However, the public currently has access to most of the areas where recreation related projects would occur, and the potential for increased wildfire risk is minimal. In addition, low-intensity and passive recreation activities, such as hiking or bicycling, do not introduce new ignition sources or otherwise increase fire risk. Therefore, the cumulative scenario for wildfire would not be cumulatively significant. Similarly, the project would involve developing low-intensity recreation within the project area, which would not substantially increase wildfire risk. Therefore, the project would not contribute to nor create a cumulatively significant effect on the environment; there is no significant cumulative impact.

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

Less than significant. Impacts to human beings could result from substantial air quality and GHG emissions, accidental upset or release of hazardous materials, substantial noise creation, risks related to seismic activity and stability of soils, and increased risk of wildfire. However, based on the nature and scope of the project (i.e., construction and operation of public access and recreation features) and the analysis herein, the project would not result in any direct or indirect substantial adverse effects on human beings. Therefore, the impact would be less than significant.

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This section of the Initial Study presents the Authority and consultant staff involved with the preparation of this document.

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Appendix A

Air Quality and Greenhouse Gas Emissions Modeling

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Malech Road
Santa Clara County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	48.00	1000sqft	1.10	48,000.00	0
Other Non-Asphalt Surfaces	4.00	1000sqft	0.09	4,000.00	0
City Park	0.34	Acre	0.34	14,810.40	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Updated acreage to match PD

Construction Phase - Schedule adjusted based on 6 month construction schedule

Off-road Equipment -

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment -

Trips and VMT - Max 10 workers per day. 50-60 hauling trips for material haul

Grading - 4.64 acres disturbed

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Trips - 65 trips per day

Road Dust - 96% of road not paved

Area Coating - 20,000 *0.06 = portion of parking to be painted

Construction Off-road Equipment Mitigation - EPM AQ-1

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	3120	1200
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	60.00
tblConstructionPhase	NumDays	4.00	48.00
tblConstructionPhase	NumDays	2.00	18.00
tblConstructionPhase	NumDays	2.00	18.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblRoadDust	RoadPercentPave	100	96
tblTripsAndVMT	HaulingTripNumber	0.00	60.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	28.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblVehicleTrips	ST_TR	1.96	191.20
tblVehicleTrips	SU_TR	2.19	191.20
tblVehicleTrips	WD_TR	0.78	191.20

2.0 Emissions Summary

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0823	0.8672	0.6404	1.3400e-003	0.2564	0.0386	0.2950	0.1196	0.0357	0.1553	0.0000	118.4611	118.4611	0.0324	1.4300e-003	119.6962
2023	7.0400e-003	0.0759	0.0374	1.1000e-004	0.0437	3.0500e-003	0.0468	0.0199	2.8100e-003	0.0227	0.0000	9.3325	9.3325	2.9000e-003	1.0000e-005	9.4083
Maximum	0.0823	0.8672	0.6404	1.3400e-003	0.2564	0.0386	0.2950	0.1196	0.0357	0.1553	0.0000	118.4611	118.4611	0.0324	1.4300e-003	119.6962

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0823	0.8672	0.6404	1.3400e-003	0.1191	0.0386	0.1577	0.0549	0.0357	0.0906	0.0000	118.4610	118.4610	0.0324	1.4300e-003	119.6960
2023	7.0400e-003	0.0759	0.0374	1.1000e-004	0.0199	3.0500e-003	0.0230	9.0300e-003	2.8100e-003	0.0118	0.0000	9.3325	9.3325	2.9000e-003	1.0000e-005	9.4082
Maximum	0.0823	0.8672	0.6404	1.3400e-003	0.1191	0.0386	0.1577	0.0549	0.0357	0.0906	0.0000	118.4610	118.4610	0.0324	1.4300e-003	119.6960

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	53.67	0.00	47.13	54.21	0.00	42.48	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	0.5862	0.5862
2	10-1-2022	12-31-2022	0.3474	0.3474
3	1-1-2023	3-31-2023	0.0820	0.0820
		Highest	0.5862	0.5862

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.9600e-003	0.0000	4.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	1.0000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0245	0.0260	0.2267	4.6000e-004	2.1153	3.3000e-004	2.1157	0.2190	3.1000e-004	0.2193	0.0000	43.5213	43.5213	2.8500e-003	2.0600e-003	44.2077
Waste						0.0000	0.0000		0.0000	0.0000	6.0900e-003	0.0000	6.0900e-003	3.6000e-004	0.0000	0.0151
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.1312	0.1312	2.0000e-005	0.0000	0.1325
Total	0.0284	0.0260	0.2272	4.6000e-004	2.1153	3.3000e-004	2.1157	0.2190	3.1000e-004	0.2193	6.0900e-003	43.6534	43.6595	3.2300e-003	2.0600e-003	44.3562

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.9600e-003	0.0000	4.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	1.0000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0245	0.0260	0.2267	4.6000e-004	2.1153	3.3000e-004	2.1157	0.2190	3.1000e-004	0.2193	0.0000	43.5213	43.5213	2.8500e-003	2.0600e-003	44.2077
Waste						0.0000	0.0000		0.0000	0.0000	6.0900e-003	0.0000	6.0900e-003	3.6000e-004	0.0000	0.0151
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.1312	0.1312	2.0000e-005	0.0000	0.1325
Total	0.0284	0.0260	0.2272	4.6000e-004	2.1153	3.3000e-004	2.1157	0.2190	3.1000e-004	0.2193	6.0900e-003	43.6534	43.6595	3.2300e-003	2.0600e-003	44.3562

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2022	7/26/2022	5	18	
2	Grading	Grading	7/27/2022	9/30/2022	5	48	
3	Material Laydown	Building Construction	10/3/2022	12/23/2022	5	60	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Restoration	Site Preparation	12/26/2022	1/18/2023	5	18
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Acres of Grading (Site Preparation Phase): 16.88

Acres of Grading (Grading Phase): 48

Acres of Paving: 1.19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Material Laydown	Cement and Mortar Mixers	1	6.00	9	0.56
Material Laydown	Cranes	1	2.00	231	0.29
Material Laydown	Forklifts	1	2.00	89	0.20
Material Laydown	Generator Sets	1	3.00	84	0.74
Material Laydown	Pavers	1	6.00	130	0.42
Material Laydown	Paving Equipment	1	8.00	132	0.36
Material Laydown	Rollers	1	7.00	80	0.38
Material Laydown	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Material Laydown	Welders	1	1.00	46	0.45
Restoration	Graders	1	8.00	187	0.41
Restoration	Rubber Tired Dozers	1	7.00	247	0.40
Restoration	Tractors/Loaders/Backhoes	1	4.00	97	0.37

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	10.00	11.00	60.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Restoration	3	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0564	0.0000	0.0564	0.0270	0.0000	0.0270	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1317	0.0639	1.5000e-004		5.6000e-003	5.6000e-003		5.1500e-003	5.1500e-003	0.0000	13.6038	13.6038	4.4000e-003	0.0000	13.7137
Total	0.0118	0.1317	0.0639	1.5000e-004	0.0564	5.6000e-003	0.0620	0.0270	5.1500e-003	0.0322	0.0000	13.6038	13.6038	4.4000e-003	0.0000	13.7137

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	2.1700e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5644	0.5644	2.0000e-005	2.0000e-005	0.5697
Total	2.4000e-004	1.8000e-004	2.1700e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5644	0.5644	2.0000e-005	2.0000e-005	0.5697

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0254	0.0000	0.0254	0.0122	0.0000	0.0122	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1317	0.0639	1.5000e-004		5.6000e-003	5.6000e-003		5.1500e-003	5.1500e-003	0.0000	13.6037	13.6037	4.4000e-003	0.0000	13.7137
Total	0.0118	0.1317	0.0639	1.5000e-004	0.0254	5.6000e-003	0.0310	0.0122	5.1500e-003	0.0173	0.0000	13.6037	13.6037	4.4000e-003	0.0000	13.7137

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3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	2.1700e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5644	0.5644	2.0000e-005	2.0000e-005	0.5697
Total	2.4000e-004	1.8000e-004	2.1700e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5644	0.5644	2.0000e-005	2.0000e-005	0.5697

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1700	0.0000	0.1700	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0370	0.4076	0.2213	4.9000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	43.4465	43.4465	0.0141	0.0000	43.7978
Total	0.0370	0.4076	0.2213	4.9000e-004	0.1700	0.0178	0.1878	0.0822	0.0164	0.0986	0.0000	43.4465	43.4465	0.0141	0.0000	43.7978

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3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	4.7000e-004	5.7900e-003	2.0000e-005	1.9000e-003	1.0000e-005	1.9100e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5051	1.5051	5.0000e-005	4.0000e-005	1.5192
Total	6.4000e-004	4.7000e-004	5.7900e-003	2.0000e-005	1.9000e-003	1.0000e-005	1.9100e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5051	1.5051	5.0000e-005	4.0000e-005	1.5192

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0765	0.0000	0.0765	0.0370	0.0000	0.0370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0370	0.4076	0.2213	4.9000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	43.4465	43.4465	0.0141	0.0000	43.7977
Total	0.0370	0.4076	0.2213	4.9000e-004	0.0765	0.0178	0.0943	0.0370	0.0164	0.0534	0.0000	43.4465	43.4465	0.0141	0.0000	43.7977

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3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	4.7000e-004	5.7900e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7700e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.5051	1.5051	5.0000e-005	4.0000e-005	1.5192
Total	6.4000e-004	4.7000e-004	5.7900e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7700e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.5051	1.5051	5.0000e-005	4.0000e-005	1.5192

3.4 Material Laydown - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0278	0.2684	0.3180	5.2000e-004		0.0135	0.0135		0.0126	0.0126	0.0000	45.1331	45.1331	0.0125	0.0000	45.4449
Total	0.0278	0.2684	0.3180	5.2000e-004		0.0135	0.0135		0.0126	0.0126	0.0000	45.1331	45.1331	0.0125	0.0000	45.4449

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3.4 Material Laydown - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	5.1900e-003	1.0900e-003	2.0000e-005	5.1000e-004	5.0000e-005	5.6000e-004	1.4000e-004	4.0000e-005	1.8000e-004	0.0000	1.8882	1.8882	6.0000e-005	3.0000e-004	1.9790
Vendor	7.3000e-004	0.0186	5.4400e-003	7.0000e-005	2.1700e-003	2.0000e-004	2.3700e-003	6.3000e-004	1.9000e-004	8.1000e-004	0.0000	6.8446	6.8446	1.5000e-004	1.0100e-003	7.1495
Worker	8.0000e-004	5.9000e-004	7.2400e-003	2.0000e-005	2.3800e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8814	1.8814	6.0000e-005	5.0000e-005	1.8991
Total	1.6700e-003	0.0244	0.0138	1.1000e-004	5.0600e-003	2.6000e-004	5.3200e-003	1.4000e-003	2.4000e-004	1.6300e-003	0.0000	10.6142	10.6142	2.7000e-004	1.3600e-003	11.0275

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0278	0.2684	0.3180	5.2000e-004		0.0135	0.0135		0.0126	0.0126	0.0000	45.1330	45.1330	0.0125	0.0000	45.4448
Total	0.0278	0.2684	0.3180	5.2000e-004		0.0135	0.0135		0.0126	0.0126	0.0000	45.1330	45.1330	0.0125	0.0000	45.4448

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3.4 Material Laydown - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	5.1900e-003	1.0900e-003	2.0000e-005	4.7000e-004	5.0000e-005	5.2000e-004	1.3000e-004	4.0000e-005	1.8000e-004	0.0000	1.8882	1.8882	6.0000e-005	3.0000e-004	1.9790
Vendor	7.3000e-004	0.0186	5.4400e-003	7.0000e-005	2.0300e-003	2.0000e-004	2.2300e-003	5.9000e-004	1.9000e-004	7.8000e-004	0.0000	6.8446	6.8446	1.5000e-004	1.0100e-003	7.1495
Worker	8.0000e-004	5.9000e-004	7.2400e-003	2.0000e-005	2.1900e-003	1.0000e-005	2.2100e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.8814	1.8814	6.0000e-005	5.0000e-005	1.8991
Total	1.6700e-003	0.0244	0.0138	1.1000e-004	4.6900e-003	2.6000e-004	4.9600e-003	1.3100e-003	2.4000e-004	1.5600e-003	0.0000	10.6142	10.6142	2.7000e-004	1.3600e-003	11.0275

3.5 Restoration - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0221	0.0000	0.0221	8.2100e-003	0.0000	8.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e-003	0.0345	0.0149	4.0000e-005		1.4400e-003	1.4400e-003		1.3300e-003	1.3300e-003	0.0000	3.4372	3.4372	1.1100e-003	0.0000	3.4650
Total	3.0700e-003	0.0345	0.0149	4.0000e-005	0.0221	1.4400e-003	0.0236	8.2100e-003	1.3300e-003	9.5400e-003	0.0000	3.4372	3.4372	1.1100e-003	0.0000	3.4650

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3.5 Restoration - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	6.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1568	0.1568	0.0000	0.0000	0.1583
Total	7.0000e-005	5.0000e-005	6.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1568	0.1568	0.0000	0.0000	0.1583

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.9600e-003	0.0000	9.9600e-003	3.6900e-003	0.0000	3.6900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e-003	0.0345	0.0149	4.0000e-005		1.4400e-003	1.4400e-003		1.3300e-003	1.3300e-003	0.0000	3.4372	3.4372	1.1100e-003	0.0000	3.4650
Total	3.0700e-003	0.0345	0.0149	4.0000e-005	9.9600e-003	1.4400e-003	0.0114	3.6900e-003	1.3300e-003	5.0200e-003	0.0000	3.4372	3.4372	1.1100e-003	0.0000	3.4650

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Restoration - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	6.0000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1568	0.1568	0.0000	0.0000	0.1583
Total	7.0000e-005	5.0000e-005	6.0000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1568	0.1568	0.0000	0.0000	0.1583

3.5 Restoration - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0432	0.0000	0.0432	0.0198	0.0000	0.0198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8800e-003	0.0758	0.0359	1.0000e-004		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	8.9351	8.9351	2.8900e-003	0.0000	9.0073
Total	6.8800e-003	0.0758	0.0359	1.0000e-004	0.0432	3.0500e-003	0.0463	0.0198	2.8100e-003	0.0226	0.0000	8.9351	8.9351	2.8900e-003	0.0000	9.0073

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Restoration - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.4500e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3974	0.3974	1.0000e-005	1.0000e-005	0.4009
Total	1.6000e-004	1.1000e-004	1.4500e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3974	0.3974	1.0000e-005	1.0000e-005	0.4009

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0194	0.0000	0.0194	8.9100e-003	0.0000	8.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8800e-003	0.0758	0.0359	1.0000e-004		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	8.9351	8.9351	2.8900e-003	0.0000	9.0073
Total	6.8800e-003	0.0758	0.0359	1.0000e-004	0.0194	3.0500e-003	0.0225	8.9100e-003	2.8100e-003	0.0117	0.0000	8.9351	8.9351	2.8900e-003	0.0000	9.0073

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Restoration - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.4500e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3974	0.3974	1.0000e-005	1.0000e-005	0.4009
Total	1.6000e-004	1.1000e-004	1.4500e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3974	0.3974	1.0000e-005	1.0000e-005	0.4009

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0245	0.0260	0.2267	4.6000e-004	2.1153	3.3000e-004	2.1157	0.2190	3.1000e-004	0.2193	0.0000	43.5213	43.5213	2.8500e-003	2.0600e-003	44.2077
Unmitigated	0.0245	0.0260	0.2267	4.6000e-004	2.1153	3.3000e-004	2.1157	0.2190	3.1000e-004	0.2193	0.0000	43.5213	43.5213	2.8500e-003	2.0600e-003	44.2077

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	65.01	65.01	65.01	138,783	138,783
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	65.01	65.01	65.01	138,783	138,783

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.572464	0.055653	0.187060	0.115672	0.020329	0.005102	0.007934	0.006404	0.000900	0.000380	0.024412	0.000914	0.002776
Other Asphalt Surfaces	0.572464	0.055653	0.187060	0.115672	0.020329	0.005102	0.007934	0.006404	0.000900	0.000380	0.024412	0.000914	0.002776

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.9600e-003	0.0000	4.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	1.0000e-003
Unmitigated	3.9600e-003	0.0000	4.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	1.0000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	1.0000e-003
Total	3.9600e-003	0.0000	4.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	1.0000e-003

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	1.0000e-003
Total	3.9600e-003	0.0000	4.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	1.0000e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.1312	2.0000e-005	0.0000	0.1325
Unmitigated	0.1312	2.0000e-005	0.0000	0.1325

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.405104	0.1312	2.0000e-005	0.0000	0.1325
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.1312	2.0000e-005	0.0000	0.1325

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.405104	0.1312	2.0000e-005	0.0000	0.1325
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.1312	2.0000e-005	0.0000	0.1325

8.0 Waste Detail

8.1 Mitigation Measures Waste

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.0900e-003	3.6000e-004	0.0000	0.0151
Unmitigated	6.0900e-003	3.6000e-004	0.0000	0.0151

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.03	6.0900e-003	3.6000e-004	0.0000	0.0151
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		6.0900e-003	3.6000e-004	0.0000	0.0151

Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.03	6.0900e-003	3.6000e-004	0.0000	0.0151
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		6.0900e-003	3.6000e-004	0.0000	0.0151

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Malech Road - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

Malech Road Project Emissions Calculations

Total and Annual Emissions Summary - Construction - Unmitigated (for AQ and GHG Analysis)

	tons										MT			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2	CH4	N2O	CO2e
Total	0.08	0.87	0.64	0.00	0.14	0.04	0.18	0.06	0.04	0.10	118.86	0.03	0.00	120.10

	tons										MT			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2	CH4	N2O	CO2e
Total Onsite	0.08	0.84	0.62	0.00	0.13	0.04	0.17	0.06	0.04	0.10	105.62	0.03	0.00	106.42
Total Offsite	0.00	0.03	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	13.24	0.00	0.00	13.68

	tons/year										MT/year			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2	CH4	N2O	CO2e
Total 2022	0.08	0.87	0.64	0.00	0.12	0.04	0.16	0.05	0.04	0.09	118.46	0.03	0.00	119.70
Total 2023	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.01	0.00	0.01	0.40	0.00	0.00	0.40

	tons/year										MT/year			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2	CH4	N2O	CO2e
2022 Onsite	0.08	0.84	0.62	0.00	0.11	0.04	0.15	0.05	0.04	0.09	105.62	0.03	0.00	106.42
2022 Offsite	0.00	0.03	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	12.84	0.00	0.00	13.27
2023 Onsite	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.00
2023 Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.40

