Exhibit B

MARCH 2023

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Llagas Creek Bridge and Day Use Area Project

PREPARED FOR:
Santa Clara Valley Open Space Authority
33 Las Colinas Lane
San José, CA 95119

ATTENTION:
Lucas Shellhammer
Planning Manager

Exhibit B

Llagas Creek Bridge and Day Use Area Project

Initial Study/Mitigated Negative Declaration

Prepared for:

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

Contact: Lucas Shellhammer, Planning Manager
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Prepared By:

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March 2023

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MITIGATED NEGATIVE DECLARATION

PROJECT: LLAGAS CREEK BRIDGE AND DAY USE AREA 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 Llagas Creek Bridge and Day Use Area Project (project).

PROJECT DESCRIPTION SUMMARY

The project involves the replacement of an existing and active maintenance and cattle ford across Llagas Creek to develop a pedestrian and equestrian accessible bridge and other public access facilities within the Rancho Cañada del Oro Open Space Preserve (RCAN or preserve). The project would build upon existing public access features in RCAN and develop a connection over Llagas Creek to allow for year-around access to the meadow on the south side of Llagas Creek. The project would also extend the existing Llagas Creek Loop Trail to the new bridge and develop a new accessible loop trail on the south side of the bridge within the meadow area. Accessible seating areas, a pedestrian/equestrian connector trail, fencing, and interpretive signage would also be developed.

The meadow on the south side of the creek as well as the southwest portion of the preserve known formerly as the "Blair Ranch" are not currently open for day-to-day public access. Public access south of the creek is currently only allowed for special events, including the Authority's Open Access Days. The project would expand public access to the meadow area and allow for future access to the southern portion of the preserve.

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 agriculture and forest resources, land use and planning, mineral resources, population and housing, and utilities and service systems.
2. The project would have a less-than-significant impact on aesthetics, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, public services, recreation, and wildfire.
3. Mitigation is required to reduce potentially significant impacts related to air quality, biological resources, cultural resources, and tribal cultural resources to less-than-significant levels.

Air Quality Mitigation Measures

Mitigation Measure AQ-1: Implement the Applicable Bay Area Air Quality Management District's Basic Construction Mitigation Measures

To reduce the project's fugitive dust emissions, the Authority will implement the following measures:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure 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 Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Biological Resource Mitigation Measures

Mitigation Measure BIO-1: Avoid Loss of Crotch Bumble Bee Nest Colonies

For any construction during the period when Crotch bumble bee nest colonies may be present (March through September), the Authority will implement the following measures.

- Prior to construction that occurs during the period of March through September, a preconstruction survey of the limit of disturbance within suitable habitat (grassland and oak woodland) will occur within 30 days of project construction to identify the location of active nest colonies.
- During preconstruction surveys, if Crotch bumble bee nest colonies are detected within the project area, they will be flagged and no ground disturbing activities will occur within 15 feet of the colony during March through September, or until the colony is no longer active (i.e., no bees are seen flying in or out of the nest for three consecutive days).
- To avoid loss of Crotch bumble bee nest colonies through removal of floral resources, within occupied habitat (following preconstruction survey requirements above to determine occupancy), vegetation removal during project construction will be conducted such that the entirety of floral resources within the project site are not removed during the period when colonies may be present (March through September), and undisturbed portions of occupied habitat are retained adjacent to disturbed areas to provide floral resources and refuge for Crotch bumble bees.

Mitigation Measure BIO-2: Avoid California Giant Salamander, Santa Cruz Black Salamander, and Coast Horned Lizard Mortality:

The following measures will be implemented to avoid or minimize impacts to California giant salamander, Santa Cruz black salamander, and coast horned lizard.

- A speed limit of 15 miles per hour will be maintained along the portion of Casa Loma Road adjacent to the project staging area and other access routes within the project area for construction vehicles during periods of construction.
- No more than 14 days prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist will conduct a preconstruction survey of the project area. The project biologist will investigate all portions of the project area that are suitable habitat for California giant salamander, Santa Cruz black salamander, and coast horned lizard. If special-status amphibians are detected during preconstruction surveys, the Authority will conduct biological monitoring during use of heavy equipment to stop work if individual special-status amphibians/reptiles are present within the project area. The animal will be allowed to leave the work area on its own; however, animals may be moved to outside the project area by a qualified biologist with the appropriate permits, if it does not leave on its own.
- The Authority will conduct worker environmental awareness training to educate workers in the identification of special-status amphibians and to stop work and notify the Authority if individual special-status amphibians/reptiles are present within the project area.

Mitigation Measure BIO-3: Avoid Special-Status Bird Nests, Common Raptor Nests, and Nests of Other Common Birds

To avoid or minimize impacts to special-status birds, common raptors, and other nesting birds, the Authority will implement the following measures.

- To the extent feasible, the Authority will schedule work after August 31 or before January 1 to avoid the nesting period for special-status birds, common raptors, and other nesting birds.
- If work is required during the nesting season (January 1 to August 31), a qualified biologist will conduct a preconstruction survey to identify raptor nests within 500 feet and other bird nests within 50 feet of the project area. The survey will be conducted no more than 14 calendar days before the beginning of construction.
- If non-raptor bird nests are located within 50 feet of the project area, no construction will occur within 50 feet of the nest during the nesting season or until the young have fledged, as determined by a qualified biologist. If raptor nests are located within 500 feet of the project area, no construction will occur within 500 feet of the nest during the nesting season or until the young have fledged, as determined by a qualified biologist.

Mitigation Measure BIO-4: Avoid and Minimize Impacts to Pallid Bat Maternity Roosts

To avoid and minimize impact to pallid bat maternity roosts the Authority will implement the following measures.

- If the Authority performs work during the period of April 1 through August 31, preconstruction bat surveys will be required. Within 14-days prior to initiating work, a qualified bat biologist will inspect the area of disturbance and adjacent areas (within 50 feet) for bat roosts (most likely mature trees in the riparian and mixed oak woodland portions of the project area). Surveys will consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats within potential roosts.
- During preconstruction surveys, if no bat roosts are found, then no further mitigation will be required. If evidence of bat use is observed, the species of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts but are not required. If roosts of pallid bats are determined to be present within the project area, direct disturbance to the roost, such as work within 50 feet of the roost tree, or pruning of trees occupied by bats, will be avoided during the breeding season (April 1 through August 31).

Mitigation Measure BIO-5: Avoid American Badger and Ringtail Dens

To avoid and minimize impacts to American badger and ringtail dens, the Authority will implement the following measures.

- No more than 14 days prior to ground disturbance or vegetation clearing, a qualified biologist will conduct preconstruction surveys for occupied American badger and ringtail den sites within 100 feet of the project area.

- If any occupied American badger dens are located during preconstruction surveys, no work will 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) to the extent feasible.
- If any occupied ringtail dens (e.g., brush piles, appropriately sized hollow logs, and hollow trees with signs of use) are located during preconstruction surveys, a 100-foot buffer during the period May 1 through June 30 will be required, within which construction will not occur to the extent feasible. No buffer is required during the non-breeding season.
- If American badger or ringtail dens cannot be avoided and must be removed by project construction, further consultation with the Habitat Agency and CDFW will be required to determine the appropriate avoidance and minimization measures for ringtail. The Habitat Agency and CDFW-directed measures will be implemented.

Mitigation Measure BIO-6: Avoid and Minimize Impacts to San Francisco Dusky Footed Woodrats

To avoid and minimize impacts to San Francisco dusky footed woodrat, the Authority will implement the following measures.

- Prior to removal of any vegetation within riparian or mixed oak woodland and within 14 days of the start of work, a qualified biologist will conduct a preconstruction survey for woodrat nests within the area to be disturbed. If no woodrat nests are found, no further mitigation would be necessary.
- During preconstruction surveys, if woodrat nests are found, they will be avoided if possible and a minimum non-disturbance buffer of 10 feet will be established around the nest(s). This buffer may be adjusted in consultation with CDFW.
- If the nests cannot be avoided, the Authority will consult with CDFW in areas where removal of San Francisco dusky-footed woodrat nests is required. Consultation will occur prior to removal of the nests. Actions needed to protect woodrat nests will be determined in consultation with CDFW and may include the live capture and relocation of woodrats to suitable adjacent habitats and removal and reconstruction of nests. If performed, trapping activities will occur prior to April and after July each year to prevent impacts to woodrats rearing young or young woodrats. Nest middens will be dismantled by hand under the supervision of a biologist and nest material will be moved to suitable adjacent areas that will not be disturbed by project activities.

Cultural Resource and Tribal Cultural Resource Mitigation Measures

Mitigation Measure CUL-1: Conduct Cultural Sensitivity Training and Monitoring

To avoid and minimize impacts to cultural and tribal cultural resources, the Authority will implement the following measures.

- 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 resource 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.
- A representative or representatives from culturally affiliated Native American Tribe(s) will be invited to monitor all ground disturbing construction activities.

Mitigation Measure CUL-2: Avoid and Minimize Impacts to Inadvertent Cultural Resource Discoveries

In the event that a prehistoric archeological site (including midden soil, chipped stone, bone, or shell) or historic-period archaeological site (such as concentrated deposits of bottles, amethyst glass, or historic refuse) 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. 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.

Mitigation Measure CUL-3: Avoid and Minimize Impacts to Human Remains

If any human remains are exposed during construction, they shall be treated in accordance with the State of California Health and Safety Code Section 7050.5 which work in the area to stop until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner shall be notified of the find immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the California Native American Heritage Commission within 24 hours, which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

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:

_____

Lucas Shellhammer, Planning Manager
Santa Clara Valley Open Space Authority
(to be signed upon approval of the project after the public review period is complete)

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Exhibit B

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LIST OF ABBREVIATIONS

°F	degrees Fahrenheit
2017 Scoping Plan	2017 Climate Change Scoping Plan
2030 GHGRS	2030 Greenhouse Gas Reduction Strategy
ABA	Architectural Barriers Act
ADA	Americans with Disabilities Act
ATCM	Airborne Toxic Control Measure
Authority	Santa Clara Valley Open Space Authority
BAAQMD	Bay Area Air Quality Management District
Basin Plan	Water Quality Control Plan for the San Francisco Bay Basin
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 pollutant
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
CUPA	Certified Unified Program Agency
CWPP	Community Wildfire Protection Plan

dB	decibels
dBA	A-weighted decibel
DTSC	California Department of Toxic Substances Control
EIR	environmental impact report
EO	Executive Order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FTA	Federal Transit Administration
GHG	greenhouse gas
Habitat Plan	Santa Clara Valley Habitat Plan
in/sec	inches per second
IPM	Integrated Pest Management
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
L_{eq}	equivalent noise level
LOS	level of service
LUST	leaking underground storage tank
MGD	million gallons per day
MLD	Most Likely Descendent
mph	miles per hour
$MTCO_2$	metric tons of carbon dioxide
$MTCO_2e$	metric tons of carbon dioxide equivalent
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission

NHTSA	National Highway Traffic Safety Administration
NIC	Natural Investigations Company
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NO_X	nitrogen oxides
NRCS	U.S. Department of Agriculture Natural Resources Conservation Service
OEM	Office of Emergency Management
OHWM	ordinary high water mark
OPR	Governor's Office of Planning and Research
PG&E	Pacific Gas & Electric
PM	particulate matter
PM_{10}	respirable particulate matter that is 10 microns or less in diameter
$PM_{2.5}$	fine particulate matter that is 2.5 microns or less in diameter
PPV	peak particle velocity
PRC	Public Resources Code
preserve	Rancho Cañada del Oro Open Space Preserve
project	Llagas Creek Bridge and Day Use Area Project
PSE	Participating Special Entity
RCAN	Rancho Cañada del Oro Open Space Preserve
ROG	reactive organic gases
RWQCB	regional water quality control board
SB	Senate Bill
SCRWA	South County Regional Wastewater Authority
SCVWD	Santa Clara Valley Water District
SDG	stabilized decomposed granite
SFBAAB	San Francisco Bay Area Air Basin
SJCE	San José Clean Energy
SJFD	San José Fire Department
SJPD	San José Police Department
SO_2	sulfur dioxide
SP	service population

SR	State Route
SWRCB	State Water Resources Control Board
TA	Transportation Analysis
TAC	toxic air contaminant
TCR	tribal cultural resource
UCMP	University of California Museum of Paleontology
UST	Underground Storage Tank
VMT	vehicle miles traveled
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 Llagas Creek Bridge and Day Use Area Project (project). Section 2 "Project Description" presents a detailed description of the project.

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 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/our-work/current-projects/rancho-ca%C3%B1ada-del-oro-open-space-preserve.html

This IS/ MND was available for a 30-day public review period from January 24, 2023 to February 17, 2023. Comments were delivered to:

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

Comments were also sent via e-mail to: lshellhammer@openspaceauthority.org

If you have questions regarding the IS/ MND, please mail or email Lucas Shellhammer. 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 areas identified in the Environmental Checklist, included as Appendix G of the State CEQA Guidelines. These consist of the following environmental topics:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology & Soils
- GHGs
- Hazards
- Hydrology and Water Quality
- Land Use
- Mineral Resources
- Noise
- Pop & Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities & Service Systems
- Wildfire

Potentially significant impacts were identified for air quality, biological resources, cultural resources, and tribal cultural resources; however, mitigation measures included in the IS/MND and proposed by the Authority as revisions to the project would clearly reduce all impacts to a less-than-significant level with mitigation incorporated.

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 Llagas Creek Bridge and Day Use Area Project (project) is proposed by the Santa Clara Valley Open Space Authority (Authority) to replace an existing vehicle ford crossing through Llagas Creek with the development of a pedestrian and equestrian bridge, as well as develop other public access facilities for day-use within the vicinity of the bridge site at Rancho Cañada del Oro Open Space Preserve (RCAN or preserve). The 5,428-acre RCAN preserve includes 12 miles of multi-use trail open to hikers, mountain bikers, and equestrians. The preserve also has several picnic areas and seating areas dispersed along the trail network. Within the vicinity of the project area are several existing public access features including the 0.5-mile, Americans with Disabilities Act (ADA)-accessible Llagas Creek Loop Trail, ADA-accessible restrooms, picnic tables, wayfinding and interpretive signage, and two parking lots (a main parking lot and an overflow parking lot) that provide parking for cars and horse trailers. The main parking lot includes a paved parking area for 26 vehicles and gravel-surfaced equestrian parking area for up to five horse trailers. The overflow parking lot is unpaved and can hold up to 70 vehicles at a time. The project would build upon these existing public access features and develop a pedestrian and equestrian-accessible bridge over Llagas Creek to allow for year-around access to the meadow on the south side of Llagas Creek.

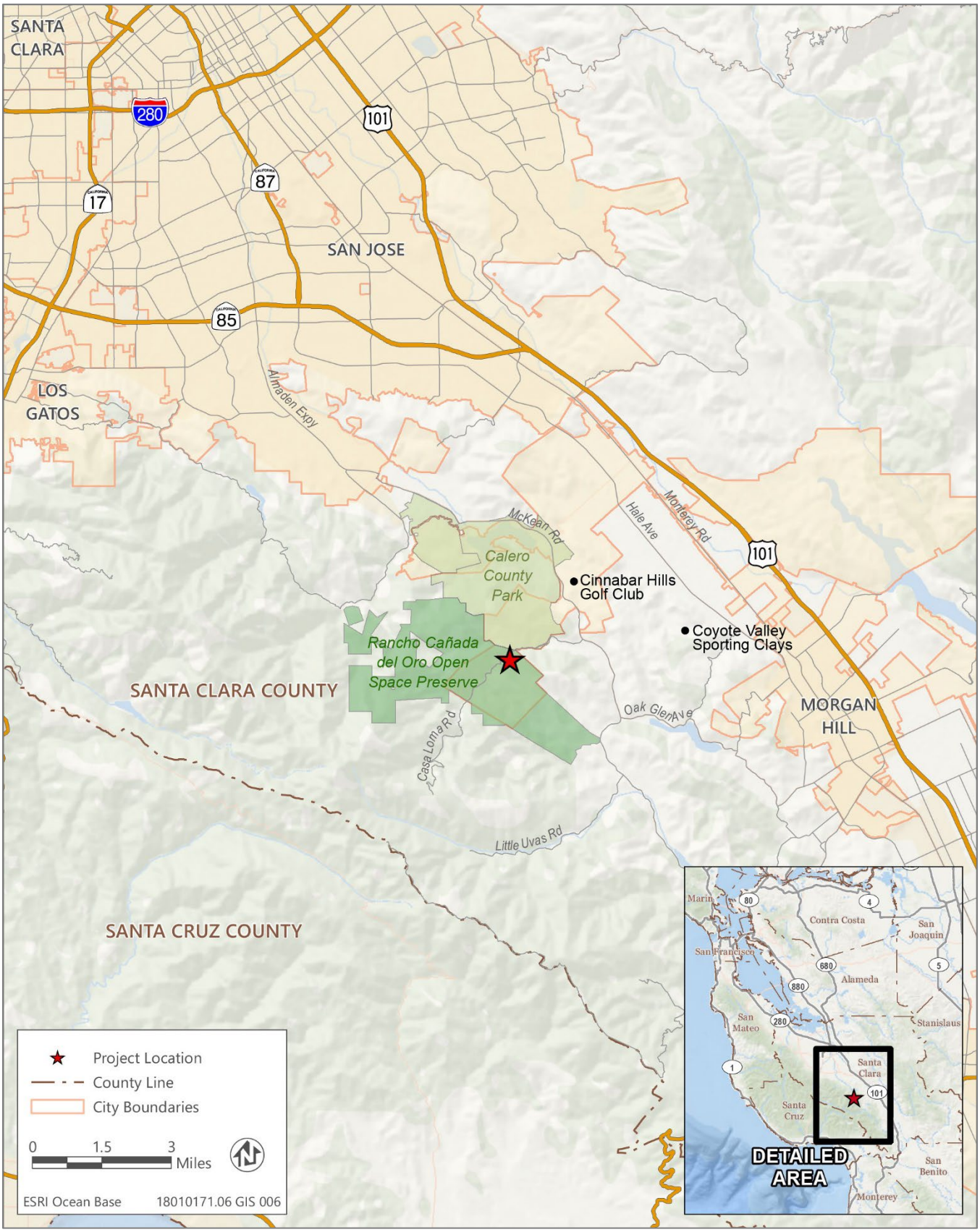
The project would extend the existing Llagas Creek Loop Trail to the new bridge and develop a new accessible loop trail on the south side of the bridge within the meadow area. Other public access features that would be developed include accessible seating areas, a pedestrian/equestrian connector trail, fencing, and interpretive signage. The meadow on the south side of the creek as well as the southwest portion of the preserve known formerly as the "Blair Ranch" are not currently open for day-to-day public access. Public access south of the creek is currently only allowed for special events, including the Authority's Open Access Days. The project would expand public access to the meadow area and allow for future access to the southern portion of the preserve. The project features are described in more detail in Section 2.3, "Description of the Project" below.

The project is located within the permit area of the Santa Clara Valley Habitat Plan (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 Habitat Plan and the PSE permit issued by the Habitat Agency to minimize the potential environmental impacts of the project.

2.2 PROJECT LOCATION AND SETTING

The project is located in south Santa Clara County, northwest of the City of Morgan Hill, and within the City of San José incorporated limits. Access to the project area is provided by Casa Loma Road (Figure 2-1). The project area is within the larger RCAN in the foothills of the Santa Cruz Mountains. RCAN is directly adjacent to Calero County Park, a 4,471-acre park that offers recreational opportunities for hikers, bikers, and equestrians. Few land uses other than open space recreation exist in the immediate vicinity of the project area. The closest facilities to the project area are the Cinnabar Hills Golf Club 2 miles to the northeast and Coyote Valley Sporting Clays, a shooting range, 3.8 miles to the east.