SUMMARY OF MODELING RESULTS

Site Preparation - 2022

Unmitigated Construction

Category	tons/yr										MT/yr			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2	CH4	N2O	CO2e
Fugitive Dust					0.0254	0.0000	0.0254	0.0122	0.0000	0.0122	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1317	0.0639	0.0002		0.0056	0.0056		0.0052	0.0052	13.6037	0.0044	0.0000	13.7137
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0002	0.0002	0.0022	0.0000	0.0007	0.0000	0.0007	0.0002	0.0000	0.0002	0.5644	0.0000	0.0000	0.5697
Total	0.0120	0.1319	0.0661	0.0002	0.0261	0.0056	0.0317	0.0124	0.0052	0.0175	14.1681	0.0044	0.0000	14.2846
TOTAL ONSITE	0.0118	0.1317	0.0639	0.0002	0.0254	0.0056	0.0310	0.0122	0.0052	0.0174	13.6037	0.0044	0.0000	13.7137
TOTAL OFFSITE	0.0002	0.0002	0.0022	0.0000	0.0007	0.0000	0.0007	0.0002	0.0000	0.0002	0.5644	0.0000	0.0000	0.5697

Grading - 2022

Unmitigated Construction

Category	tons/yr										MT/yr			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2	CH4	N2O	CO2e
Fugitive Dust					0.0765	0.0000	0.0765	0.0370	0.0000	0.0370	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0370	0.4076	0.2213	0.0005		0.0178	0.0178		0.0164	0.0164	43.4465	0.0141	0.0000	43.7977
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0006	0.0005	0.0058	0.0000	0.0018	0.0000	0.0018	0.0005	0.0000	0.0005	1.5051	0.0001	0.0000	1.5192
Total	0.0376	0.4081	0.2271	0.0005	0.0783	0.0178	0.0961	0.0375	0.0164	0.0539	44.9516	0.0142	0.0000	45.3173
TOTAL ONSITE	0.0370	0.4076	0.2213	0.0005	0.0765	0.0178	0.0943	0.0370	0.0164	0.0534	43.4465	0.0141	0.0000	43.7977
TOTAL OFFSITE	0.0006	0.0005	0.0058	0.0000	0.0018	0.0000	0.0018	0.0005	0.0000	0.0005	1.5051	0.0001	0.0000	1.5192

Material Laydown - 2022

Unmitigated Construction

Category	tons/yr										MT/yr			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2	CH4	N2O	CO2e
Off-Road	0.0278	0.2684	0.3180	0.0005		0.0135	0.0135		0.0126	0.0126	45.1330	0.0125	0.0000	45.4448
Hauling	0.0001	0.0052	0.0011	0.0000	0.0005	0.0001	0.0005	0.0001	0.0000	0.0002	1.8882	0.0001	0.0003	1.9790
Vendor	0.0007	0.0186	0.0054	0.0001	0.0020	0.0002	0.0022	0.0006	0.0002	0.0008	6.8446	0.0002	0.0010	7.1495
Worker	0.0008	0.0006	0.0072	0.0000	0.0022	0.0000	0.0022	0.0006	0.0000	0.0006	1.8814	0.0001	0.0001	1.8991
Total	0.0295	0.2928	0.3318	0.0006	0.0047	0.0138	0.0185	0.0013	0.0128	0.0142	55.7472	0.0128	0.0014	56.4724
TOTAL ONSITE	0.0278	0.2684	0.3180	0.0005	0.0000	0.0135	0.0135	0.0000	0.0126	0.0126	45.1330	0.0125	0.0000	45.4448
TOTAL OFFSITE	0.0017	0.0244	0.0138	0.0001	0.0047	0.0003	0.0050	0.0013	0.0002	0.0016	10.6142	0.0003	0.0014	11.0276

Restoration - 2022

Unmitigated Construction

Category	tons/yr										MT/yr			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2	CH4	N2O	CO2e
Fugitive Dust					0.0100	0.0000	0.0100	0.0037	0.0000	0.0037	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0031	0.0345	0.0149	0.0000		0.0014	0.0014		0.0013	0.0013	3.4372	0.0011	0.0000	3.4650
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0001	0.0001	0.0006	0.0000	0.0002	0.0000	0.0002	0.0001	0.0000	0.0001	0.1568	0.0000	0.0000	0.1583
Total	0.0031	0.0346	0.0155	0.0000	0.0101	0.0014	0.0116	0.0037	0.0013	0.0051	3.5940	0.0011	0.0000	3.6233
TOTAL ONSITE	0.0031	0.0345	0.0149	0.0000	0.0100	0.0014	0.0114	0.0037	0.0013	0.0050	3.4372	0.0011	0.0000	3.4650
TOTAL OFFSITE	0.0001	0.0001	0.0006	0.0000	0.0002	0.0000	0.0002	0.0001	0.0000	0.0001	0.1568	0.0000	0.0000	0.1583

Restoration - 2023

Unmitigated Construction

Category	tons/yr										MT/yr			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2	CH4	N2O	CO2e
Off-Road					0.0194	0.0000	0.0194	0.0089	0.0000	0.0089	0.0000	0.0000	0.0000	0.0000
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0002	0.0001	0.0015	0.0000	0.0005	0.0000	0.0005	0.0001	0.0000	0.0001	0.3974	0.0000	0.0000	0.4009
Total	0.0002	0.0001	0.0015	0.0000	0.0199	0.0000	0.0199	0.0090	0.0000	0.0090	0.3974	0.0000	0.0000	0.4009
TOTAL ONSITE	0.0000	0.0000	0.0000	0.0000	0.0194	0.0000	0.0194	0.0089	0.0000	0.0089	0.0000	0.0000	0.0000	0.0000
TOTAL OFFSITE	0.0002	0.0001	0.0015	0.0000	0.0005	0.0000	0.0005	0.0001	0.0000	0.0001	0.3974	0.0000	0.0000	0.4009

Average Daily Emissions Summary - Construction - Unmitigated

Construction Schedule

	Start Date	End Date	Working Days (5 Days per week)	Hours per Day
2022	7/1/2022	12/31/2022	131	8
2023	1/1/2023	1/18/2023	13	8
Total Working Days	7/1/2022	1/18/2023	144	8

	lb/day									
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Average Daily Emissions (Calculated from total construction emissions)	1.15	12.05	8.92	0.02	1.93	0.54	2.47	0.89	0.50	1.38
BAAQMD Threshold	54	54	NA	NA	BMP	82	NA	BMP	54	NA
Exceeds Threshold	No	No	NA	NA	NA	No	NA	NA	No	NA

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	1.11	11.70	8.58	0.02	1.82	0.53	2.36	0.86	0.49	1.35
Total Offsite	0.04	0.35	0.33	0.00	0.11	0.00	0.11	0.03	0.00	0.03

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total 2022	1.26	13.24	9.78	0.02	1.82	0.59	2.41	0.84	0.55	1.38
Total 2023	0.02	0.02	0.22	0.00	3.06	0.00	3.06	1.39	0.00	1.39

Criteria Air Pollutant Emissions Summary - Operations 2024 - Annual Emissions

Proposed Project - Total Annual Emissions 2024 (tons/year)										
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Energy - No Natural Gas	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Mobile	0.02	0.03	0.23	0.00	2.12	0.00	2.12	0.22	0.00	0.22
Waste Generation						0.00	0.00		0.00	0.00
Water/Wastewater						0.00	0.00		0.00	0.00
Total	0.03	0.03	0.23	0.00	2.12	0.00	2.12	0.22	0.00	0.22

Criteria Air Pollutant Emissions Summary - Operations 2024 - Daily Emissions

Proposed Project - Daily Emission (lb/day)

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	0	0	0	0	0	0	0	0	0	0
Energy - None	0	0	0	0	0	0	0	0	0	0
Mobile	0	0	1	0	12	0	12	1	0	1
Waste Generation	0	0	0	0	0	0	0	0	0	0
Water/Wastewater	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	12	0	12	1	0	1
BAAQMD Threshold (Daily)	54	54	NA	NA	NA	82	NA	NA	54	NA
Exceeds Threshold	No	No	NA	NA	NA	No	NA	NA	No	NA

Note: Annual emissions divided by 365 days/year to obtain average daily emissions.

Greenhouse Gas Emissions Summary - Operations 2024

Proposed Project - 2024 (MT/year)

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	Percent of Total
Area	0	9.40E-04	9.40E-04	0.00E+00	0	0	0%
Energy - none	0	0.00	0.00	0.00E+00	0.00E+00	0	0%
Mobile	0	43.52	43.52	2.85E-03	2.06E-03	44	100%
Waste Generation	6.09E-03	0	6.09E-03	3.60E-04	0.00E+00	0	0%
Water/Wastewater	0	0	0	0	0	0	0%
Total	0.00609	43.65344	43.65953	0.00323	0.00206	44	100%

Construction

Construction	MT/yr
Unmitigated	Const.
2022	120
2023	9
Total Construction	129

GHG Emission Assumptions

Category	Value	Notes	Source
GWP			
CO2	1		
CH4	25	IPCC Fourth Assessment Report	Consistent with CARB GHG Inventory Assumptions
N2O	298	IPCC Fourth Assessment Report	Consistent with CARB GHG Inventory Assumptions

Appendix B

Special-Status Species Tables

Methods

The species tables in this appendix were developed through a review of the 2019/2020 Biological Resources Survey Report for the project (Authority 2021a), the Coyote Ridge Open Space Preserve Project Biological Resources Report (Authority 2021b), and CDFW's California Natural Diversity Database (CNDDDB) (CNDDDB 2021) along with other relevant sources. A search of the CNDDDB was conducted for the following U.S. Geological Survey 7.5' quadrangles surrounding the project area: Santa Teresa Hills, Loma Prieta, Mount Madonna, Gilroy, Mount Sizer, Isabel Valley, Lick Observatory, San Jose East, and Morgan Hill. Rows depicted in grey below in Table B-1 and Table B-2 indicate the species could occur or is known to occur in the project area.

Table B-1 Special-Status Botanical Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	Federal	State	CRPR		
bent-flowered fiddleneck <i>Amsinckia lunaris</i>			1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 10–2,610 feet in elevation. Blooms March–June.	Could Occur. Suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).
Anderson's manzanita <i>Arctostaphylos andersonii</i>			1B.2	Broadleaved upland forest, chaparral, north coast coniferous forest. Open sites, redwood forest. 200–2,490 feet in elevation. Blooms November–May.	Not Expected to Occur. No suitable habitat occurs in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).
Bonny Doon manzanita <i>Arctostaphylos silvicola</i>			1B.2	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Only known from Zayante (inland marine) sands in Santa Cruz County. 490–1,710 feet in elevation. Blooms January–March.	Not Expected to Occur. Suitable Zayante sands are not present in the project area. The project area is within the elevational range of the species. There are no documented occurrences within the project vicinity, and the project area is outside of the geographic range of the species. The species was not observed during botanical surveys of the project area (Authority 2021a).
big-scale balsamroot <i>Balsamorhiza macrolepis</i>			1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 120–4,800 feet in elevation. Blooms March–June.	Could Occur. Suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).
Santa Cruz Mountains pussypaws <i>Calyptridium parryi</i> var. <i>hesseae</i>			1B.1	Chaparral, cismontane woodland. Sandy or gravelly openings. 980–5,040 feet in elevation. Blooms May–August.	Not Expected to Occur. No suitable habitat occurs in the project area. The project area is below the elevational range, but within the geographic range of the species. There are no documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).

Special-Status Species Tables

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	Federal	State	CRPR		
chaparral harebell <i>Campanula exigua</i>			1B.2	Chaparral. Rocky sites, usually on serpentine in chaparral. 900–4,100 feet in elevation. Blooms May–June.	Not Expected to Occur. No suitable habitat occurs in the project area. The project area is below the elevational range, but within the geographic range of the species. There are no documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).
bristly sedge <i>Carex comosa</i>			2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta Island. -10–5,320 feet in elevation. Blooms May–September.	Not Expected to Occur. Wetland habitats absent from the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).
deceiving sedge <i>Carex saliniformis</i>			1B.2	Coastal prairie, coastal scrub, meadows and seeps, marshes and swamps (coastal salt). Mesic sites. 10–755 feet in elevation. Blooms June (July).	Not Expected to Occur. Wetland habitats absent from the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).
Tiburon paintbrush <i>Castilleja affinis</i> var. <i>neglecta</i>	E	T	1B.2	Valley and foothill grassland. Rocky serpentine sites. 390–1,310 feet in elevation. Blooms April–June.	Could Occur. Suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species. The nearest documented occurrence is 3 miles from the project area; however, the species was not observed during botanical surveys of the project area (Authority 2021a).
pink creamsacs <i>Castilleja rubicundula</i> var. <i>rubicundula</i>			1B.2	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Openings in chaparral or grasslands. On serpentine. 66–3,000 feet in elevation. Blooms April–June.	Not Expected to Occur. Mesic habitat within the project area provides marginal habitat. The project area is within the elevational and geographic range of the species; however, there are no documented occurrences in the project vicinity and the species was not observed during botanical surveys of the project area (Authority 2021a).
Coyote ceanothus <i>Ceanothus ferrisiae</i>	E		1B.1	Chaparral, valley and foothill grassland, coastal scrub. Serpentine sites in the Mt. Hamilton range. 490–1,510 feet in elevation. Blooms January–May.	Not Expected to Occur. No suitable scrub habitat in the project area. The project area is within the elevational and geographic range of the species; although the nearest documented location is approximately 4 miles from the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	Federal	State	CRPR		
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>			1B.1	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 0–760 feet in elevation. Blooms May–October and as late as November in some conditions.	Not Expected to Occur. No alkaline habitat in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).
dwarf soaproot <i>Chlorogalum pomeridianum</i> var. <i>minus</i>			1B.2	Chaparral. Serpentine. 1,000–3,280 feet in elevation. Blooms May–August.	Not Expected to Occur. No suitable chaparral habitat in the project area. The project area is outside the elevational and geographic range of the species. The species was not observed during botanical surveys of the project area (Authority 2021a).
Ben Lomond spineflower <i>Chorizanthe pungens</i> var. <i>hartwegiana</i>	E		1B.1	Lower montane coniferous forest. Zayante coarse sands in maritime ponderosa pine sandhills. 344–1,560 feet in elevation. Blooms April–July.	Not Expected to Occur. Suitable Zayante sands are not present in project area. The project area is within the elevational range of the species. No documented occurrences within the project vicinity, and the project area is outside of the geographic range of the species. The species was not observed during botanical surveys of the project area (Authority 2021a).
Monterey spineflower <i>Chorizanthe pungens</i> var. <i>pungens</i>	T		1B.2	Coastal dunes, chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Sandy soils in coastal dunes or more inland within chaparral or other habitats. 0–560 feet in elevation. Blooms April–June and as late as July and August under some conditions.	Not Expected to Occur. Suitable sandy soils are not present in project area. The project area is within the elevational and geographic range of the species. No documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).
Scotts Valley spineflower <i>Chorizanthe robusta</i> var. <i>hartwegii</i>	E		1B.1	Meadows, valley and foothill grassland. In grasslands with mudstone and sandstone outcrops. 340–800 feet in elevation. Blooms April–July.	Not Expected to Occur. Suitable mudstone and sandstone outcrops are not present in the project area. The project area is within the elevational range of the species. No documented occurrences within the project vicinity. The project area is outside of the geographic range of the species. The species was not observed during botanical surveys of the project area (Authority 2019).
robust spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i>	E		1B.1	Cismontane woodland, coastal dunes, coastal scrub, chaparral. Sandy terraces and bluffs or in loose sand. 30–800 feet in elevation. Blooms April–September.	Not Expected to Occur. Suitable sandy soils are not present in the project area. The project area is within the elevational, but outside of the current geographical range of the species. No documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).

Special-Status Species Tables

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	Federal	State	CRPR		
Mount Hamilton fountain thistle <i>Cirsium fontinale</i> var. <i>campylon</i>			1B.2	Cismontane woodland, chaparral, valley and foothill grassland. In seasonal and perennial drainages on serpentine. 328–2920 feet in elevation. Blooms (February), April–October.	Known to Occur. Suitable wet habitat present adjacent to the project area. The project area is within the elevational and geographical range of the species. The species was observed during botanical surveys of the project area (Authority 2021a).
San Francisco collinsia <i>Collinsia</i> <i>multicolor</i>			1B.2	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. 100–820 feet in elevation. Blooms As early as February under some conditions, otherwise blooms March–May.	Not Expected to Occur. Suitable habitat is not present in the project area. The project area is within the elevational and geographical range of the species. No documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).
Hospital Canyon larkspur <i>Delphinium</i> <i>californicum</i> ssp. <i>interius</i>			1B.2	Cismontane woodland, chaparral, coastal scrub. In wet, boggy meadows, openings in chaparral and in canyons. 640–3,590 feet in elevation. Blooms April–June.	Not Expected to Occur. Suitable habitat is not present in the project area. The project area is near the elevational range and within the geographic range of the species. Documented occurrences within the region (CNPS 2020). The species was not observed during botanical surveys of the project area (Authority 2021a).
Santa Clara Valley dudleya <i>Dudleya</i> <i>abramsii</i> ssp. <i>setchellii</i>	E		1B.1	Ultramafic. Valley and foothill grassland, cismontane woodland. On rocky serpentine outcrops and on rocks within grassland or woodland. 200–1,490 feet in elevation. Blooms April–October.	Known to Occur. Suitable habitat is present in the project area, and the species was observed within the project area (Authority 2021a).
Ben Lomond buckwheat <i>Eriogonum</i> <i>nudum</i> var. <i>decurrens</i>			1B.1	Chaparral, cismontane woodland, lower montane coniferous forest. Ponderosa pine sandhills in Santa Cruz County. 160–2,630 feet in elevation. Blooms June–October.	Not Expected to Occur. Suitable habitats are not present in the project area. The project area is within the elevational range, but outside of the geographic range of the species. The species was not observed during botanical surveys of the project area (Authority 2021a).
Hoover's button-celery <i>Eryngium</i> <i>aristulatum</i> var. <i>hooveri</i>			1B.1	Vernal pools, wetland. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 3–160 feet in elevation. Blooms (June), Jul (August).	Not Expected to Occur. No suitable vernal pool habitat is present in the project area. The project area is within the elevational and geographic range of the species; however, the species was not observed during botanical surveys of the project area (Authority 2021a).
Santa Cruz wallflower <i>Erysimum</i> <i>teretifolium</i>	E	E	1B.1	Lower montane coniferous forest, chaparral. Inland marine sands (Zayante coarse sand). 590–1,690 feet in elevation. Blooms March–July.	Not Expected to Occur. Suitable Zayante sands are not present in the project area. The project is within the elevational range of the species. Documented occurrences within the region (CNPS 2020); however, the project is outside of the geographic range of the species. The species was not observed during botanical surveys of the project area (Authority 2021a).