The project area is composed of several land cover types. California annual grassland is located throughout the project area between stands of oak woodland and mixed riparian woodland. Blue oak woodland is present in the northeastern portion of the project area on the north side of Casa Loma Road, and small patches of mixed oak woodland are present on both sides of Casa Loma Road north of Llagas Creek. Larger areas of mixed oak woodland were observed on the south side of Llagas Creek located adjacent to mixed riparian woodland. Mixed riparian woodland is concentrated on the banks of Llagas Creek.



Source: Adapted by Ascent in 2021.

Figure 2-1 Project Location

2.3 DESCRIPTION OF THE PROJECT

The Authority proposes to expand upon existing public access and recreation facilities at RCAN. In addition, the project would allow for year-round operational access to portions of the preserve seasonally inaccessible due to high waters at Llagas Creek. The project would include the implementation of several new features in the project area to support public access and low intensity recreation and the Authority's maintenance and patrol operations at RCAN. The primary project features would include the development of a bridge over Llagas Creek; seating areas with benches; and an Architectural Barriers Act (ABA) accessible pedestrian loop trail. Additional project features would include interpretive and wayfinding signage, cattle fencing, and revegetation of disturbed areas with native stockpiled soils onsite or an appropriate native seed mix. Figure 2-2 provides a conceptual overview of the project and each of the project features are described in greater detail below.

2.3.1 Recreational Facilities and Amenities

LLAGAS CREEK BRIDGE

The Llagas Creek Bridge would be installed to provide access from the existing Llagas Creek Loop Trail to new recreational features in the meadow on the south side of the Llagas Creek. The bridge would replace a ford crossing which is currently used by operations and maintenance vehicles. The existing ford would be abandoned. The new bridge would be ABA-compliant and accessible to pedestrians, equestrians, mountain bikers, and light all-terrain vehicles (for Authority patrols, operations, and emergencies) to access existing service roads and potential future trails to southern portions of the preserve.

The bridge would extend approximately 90 feet across Llagas Creek, would be 8 feet wide, and be a prefabricated weathering steel bowstring style bridge with a concrete deck, as shown below in Figure 2-3. The bridge abutments would extend a minimum of 4 feet into the ground to support the bridge. The footings at the bottom of the abutments would extend 4 feet horizontally in each direction (total of 8 feet wide) to provide stability and would be 1.5 feet wide. All bridge features would be outside of the ordinary highwater mark (OHWM) for Llagas Creek. The bowstring design and weathering steel were selected for aesthetic appeal in consideration of the preserve's backcountry location.

LOOP TRAIL AND SEATING AREAS

The project includes an approximately 800 foot (0.15 mile), 5-foot wide, ABA-accessible loop trail with linear seating areas to the southwest of the bridge and Llagas Creek. The loop trail and seating areas are intended for flexible programming, such as docent-led experiences, school classes, and other children's groups, as well as for general public use. The largest of the seating areas would be approximately 800 square feet and include several benches to accommodate small groups. In addition, two small seating areas with benches would be located along the trail. Each of these areas would be approximately 300 square feet.

Materials used would be selected to blend with the natural environment to the greatest extent possible. All new trails and seating area surfacing would be made of stabilized decomposed granite (SDG). SDG is a natural quarried rock material with a stabilizer that is pollutant-free, erosion-resistant, durable, and pervious. SDG is an accessible surfacing material that meets the trail guidelines for ABA accessibility. Benches would be constructed of repurposed downed trees or natural lumber, complimenting the existing public access features and surrounding environment. Downed logs/branches would be relocated and placed strategically to deter people from leaving the trail.

CASA LOMA CONNECTOR TRAIL

A new pedestrian-equestrian connector trail would extend from an existing gate at Casa Loma Road to the existing Llagas Creek Loop Trail and bridge. The small trail segment would serve to connect visitors coming from the existing

overflow parking lot to the Loop Trail and day use area. Construction of this trail would allow people to avoid walking along an unimproved portion of Casa Loma Road. The Casa Loma Connector Trail would be approximately 300 feet long and up to 5 feet wide and composed of SDG surfacing meeting the trail guidelines for ABA accessibility.

OTHER PROJECT ELEMENTS

Fencing

Existing barbed wire fencing for grazing operations prevents access to the south side of Llagas Creek where most of the project features would be constructed. The majority of the existing barbed wire fencing would remain in place. However, a small portion of the existing barbed wire fencing would be removed and replaced with a wood rail fence to serve as an entryway to the day use area in the meadow and be visually compatible with the new bridge. Removed fencing would be reused elsewhere by the Authority or disposed by the construction contractor at a permitted solid waste facility. Additionally, approximately 210 linear feet of the barbed wire fencing would be realigned along the northwest side of the bridge to allow for the expansion of riparian corridor along Llagas Creek. The area that is currently grazed where riparian vegetation could naturally re-establish over time is approximately 4,630 square feet, or 1/10th of an acre. Existing and new fencing would prevent access to sensitive natural communities in the proximity of the public access features. A gate would be installed on both sides of the Llagas Creek Bridge to provide continued access for grazing operations. Existing cattle fencing would be integrated with the new public access features through installation of a guardrail-height wood rail fence that would form the fencing closest to Llagas Creek Bridge and then a barbed wire fence. The barbed wire fence would be approximately 4 feet in height and would utilize wildlife-friendly design to allow for safe passage of wildlife through the fence. This would include design elements such as the use of smooth wire for the top and bottom strands of the fence. The wood rail fencing would be constructed out of 2x6 horizontal rails and posts spaced 6 feet apart. The fence would include three rails spaced approximately 8.5 inches apart.

Interpretive Elements

Interpretive signage would be placed along the trails to educate and inform the public on themes such as the of the project area. Several locations have been identified as potential locations for the placement of interpretive signage; these include the junction of where the Llagas Creek Bridge meets the existing Llagas Creek Loop Trail; at the bridge; at the large seating area; and in various locations along the new Loop Trail. Where possible, interpretive features would be integrated into existing features, such as downed trees.

2.3.2 Access and Parking

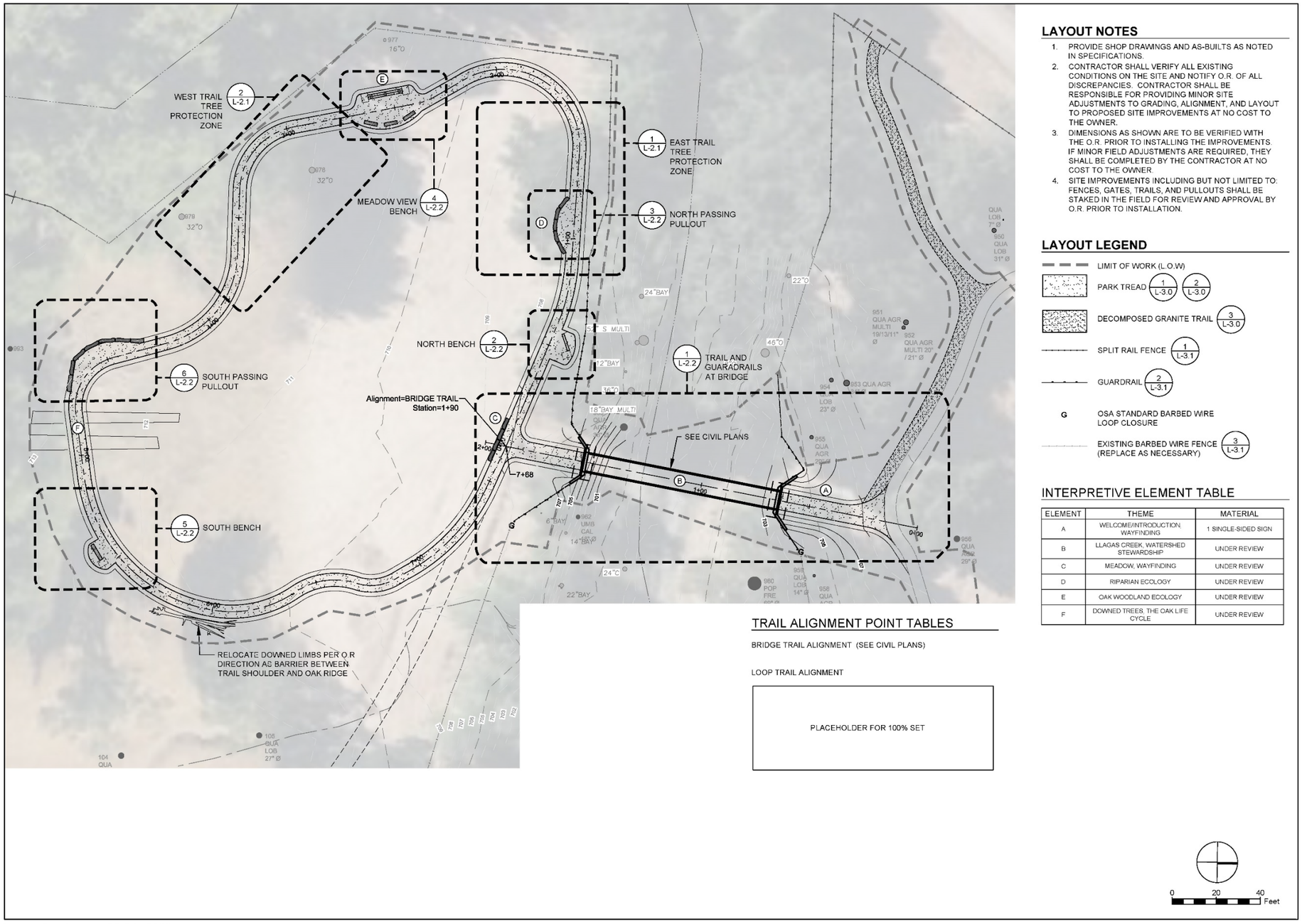
The existing parking lots (main parking lot and overflow parking lot) that serve the existing public access features would be used to serve the new features that would be developed within the project area. The main parking lot and the overflow parking lot are both accessed from Casa Loma Road and together provide parking for up to 96 vehicles and 5 horse trailers (or fewer vehicles and additional horse trailers in the overflow lot).

2.3.3 Stormwater Drainage and Landscaping

The project would not create or expand the amount of impervious surface by over 10,000 square feet and is therefore exempt from the Municipal Stormwater Permit (Santa Clara Valley Urban Runoff Pollution Prevention Program 2016). Following construction, all disturbed portions of the project area would be reseeded with a native plant seed mix. All runoff from the trails and gathering areas would disperse into surrounding natural areas to percolate into the ground.

2.3.4 Utilities

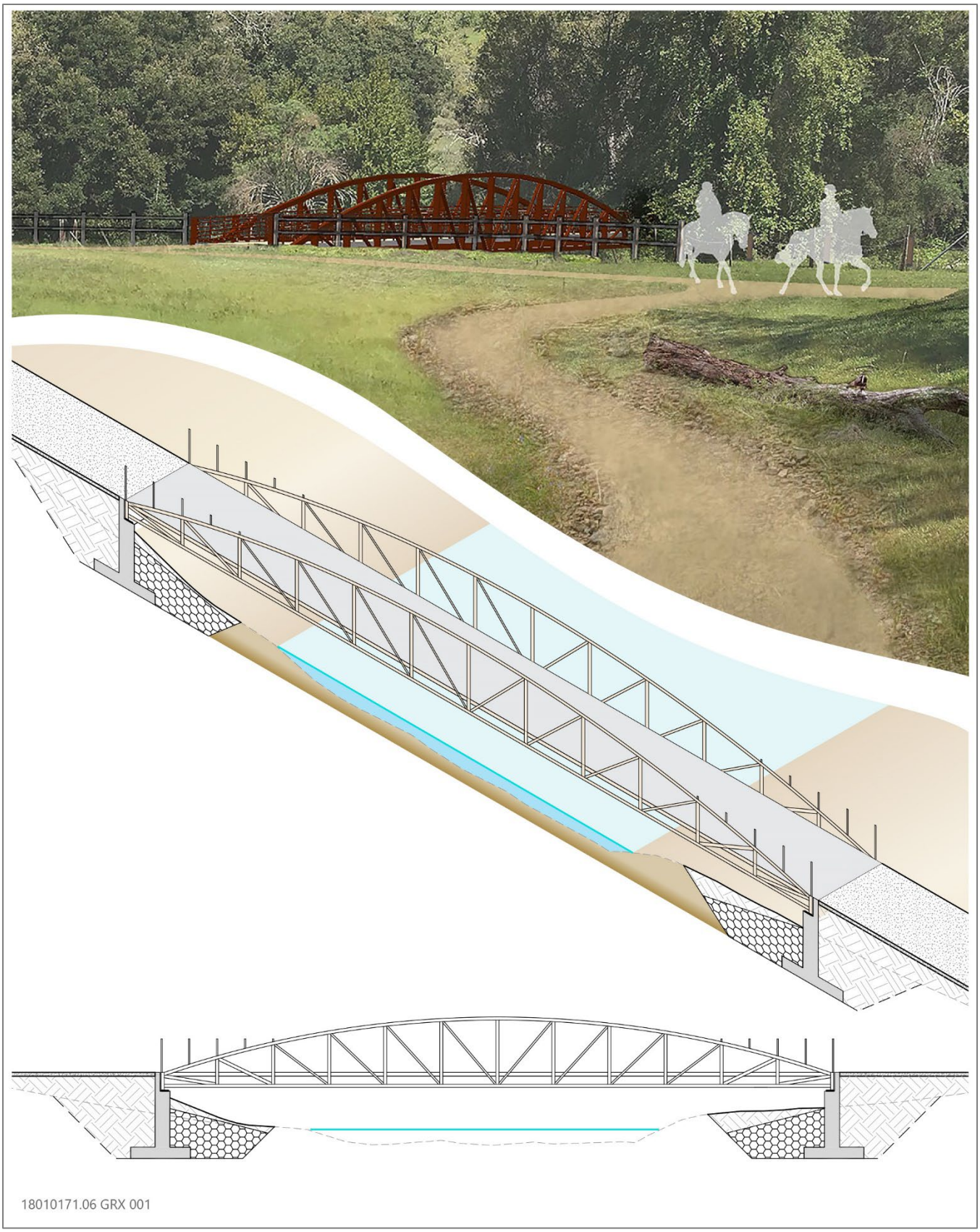
There are currently no utilities that serve the project such area, such as lighting, and no new lighting or other features requiring utility hookups or relocations would be required for the project.



Source: Provided by RDG in 2022.

Figure 2-2 Overview of Project Features

Exhibit B



Source: Waterways Consulting Inc., Restoration Design Group, And Ascent Environmental in 2021.

Figure 2-3 Rendering and Profile of the Llagas Creek Bridge

2.4 CONSTRUCTION ACTIVITIES AND TIMING

If approved, construction would occur over a 6-month period, currently planned to occur between April 2023 to October 2023. Construction below the top of creek bank associated with the installation of the bridge abutments would occur during the historically dry period for Llagas Creek from August 1 through October 1. Construction of the public access features on either side of the bridge may span a longer period. Construction crews would vary in size from three to 10 personnel. Construction personnel, vehicles, and equipment would access the project area via Casa Loma Road and all construction staging and laydown would largely occur in the overflow parking lot. The area immediately adjacent to the bridge, on the north side, would serve as a placement area for the pre-fabricated bridge pieces, prior to them being lifted into place across the creek. Construction equipment would consist of a mini excavator, skid steer, crew truck, handheld auger, vibratory compactor, flatbed truck for crane delivery, crane for bridge delivery and installation, concrete mixer for abutments, and a water truck for dust suppression. If required for access to the south bank of Llagas Creek during construction of the bridge, a crew truck and mini excavator may cross the exiting ford during the dry period when water is not present on the ford. Consistent with Section 20.100.450 of the San José City Ordinance and 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 would occur in multiple phases, including site preparation and demolition, bridge installation, trail construction and installation of all other public access features, and site clean-up and redistribution of stockpiled topsoil. Initial site preparation would include the installation of temporary erosion control measures, clearing and grubbing, installation of tree protection fencing, and installation of meadow exclusion fencing. Temporary erosion control measures would include the use of construction stormwater capture elements such as straw wattles and silt fencing. Areas where new features would be located would be graded and smoothed and vegetation would be removed. Existing topsoil would be stockpiled for redistribution post-construction. Meadow exclusion fencing would be installed around the inner perimeter of the new Loop Trail to prevent disturbance to the meadow during construction. Tree protection fencing would be installed around all trees within the project area. Some tree trimming and pruning would occur under the supervision of a certified arborist. Existing project features to be demolished include an asphalt pad, concrete picnic table, and barbed wire fencing. Interpretive signage and bird roosts would be removed and salvaged for use following construction of the bridge and trails. Several downed trees and branches in the southern portion of the project area bisect the Loop Trail alignment, which would be removed and/or salvaged and re-used onsite to allow for construction of the trail.

Once initial site preparation is completed, the next phase of construction would involve the installation of the prefabricated Llagas Creek Bridge. A crane would be used to install the bridge. The crane would be delivered to the project area using a flatbed truck via Casa Loma Road. Crane set up and staging would occur in the overflow parking lot. Several existing barbed wire fence posts would need to be temporarily removed and minor tree trimming for overhead clearance would occur. The crane would then access the bridge location using the footprint of the Equestrian Trail to Llagas Creek Loop Trail. The prefabricated steel bowstring style bridge would be delivered to the project area in two pieces and would be temporarily stored north of and adjacent to the bridge location immediately before installation. Both portions of the bridge would then be lifted into place by the crane. Installation of the bridge abutments would require approximately 8 feet of excavation; however, all work would occur outside of the OHWM. Buried rock slope protection would be installed between the bridge footings and the creek channel to prevent erosion. Buried rock would be covered by stockpiled site soil and not be visible from the surface.

Next, the remaining public access features (seating areas, trails, and interpretive signage) would be constructed and installed. The footprints of new public access features would be cleared, and excavation up to 12 inches in depth would occur to install new trails. Interpretive signage would typically extend 1 to 2.5 feet below ground and new fence posts would extend up to 3 feet below ground.

After project construction is complete, construction related equipment and debris would be removed and site clean-up would occur. Stockpiled soils would be spread over disturbed areas and may be reseeded with an appropriate native seed mix. If project-related grading results in an excess of soil, the Authority would stockpile the soil within the preserve for later use. No import or export of soils is anticipated for construction. In total, the project would result in approximately 2,090 square feet of temporary disturbance (0.048 acre) and a total of 7,000 square feet (0.16 acre) of new, permanent project features.

2.5 OPERATIONS AND MAINTENANCE

The Authority currently owns, manages, and maintains the project area. Ongoing operations and maintenance activities for the existing paved Llagas Creek Loop Trail include weekly clearing/leaf removal along the trail; as-needed asphalt repair and resurfacing; occasional filling of surrounding squirrel holes where visitor safety is a concern; pruning back of trees close to the trail; herbicide spraying within 1 foot of the trail twice per year (around February and April) to keep the trail clear (in accordance with the Authority's Integrated Pest Management Program); and removal of vegetation within 3 feet of the trail around four times per year. In addition, the Authority mows or flash grazes the existing meadow around May or June; maintains a single ADA-accessible vault-toilet; opens and closes the gates at the preserve daily; and conducts general fence and gate repair and gate painting and upkeep.

The project includes 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 required for the project would include the expansion of the existing trail maintenance activities described above.