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	Federal	State	CRPR		
minute pocket moss <i>Fissidens pauperculus</i>			1B.2	Redwood. North coast coniferous forest. Moss growing on damp soil along the coast. In dry streambeds and on stream banks. 30–3,360 feet in elevation.	Not Expected to Occur. Suitable habitat is not present within the project area. The project area is within the elevational and geographic range of the species, and there are no documented occurrences within the vicinity of the project. The species was not observed during botanical surveys of the project area (Authority 2021a).
fragrant fritillary <i>Fritillaria liliacea</i>			1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. 10–1,310 feet in elevation. Blooms February–April.	Could Occur. Suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species, and there are documented occurrences within the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Loma Prieta hoita <i>Hoita strobilina</i>			1B.1	Chaparral, cismontane woodland, riparian woodland. Serpentine; mesic sites. 200–3,200 feet in elevation. Blooms May–July, and as late as August through October under some conditions.	Not Expected to Occur. Marginal habitat is present in the project area. The project is within the elevational and geographic range of the species. The species was not observed during botanical surveys of the project area (Authority 2021a).
Santa Cruz tarplant <i>Holocarpha macradenia</i>	T	E	1B.1	Coastal prairie, coastal scrub, valley and foothill grassland. Light, sandy soil or sandy clay; often with nonnatives. 30–720 feet in elevation. Blooms June–October.	Not Expected to Occur. Suitable clay soils limited in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences within vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Contra Costa goldfields <i>Lasthenia conjugens</i>	E		1B.1	Alkali playa, wetland. Valley and foothill grassland, vernal pools, alkaline playatas, cismontane woodland. Vernal pools, swales, low depressions, in open grassy areas. 1–1,480 feet in elevation. Blooms March–June.	Not Expected to Occur. No suitable vernal pool habitat is present in the project area. The project area is within the elevational and geographical range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Mount Hamilton coreopsis <i>Leptosyne hamiltonii</i>			1B.2	Cismontane woodland. On steep shale talus with open southwestern exposure. 1,740–4,270 feet in elevation. Blooms March–May.	Not Expected to Occur. No suitable habitat is present in the project area. The project area is outside of the elevational range, but within the geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2019).
smooth lessingia <i>Lessingia micradenia</i> var. <i>glabrata</i>			1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Serpentine; often on roadsides. 390–1,380 feet in elevation. Blooms June– October.	Known to Occur. Suitable habitat is present in the project area. Approximately 15,400 plants documented within the project area (Authority 2021a).

Special-Status Species Tables

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	Federal	State	CRPR		
Mount Hamilton lomatium <i>Lomatium observatorium</i>			1B.2	Cismontane woodland. Open to partially shaded openings in <i>Pinus coulteri</i> -oak woodland. Sedimentary Franciscan rocks and volcanics. 1,790–4,000 feet in elevation. Blooms March–May.	Not Expected to Occur. No suitable habitat is present in the project area. The project area is below the elevational range of the species. The project is within the geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
arcuate bush-mallow <i>Malacothamnus arcuatus</i>			1B.2	Chaparral, cismontane woodland. Gravelly alluvium. 1–2,410 feet in elevation. Blooms April–September.	Not Expected to Occur. No suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Hall's bush-mallow <i>Malacothamnus hallii</i>			1B.2	Chaparral, coastal scrub. Some populations on serpentine. 30–2,400 feet in elevation. Blooms May–September and as late as October under some conditions.	Not Expected to Occur. No suitable habitat is present in the project area. The project area is within the elevational and geographical range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Oregon meconella <i>Meconella oregana</i>			1B.1	Coastal prairie, coastal scrub. Open, moist places. 200–2,100 feet in elevation. Blooms March–April.	Not Expected to Occur. No suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species. Documented occurrences within the region (CNDDDB 2021). The species was not observed during botanical surveys of the project area (Authority 2021a).
woodland woollythreads <i>Monolopia gracilens</i>			1B.2	Chaparral, valley and foothill grassland, cismontane woodland, broadleafed upland forest, north coast coniferous forest. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns but may have only weak affinity to serpentine. 328–3,940 feet in elevation. Blooms March–July, but may bloom as early as February.	Could Occur. Suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species, and there are documented occurrences approximately 1.4 miles from the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Santa Cruz Mountains beardtongue <i>Penstemon rattanii</i> var. <i>kleei</i>			1B.2	Chaparral, lower montane coniferous forest, north coast coniferous forest. Sandy shale slopes; sometimes in the transition between forest and chaparral. 1,310–3,610 feet in elevation. Blooms May–June.	Not Expected to Occur. No suitable habitat is present in the project area. The project area is outside of the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	Federal	State	CRPR		
San Benito pentachaeta <i>Pentachaeta exilis</i> <i>ssp. aeolica</i>			1B.2	Cismontane woodland, valley and foothill grassland. Grassy areas. 1,200–2,810 feet in elevation. Blooms March–May.	Not Expected to Occur. Suitable habitat is present in the project area; although, the project area is below the elevational range, but within the geographic range of the species. Documented occurrences within the region, but not in the vicinity of the project area (CNDDDB 2021). The species was not observed during botanical surveys of the project area (Authority 2021a).
Mount Diablo phacelia <i>Phacelia phacelioides</i>			1B.2	Chaparral, cismontane woodland. Adjacent to trails, on rock outcrops and talus slopes; sometimes on serpentine. 1,990–4,410 feet in elevation. Blooms April–May.	Not Expected to Occur. No suitable habitat is present in the project area. The project area is below the elevational range, but within the geographical range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Choris' popcornflower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>			1B.2	Chaparral, coastal scrub, coastal prairie. Mesic sites. 50–530 feet in elevation. Blooms March–June.	Not Expected to Occur. No suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
San Francisco popcornflower <i>Plagiobothrys diffusus</i>		E	1B.1	Valley and foothill grassland, coastal prairie. Historically from grassy slopes with marine influence. 150–1,180 feet in elevation. Blooms March–June.	Not Expected to Occur. Suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
hairless popcornflower <i>Plagiobothrys glaber</i>			1A	Salt marsh, vernal pool, wetland. Meadows and seeps, marshes and swamps. Coastal salt marshes and alkaline meadows. 20–590 feet in elevation. Blooms March–May.	Not Expected to Occur. Suitable habitat is absent from the project area. The project area is within the elevational range, but outside of the geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
warty popcornflower <i>Plagiobothrys verrucosus</i>			2B.1	Chaparral. Shale substrate. 2,200–2,510 feet in elevation. Blooms April–May.	Not Expected to Occur. Suitable habitat is not found within the project area. The project area is outside the elevational and geographic range of the species. Documented occurrences within the region (CNDDDB 2021); however, no occurrences in the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).

Special-Status Species Tables

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	Federal	State	CRPR		
Scotts Valley polygonum <i>Polygonum hickmanii</i>	E	E	1B.1	Valley and foothill grassland. Purisima sandstone or mudstone with a thin soil layer; vernal moist due to runoff. 690–760 feet in elevation. Blooms May–August.	Not Expected to Occur. Suitable habitat is not found within the project area. The project area is outside of the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
rock sanicle <i>Sanicula saxatilis</i>			1B.2	Broadleafed upland forest, chaparral, valley and foothill grassland. Bedrock outcrops and talus slopes in chaparral or oak woodland habitat. 2,200–4,100 feet in elevation. Blooms April–May.	Not Expected to Occur. Suitable rocky habitat is not found within the project area. The project area is outside the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
chaparral ragwort <i>Senecio aphanactis</i>			2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 70–2,805 feet in elevation. Blooms January–April, sometimes as late as May.	Not Expected to Occur. Suitable habitat is not present in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Metcalf Canyon jewelflower <i>Streptanthus albidus</i> ssp. <i>albidus</i>	E		1B.1	Valley and foothill grassland. Relatively open areas in dry grassy meadows on serpentine soils; also on serpentine balds. 150–2,620 feet in elevation. Blooms April–July.	Known to Occur. Suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species. The species was observed during botanical surveys of the project area (Authority 2021a).
most beautiful jewelflower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>			1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 312–3281 feet in elevation. Blooms April–September, though may bloom March through October.	Could Occur. Suitable habitat is present in the project area. The project area is within the elevational and geographic range of the species, and there are documented occurrences within 1 mile of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Mount Hamilton jewelflower <i>Streptanthus callistus</i>			1B.3	Chaparral, cismontane woodland. Open talus slopes on shale with gray pine and/or black oak. 1,970–2,590 feet in elevation. Blooms April–May.	Not Expected to Occur. Suitable habitat not found within the project area. The project area is outside the elevational and geographic range of the species. Documented occurrences within the region (CNDDDB 2021); however, no documented occurrences within the project vicinity. The species was not observed during botanical surveys of the project area (Authority 2021a).

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	Federal	State	CRPR		
Santa Cruz clover <i>Trifolium buckwestiorum</i>			1B.1	Coastal prairie, broadleaved upland forest, cismontane woodland. Moist grassland. Gravelly margins. 340–2,000 feet in elevation. Blooms April–October.	Not Expected to Occur. Suitable habitat is not present in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
saline clover <i>Trifolium hydrophilum</i>			1B.2	Wetland. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0–980 feet in elevation. Blooms April–June.	Not Expected to Occur. No suitable vernal pool habitat or alkaline habitat is present in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).
Pacific Grove clover <i>Trifolium polyodon</i>			1B.1	Wetland. Closed-cone coniferous forest, meadows and seeps, coastal prairie, valley and foothill grassland. Along small springs and seeps in grassy openings. 16–394 feet in elevation. Blooms April–June (July).	Not Expected to Occur. Suitable habitat is not present in the project area. The project area is within the elevational and geographic range of the species. There are no documented occurrences in the vicinity of the project area. The species was not observed during botanical surveys of the project area (Authority 2021a).

Notes: CRPR = California Rare Plant Rank; CNPS California Native Plant Society; ESA = Federal Endangered Species Act; CESA = California Endangered Species Act;

¹Legal Status Definitions

Federal :

- E Endangered (legally protected by ESA)
- T Threatened (legally protected by ESA)
- C Candidate (legally protected by ESA)

State:

- E Endangered (legally protected by CESA)
- T Threatened (legally protected by CESA)

California Rare Plant Ranks:

- 1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
- 2 Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks

- 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

²Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present on the project site due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Could occur: Suitable habitat is available at the project site; however, there are little to no other indicators that the species might be present.

Known to occur: The species, or evidence of its presence, was observed at the project site during reconnaissance surveys, or was reported by others.

Sources: Authority 2021a; CNDDDB 2021

Special-Status Species Tables

Table B-2 Special-Status Animal Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Status ¹			Habitat	Potential for Occurrence ²
	Federal	State	Other		
Invertebrates					
bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	T		Habitat Plan	Coastal dunes, ultramafic, valley and foothill grassland. Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Orthocarpus densiflorus</i> and <i>O. purpurascens</i> are the secondary host plants.	Known to Occur. Suitable habitat is present with the project area. The project area is within the range of the species and the species is known to occur within the project area (Authority 2021a).
Crotch bumble bee <i>Bombus crotchii</i>		S1S2*		Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Not Expected to Occur. Suitable habitat for the species is present within the project area; However, the project area is outside of the current range of the species (Authority 2021b).
Monarch - California overwintering population <i>Danaus plexippus</i>	C			Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Could Occur. Dense stands of trees that would provide overwintering roost sites for monarchs are absent from the project area. However, the species could breed and forage in the project area.
Smith's blue butterfly <i>Euphilotes enoptes smithi</i>	E			Coastal dunes, coastal scrub. Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz counties. Hostplant: <i>Eriogonum latifolium</i> and <i>Eriogonum parvifolium</i> are utilized as both larval and adult foodplants.	Not Expected to Occur. Suitable habitat is not present within the project area and the project area is outside of the range of the species (USFWS 2019).
western bumble bee <i>Bombus occidentalis</i>		S1S2*		Bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	Not Expected to Occur. Suitable habitat for the species is present within the project area; however, the project area is outside of the current range of the species (Authority 2021b).
Fish					
Monterey Hitch <i>Lavinia exilicauda harengus</i>		SC		Low gradient streams, pools, and small reservoirs within the Pajaro and Salinas River systems.	Not Expected to Occur. No suitable habitat for the species is present within the project area. The project area is outside of the range of the species.
Monterey roach <i>Lavinia symmetricus subditus</i>		SC	Habitat Plan	Tributaries to Monterey Bay, specifically the Salinas, Pajaro, and San Lorenzo drainages.	Not Expected to Occur. No suitable habitat for the species is present within the project area. The project area is outside of the range of the species.
steelhead - central California coast DPS <i>Oncorhynchus mykiss irideus</i> pop. 8	T		Habitat Plan	Aquatic. Sacramento/San Joaquin flowing waters. From Russian River, south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins.	Not Expected to Occur. No suitable habitat for the species is present within the project area. The project area is within the range of the distinct population segment.

Species	Status ¹			Habitat	Potential for Occurrence ²
	Federal	State	Other		
steelhead - south-central California coast DPS <i>Oncorhynchus mykiss irideus</i> pop. 9	T		Habitat Plan	Aquatic. Sacramento/San Joaquin flowing waters. South coast flowing waters. Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.	Not Expected to Occur. No suitable habitat for the species is present within the project area. The project area is outside the range of the distinct population segment.
Amphibians and Reptiles					
California giant salamander <i>Dicamptodon ensatus</i>		SC		Aquatic, meadow and seep, north coast coniferous forest, and riparian forest. Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Not Expected to Occur. No suitable habitat for the species is present within the project area. The project area is outside the range of this species.
California glossy snake <i>Arizona elegans occidentalis</i>		SC		Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular Ranges south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Not Expected to Occur. Suitable habitat for the species is present within the project area; however, there have been no documented occurrences within Santa Clara County since 1956 (CNDDB 2021). Project area is outside of the current range of the species.
California red-legged frog <i>Rana draytonii</i>	T	SC	Habitat Plan	Aquatic, artificial flowing waters, artificial standing waters, freshwater marsh, marsh and swamp, riparian forest, riparian scrub, riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, south coast flowing waters. Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Could Occur. Suitable upland habitat is present within the project area, and occurrences are documented in the vicinity of the project area within Coyote Ridge (Authority 2021a).
California tiger salamander <i>Ambystoma californiense</i>	T	T	Habitat Plan	Cismontane woodland, meadow and seep, riparian woodland, valley and foothill grassland, vernal pool, and wetlands. Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Could Occur. Suitable upland habitat is present within the project area, and occurrences are documented in the vicinity of the project area within Coyote Ridge (Authority 2021a).
coast horned lizard <i>Phrynosoma blainvillii</i>		SC		Chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinyon and juniper woodlands, riparian scrub, riparian woodland, valley and foothill grassland. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Not Expected to Occur. Grassland habitat within the project area is too dense to provide good habitat for the species. The nearest recorded occurrence is over 3 miles from the project area (Authority 2021a).

Special-Status Species Tables

Species	Status ¹			Habitat	Potential for Occurrence ²
	Federal	State	Other		
foothill yellow-legged frog <i>Rana boylei</i>		CE	Habitat Plan	Aquatic, chaparral, cismontane woodland, coastal scrub, Klamath/north coast flowing waters, lower montane coniferous forest, meadow and seep, riparian forest, riparian woodland, and Sacramento/San Joaquin flowing waters. Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	Not Expected to Occur. The seasonal stream within the project area does not provide suitable habitat for this species.
Northern California legless lizard <i>Anniella pulchra</i>		SC		Chaparral. Coastal dunes. Coastal scrub. Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	Not Expected to Occur. No suitable chaparral or coastal dune habitat is present within the project area. Project is within the known range of the species.
Santa Cruz black salamander <i>Aneides niger</i>		SC		Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Western Santa Clara counties. Adults found under rocks, talus, and damp woody debris.	Not Expected to Occur. No suitable habitat is present within the project area. Project is outside of known range of the species.
western pond turtle <i>Actinemys marmorata</i>		SC	Habitat Plan	Aquatic, artificial flowing waters, Klamath/north coast flowing waters, Klamath/north coast standing waters, marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing and standing waters. A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.3 mile from water for egg-laying.	Not Expected to Occur. Aquatic habitat within 0.3 mile is not suitable for the species. Therefore, the upland habitat within the project area is also not suitable.
Birds					
black swift <i>Cypseloides niger</i>		SC		Coastal belt of Santa Cruz and Monterey Co; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely	Not Expected to Occur. No suitable habitat for the species is present within the project area. The project area is outside the range of this species.
burrowing owl <i>Athene cunicularia</i>		SC	Habitat Plan	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, and valley and foothill grassland. Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Could Occur: Suitable habitat for nesting and foraging is present within the project area. Project area is within the range of the species.
California least tern <i>Sternula antillarum browni</i>	E	E FP		Alkali playa, wetland. Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	Not Expected to Occur. No suitable habitat for the species is present within the project area. Project area is within the range of the species.

Species	Status ¹			Habitat	Potential for Occurrence ²
	Federal	State	Other		
golden eagle <i>Aquila chrysaetos</i>		FP		Broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous forest, pinyon and juniper woodlands, upper montane coniferous forest, and valley and foothill grassland. Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Could Occur: Suitable foraging habitat is present within the project area. Project area is within the range of the species.
grasshopper sparrow <i>Ammodramus savannarum</i>		SC		Valley and foothill grassland. Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Known to Occur: Documented to occur within the project area (Authority 2021a). Suitable nesting habitat is present within the project area. Project area is within the range of the species.
least Bell's vireo <i>Vireo bellii pusillus</i>	E	E	Habitat Plan	Riparian forest, riparian scrub, riparian woodland. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Not Expected to Occur. No suitable habitat is present within the project area (Authority 2021b). The project area is within the range of this species.
loggerhead shrike <i>Lanius ludovicianus</i>		SC		Broadleaved upland forest, desert wash, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodlands, riparian woodland, Sonoran Desert scrub. Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Could Occur: Suitable foraging habitat is present within the project area. Project area is within the range of the species.
Swainson's hawk <i>Buteo swainsoni</i>		T		Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Could Occur: Suitable foraging habitat is present within the project area. Project area is within 0.25 miles of potentially suitable nest trees. Project area is within the range of the species.
tricolored blackbird <i>Agelaius tricolor</i>		T SC	Habitat Plan	Freshwater marsh, marsh and swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Not Expected to Occur. No suitable habitat for the species is present within the project area. The project area is within the range of this species.
white-tailed kite <i>Elanus leucurus</i>		FP		Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetlands. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Could Occur: Suitable foraging habitat is present within the project area. Potential nest trees are within 250 feet of the project. Project area is within the range of the species.

Special-Status Species Tables

Species	Status ¹			Habitat	Potential for Occurrence ²
	Federal	State	Other		
yellow rail <i>Coturnicops noveboracensis</i>		SC		Freshwater marsh, meadow and seep. Summer resident in eastern Sierra Nevada in Mono County. Fresh-water marshlands.	Not Expected to Occur. No suitable habitat for the species is present within the project area. The project area is within the range of this species. Documented occurrences within northern Santa Clara County (CNDDDB 2021).
yellow-breasted chat <i>Icteria virens</i>		SC	Not in Habitat Plan or EIR	Riparian forest, riparian scrub, riparian woodland. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	Not Expected to Occur. There is no suitable riparian habitat for this species in the project area. The project area is within the range of this species.
Mammals					
American badger <i>Taxidea taxus</i>		SC	EIR	Alkali marsh, alkali playa, alpine, alpine dwarf scrub, bog a fen, brackish marsh, broadleaved upland forest, chaparral, chenopod scrub, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal dunes, coastal prairie. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Could Occur: Suitable habitat is present within the project area. Project area is within the range of the species. Documented occurrences within 1 mile of project area.
Mountain lion-Southern California/Central Coast evolutionary significant unit <i>Puma concolor</i>		CT		Found in most habitats within Central California. Uses caves, other natural cavities, and brush thickets for cover and denning often within riparian habitats.	Could Occur. Suitable foraging habitat is present in the project area. Potential predation sign found during project surveys (Authority 2021a). Documented to occur within Santa Clara County outside of the project area (Authority and CBI 2017).
pallid bat <i>Antrozous pallidus</i>		SC		Chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran Desert scrub, upper montane coniferous forest, valley and foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not Expected to Occur. The few trees along the season drainage in the project area are not likely to provide suitable roosting habitat for this species. The project area is within the range of this species. Documented to occur historically (1990) within Santa Clara County (CNDDDB 2021).
ringtail <i>Bassariscus astutus</i>		FP		Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations.	Not Expected to Occur. No suitable habitat is present within the project area (Authority 2021b). The project area is within the range of this species.
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>		SC		Chaparral, redwood. Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded grass, leaves and other material. May be limited by availability of nest-building materials.	Not Expected to Occur. There is no suitable forested or chaparral habitat within project area. The project area is within the range of this species.