Once the project is operational, daily visitation would be limited by available parking in the main parking lot and overflow parking lot.

CATTLE GRAZING

Cattle are currently moved twice per year between pastures on the north and south portions of the Preserve over Llagas Creek and through the project area by a grazing tenant. In addition, flash grazing (i.e., grazing a location at a high stocking density for a short period of time) by cattle may occur once or twice per year in the project area. The project would not require any changes in the grazing activity in the project area.

The existing cattle crossing gates on existing fencing to the north and south of Llagas Creek may be replaced or moved within 10–50 feet of existing gate locations. The existing fence would be tied into the Llagas Creek Bridge abutments on both sides. Hot wire (an electric-shock fence wire) may be used temporarily to contain the cattle when they graze the meadow areas on either side of Llagas Creek. If a hot wire is temporarily installed, warning signs would be place in the vicinity to advise project area visitors.

2.6 PERMITS AND APPROVALS

Table 2-1 below discloses the potential permits and approvals that would be required to implement the project following its approval by the Authority.

Table 2-1 Potential Permits and Approvals

Permit/Approval	Agency	Purpose/Applicability
PSE Application leading to Certificate of Inclusion	Habitat Agency (approval by U.S. Fish and Wildlife Service and California Department Fish and Wildlife (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.
Lake and Streambed Alteration Notification	CDFW	A Lake and Streambed Alteration Notification is required so CDFW can determine if the project would impact the Llagas Creek streambed. If CDFW determines that the project would impact the streambed, the Authority would obtain a Lake and Streambed Alteration Agreement and consult with CDFW to determine the mitigation required to minimize impacts to the streambed. This IS includes consideration of environmental impacts and potential mitigation needs within the Lake and Streambed jurisdiction. If CDFW determines that the project does not substantially alter the streambed, no further action would be required by the Authority.
Notice of Applicability for General WDR	Central Coast Regional Water Quality Control Board	File notice of intent (NOI) to enroll under and comply with the terms of water quality order no. 2004-004 DWG (general WDRs), statewide general waste discharge requirements for dredged or fill discharges to waters deemed by the U.S. army corps of engineers to be outside of federal jurisdiction

2.7 HABITAT PLAN CONDITIONS ON COVERED ACTIVITIES

In accordance with PSE requirements, the Authority will 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 2-2 below.

Table 2-2 Habitat Plan Conditions on Covered Activities Likely Applicable to the Project

Habitat Plan Condition	Summary of Requirements
Condition 1: Avoid direct impacts on legally protected plant and wildlife species	Direct impacts to federally endangered plant species, fully protected wildlife species, species protected by the Migratory Bird Treaty Act, and species protected by the Bald and Golden Eagle Protection Act must be avoided consistent with applicable legal protections.
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 Llagas Creek; minimizing site erosion and sedimentation during construction; and washing vehicles only at approved sites outside of a project area.
Condition 4: Avoidance and Minimization for In-Stream Projects	This condition applies to projects that involve in-stream work (e.g., flood protection, bridge rehabilitation, dam repair) and helps to minimize sediment/pollutant discharge into waterways, disturbance of earth and riparian vegetation, and alteration of the hydrologic and hydraulic characteristics of water bodies.
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 10: Fuel Buffer	This condition applies to projects that are covered under the Habitat Plan and located within Reserve System lands; or in the Diablo Range or Santa Cruz Mountains; or in grassland, chaparral, oak woodland, or conifer woodland types; or in areas designated by the County as a very high fire hazard severity zones. This condition helps provide fire protection by establishing minimum standards for removing brush, flammable vegetation, or combustible growth near occupied structures.
Condition 11: Stream and Riparian Setbacks	This condition applies to projects that overlap a stream or stream setback—requirements differ based on project's location in relation to the urban service area. This condition helps minimize impacts on streams by specifying setbacks and buffer zones.
Condition 16: Least Bell's vireo	Applies to projects that could adversely affect least Bell's vireo. Requires a habitat survey, preconstruction surveys for least Bell's vireo nests, application of a 250-foot no-activity buffer around all active nests, construction monitoring, and training of workers in avoidance procedures.
Condition 17: Tricolored blackbird	Applies to projects that could adversely affect tricolored blackbird. Requires a habitat survey, preconstruction surveys for nesting colonies, application of a 250-foot no-activity buffer around all nesting habitat that is actively used, and avoidance of all nesting habitat used in the last 5 years, construction monitoring, and training of workers in avoidance procedures.

3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1.	Project Title:	Llagas Creek Bridge and Day Use Area Project
2.	Lead Agency Name and Address:	Santa Clara Valley Open Space Authority 33 Las Colinas Lane, San José, CA 95119
3.	Contact Person and Phone Number:	Lucas Shellhammer, (408) 224-7476
4.	Project Location:	4289 Casa Loma Rd, Morgan Hill, CA 95037
5.	Project Sponsor's Name and Address:	N/A
6.	General Plan Designation:	Open Hillside
7.	Zoning:	Open Space
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 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, and Kanyon Sayers-Roods, MLD, Indian Canyon Mutsun Band of Costanoan; Charlene Nijmeh, chairperson, and Monica Arellano, vice chairperson, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area; Katherine Erolinda Perez, chairperson, and Timothy Perez, North Valley Yokuts Tribe; Andrew Galvan, Ohlone Indian Tribe; Kenneth Woodrow, chairperson, Wuksache Indian Tribe/Eshom Valley Band; Corrina Gould, chairperson, The Confederated Villages of Lisjan; and Quirina Luna Geary, chairperson, Tamien Nation.

A request to consult was received from the Tamien Nation. The Authority integrated recommendations from the Tribe that were received during AB 52 consultation into mitigation measures to avoid and minimize impacts to cultural and 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.

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards / Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance
	☐ None	☒ 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.

Signature Date

Lucas Shellhammer Planning Manager

Santa Clara Valley Open Space Authority

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?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
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?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

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 situated in the Santa Cruz Mountain foothills within the larger undeveloped Rancho Cañada del Oro Open Space Preserve (RCAN). The visual character of the project area is defined by an annual grassland meadow bisected by Llagas Creek and surrounded by mixed oak and blue oak woodlands. In addition to being within RCAN, the project area is directly adjacent to Calero County Park, a 4,471-acre park open to hikers and equestrians. Few land uses other than open space recreation exist in the immediate vicinity of the project area, which contributes to the visual coherence of the area. Views along the northern edge of the project area are disrupted by Casa Loma Road which affects the visual unity of the landscape. However, given that the project area is within the larger, visually consistent RCAN, and further surrounded by other open space, the visual intactness and unity of the landscape are high with minimal humanmade visual intrusions.

The unique combination of meadow, creek, and woodland contributes to a vivid landscape with distinctive visual features. A belt of riparian vegetation composed of California laurel (*Umbellularia californica*), California sycamore (*Platanus racemosa*), and interior live oak (*Quercus wislizeni*) trees flank both sides of the perennial Llagas Creek. This

creek bisects the meadow located within the project area from the meadow accessed by the existing Llagas Creek Loop Trail to the northeast. Annual grassland species comprise the meadow, and visually change with the seasons. In the winter, the meadow remains dormant with the remnants of the previous year's vegetation. The spring brings new growth and wildflower displays which then dry out in late summer and fall. The mixed oak and blue oak woodlands create a visual boundary for the project area. The unique and dynamic combination of habitat types that change with the seasons contributes to a highly visually vivid landscape with distinctive visual patterns. 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 (bikers, hikers, and equestrians) using the existing RCAN recreational facilities close to the project area and motorists and vehicle passengers using Casa Loma Road.

Recreationalists with views of the project area use several existing public trails within and in the immediate vicinity, including the 0.5-mile, Americans with Disabilities Act (ADA)-accessible Llagas Creek Loop Trail located directly east of the project area. In addition to Llagas Creek Loop Trail, multiple trails are located on the opposite side of Casa Loma Road from the project area and are accessed from the existing parking lot at RCAN, including the multi-use Mayfair Ranch Trail. The recreational facilities are open to the public every day; therefore, the usage volume and frequency of views for recreationalists is high. Recreationalists also have high viewer sensitivity because the recreational activities they engage in are largely dependent on the scenic quality of the landscape. Given the high usage volume, duration of views, and frequency of views, the overall viewer sensitivity for recreationalists is high.

Motorists and vehicle passengers view the project area from Casa Loma Road, which is directly adjacent to the project area. Motorists and vehicle passengers travelling on Casa Loma would experience clear views of the project area, however, views would be momentary at typical vehicle speeds, and motorists would generally be focused on the road while driving. 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 Viewer Groups Near the Project Area

Viewer Group	Viewer Exposure				Viewer Sensitivity
	Area	Usage Volume	Duration of Views	Frequency of Views	
Recreationists	Within and adjacent to RCAN	High	High	High	High
Motorists and vehicle passengers	Casa Loma Road	Low to Moderate	Low	Low to Moderate	Low to Moderate

RCAN = Rancho Canada del Oro

Source: Compiled by Ascent Environmental in 2021.

STATE 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 or county scenic highways are within the vicinity of the project area (Caltrans 2015, Caltrans 2018). The City of San José General Plan designates scenic corridors within San José, including rural scenic corridors; however, none are within the vicinity of the project area (City of San José 2011a: 27).

ZONING GOVERNING SCENIC RESOURCES

As described in Section 3.11, "Land Use and Planning", the project area is zoned as Single-family Residential/Open Space and is within the Open Hillside Land Use Designation of the City of San José General Plan (City of San José 2011a; Ankola 2021a). Both designations include stipulations to preserve scenic quality. Specifically, land within the city of San José zoned as Open Space is meant to be preserved for outdoor recreation and the enjoyment of scenic resources (San José Municipal Code Section 20.20.010); and the General Plan Open Hillside Designation limits land uses to those that have minimal visibility from the Santa Clara Valley floor (City of San José 2011a).

3.1.2 Discussion

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

Less-than-significant impact. 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 Santa Cruz Mountain foothills, with high quality views of natural features typical of the foothills including meadows, creeks, and woodlands. There are few surrounding scenic vistas with potential views of the project area. Mayfair Ranch Trail, a multi-use trail open to hikers, bikers, and equestrians, which switchbacks up Bald Peak and continues along the ridgeline to the north of the project area, provides scenic vistas with views of the project area and surrounding foothills. Scenic vistas with views of the project area from Casa Loma Road are limited due to tree cover within and surrounding the project area.

Construction could result in temporary visual effects to scenic vistas along Mayfair Ranch Trail. Construction equipment, including a mini excavator, skid steer, crew truck, handheld auger, vibratory compactor, along with other construction materials, could degrade views from scenic vistas by reducing visual intactness and unity characteristics of the natural area. However, temporary visual impacts from construction would be contained to the project area and overflow parking lot and the surrounding tree cover would help to visually screen some construction equipment and activities. In addition, construction equipment would only be present within the project area during the temporary, 6-month construction period, currently proposed to be between April 2023 and October 2023. The scenic quality of elevated views of the project area from Mayfair Ranch Trail may be temporarily reduced due to the presence of construction activities; however, given that construction would be temporary and existing tree cover would at least partially obscure views of equipment and construction activities, construction effects on scenic vistas would not be substantial.

Long-term changes to views from scenic vistas would occur from the permanent public access features that would be constructed, including the Llagas Creek Bridge, seating areas, and trails. The benches and trails would be constructed from material that is visually similar to existing recreational facilities in the area to create an aesthetically coherent environment and maintain the high-level of visual intactness and unity. The benches would be made from Douglas fir timbers with steel bases powder coated to match the existing picnic table. All new trails would be made of SDG which has a more natural color, good durability and an open space feel compared to asphalt. In addition, the existing mixed oak and blue oak woodlands in the project area create a visual boundary and would obscure views of new project features from scenic vistas.

Because visual effects of construction would be temporary, new project features would be designed to match the aesthetic quality of existing recreational features, and existing trees and vegetation within the project area would obscure views from surrounding scenic vistas, 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?

No impact. No designated state scenic highways are within the vicinity of the project area (Caltrans 2015, Caltrans 2019). Furthermore, no scenic corridors designated within the City of San José General Plan are in the vicinity of the project area (City of San José 2011a: 27). Therefore, **no impact** to scenic resources within a state scenic highway would occur with implementation of the project.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage 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 impact. 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 limited period of time. Construction equipment and materials would be present in the project area and visible to sensitive viewer groups, including recreationists, motorists, and vehicle passengers. However, as described above in criterion a), visual impacts from construction would be temporary and limited to the 6-month construction period. Construction staging and laydown would largely occur in the overflow parking lot located southwest of the existing Llagas Creek Loop Trail and separated by dense trees, limiting the visibility to recreationists. 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 of the larger RCAN. Motorists' and recreationists' views of the Santa Cruz Mountain foothills within the larger undeveloped RCAN larger would remain similar to existing conditions and the visual impacts from project construction would be temporary and minimal due to tree cover.

The project would construct several permanent features to support the public use of the project area including the Llagas Creek Bridge, gathering and seating areas, and pedestrian and equestrian trails. These project features would become part of the visual character and quality of the project area and its surroundings. New project features would be visually similar to surrounding recreational facilities to maintain the high-level of visual intactness and unity of the area. The Llagas Creek Bridge would allow users improved visual access to Llagas Creek, which would be enhance the visitors' recreational experience.

Implementation of the project would also involve the removal of the existing picnic table area located under the oak on the north side of Llagas Creek. The removal of the picnic table and alignment of Llagas Creek Bridge would allow for views that embrace the natural character of the project area and reduce the 'park' aspects of the built environment to preserve the visual intactness and unity of the project area. The location of the gathering area was chosen to take advantage of sweeping views across the meadow towards the oak knoll, where two mature trees frame views towards the rest of the project area. Project elements, including Llagas Creek Bridge and the gathering area, would be situated to enhance the high visual quality of the project area. The project would allow for greater access to the area, giving the public more opportunities to enjoy the high-quality natural scenery of the project area and RCAN.

Additionally, as described in detail in Section 3.11, "Land Use and Planning", the project would comply with the Open Space zoning designation and Open Hillside land use designation, including the requirements to preserve scenic resources. Land zoned as Open Space is meant to be preserved for outdoor recreation and the enjoyment of scenic resources (San José Municipal Code Section 20.20.010), which the project would accomplish by constructing additional recreational public access features in the region. The General Plan Open Hillside Designation limits land uses to those that have minimal visibility from the Santa Clara Valley floor (City of San José 2011a). Project features would not be visible from the Santa Clara Valley floor given the limited number of new structures that would be developed; the project's distance from the valley floor (approximately 4.5 miles to the east); and the general tree cover of the region.

The visual impact from construction would be temporary and minimal due to the view-obscuring character of existing tree cover in the area. The long-term visual impacts from permanent project features would be minor due to their site-sensitive design and building materials similar to existing facilities. Trail and bridge features would provide more visual access and opportunities for the public to enjoy the natural landscape. Therefore, 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 impact. Construction of the project would take 6 months to complete, beginning in April 2023 and ending in October 2023. 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 early spring and late fall months, exterior lighting may be required, however, any construction lighting would be temporary and pointed toward construction activities. The presence of 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 due to dense tree cover, 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. In addition, project materials were chosen to reduce the possibility of glare; the steel used for the base of the benches would be powder coated and the Llagas Creek Bridge would be made from weathering steel. 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
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.				
In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
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?	☐	☐	☐	☒
b) Conflict 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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.2.1 Environmental Setting

FARMLAND

The project area is mapped by the California Department of Conservation as Grazing Land (DOC 2016). Cattle grazing occurs bi-annually in and surrounding the project area by a grazing tenant, and would continue with implementation of the project. To the southeast of the project area is Blair Ranch, a working cattle ranch that has been in operation for over 40 years. The Authority acquired the property through financing from several sources including the Coastal Conservancy, Moore Foundation, Santa Clara County Parks and Recreation Department, and the Peninsula Open Space Trust in 2008 (Coastal Conservancy 2008). The property is currently grazed through a grazing tenant lease agreement. The project area is not under a Williamson Act Contract (Santa Clara County n.d. a).

FOREST 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. Mixed oak woodland and blue oak woodland, which both constitute as forest land under PRC Section 12220(g), are present in the project area and surrounding vicinity. Mixed oak woodland is found in small patches on both sides of Casa Loma Road north of Llagas Creek, and larger areas of mixed oak woodland are located on the south side of Llagas Creek. The mixed oak woodland is composed primarily of California laurel (*Umbellularia californica*), coast live oak (*Quercus agrifolia*), interior live oak (*Quercus wislizeni*), California buckeye (*Aesculus californica)*, and blue oak (*Quercus dougalsii*). Blue oak woodland is present on the north side of Casa Loma Road. Blue oak is the dominant tree species in this land cover type and few individuals of other species are present (Authority 2019a).

"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. No designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is present on the project area or surrounding vicinity. As discussed above in Section 3.2.1, "Environmental Setting", the project area is mapped by the California Department of Conservation as Grazing Land (DOC 2016). Implementation of the project would not alter existing cattle grazing within the project area. Rather, cattle grazing would continue to be used as a vegetation management technique on the meadow and other portions of the project area. Given that no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is present in the project area, implementation of the project would not convert any of these agricultural land uses to non-agricultural use; there would be **no impact**.

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 City of San José General Plan land use designation for the project area is Open Hillside, and the area is zoned as Open Space (City of San José 2011a; Ankola 2021a). 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. As discussed above in criterion b), the project area is zoned as Open Space and is within the Open Hillside designation of the General Plan. The project area is not zoned as forest land, timberland, or timberland production. In addition, no existing timberland production operations occur in the project area (Santa Clara County 2016a); therefore, the project would have no impact on timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). Although portions of the project area contain forested areas, the project would not conflict with existing zoning for or cause

rezoning of forest land and there would be **no impact**. Refer to criterion d) below for a discussion of potential loss of forest land or conversion of forest land to non-forest uses.

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

No impact. Mixed oak woodland and blue oak woodland stands comprise more than 10 percent of the project area; therefore, the project area is considered forest land under PRC Section 12220(g). As part of its stewardship of the project area forest by the Authority, tree trimming and pruning would occur during project construction and as needed as a future maintenance activity; however, no major tree removal would occur. Furthermore, as described in Section 2.4, "Construction Activities and Timing," tree protection fencing would be installed around all trees within the project area prior to construction. In the long-term, the Authority would manage the landscape to maintain a healthy forest, consistent with current practices. Therefore, the project would not result in a loss of forest land nor conversion of forest land to non-forest use and the project would have **no impact.**

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No impact. No other agricultural or forestry resources besides the existing grazing operations and forest land under PRC Section 12220(g) occur or are present within the project area. Impacts to grazing operations and forest land are analyzed above in impact criterion a) and c). The project would not involve other changes to the existing environment that could affect other agricultural or forestry resources within the project area. Therefore, **no impact** would occur.

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.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	☒ Yes		☐ No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The project area is located in the San Francisco Bay Area Air Basin (SFBAAB) within the incorporated city limits of San José in 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 number 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 (NO_2), sulfur dioxide (SO_2), respirable and fine particulate matter (PM_{10} 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, 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.

Pollutant	Sources	Effects
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.
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; NO_2 = nitrogen dioxide; NO_X = oxides of nitrogen; PM = particulate matter; ROG = reactive organic gases; SO_2 = sulfur dioxide; VOCs = volatile organic compounds.

Source: 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, PM_{10}, 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; NO_2 = nitrogen dioxide; NO_X = oxides of nitrogen; PM = particulate matter; ROG = reactive organic gases; SO_2 = 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 2021; CARB 2019.