Species	Status ¹			Habitat	Potential for Occurrence ²
	Federal	State	Other		
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E	T	Habitat Plan	Chenopod scrub, valley and foothill grassland. Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	Not Expected to Occur. Suitable habitat occurs within the project area; however, existing level of disturbance makes it unlikely that denning would occur. Historic documented occurrence within the nine-quad search area (CNDDDB 2021).
Townsend's big-eared bat <i>Corynorhinus townsendii</i>		SC		Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow & seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran Desert scrub. Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Not Expected to Occur. No suitable habitat is present within the project area (Authority 2021b). The project area is within the range of this species. Documented to occur within Santa Clara County (CNDDDB 2021).

Note: CNDDDB = California Natural Diversity Database; USFWS = U.S. Fish and Wildlife Service; ESU = Evolutionary Significant Unit; DPS= Distinct Population Segment

* These species are included as special-status species due to their previous listing as Candidate Endangered by the California Fish and Game Commission. This candidate status was overturned by the courts in 2020; however, the species still warrants consideration under CEQA.

¹ Legal Status Definitions

Federal:

E Endangered (legally protected)

T Threatened (legally protected)

State:

FP Fully protected (legally protected)

SC Species of special concern (no formal protection other than CEQA consideration)

CE Candidate Endangered (legally protected)

E Endangered (legally protected)

T Threatened (legally protected)

Other: Habitat Plan: covered species under the Santa Clara Valley Habitat Plan

² Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present in the project area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Could occur: Suitable habitat is available in the project area; however, there are little to no other indicators that the species might be present.

Known to occur: The species, or evidence of its presence, has been reported by others.

Source: Authority 2021a; Authority 2021b; Authority and CBI 2017; CNDDDB 2021

Appendix C

Energy Use Modeling

Energy Calculations Summary**Operational Fuel Use Summary**

Fuel Type	Fleet Mix (%)	Gallons per Mile	Annual VMT	Gallons
Gasoline	99.14%	0.04	138,783	5,474
Diesel	0.86%	0.12		145

Notes:

1. Fleet mix calculated from CalEEMod default values.
2. Gallons per mile calculated from EMFAC 2021.
3. Annual VMT obtained from CalEEMod output file.

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Los Angeles

Calendar Year: 2024

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	Trips trips/day	Gasoline Fuel Consumption 1,000 gallons/day	Diesel Fuel Consumption 1,000 gallons/day	
Santa Clara	2024	All Other Buses	Aggregate	Aggregate	Diesel	808.4286685	50130.33539	7195.01515		5.753841967	
Santa Clara	2024	LDA	Aggregate	Aggregate	Gasoline	600108.1665	22290343.74	2786616.833	742.9542167		
Santa Clara	2024	LDA	Aggregate	Aggregate	Diesel	1750.023523	51573.47594	7442.609511		1.182172407	
Santa Clara	2024	LDT1	Aggregate	Aggregate	Gasoline	52693.36611	1706864.169	234793.4065	67.63364027		
Santa Clara	2024	LDT1	Aggregate	Aggregate	Diesel	23.46232522	343.9307557	66.44458855		0.014069193	
Santa Clara	2024	LDT2	Aggregate	Aggregate	Gasoline	285585.4354	10322758.41	1336438.482	427.1777266		
Santa Clara	2024	LDT2	Aggregate	Aggregate	Diesel	1015.452853	37944.25501	4835.433637		1.162718893	
Santa Clara	2024	LHD1	Aggregate	Aggregate	Gasoline	19314.14241	722529.3133	287751.9438	74.31877246		
Santa Clara	2024	LHD1	Aggregate	Aggregate	Diesel	10107.73681	398004.1011	127142.6136		24.8758044	
Santa Clara	2024	LHD2	Aggregate	Aggregate	Gasoline	2506.905697	91452.57471	37349.15959	10.56883592		
Santa Clara	2024	LHD2	Aggregate	Aggregate	Diesel	4663.455482	183558.3761	58660.40334		13.77648219	
Santa Clara	2024	MCY	Aggregate	Aggregate	Gasoline	28171.50953	166022.3441	56343.01906	3.939891772		
Santa Clara	2024	MDV	Aggregate	Aggregate	Gasoline	156642.427	5468053.925	726101.0934	274.8145048		
Santa Clara	2024	MDV	Aggregate	Aggregate	Diesel	2400.614538	86292.68513	11318.82209		3.47644065	
Santa Clara	2024	MH	Aggregate	Aggregate	Gasoline	2420.569841	22012.30271	242.1538069	4.983865157		
Santa Clara	2024	MH	Aggregate	Aggregate	Diesel	977.3606104	9498.302477	97.73606104		1.01191714	
Santa Clara	2024	Motor Coach	Aggregate	Aggregate	Diesel	84.7088877	11818.71536	1946.610239		2.149164979	
Santa Clara	2024	OBUS	Aggregate	Aggregate	Gasoline	443.1467338	19894.31417	8866.47985	4.131308494		
Santa Clara	2024	PTO	Aggregate	Aggregate	Diesel	0	25537.63759	0		5.159458023	
Santa Clara	2024	SBUS	Aggregate	Aggregate	Gasoline	172.6947868	8584.865553	690.7791473	0.865530502		
Santa Clara	2024	SBUS	Aggregate	Aggregate	Diesel	670.5958444	15345.26177	9710.227827		1.876081188	
Santa Clara	2024	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	24.43022825	4898.412741	561.4066453		0.505914038	
Santa Clara	2024	T6 CAIRP small	Aggregate	Aggregate	Diesel	22.25106572	1293.288056	511.3294903		0.143702916	
Santa Clara	2024	T6 instate heavy	Aggregate	Aggregate	Diesel	1227.853174	62842.93978	14679.61372		7.202077542	
Santa Clara	2024	T6 instate small	Aggregate	Aggregate	Diesel	8158.269364	324171.6825	101731.0829		38.41158088	
Santa Clara	2024	T6 OOS heavy	Aggregate	Aggregate	Diesel	12.75969097	3154.15326	293.2176986		0.323369844	
Santa Clara	2024	T6 OOS small	Aggregate	Aggregate	Diesel	12.47882112	720.8061286	286.7633093		0.079635137	
Santa Clara	2024	T6 Public	Aggregate	Aggregate	Diesel	790.1269423	30990.24331	4053.351214		3.996212988	
Santa Clara	2024	T6 Utility	Aggregate	Aggregate	Diesel	142.358716	5972.0675	1822.191565		0.673908003	
Santa Clara	2024	T6TS	Aggregate	Aggregate	Gasoline	1414.551675	71600.35148	28302.34992	14.95972983		
Santa Clara	2024	T7 CAIRP	Aggregate	Aggregate	Diesel	1023.529883	206293.0271	23520.71671		33.7732886	
Santa Clara	2024	T7 NNOOS	Aggregate	Aggregate	Diesel	921.2314611	246811.7997	21169.89898		39.70465453	
Santa Clara	2024	T7 NOOS	Aggregate	Aggregate	Diesel	388.1022222	89683.26687	8918.589066		14.66744398	
Santa Clara	2024	T7 Other Port	Aggregate	Aggregate	Diesel	107.2245115	19735.48995	1754.193008		3.320312421	
Santa Clara	2024	T7 POAK	Aggregate	Aggregate	Diesel	689.4275811	68391.97782	11279.03523		11.72171204	
Santa Clara	2024	T7 Public	Aggregate	Aggregate	Diesel	670.4398094	28942.50982	3439.356222		5.533060238	
Santa Clara	2024	T7 Single	Aggregate	Aggregate	Diesel	2032.382176	120694.9787	19145.0401		20.64405028	
Santa Clara	2024	T7 SWCV	Aggregate	Aggregate	Diesel	293.9981196	19080.16688	1352.39135		7.76723316	
Santa Clara	2024	T7 Tractor	Aggregate	Aggregate	Diesel	2287.042579	172614.4353	33230.72867		28.24875256	
Santa Clara	2024	T7 Utility	Aggregate	Aggregate	Diesel	73.3151002	3310.166935	938.4332825		0.570166581	
Santa Clara	2024	T7IS	Aggregate	Aggregate	Gasoline	2.588707958	115.1525769	51.79486882	0.029295453		
Santa Clara	2024	UBUS	Aggregate	Aggregate	Gasoline	46.08313217	4812.450683	184.3325287	0.518830212		
Santa Clara	2024	UBUS	Aggregate	Aggregate	Diesel	437.474468	48917.60551	1749.897872		5.304044181	
									1626.90	283.03	
						TOTAL	43,223,610			22.6	0.04
						Total (Gas)	40,895,044			25.1	0.04
						Total (Diesel)	2,328,566			8.2	0.12
						Annual VMT					
						138,783					
							Mix (%)	Miles	Gallons		
						Gas	99.1%	137,590	5,474		
						Diesel	0.9%	1,193	145		

Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
All Project Land Uses	0.572464	0.055653	0.18706	0.115672	0.020329	0.005102	0.007934	0.006404	0.0009	0.00038	0.024412	0.000914	0.002776

Gas 99.1%
Diesel 0.9%

Energy Calculations Summary

Construction Fuel Usage Summary

	Diesel	Gasoline	Diesel	Diesel
Construction Year	Off-road Equipment (gallons)	On-road (gallons)	On-road (gallons)	Combined
2022	6,599	558	211	6,810
2023	565	52	0	565

Total Gasoline	610	gallons
Total Diesel	7,375	gallons

2022 Construction Offroad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Site Preparation	Graders	1	8.00	187	0.41	18	0.6	331
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40	18	0.6	373
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37	18	0.6	155
Restoration	Graders	1	8.00	187	0.41	5	0.6	92
Restoration	Rubber Tired Dozers	1	7.00	247	0.40	5	0.6	104
Restoration	Tractors/Loaders/Backhoes	1	4.00	97	0.37	5	0.6	22
Grading	Graders	1	8.00	187	0.41	48	0.6	883
Grading	Rubber Tired Dozers	1	8.00	247	0.40	48	0.6	1,138
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37	48	0.6	724
Material Laydown	Cement and Mortar Mixers	1	6.00	9	0.56	60	0.6	54
Material Laydown	Cranes	1	2.00	231	0.29	60	0.6	241
Material Laydown	Forklifts	1	2.00	89	0.20	60	0.6	64
Material Laydown	Generator Sets	1	3.00	84	0.74	60	0.6	336
Material Laydown	Pavers	1	6.00	130	0.42	60	0.6	590
Material Laydown	Paving Equipment	1	8.00	132	0.36	60	0.6	684
Material Laydown	Rollers	1	7.00	80	0.38	60	0.6	383
Material Laydown	Tractors/Loaders/Backhoes	1	6.00	97	0.37	60	0.6	388
Material Laydown	Welders	1	1.00	46	0.45	60	0.6	37
TOTAL								6,599

2023 Construction Offroad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Restoration	Graders	1	8	187	0.41	13	0.6	239
Restoration	Rubber Tired Dozers	1	7	247	0.4	13	0.6	270
Restoration	Tractors/Loaders/Backhoes	1	4	97	0.37	13	0.6	56
TOTAL								565

	Year	Start Date	End Date	Network Days
Site Preparation	2022	7/1/2022	7/26/2022	18
Grading	2022	7/27/2022	9/30/2022	48
Material Laydown	2022	10/3/2022	12/23/2022	60
Restoration	2022	12/26/2022	12/31/2022	5
	2023	1/1/2023	1/18/2023	13

Trips and VMT

2022

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Total gallons of gasoline	Total gallons of diesel
Site Preparation	10	18	180	0	0	10.80	7.30	20.00	1944	0	0	77	0
Grading	10	48	480	0	0	10.80	7.30	20.00	5184	0	0	205	0
Material Laydown	10	60	600	11	60	10.80	7.30	20.00	6480	80.3	1200	256	211
Restoration	10	5	50	0	0	10.80	7.30	20.00	540	0	0	21	0
											TOTAL	558	211

2023

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Total gallons of gasoline	Total gallons of diesel
Restoration	10	13	130	0	0	10.80	7.30	20.00	1404	0	0	52	0
											TOTAL	52	0

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Santa Clara

Calendar Year: 2022

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Los Angeles	2022	LDA	Aggregate	Aggregate	Gasoline	3492277.169	138838026.7	16264993.39	4986.046816	0.00	27.85	25.34	6.08
Los Angeles	2022	LDT1	Aggregate	Aggregate	Gasoline	328948.7381	11907335.41	1447067.581	510.9358458	0.00	23.30		
Los Angeles	2022	LDT2	Aggregate	Aggregate	Gasoline	1526623.58	62593838.94	7170946.416	2797.090572	0.00	22.38		
Los Angeles	2022	T7 Tractor	Aggregate	Aggregate	Diesel	13053.33208	1077586.705	189664.9152	0.00	177.3300745	6.08		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Santa Clara

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Santa Clar	2023	LDA	Aggregate	Aggregate	Gasoline	601938.3153	22370251.09	2795479.204	758.1523908	0.00	29.51	26.90	6.08
Santa Clar	2023	LDT1	Aggregate	Aggregate	Gasoline	53782.25287	1744480.187	239737.9214	70.12001518	0.00	24.88		
Santa Clar	2023	LDT2	Aggregate	Aggregate	Gasoline	280180.4214	10140966.51	1311795.544	427.6416304	0.00	23.71		
Santa Clar	2023	T7 Tractor	Aggregate	Aggregate	Diesel	2160.227312	170340.6719	31388.10285	0.00	28.02806259	6.08		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Appendix D

Noise Modeling



Construction Source Noise Prediction Model

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{max} dBA)	Equipment	Reference Emission	
				Noise Levels (L_{max}) at 50 feet ¹	Usage Factor ¹
Threshold	523	60.0	Grader	85	0.4
SFH on Malech RD	850	53.1	Dozer	85	0.4
			Tractor	84	0.4

Ground Type	SOFT
Source Height	8
Receiver Height	5
Ground Factor ²	0.63

Predicted Noise Level ³	L_{eq} dBA at 50 feet ³
Grader	81.0
Dozer	81.0
Tractor	80.0

Combined Predicted Noise Level (L_{max} dBA at 50 feet)
85.5

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

² Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

³ Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$$L_{eq}(\text{equip}) = E.L. + 10 \cdot \log(U.F.) - 20 \cdot \log(D/50) - 10 \cdot G \cdot \log(D/50)$$

Where: E.L. = Emission Level;

U.F. = Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Equipment Description	Acoustical Usage Factor (%)	Spec 721.560 Lmax @ 50ft (dBA slow)	Actual Measured Lmax @ 50ft (dBA slow)	No. of Actual Data Samples (count)	Spec 721.560 LmaxCalc	Spec 721.560 Leq	Distance	Actual Measured LmaxCalc	Actual Measured Leq
Auger Drill Rig	20	85	84	36	79.0	72.0	100	78.0	71.0
Backhoe	40	80	78	372	74.0	70.0	100	72.0	68.0
Bar Bender	20	80	na	0	74.0	67.0	100		
Blasting	na	94	na	0	88.0		100		
Boring Jack Power Unit	50	80	83	1	74.0	71.0	100	77.0	74.0
Chain Saw	20	85	84	46	79.0	72.0	100	78.0	71.0
Clam Shovel (dropping)	20	93	87	4	87.0	80.0	100	81.0	74.0
Compactor (ground)	20	80	83	57	74.0	67.0	100	77.0	70.0
Compressor (air)	40	80	78	18	74.0	70.0	100	72.0	68.0
Concrete Batch Plant	15	83	na	0	77.0	68.7	100		
Concrete Mixer Truck	40	85	79	40	79.0	75.0	100	73.0	69.0
Concrete Pump Truck	20	82	81	30	76.0	69.0	100	75.0	68.0
Concrete Saw	20	90	90	55	84.0	77.0	100	84.0	77.0
Crane	16	85	81	405	79.0	71.0	100	75.0	67.0
Dozer	40	85	82	55	79.0	75.0	100	76.0	72.0
Drill Rig Truck	20	84	79	22	78.0	71.0	100	73.0	66.0
Drum Mixer	50	80	80	1	74.0	71.0	100	74.0	71.0
Dump Truck	40	84	76	31	78.0	74.0	100	70.0	66.0
Excavator	40	85	81	170	79.0	75.0	100	75.0	71.0
Flat Bed Truck	40	84	74	4	78.0	74.0	100	68.0	64.0
Front End Loader	40	80	79	96	74.0	70.0	100	73.0	69.0
Generator	50	82	81	19	76.0	73.0	100	75.0	72.0
Generator (<25KVA, VMS :	50	70	73	74	64.0	61.0	100	67.0	64.0
Gradall	40	85	83	70	79.0	75.0	100	77.0	73.0
Grader	40	85	na	0	79.0	75.0	100		
Grapple (on Backhoe)	40	85	87	1	79.0	75.0	100	81.0	77.0
Horizontal Boring Hydr. Ja	25	80	82	6	74.0	68.0	100	76.0	70.0
Hydra Break Ram	10	90	na	0	84.0	74.0	100		
Impact Pile Driver	20	95	101	11	89.0	82.0	100	95.0	88.0
Jackhammer	20	85	89	133	79.0	72.0	100	83.0	76.0
Man Lift	20	85	75	23	79.0	72.0	100	69.0	62.0
Mounted Impact Hammer	20	90	90	212	84.0	77.0	100	84.0	77.0
Pavement Scarafier	20	85	90	2	79.0	72.0	100	84.0	77.0
Paver	50	85	77	9	79.0	76.0	100	71.0	68.0
Pickup Truck	40	55	75	1	49.0	45.0	100	69.0	65.0
Pneumatic Tools	50	85	85	90	79.0	76.0	100	79.0	76.0
Pumps	50	77	81	17	71.0	68.0	100	75.0	72.0
Refrigerator Unit	100	82	73	3	76.0	76.0	100	67.0	67.0
Rivit Buster/chipping gun	20	85	79	19	79.0	72.0	100	73.0	66.0
Rock Drill	20	85	81	3	79.0	72.0	100	75.0	68.0
Roller	20	85	80	16	79.0	72.0	100	74.0	67.0
Sand Blasting (Single Nozz	20	85	96	9	79.0	72.0	100	90.0	83.0
Scraper	40	85	84	12	79.0	75.0	100	78.0	74.0
Shears (on backhoe)	40	85	96	5	79.0	75.0	100	90.0	86.0
Slurry Plant	100	78	78	1	72.0	72.0	100	72.0	72.0
Slurry Trenching Machine	50	82	80	75	76.0	73.0	100	74.0	71.0
Soil Mix Drill Rig	50	80	na	0	74.0	71.0	100		
Tractor	40	84	na	0	78.0	74.0	100		
Vacuum Excavator (Vac-tr	40	85	85	149	79.0	75.0	100	79.0	75.0
Vacuum Street Sweeper	10	80	82	19	74.0	64.0	100	76.0	66.0
Ventilation Fan	100	85	79	13	79.0	79.0	100	73.0	73.0
Vibrating Hopper	50	85	87	1	79.0	76.0	100	81.0	78.0
Vibratory Concrete Mixer	20	80	80	1	74.0	67.0	100	74.0	67.0
Vibratory Pile Driver	20	95	101	44	89.0	82.0	100	95.0	88.0
Warning Horn	5	85	83	12	79.0	66.0	100	77.0	64.0
Welder / Torch	40	73	74	5	67.0	63.0	100	68.0	64.0

Source:

FHWA Roadway Construction Noise Model, January 2006. Table 9.1

U.S. Department of Transportation

CA/T Construction Spec. 721.560

Distance Propagation Calculations for Stationary Sources of Ground Vibration



KEY: Orange cells are for input.
 Grey cells are intermediate calculations performed by the model.
 Green cells are data to present in a written analysis (output).