Air Quality Planning

BAAQMD is responsible for assuring that the federal and state ambient air quality standards are attained and maintained in the Bay Area. 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.

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 project. Table 3.3-3 presents the significance thresholds for construction and operational-related criteria air pollutants 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 projects individual emissions of criteria air pollutants 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. PM_{10} 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 PM_{10} database, ambient PM_{10} 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 generally 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 project area is located within the RCAN preserve, which is a rural, outdoor recreational area that does not contain any nearby sensitive receptors.

3.3.2 Discussion

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

Less-than-significant impact. 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 includes the development of trails, seating areas, and installation of a bridge; it would not result in any substantial long-term employment opportunities nor the need for any new housing, and it would not change the amount of development projected in the SFBAAB. Therefore, the 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 with mitigation incorporated. 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.

<u>Construction Emissions of Criteria Pollutants and Precursor Emissions</u>

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, PM_{10}, 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

Construction Year	ROG (lb/day)	NOx (lb/day)	CO (lb/day)	Exhaust PM_{10} (lb/day)	Fugitive PM_{10} (lb/day)	Exhaust $PM_{2.5}$ (lb/day)	Fugitive $PM_{2.5}$ (lb/day)	SO_X (lb/day)
Year 2023	2	17	19	<1	88	<1	9	<1
BAAQMD Emissions Threshold	*54*	*54*	*N/A*	*82*	*BMPs*	*54*	*BMPs*	*N/A*

Notes: lb/day = pounds per day; ROG = Reactive Organic Gases; NOx = Oxides of Nitrogen; PM_{10} = Particulate matter 10 micrometers or less in diameter; $PM_{2.5}$ = Fine particulate matter; BMPs = best management practices.

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

Fugitive Dust Emissions

Construction activities including site preparation, grading, excavation, material laydown and placement, and site cleanup would result in fugitive dust from soil movement and equipment use. For all proposed projects, BAAQMD recommends the implementation of all Basic Construction Mitigation Measures (or BMPs) to avoid and minimize impacts related to fugitive dust. Without the implementation of these measures, project related fugitive dust emissions would be potentially significant.

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	<1
Mobile[2]	<1	<1	1	<1	<1	<1
Average Daily Emissions	<1	<1	1	<1	<1	<1
BAAQMD Emissions Threshold	*54*	*54*	*N/A*	*82*	*54*	*N/A*
Emissions Source	**ROG tons/year**	**NO_X tons/year**	**CO tons/year**	**PM_{10} tons/year**	**$PM_{2.5}$ tons/year y**	**SO_X tons/year**
Area[1]	<1	<1	<1	<1	<1	<1
Mobile[2]	<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; NOx = Oxides of Nitrogen; PM_{10} = Particulate matter 10 micrometers or less in diameter; $PM_{2.5}$ = Fine particulate matter.

[1] Area sources of criteria air pollutants include operation of landscaping equipment.

[2] Mobile sources of criteria air pollutants include emissions from vehicles accessing the project site.

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

Conclusion

The project would not exceed BAAQMD's numerical construction-related or operational thresholds; however, the project could generate significant fugitive dust emissions. While, the project would not result in a cumulatively considerable net increase of ROG, NO_X, CO, exhaust PM_{10}, exhaust $PM_{2.5}$, and SO_X for which the project region is non-attainment under federal or state ambient air quality standards, unmitigated fugitive dust emissions would be potentially significant. Through the incorporation of Mitigation Measure AQ-1, fugitive dust emissions would be **less than significant with mitigation incorporated**.

Mitigation Measure AQ-1: Implement the Applicable Bay Area Air Quality Management District's Basic Construction Mitigation Measures

To reduce the project's fugitive dust emissions, the Authority will implement the following measures:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure 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 Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Significance after Mitigation

Implementation of Mitigation Measure AQ-1 would reduce construction-generated fugitive dust emissions of PM_{10} and $PM_{2.5}$ through BMPs such as watering exposed surfaces two times per day, limiting vehicle speeds to 15 mph, minimizing equipment idling times, and maintaining all construction equipment. Therefore, with the implementation of Mitigation Measure AQ-1, impacts would be clearly reduced to **less than significant with mitigation incorporated**.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-significant impact. The project is located in a rural area within the incorporated limits of the city of San José, in Santa Clara County. As a part of the RCAN preserve, the project area is near any sensitive receptors that would be exposed to long durations of TAC exposure. The area does, however, provide equestrian and other recreational opportunities to visitors of the project area. Therefore, intermittent impacts from TAC exposure are assessed.

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. 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 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. 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 project area is not located within the vicinity of a sensitive receptors, 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

The project area is already a destination for recreation visitors. Project operations would generate no more than a low level of additional trips from slightly expanded maintenance activities and additional visitors attracted to the new recreational facilities. The project area would also not introduce any new stationary sources of TACs such as generators or smoke stacks. 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 absence of nearby sensitive receptors, dispersive properties of diesel PM, the relatively low mass diesel PM emissions that would be generated in one place during the construction of the project, and the relatively short construction period, project related TACs would not 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 impact. 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 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 (BAAQMD 2017). Open space recreational uses are not land uses that typically generate odors. Therefore, the 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?	☐	☒	☐	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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 2021 Land Cover and Habitat Survey Report for the project prepared by Ascent Environmental (Appendix B); record searches of the California Natural Diversity Database (CNDDB 2021a), California Native Plant Society, Rare Plant Program, and Inventory of Rare and Endangered Plants (CNPS 2021); and other relevant resources.

The analysis of biological resource impacts includes the disturbance footprint associated with the project and the standard development buffer used in the Santa Clara Valley Habitat Plan (Habitat Plan).

VEGETATION AND HABITAT TYPES

The project area is located in a rural area within RCAN (Figure 2-1) and is adjacent to existing outdoor recreational uses within the preserve. Elevation within the project area ranges from approximately 700 feet to 720 feet above sea level. The vegetation types located within and adjacent to the project area are discussed below and shown in Figure 3.4-1.

California Annual Grassland

California annual grassland is located throughout the project area on both the north and south sides of Llagas Creek between stands of oak woodland and mixed riparian woodland (Figure 3.4-1). The California annual grassland located between Casa Loma Road and Llagas Creek within the existing day use area of RCAN is regularly mowed; however, the grassland north of Casa Loma Road and south of Llagas Creek is relatively undisturbed and consists of annual grasses and forbs such as bristly dogtail grass (*Cynosurus echinatus*), slender oats (*Avena barbata*), Italian ryegrass (*Festuca perennis*), foxtail barley (*Hordeum murinum*), soft chess (*Bromus hordeaceus*), rose clover (*Trifolium hirtum*), tall sock-destroyer (*Torilis arvensis*), and redstem filaree (*Erodium cicutarium*).

Blue Oak Woodland

Blue oak woodland occurs adjacent to the project area on the north side of Casa Loma Road, and to the south of the project area. Blue oak (*Quercus douglasii*) is the dominant tree species in this land cover type and few individuals of other species are present. The understory of the blue oak woodland in the project area consists of mostly annual grasses with little shrub cover. Ground disturbance as a result of the project would not occur within or directly adjacent to blue oak woodland.

Mixed Oak Woodland

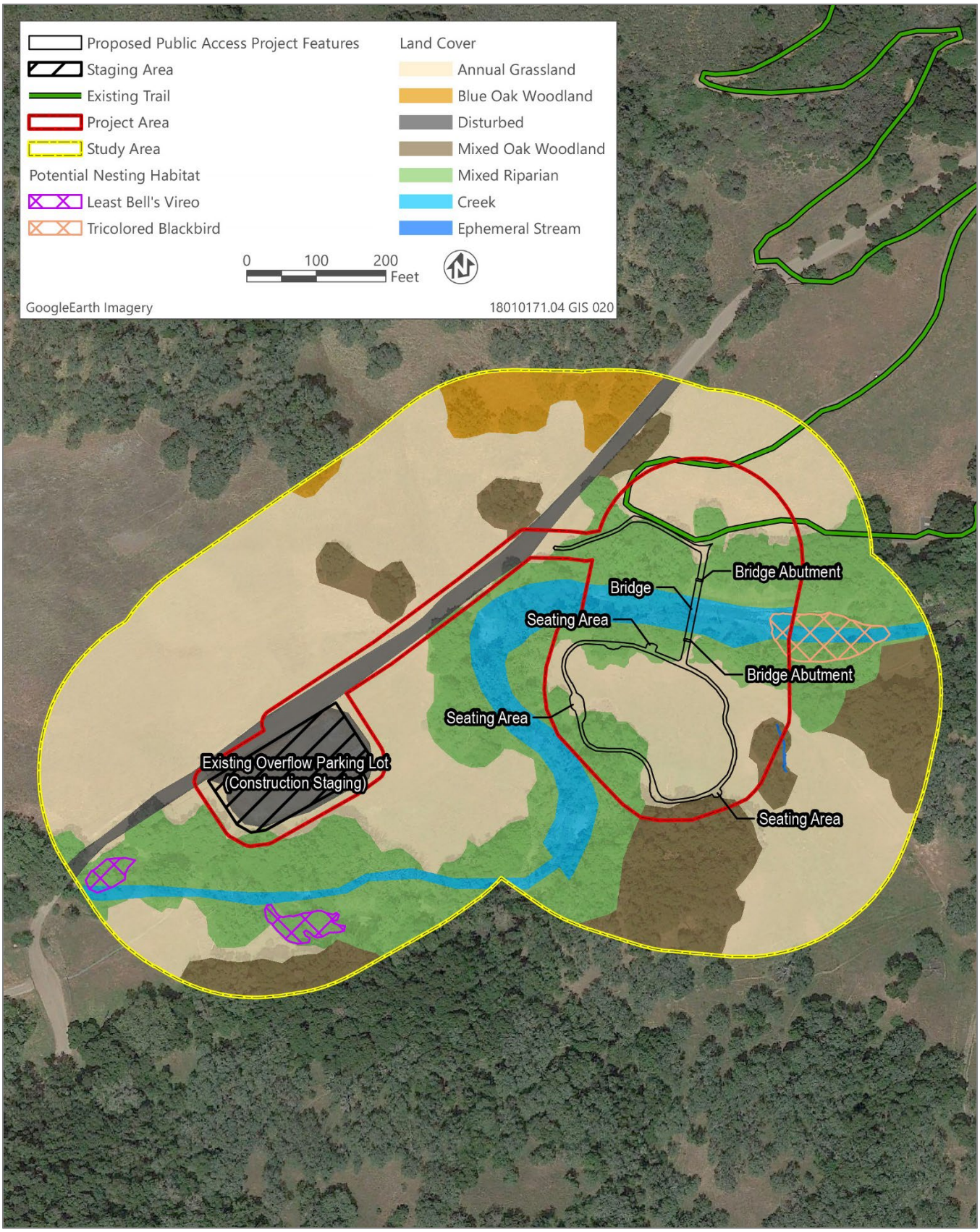
Mixed oak woodland occurs on both sides of Casa Loma Road north of Llagas Creek and on the south side of Llagas Creek. These stands of mixed oak woodland are located adjacent to mixed riparian woodland and continue upslope beyond the study area to the south. The mixed oak woodland in the study area is composed primarily of California laurel (*Umbellularia californica*), coast live oak (*Quercus agrifolia*), interior live oak (*Quercus wislizeni*), California buckeye (*Aesculus californica*), and blue oak.