STEP 1: Determine units in which to perform calculation.

- If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.
- If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

STEP 3A: Select the distance to the receiver.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level		
	vibration level (VdB)	@	distance (ft)
Grading	58	@	25

Attenuated Noise Level at Receptor		
vibration level (VdB)	@	distance (ft)
80.3	@	4.5

The Lv metric (VdB) is used to assess the likelihood for vibration to result in human annoyance.

STEP 2B: Identify the vibration source and enter the reference peak particle velocity (PPV) and distance.

STEP 3B: Select the distance to the receiver.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level		
	vibration level (PPV)	@	distance (ft)
Grading			

Attenuated Noise Level at Receptor		
vibration level (PPV)	@	distance (ft)

The PPV metric (in/sec) is used for assessing the likelihood for the potential of structural damage.

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 185 of FTA 2018. Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.

Federal Transit Association (FTA). 2018 (September). Transit Noise and Vibration Impact Assessment Manual. FTA <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration->

Project: West Broadway SP

Noise Level Descriptor: CNEL
 Site Conditions: Hard
 Traffic Input: ADT
 Traffic K-Factor:

Segment Description and Location				Input										Output				
Number	Name	From	To	ADT	Speed (mph)	Distance to Directional Centerline, (feet) ₄		Traffic Distribution Characteristics					CNEL, (dBA) _{5,6,7}	Distance to Contour, (feet) ₃				
						Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night		70 dBA	65 dBA	60 dBA	55 dBA
#####				882	65	70	140	97.5%	1.5%	1.0%	85.0%	7.5%	7.5%	59.3	9	27	85	269
	MORGAN HILL, COCHRANE ROAD			152000				97.5%	1.5%	1.0%	85.0%	7.5%	7.5%					
	SAN JOSE, JCT. RTE. 85			170000				97.5%	1.5%	1.0%	85.0%	7.5%	7.5%					
								97.5%	1.5%	1.0%	85.0%	7.5%	7.5%					

Citation # Citations

- | | | |
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| 2 | Caltrans Technical Noise Supplement. 2009 (November). Equation (5-26), Pg 5-60. | Caltrans Technical Noise Supplement. 2013 (September). Equation (4-5), Pg 4-17. |
| 3 | Caltrans Technical Noise Supplement. 2009 (November). Equation (2-16), Pg 2-32. | FHWA 2004 TNM Version 2.5 |
| 4 | Caltrans Technical Noise Supplement. 2009 (November). Equation (5-11), Pg 5-47, 48. | FHWA 2004 TNM Version 2.5 |
| 5 | Caltrans Technical Noise Supplement. 2009 (November). Equation (2-26), Pg 2-55, 56. | Caltrans Technical Noise Supplement. 2013 (September). Equation (2-23), Pg 2-51, 52. |
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| 9 | Caltrans Technical Noise Supplement. 2009 (November). Equation (5-8), Pg 5-45. | FHWA 2004 TNM Version 2.5 |
| 10 | Caltrans Technical Noise Supplement. 2009 (November). Equation (5-9), Pg 5-45. | FHWA 2004 TNM Version 2.5 |
| 11 | Caltrans Technical Noise Supplement. 2009 (November). Equation (5-13), Pg 5-49. | FHWA 2004 TNM Version 2.5 |
| 12 | Caltrans Technical Noise Supplement. 2009 (November). Equation (5-14), Pg 5-49. | FHWA 2004 TNM Version 2.5 |
| 13 | Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (16), Pg 67 | |
| 14 | Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (20), Pg 69 | |
| 15 | Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (18), Pg 69 | |

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California Department of Transportation (Caltrans). 2013 (September). Technical Noise Supplement. Available: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf. Accessed August 17, 2017.

Federal Highway Administration. 2004. Traffic Noise Model Version 2.5. Available: https://www.fhwa.dot.gov/environment/noise/traffic_noise_model/tnm_v25/. Accessed August 17, 2017.

Appendix E

Traffic Operations Analysis



Traffic Operations Analysis Coyote Ridge Open Space Preserve

MORGAN HILL, CALIFORNIA

SEPTEMBER 30, 2021

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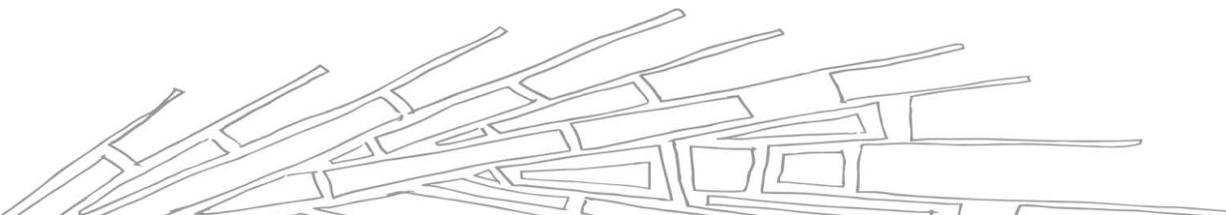
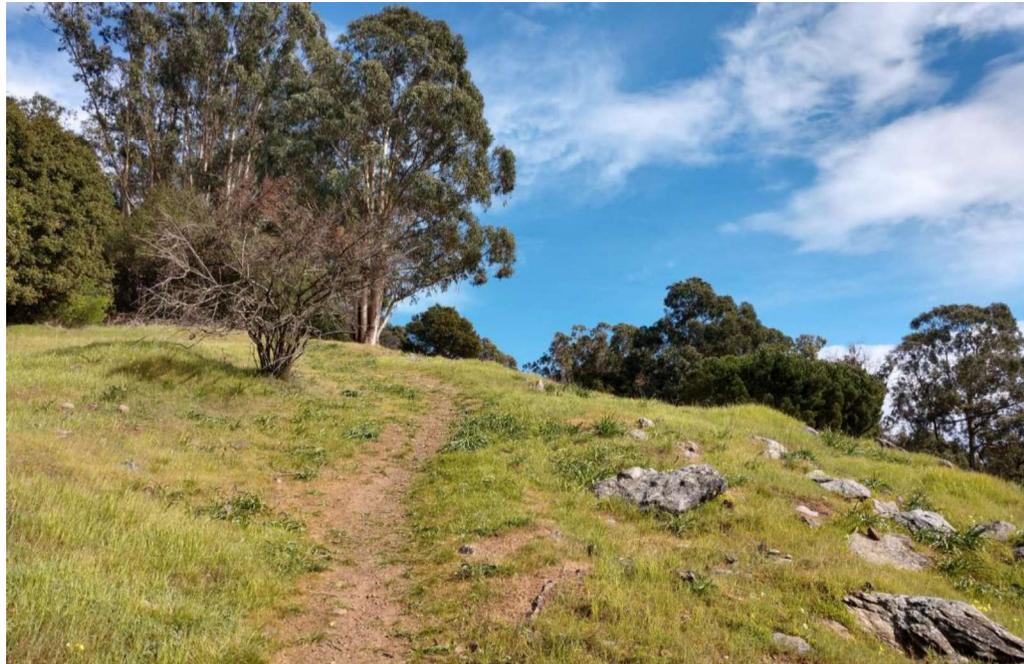
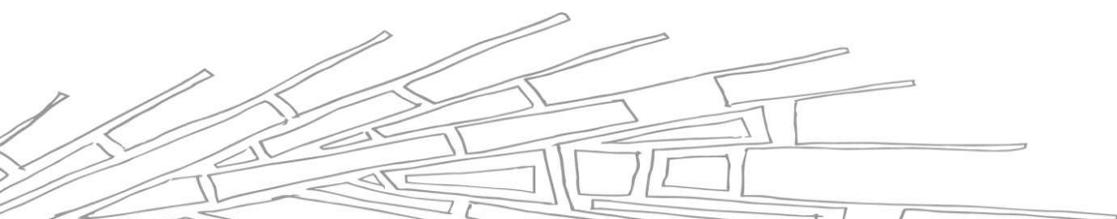




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INTRODUCTION

The following Traffic Operations Analysis has been prepared by Sandis Civil Engineers for the Coyote Ridge Open Space Preserve Malech Rd Staging Area Project. As requested by County of Santa Clara Roads and Airports Department, this study includes the following elements:

- Existing Transportation Facilities
- Site Circulation Analysis
- Project Trip Generation
- Driveway Queuing Analysis
- Sight Distance Analysis
- Auxiliary lane Feasibility
- Large Vehicle Access

PROJECT BACKGROUND

Coyote Ridge Open Space Preserve (the preserve) is an 1,859 acre preserve just south of San Jose. Figure 1 shows a vicinity map of the area. 7.5 miles of trails are proposed within the preserve. Figure 2 shows the planned facilities throughout the preserve. The preserve's primary public access will be at the Malech Road Staging Area (Project Site). The Project Site will have 46 parking stalls. This will be composed of a main lot with 20 standard parking stalls and 2 ADA stalls and an overflow lot with an additional 24 standard parking stalls. The Project Site will also have bike racks, restroom facilities and interpretive signs. Figure 3 shows a layout of the Project Site.



Figure 1: Vicinity Map

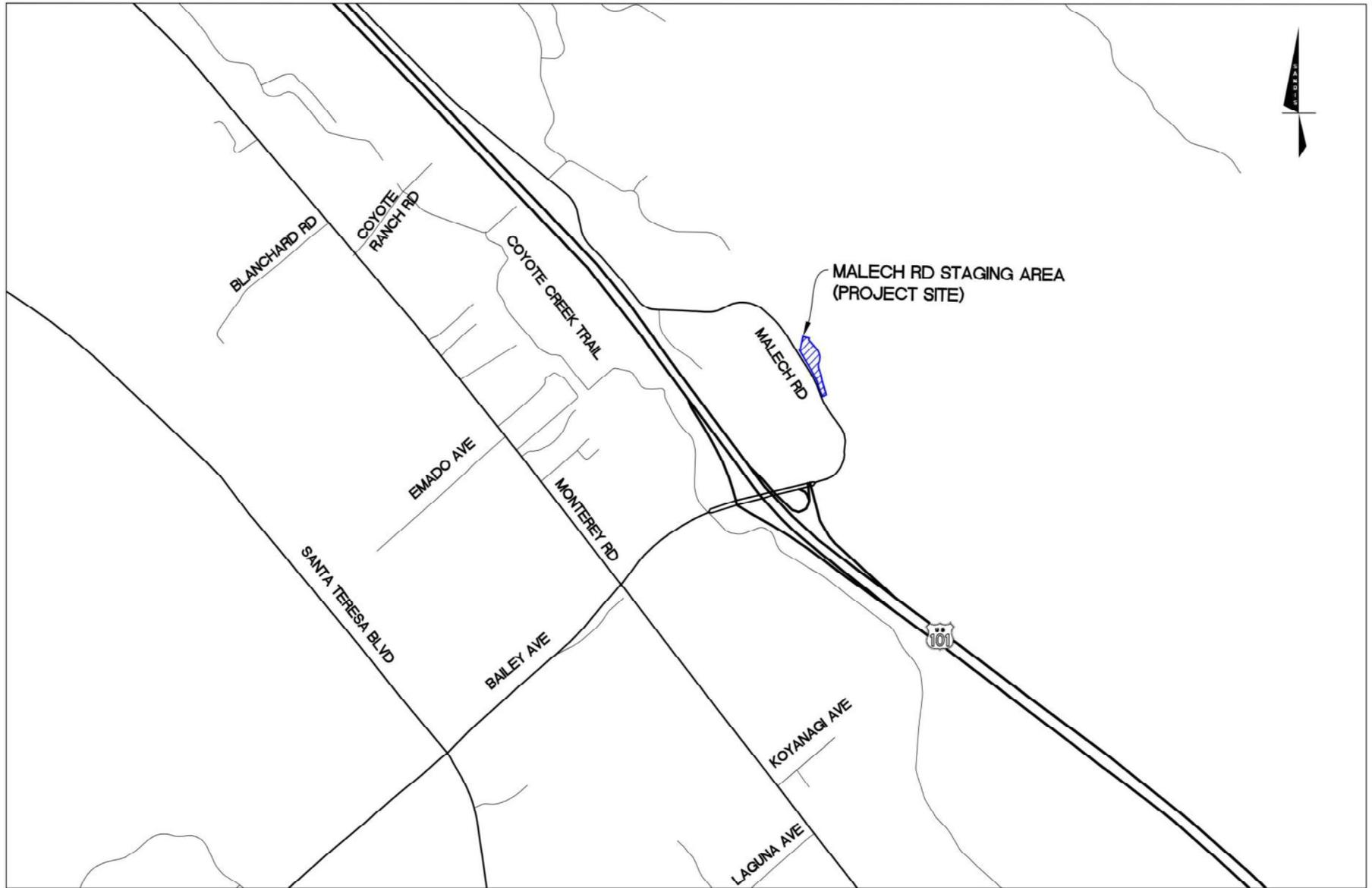




Figure 2: Coyote Ridge Open Space Preserve Planned Facilities

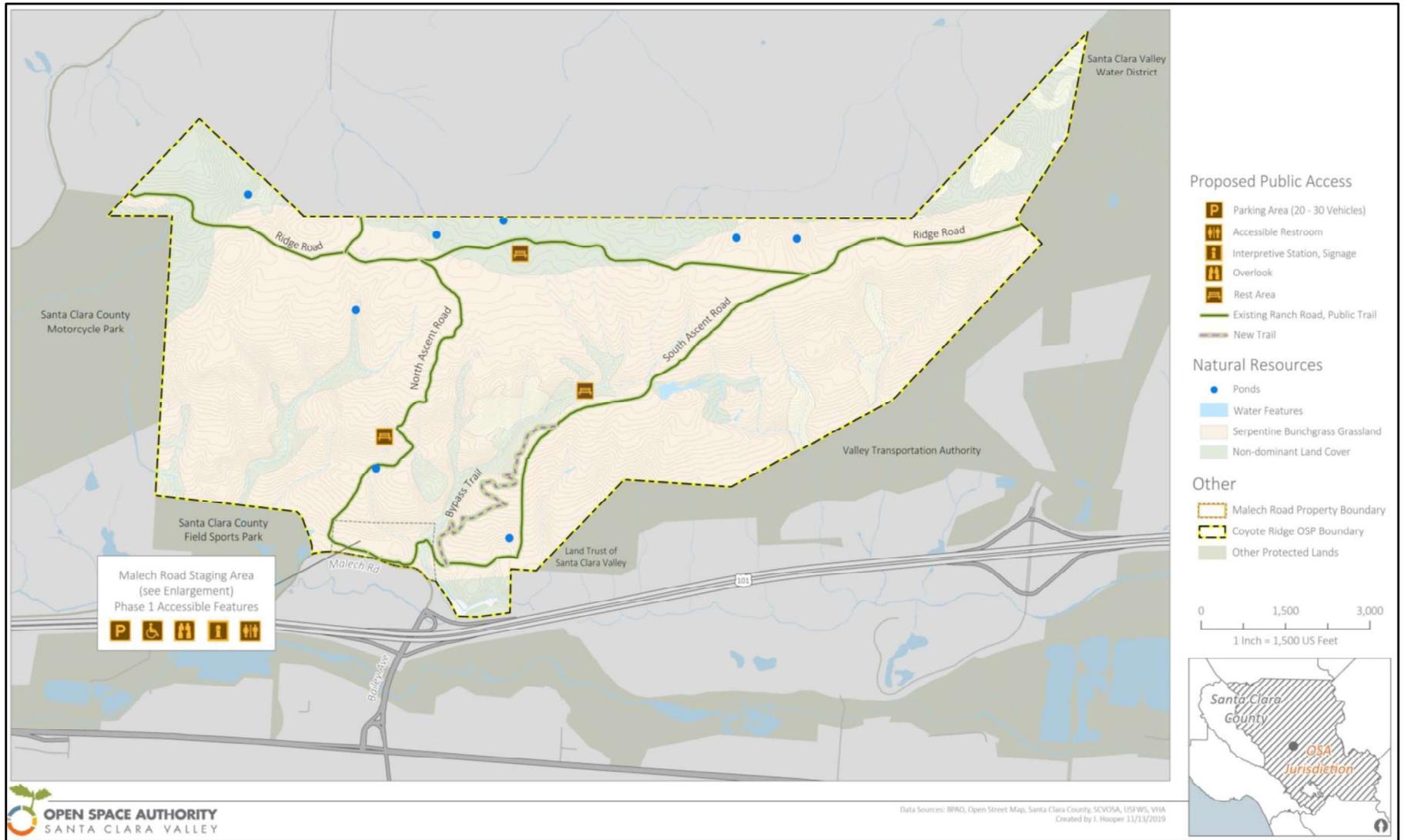
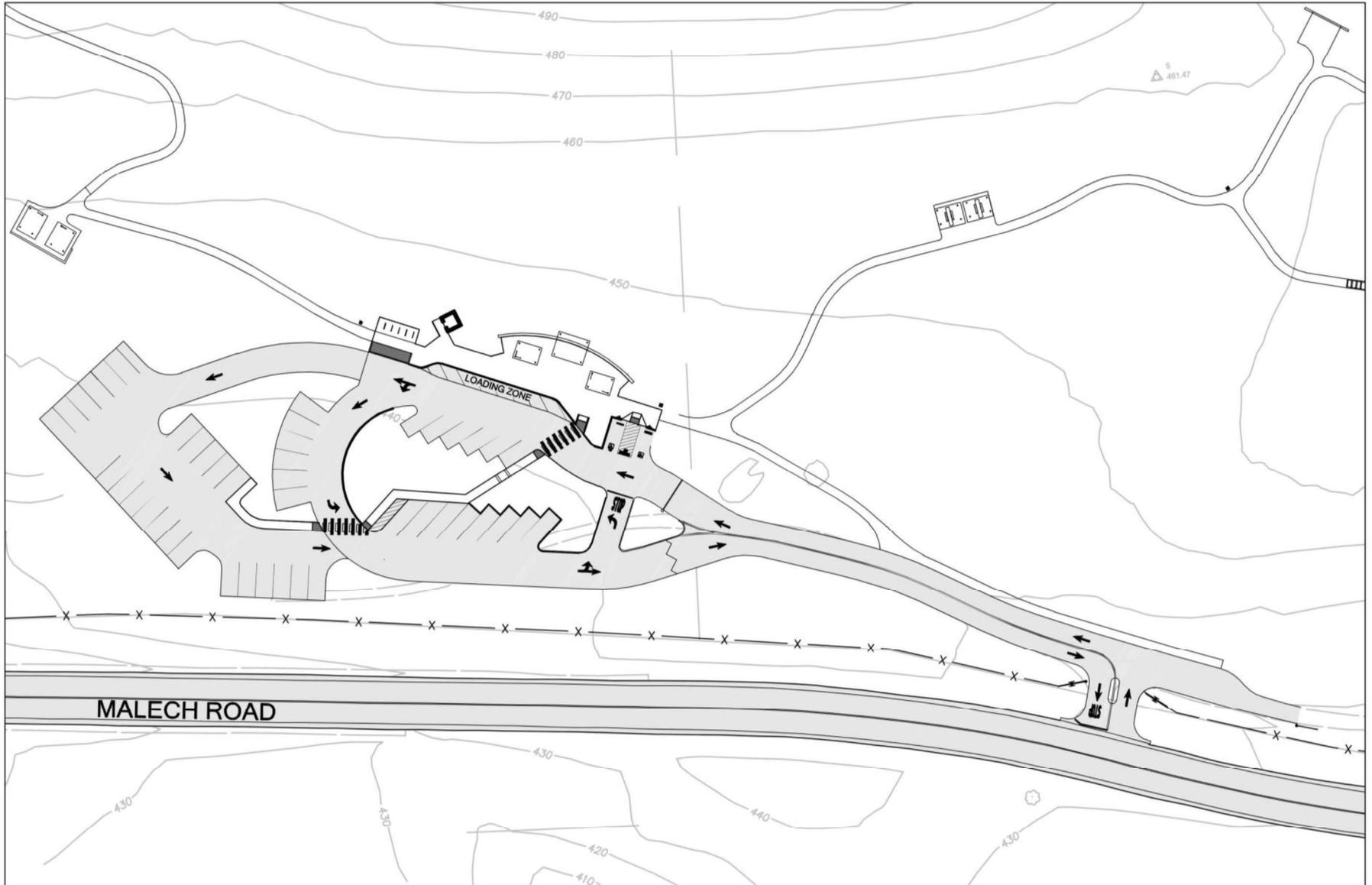




Figure 3: Malech Rd Staging Area (Project Site)





EXISTING TRANSPORTATION FACILITIES

VEHICLE ACCESS

The Project Site is along Malech Rd which is a rural collector roadway. Approximately 2000 ft south of the Project Site, the Bailey Ave on-ramps/off-ramps provide direct access to/from both southbound and northbound US 101. The US 101 freeway provides the primary regional access to the Project Site. Monterey Rd is a significant rural North-South arterial roadway to the west of the project that provides access from a more local context.

BICYCLE ACCESS

There are no bicycle facilities along the project's Malech Rd frontage. However, approximately 2500 ft south of the Project Site there is access to the Coyote Creek Trail. The Coyote Creek Trail is an 18.7 mile north-south multi-use trail extending from San Jose to Morgan Hill. It is feasible that a cyclist could travel to the Project Site primarily on Coyote Creek Trail and complete the last leg of the trip mixed with vehicle traffic along Malech Rd. However, this is not ideal from a safety and comfort standpoint.

PEDESTRIAN ACCESS

The nearest sidewalk to the Project Site terminates approximately 1400 ft south of the Project Site at the Bailey Ave freeway ramps. The roadway shoulders are generally not adequate for safe and comfortable pedestrian traffic. It is not reasonable to expect that any significant amount of visitors will access the Project Site on foot.

TRANSIT FACILITIES

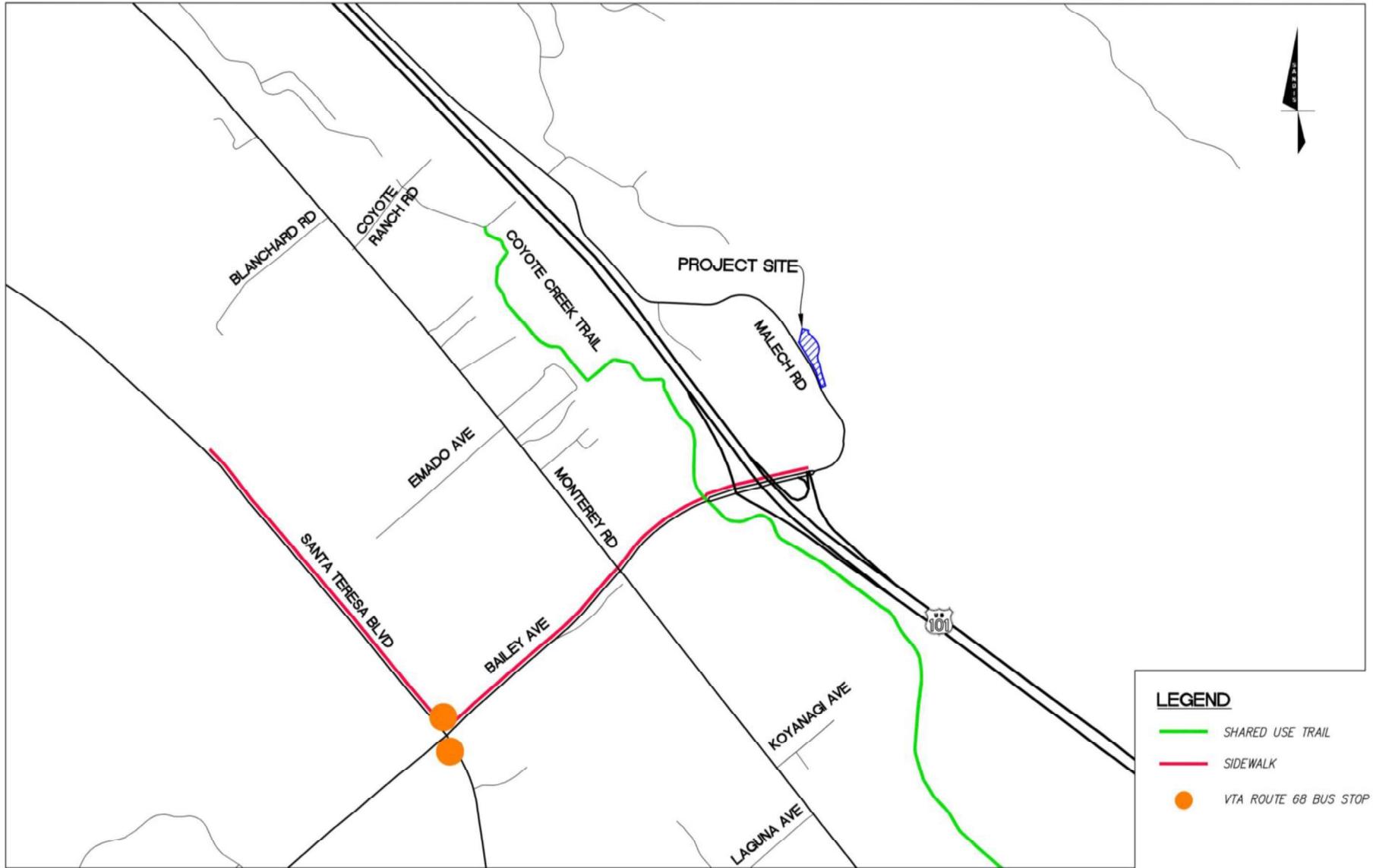
The Project Site is within the Valley Transit Authority (VTA) bus service boundary. The nearest stops are 1.33 miles away at the Santa Teresa Blvd and Bailey Ave intersection. This stop is served by route 68. This route goes between downtown San Jose and Gilroy.

Because of how far the stop is from the Project Site and the incomplete sidewalk network previously mentioned it is not likely that any visitors will use transit to access the Project Site on foot. However, the occasional cyclist may use the bus in conjunction with their bicycle to access the Project Site.

Figure 4 summarizes the existing transportation facilities surrounding the Project Site.



Figure 4: Existing Transportation Facilities





SITE CIRCULATION ANALYSIS

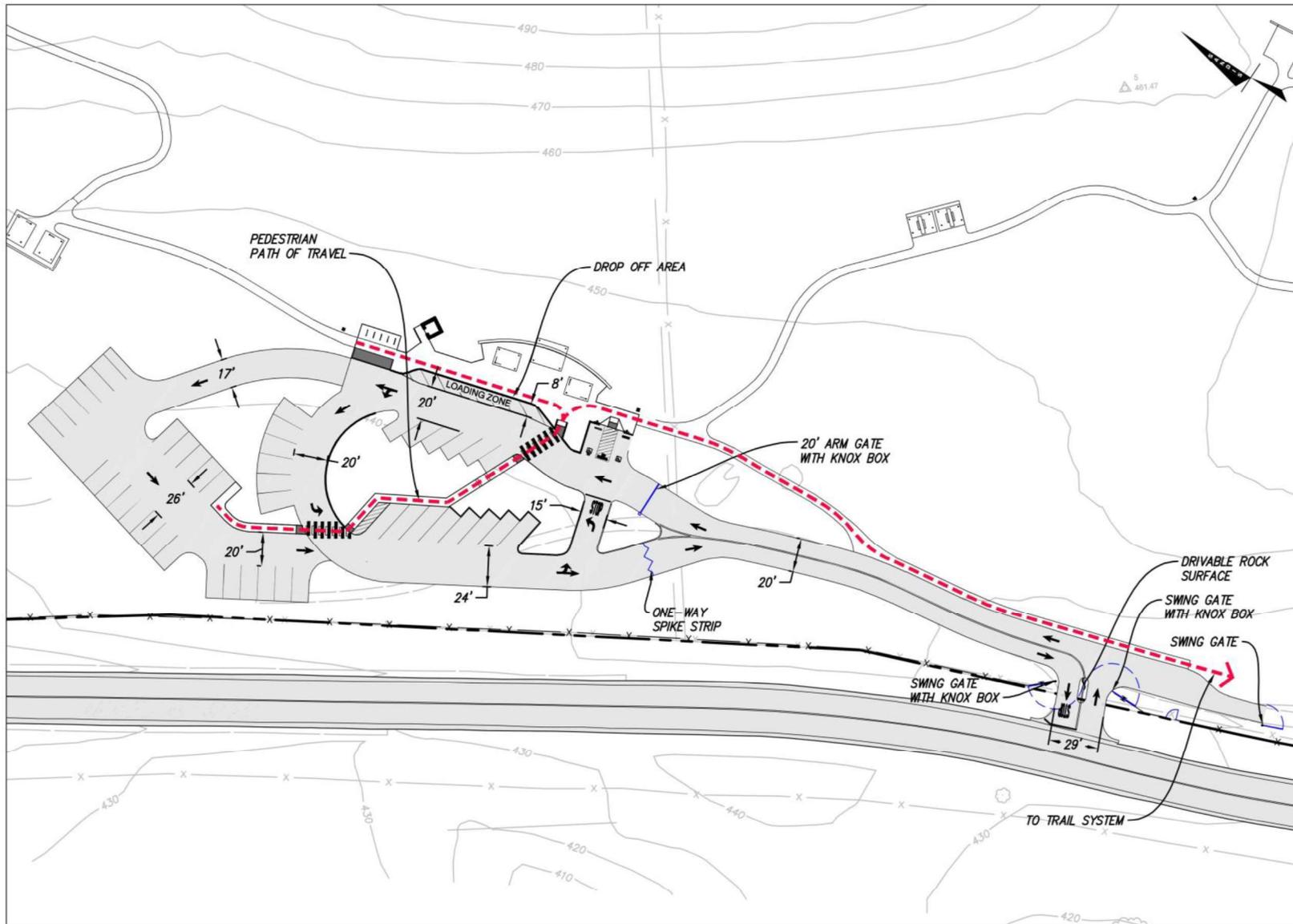
Site circulation was analyzed as part of this study. The Project Site will have a single 29 ft wide two-way entrance/exit driveway along Malech Rd. The driveway will be accessed controlled using swinging gates with Knox boxes for fire department access. Gates will remain open during hours of use. After entering the Project Site, traffic will travel along a 20 ft wide two-way access road to the parking area. Traffic then enters the one-way parking area through a second access gate. The first features after entering the parking area are 2 ADA stalls and a passenger drop-off/loading zone. 20 standard stalls are provided through a combination of angled and 90-degree stalls. A bypass lane is provided near the parking area exit to allow traffic to do multiple laps through the parking area without exiting if needed when browsing for parking. A gravel overflow lot is provided at the back of the main lot. This lot provides an additional 24 90-degree stalls when needed. A one-way spike strip will be installed at the parking area exit to enforce the one-way traffic flow pattern. The Site layout described above should allow for efficient and orderly onsite flow of traffic and there are currently no foreseen issues with the onsite layout described in this report.

Sidewalks and crosswalks will be installed through the parking area to facilitate visitors travelling from their car to the main preserve area.

Figure 5 shows the proposed site layout with key features shown in color.



Figure 5: Proposed Site Layout





PROJECT TRIP GENERATION AND DISTRIBUTION

TRIP GENERATION

A trip generation was completed for the Project Site. The ITE trip Generation Manual has an applicable land use: 411 (Public Park) which can be used to generate forecasted trips. However, for this analysis, a custom trip generation was prepared for the weekend period based on the facility capacity and the anticipated duration of each user's visit. Below are the assumptions that were used for this custom trip generation:

Overall Assumptions

- On average each user stops at the preserve for approximately 2 hours.
- In general, the peak hour traffic is correlated to the number of available stalls.
- During peak periods it was assumed that when one user leaves their parking stall, that stall is occupied relatively quickly (essentially instantaneously) by a newly arriving user. Because of this turnover behavior, the inbound vs. outbound split is 50%/50% for all peak periods.
- Given that the average trip is 2 hours, stall turnover is once every two hours generating 1 outbound trip and 1 inbound trip per turnover.

Weekday AM & PM Assumptions

- It was assumed that during the weekday AM & PM peak hours, all of the stalls in the main parking lot (22) are utilized but the overflow lot remains unused.

Weekend Midday Assumptions

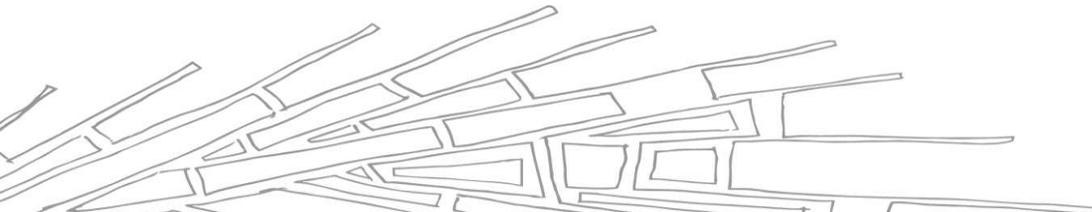
- It was assumed that during the Weekend Midday Peak hour all stalls including the overflow lot are utilized (46).

This results in **22** peak hour trips during the AM & PM peak hour and **46** peak hour trips during the Weekend Midday peak hour. Based on the above assumptions and corresponding results, the Weekend Midday peak hour was identified as the governing maximum peak hour for the Project Site. Table 1 summarizes the results of this trip generation methodology.



Table 1: Trip Generation

Land Use	Units	Unit Type	Weekday AM Peak Hour				Weekday PM Peak Hour				Weekend Midday Peak Hour			
			Rate	In	Out	Total	Rate	In	Out	Total	Rate	In	Out	Total
Preserve Parking lot	22	Parking Stall (Main Lot)	1.00	11	11	22	1.00	11	11	22	1.00	11	11	22
	24	Parking Stall (Overflow Lot)	0	0	0	0	0	0	0	0	1	12	12	24
Net Trips				11	11	22		11	11	22		23	23	46





TRIP DISTRIBUTION

Because the primary Site access is to the south at the Bailey Ave US 101 ramps 85% of the project trips were assumed to originate from/ go to this side of the project. The remaining 15% was assumed to originate from/go to the north along Malech Rd from more local areas.

DRIVEWAY QUEUING ANALYSIS

A driveway queuing analysis was performed using the previously presented trip generation/distribution and the existing roadway configuration and background volumes along with the previously described site circulation configuration.

To characterize weekend background traffic volumes, traffic counts were collected from 09/11/2021 (Saturday) 12:00 AM to 09/12/2021 (Sunday) 11:45 PM along Malech Rd where the project's driveway is proposed. The overall peak hour for the roadway occurred from 11:30 AM to 12:30 PM on Sunday 09/12/2021 where 59 vehicles were counted. The directional volumes recorded for this peak hour were 22 northbound and 37 southbound. The complete traffic counts can be found in Appendix A of this report. These background through volumes along with the project generated turning volumes were input into a traffic model in Trafficware Synchro 10 traffic analysis software. Table 2 summarized the traffic volumes used in this model.

Table 2: Queueing Analysis Traffic Volumes

Westbound		Northbound		Southbound	
Left	Right	Through	Right	Left	Through
20	3	22	20	3	37

The model and volumes were then exported in to the associated Simtraffic software to perform the microscopic (per-vehicle) level analysis necessary to assess queuing. A Simtraffic queuing report was then generated. The Simtraffic report indicated that no queuing would occur along Malech Rd entering the Project site and queuing exiting the project driveway will be limited to less than 30ft in total queue length (approximately one car length). Viewing traffic patterns within Simtraffic also confirmed that the project driveway is not forecasted to create significant queuing. The full SimTraffic queuing report can be found in Appendix B of this report. It should also be noted that the entrance gates will remain open during operating hours, and there will therefore be nothing impeding drivers from freely entering the Project site. Additionally, the long access aisle onsite ensures that there is a large buffer space between where parking maneuvers occur and the project driveway. This will ensure that any queuing related to parking maneuvers will be completely contained within the Project site.



SIGHT DISTANCE ANALYSIS

Sight Distance was analyzed as part of this study. AASHTO *A Policy on Geometric Design of Highways and Streets* (Green Book) and Caltrans Highway Design Manual (HDM) was used for this analysis. Based on the HDM chapter 201, the driver's eye height was assumed to be 3.5 ft and the height of the conflicting vehicle to be avoided was assumed to be 4.25 ft. The sight line was checked against the finished grades to determine if sight line would be obstructed.

The first condition that was analyzed was cars entering the Project Site from Malech Rd from either the northbound or southbound approach. The concern with this scenario is that when a vehicle slows down to turn into the Project Site driveway there needs to be adequate sight distance so that any trailing vehicles can slow down and queue if the leading vehicle has not yet vacated the roadway. According to Exhibit 3-1 of the Green Book, the design stopping sight distance recommended for vehicles traveling at the road's speed limit of 35 MPH to stop once an obstruction is spotted, is 250 ft. Figure 6A was created to determine if this sight distance is available. Based on the roadway geometrics shown in figure 6A it appears horizontal geometry will not obstruct the stopping distance recommended for a trailing vehicle to yield to a stopped leading vehicle. Vertical geometry was also analyzed using the height assumptions previously noted. Figure 6B compares the finished ground surface along the sight path with the elevation of the line of sight.

The second condition that was analyzed was vehicles exiting the project driveway. The concern here is that vehicles stopped at the project exit can see far enough down the roadway to ensure there is an adequate gap in traffic present for them to safely turn onto the road and accelerate up to speed. To assess this the Green Book was used. The Project Site driveway was classified as a Case B - Intersection (stop control on the minor road). Exhibit 9-54 of the Green Book states that 390 ft of sight distance is needed to perform a left turn from Stop from the minor road. Exhibit 9-57 of the Green Book states that 335 ft of sight distance is needed to perform a right turn from Stop from the minor road. Figure 7A was created to determine if this sight distance is available. Based on the roadway geometrics shown in figure 7A it appears horizontal geometry will not obstruct the stopping distance recommended for a trailing vehicle to yield to a stopped leading vehicle. Vertical geometry was also analyzed using the height assumptions previously noted. Figure 7B compares the finished ground surface along the sight path with the elevation of the line of sight. It appears that the ground surface will not obstruct the necessary sight distance either.



Figure 6A: In-Bound traffic Sight Triangles

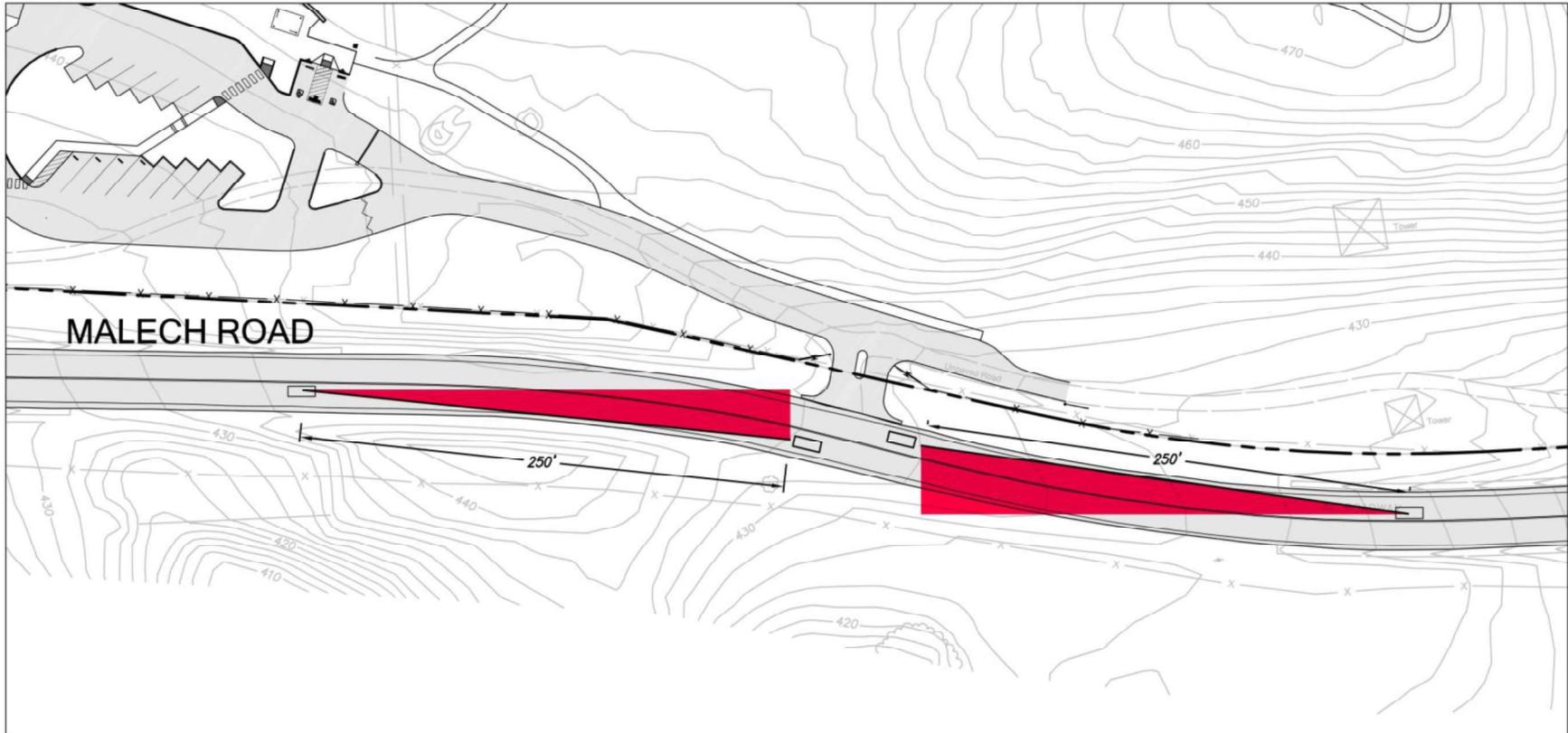




Figure 6B: In-Bound Vertical Profile of Sight Distance

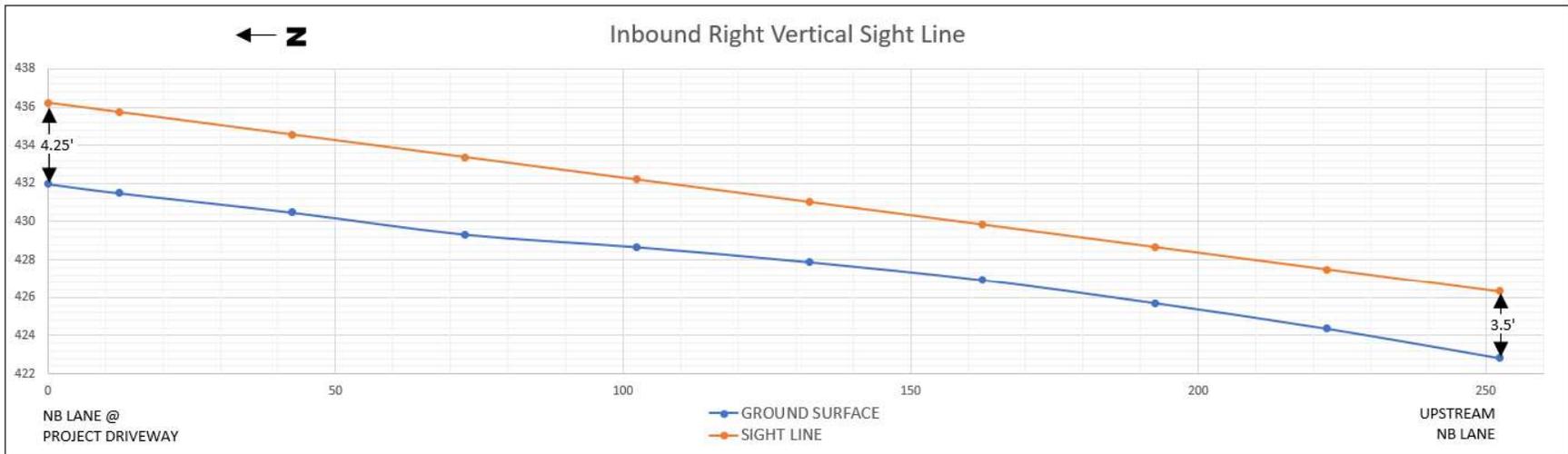
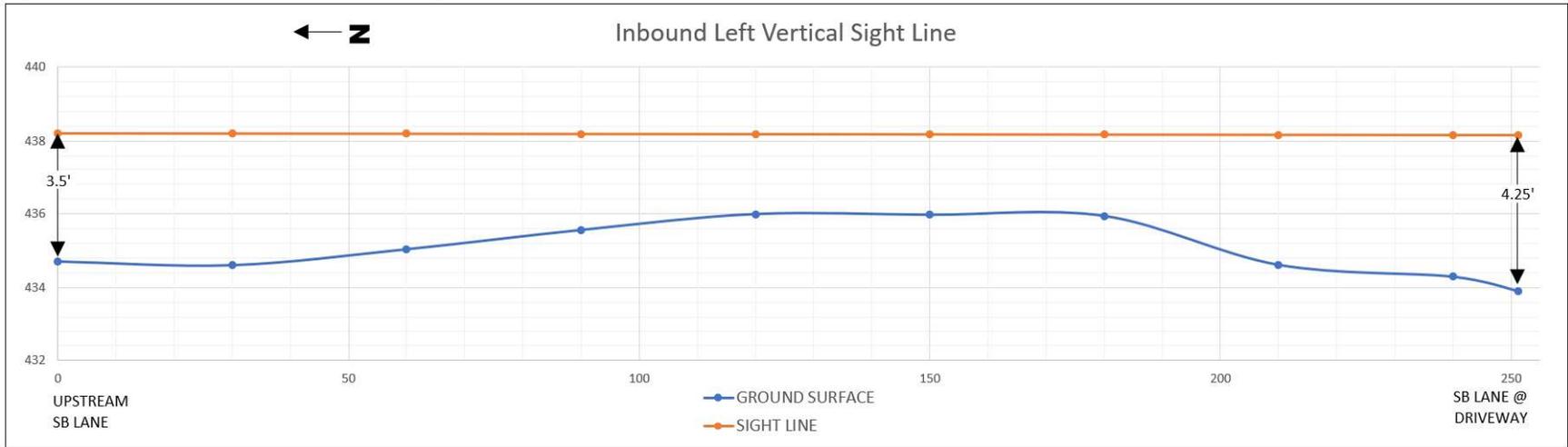




Figure 7A: Out-bound Traffic Sight Triangles

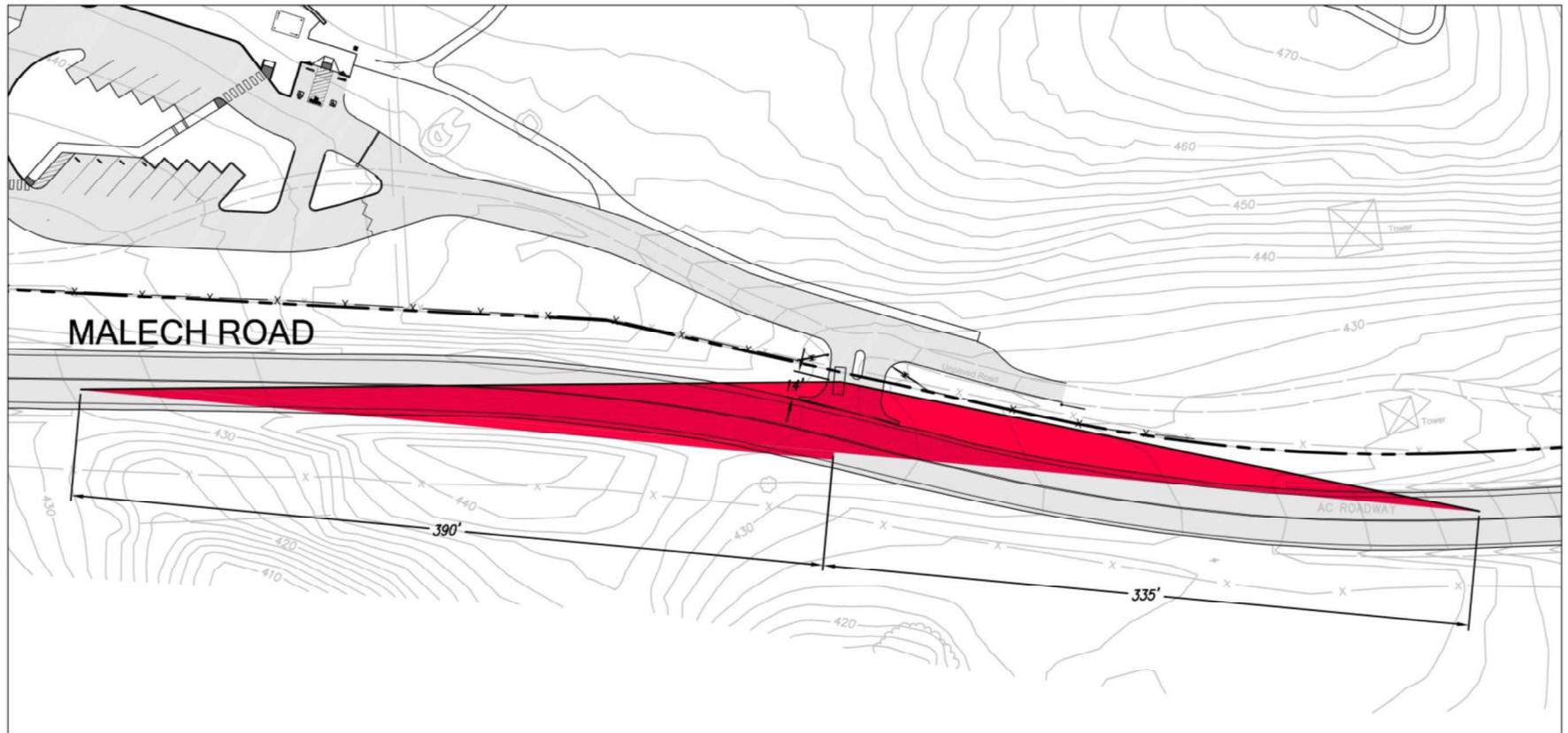
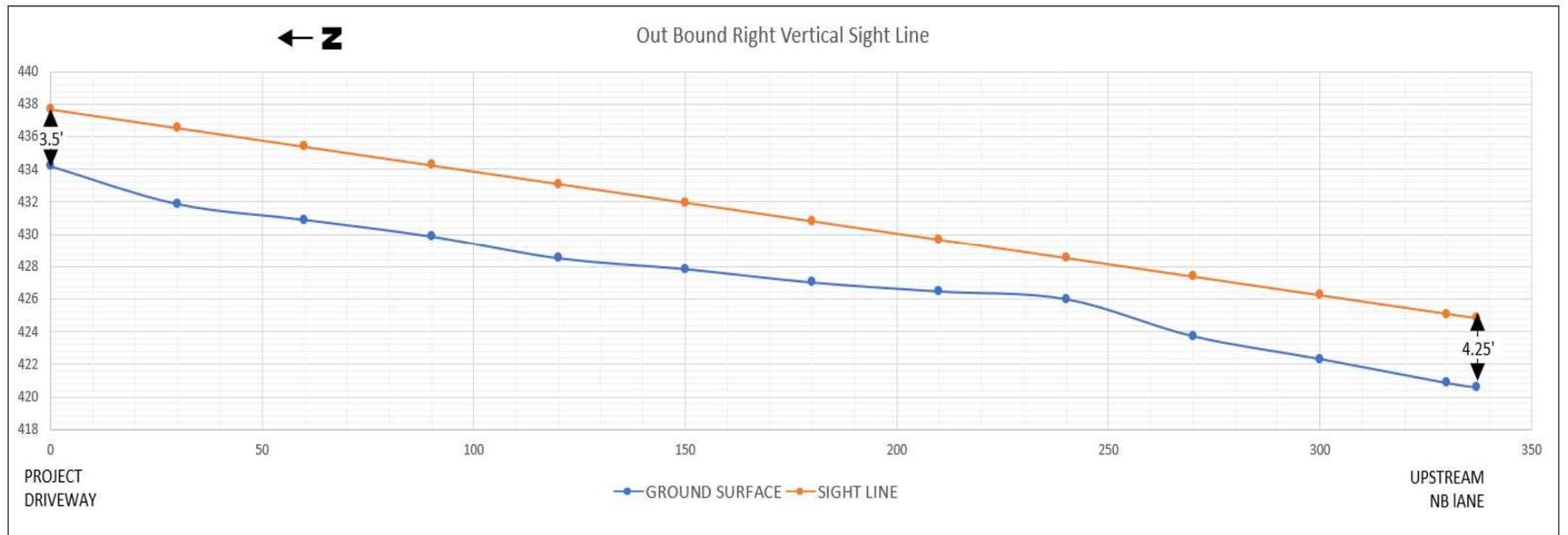
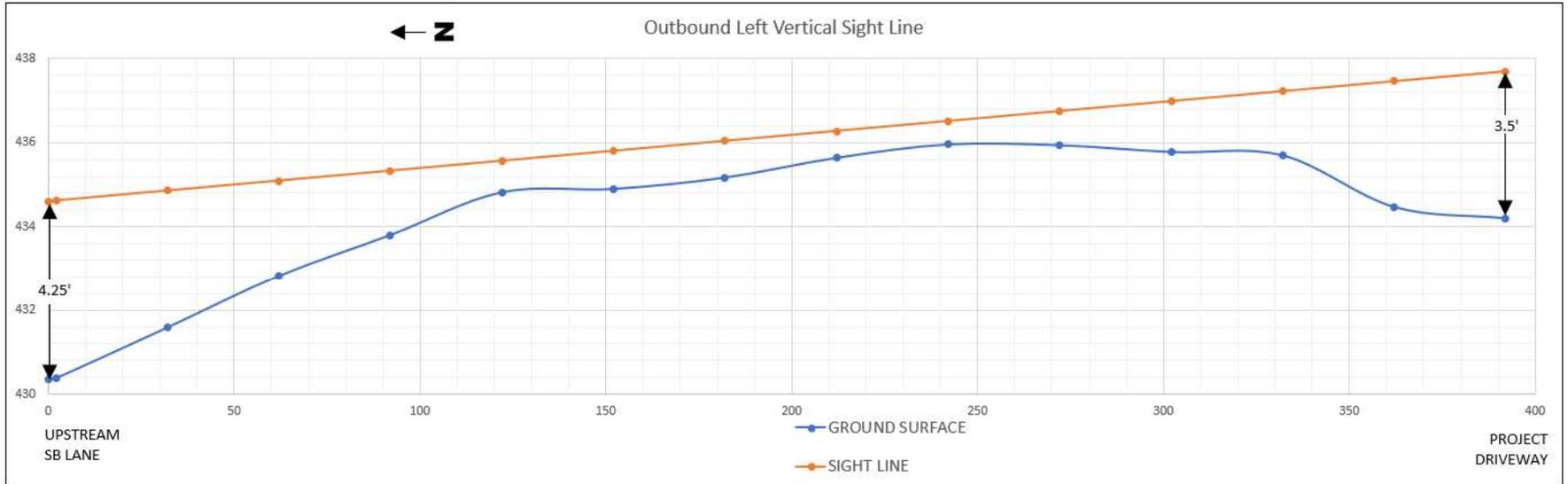




Figure 7B: Out-Bound Vertical Profile of Sight Distance





AUXILIARY LANE FEASIBILITY

At the request of the county, the feasibility of constructing auxiliary lanes was examined as part of this study. However, please note that the previously presented queueing analysis did not indicate that significant queueing would occur at the project driveway and the sight distance analysis indicated that adequate sight distance is available. Because of these findings, **the construction of any auxiliary lanes is not warranted.**

The four auxiliary lanes examined in this feasibility analysis are:

- Adding a right turn lane along Northbound Malech Rd approaching the project driveway.
- Adding an acceleration lane along Northbound Malech Rd departing the project driveway.
- Adding a left turn lane along Southbound Malech Rd approaching the project driveway.
- Adding an acceleration lane along Southbound Malech Rd departing the project driveway.

For deceleration lanes, page 718 of the Green Book states that 230 ft is an adequate deceleration length for a speed of 30 mph and 330 ft is an adequate deceleration length for a speed of 40 mph. For the area's speed limit of 35 MPH, 300 ft was interpolated as an appropriate minimum deceleration length. For acceleration lanes, exhibit 10-70 of the Green Book, states that a minimum acceleration length of 280 ft is needed for vehicles starting from a stop to accelerate onto a 35 MPH roadway.

First the Northbound auxiliary lanes were analyzed. For the beginning of the Northbound right-turn only auxiliary lane, a standard 90 ft bay taper per HDM table 405.2A was assumed. Next a 300 ft deceleration length was laid out parallel to the northbound lane. On the exiting side going from the Project Site onto northbound Malech Rd, a 280 ft long acceleration lane was laid out. Per Green Book Exhibit 10-69, a 300 ft lane taper was assumed at the end of the acceleration lane. Figure 8 shows the outline of the required additional roadway space for each of the lanes to be constructed.

Next the feasibility of the Southbound auxiliary lanes was analyzed. A left-turn only lane was laid out in the center of the road using HDM figure 405.2A. A standard 90 ft bay taper per HDM table 405.2A was assumed. Next a 300 ft deceleration lane was laid out. A 280ft southbound acceleration lane was placed in the center of the street. Per the California Manual on uniform Traffic Control Devices (CAMUTCD) section 3B.09, the recommended taper length at the end of the acceleration lane was calculated to be 245 ft. A 245 ft taper was laid out. Lastly, the through lane was gradually brought back to its existing position using a shallower radius connecting curve to bring it back into alignment. Figure 8 shows these improvements.

The construction of any of the above auxiliary lanes would fundamentally be a roadway widening project. The work that would be required would involve grading, paving, storm drainage improvements, signing & striping and possible utility conflict resolution.

There are also significant concerns regarding federally endangered species that have been previously identified within the county right of way. The 2019/2020 Biological Resources Report for the project by Vollmar Natural Lands Consulting mapped an occurrence of the



federally endangered Metcalf Canyon Jewelflower (*Streptanthus albidus* ssp. *albidus*) within the County's ROW. This could significantly complicate any roadway widening project.

Additionally, there are concerns regarding increasing the current square footage of impervious area and/or modifying the existing hydrological patterns. This could add additional storm water complexities to any roadway widening project.

Because there is adequate sight distance at the proposed driveway and there is not forecasted to be any significant queueing, the construction of any auxiliary lanes at the project driveway is not warranted. Additionally, the previously presented concerns regarding endangered species and storm water hydrology are likely to impact the construction of any auxiliary lanes. Given the project's very limited scope and allocated budget, it is not feasible for the project to propose constructing auxiliary lanes.

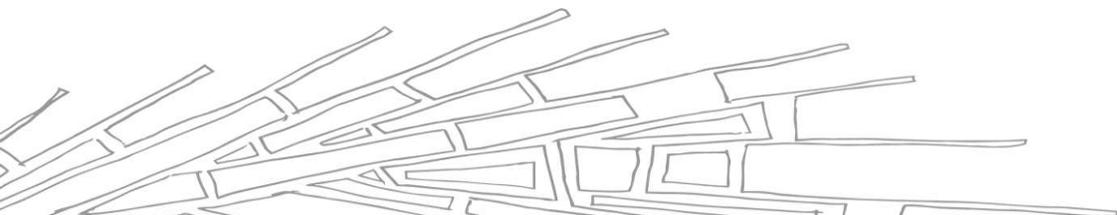
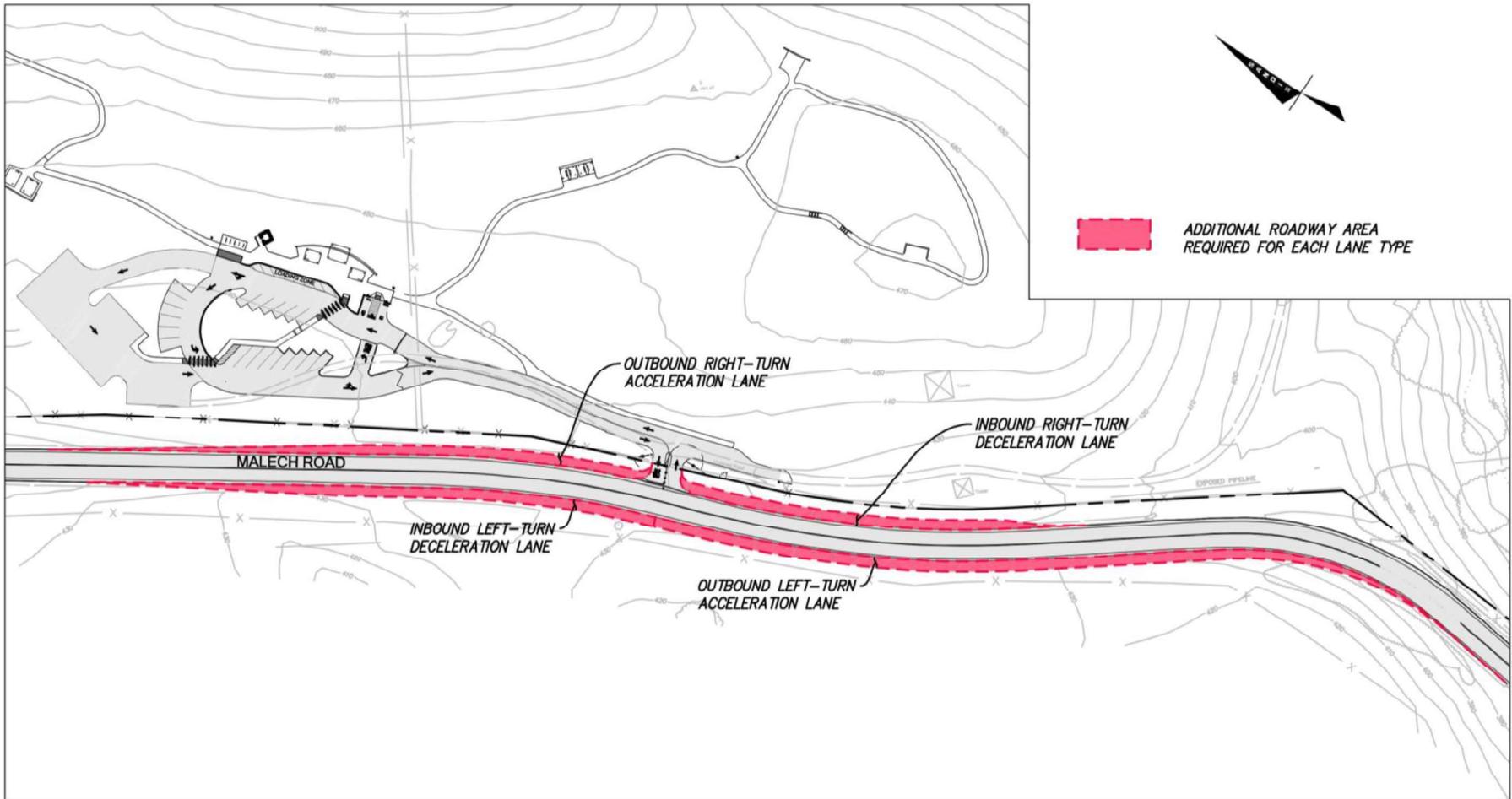




Figure 8: Auxiliary Lanes Feasibility



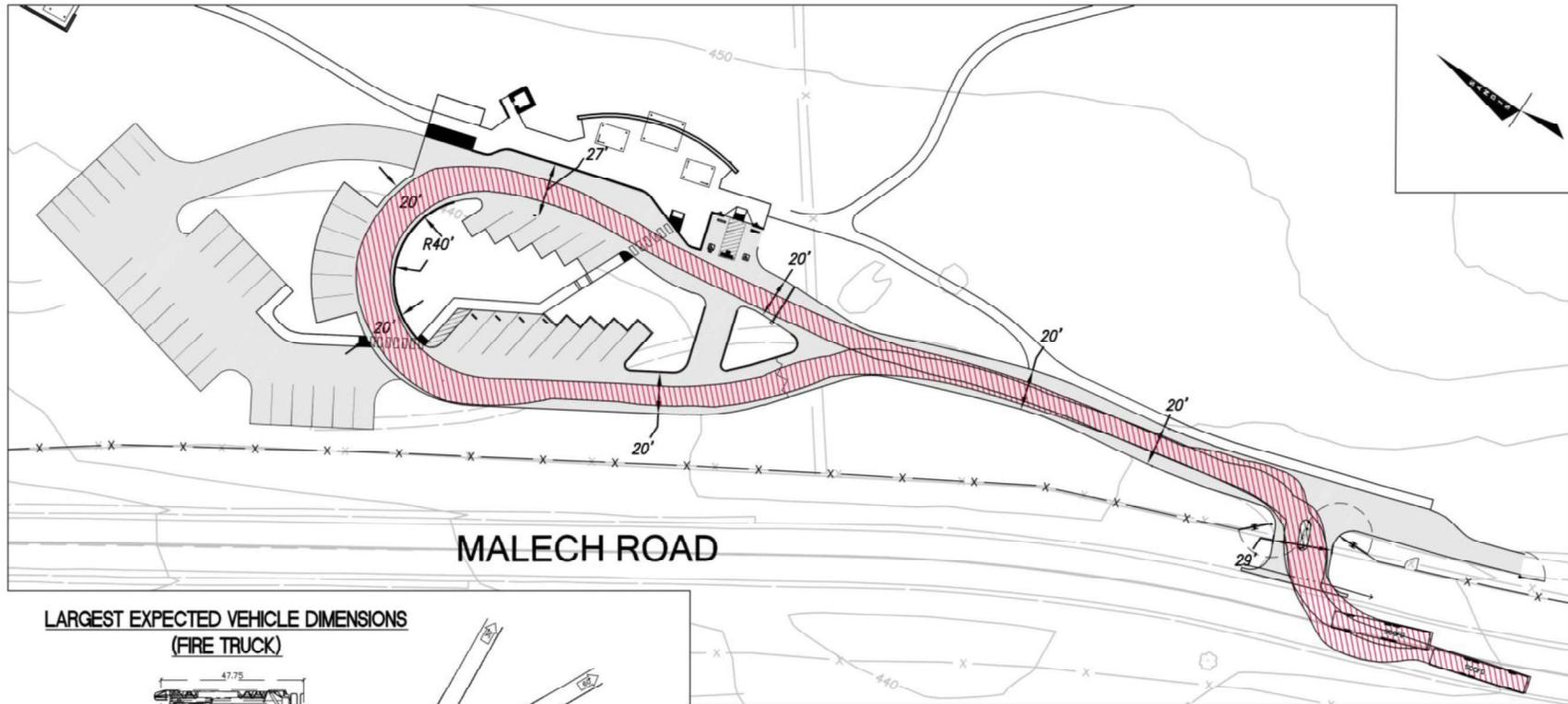


LARGE VEHICLE ACCESS

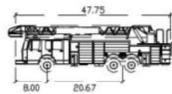
Large vehicle access and truck turning were analyzed as part of the study. For this Project Site, the largest anticipated vehicle is a Sant Clara County Fire Department (SCCFD) fire truck. Autoturn was used to analyze if there is adequate space for this vehicle to navigate the Site. Figure 9 show the results of this analysis. It appears that there is adequate space for the largest anticipated vehicle to access and navigate the Site.



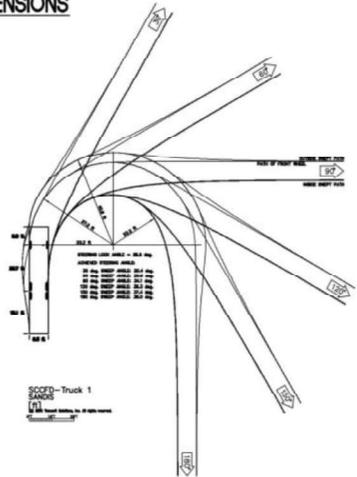
Figure 9: Large Vehicle Turning Template



**LARGEST EXPECTED VEHICLE DIMENSIONS
(FIRE TRUCK)**



SCCFD-1-truck 8eet
Width : 8.50
Track : 8.50
Lock to Lock Time : 6.6
Steering Angle : 38.5



LEGEND

 VEHICLE PATH FOR LARGEST EXPECTED VEHICLE (FIRE TRUCK)

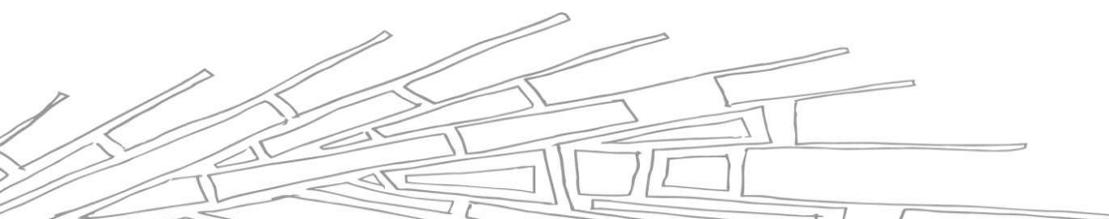


SUMMARY

This Traffic Operations Analysis for the Coyote Ridge Open Space Preserve Malech Rd Staging Area Project analyzed and provided information regarding the following aspects of the project:

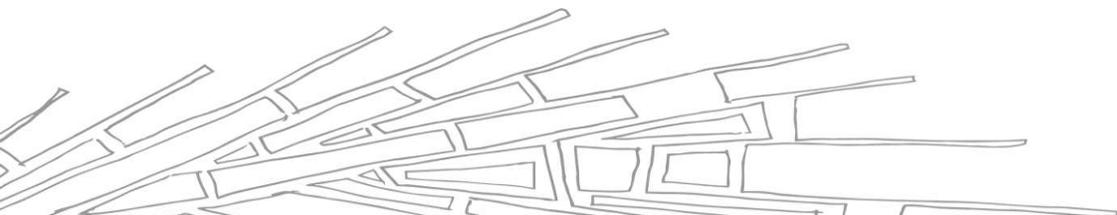
- Existing Transportation Facilities
- Site Circulation Analysis
- Project Trip Generation
- Driveway Queuing Analysis
- Sight Distance Analysis
- Auxiliary lane Feasibility
- Large Vehicle Access

Sight Distance analysis and queuing analysis indicated that auxiliary lanes are not warranted at the proposed project driveway. All analysis components within this study indicated that there will not be any significant traffic related issues with the project as proposed and no mitigations are necessary.





APPENDIX A - TRAFFIC COUNTS



TRAFFIC COUNTS PLUS
mietekm@comcast.net
925.305.4358

SANTA CLARA COUNTY
MALECH RD. N/O U.S. 101 NB RAMPS
(near fire access gate)

malech1
Site Code: 1s

Start Time	11-Sep-21 Sat				12-Sep-21 Sun											
	SB		Hour Totals		NB		Hour Totals		SB		Hour Totals		NB		Hour Totals	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	1	8			0	3			1	15			0	5		
12:15	1	7			0	7			1	12			1	4		
12:30	0	11			0	4			0	6			0	1		
12:45	0	5	2	31	0	4	0	18	0	2	2	35	0	8	1	18
01:00	0	5			0	4			0	4			1	7		
01:15	0	8			0	7			0	5			0	4		
01:30	0	8			0	9			0	1			3	9		
01:45	0	5	0	26	0	6	0	26	0	5	0	15	0	12	4	32
02:00	0	1			0	7			2	5			2	6		
02:15	0	2			0	4			0	6			0	5		
02:30	0	5			1	3			0	8			0	5		
02:45	0	4	0	12	0	4	1	18	0	8	2	27	0	2	2	18
03:00	1	14			0	5			1	6			0	4		
03:15	0	7			0	3			0	2			0	4		
03:30	0	7			0	1			0	14			1	1		
03:45	0	6	1	34	0	7	0	16	0	8	1	30	1	1	2	10
04:00	0	15			0	1			0	9			0	4		
04:15	0	9			0	3			1	18			0	1		
04:30	0	0			0	4			0	3			0	3		
04:45	0	4	0	28	0	3	0	11	0	3	1	33	0	2	0	10
05:00	0	2			0	1			0	0			0	1		
05:15	0	2			0	2			0	2			0	2		
05:30	1	2			1	0			0	0			1	1		
05:45	1	1	2	7	0	2	1	5	0	1	0	3	0	1	1	5
06:00	0	2			0	2			1	0			0	2		
06:15	0	3			0	1			0	2			0	2		
06:30	0	3			0	2			0	4			1	3		
06:45	0	3	0	11	7	2	7	7	2	0	3	6	6	2	7	9
07:00	0	1			3	3			1	3			3	0		
07:15	1	3			4	3			0	2			3	2		
07:30	0	0			4	1			1	0			6	3		
07:45	1	0	2	4	18	1	29	8	1	2	3	7	12	5	24	10
08:00	2	0			14	0			3	1			13	0		
08:15	1	0			6	1			0	0			6	1		
08:30	0	2			8	2			3	1			8	0		
08:45	2	0	5	2	6	0	34	3	1	0	7	2	10	2	37	3
09:00	3	0			5	0			4	1			10	1		
09:15	6	1			7	0			3	0			6	1		
09:30	2	0			3	1			0	1			2	1		
09:45	4	0	15	1	7	2	22	3	9	1	16	3	10	1	28	4
10:00	3	1			3	0			4	3			2	2		
10:15	9	1			9	0			5	3			5	3		
10:30	4	0			7	0			9	0			4	1		
10:45	6	1	22	3	7	0	26	0	4	0	22	6	8	1	19	7
11:00	3	0			6	2			1	2			7	1		
11:15	9	3			3	1			3	1			2	0		
11:30	6	0			6	0			6	0			5	1		
11:45	2	0	20	3	3	0	18	3	4	0	14	3	8	0	22	2
Total Day Total	69		162		138		118		71		170		147		128	
Percent	0.0%	29.9%	70.1%		53.9%	46.1%			29.5%	70.5%			53.5%	46.5%		
Peak Vol.	10:45	24	03:30	37	07:45	46	01:15	29	09:45	27	03:30	49	07:45	39	01:00	32
P.H.F.	0.667	0.617			0.639	0.806			0.750	0.681			0.750	0.667		



APPENDIX B - SIMTRAFFIC REPORT

Queuing and Blocking Report

09/14/2021

Intersection: 1: Malech Rd & Driveway

Movement	WB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	17
95th Queue (ft)	41
Link Distance (ft)	162
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0