Mixed Riparian Woodland

Mixed riparian woodland occurs along the portion of Llagas Creek that flows through the project area. The canopy of the mixed riparian woodland within the project area is composed of California laurel, California sycamore (*Platanus racemosa*), interior live oak, and other subdominant tree species. The understory consists of shrubs and forbs under a canopy of mature trees, with dense understory vegetation present where the tree canopy is open. Species present in the understory along Llagas Creek include willow (*Salix* spp.), poison oak (*Toxicodendron diversilobum*), California rose (*Rosa californica*), Himalayan blackberry (*Rubus armeniacus*), white alder (*Alnus rhombifolia*), blue elderberry (*Sambucus nigra*), and mugwort (*Artemisia douglasiana*).

Potential Serpentine Soils

A portion of the project disturbance footprint overlaps with a soil map unit that contains two percent serpentine soils throughout the unit (Appendix B). However, the soil map unit is large (47,696 acres), the major soil type in this map unit is derived from shale rather than serpentine, and the small proportion of serpentine in the map unit (i.e., two percent of the unit) may not occur in any one location and is unlikely to overlap with the project area. Furthermore, no serpentine bunchgrass habitat was observed in the study area, and no differences in plant species composition were observed between grassland, mixed oak woodland, and mixed riparian areas on or off this soil map unit during land cover and habitat surveys conducted in 2019, and protocol botanical surveys conducted in 2022 did not detect serpentine bunchgrass, serpentine endemics, or special-status plant species, including Habitat Plan covered plant species.



Source: Adapted by Ascent in 2019 and 2021.

Figure 3.4-1 Land Cover and Habitat in the Project Area

Riverine

Llagas Creek is a perennial creek that flows west to east though the project area (see Figure 3.4-1). Llagas Creek flows into Chesbro reservoir south and east of the study area and then into the Pajaro River. The dam at Chesbro reservoir is a barrier to anadromous fish movement into the portion of the creek within the study area; however, the creek is suitable fish habitat. The segment of Llagas Creek that runs through the study area is a braided channel with a mixed cobble and pebble substrate.

In addition to Llagas Creek, a small unnamed ephemeral stream is present within the study area (see Figure 3.4-1). This ephemeral stream originates upslope where the hillside cleaves, passes though California Annual Grassland, and dissipates downslope before reaching Llagas Creek. Vegetation in this drainage is dominated by upland grasses and forbs that are part of the California Annual Grassland land cover type (Appendix B). Due to its ephemeral nature and lack of connection with Llagas Creek, this ephemeral stream does not contain suitable fish habitat.

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 CEQA.
- Covered Species under the 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 with mitigation incorporated.

Special-Status Botanical Species

Record searches (CNDDB 2022, CNPS 2022), analysis of suitable habitat within the project area, and evaluation of other resources resulted in identification of six special-status plants with the potential occur or could occur in the

project area (see Table 3.4-1 for species names and blooming periods of these species). No special-status mosses, lichens, or fungi are known to occur or could occur. Five of these six species are not covered plants under the Habitat Plan. Fragrant fritillary (*Fritillaria liliacea*) a covered species under the Habitat Plan, and weak serpentine associate, was determined to have the potential to occur, although no evidence of serpentine soils was found in the study area, because the species is not restricted to serpentine habitats. Refer to Attachment A of Appendix B, "Special-Status Species Tables" for the legal status of these plant species. Although these six species have the potential to occur within the project area, no special status plant species were found within the survey area during the protocol-level surveys conducted on April 28 and June 24, 2022 (Appendix B).

Table 3.4-1 Special-Status Botanical Species with the Potential to Occur in the Project Area

Species	Potential Blooming Period[1]											
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Bent-flowered fiddleneck *Amsinckia lunaris*												
Western leatherwood *Dirca occidentalis*												
Fragrant fritillary[2] *Fritillaria liliacea*												
Arcuate bush-mallow *Malacothamnus arcuatus*												
Woodland woollythreads *Monolopia gracilens*												
Santa Cruz clover *Trifolium buckwestiorum*												

[1] The potential blooming period is the published blooming period based on recorded blooming for each species across its range and throughout time. Actual blooming periods of each species vary by year and across their ranges. The only way to know when a particular plant species is blooming in a given area is by visual confirmation of blooming in reference populations.

Note: (?) denotes a period when blooming may occur but is not typical.

Source: CNPS 2021.

The minor loss of or temporary disturbance to habitat associated with construction of the Llagas Creek Bridge, gathering and seating areas, trails, and other project elements would not result in a substantial reduction in the habitat for special-status plants, due to the relative abundance of undisturbed land cover of the same types within RCAN. Also, based on the results of the protocol survey conducted in 2022, which did not detect any special-status plant species, the construction of the project would not result in direct impacts to individual special-status plants. Therefore, the project would have a **less-than-significant** impact to special-status plants.

Special-Status Animal Species

The analysis also identified two special-status invertebrates, one special-status fish, seven special-status amphibians and reptiles, six special-status birds, and seven special-status mammals that are known to occur or could occur in the project area (Attachment A of Appendix B, "Special-Status Species Tables").

Crotch Bumble Bee

Crotch bumble bees (*Bombus crotchii*) have been recently recorded within Santa Clara County in the vicinity of the project (CNDDB 2022). The decline of native bees prompted the California Fish and Game Commission in 2019 to designate four bumble bee species, including Crotch bumble bee, as candidate species under CESA, granting them protection until its status is decided. Therefore, it is considered a special-status species for the purposes of this analysis.

Crotch bumble bee is a colonial nesting species that nests underground and may be found in grassland and oak woodland habitat within the project area. The species may use abandoned rodent burrows and similar features within suitable habitat for nest colonies. Solitary queens may overwinter under leaf litter or in small cavities a few

centimeters into loose soil. The flight season for Crotch bumble bee queens is from late February to late October, peaking in early April and July. The flight season for workers and males is from late March through September when the colony is active. Crotch bumble bees are generalist foragers that feed from open flowers with short corollas (Xerces 2018).

The construction of the project would not substantially reduce the locally available suitable habitat for Crotch bumblebee due the relatively small project impact area and the abundance of available habitat in RCAN. However, construction during the period when nests are present (March through September) in grassland and oak woodland habitat within the project area could result in the direct damage or destruction of Crotch bumble bee nest colonies, or removal of floral resources adjacent to the nest colony that could result in loss of the nest. The loss of a nest would have a substantial negative effect on the ability of the species to reproduce and maintain local populations, thereby restricting the range of the species. Therefore, the effect of the project on Crotch bumble bee would be a potentially significant impact that would be reduced to **less than significant with mitigation incorporated**.

Mitigation Measure BIO-1: Avoid Loss of Crotch Bumble Bee Nest Colonies

For any construction during the period when Crotch bumble bee nest colonies may be present (March through September), the Authority will implement the following measures.

- Prior to construction that occurs during the period of March through September, a preconstruction survey of the limit of disturbance within suitable habitat (grassland and oak woodland) will occur within 30 days of project construction to identify the location of active nest colonies.
- During preconstruction surveys, if Crotch bumble bee nest colonies are detected within the project area, they will be flagged and no ground disturbing activities will occur within 15 feet of the colony during March through September, or until the colony is no longer active (i.e., no bees are seen flying in or out of the nest for three consecutive days).
- To avoid loss of Crotch bumble bee nest colonies through removal of floral resources, within occupied habitat (following preconstruction survey requirements above to determine occupancy), vegetation removal during project construction will be conducted such that the entirety of floral resources within the project area are not removed during the period when colonies may be present (March through September), and undisturbed portions of occupied habitat are retained adjacent to disturbed areas to provide floral resources and refuge for Crotch bumble bees.

Significance after Mitigation

Implementation of Mitigation Measure BIO-1 would avoid adverse effects on the Crotch bumble bee by avoiding the disturbance and destruction of nest colonies through preconstruction surveys and avoidance as well as prohibiting ground disturbing activities in the vicinity of the nest during the season when colonies are active. This measure would also preserve adequate nectar resources around active colonies during the flight period to support reproduction. Therefore, with implementation of Mitigation Measure BIO-1, the impact to Crotch bumble bee would be clearly reduced to **less than significant with mitigation incorporated**.

Monarch Butterfly

Monarch butterfly is a candidate for listing under the federal ESA. Due to documented decreases in overwintering populations, USFWS 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 due to the distance from the coast. Adult monarch butterflies require a diversity of nectar resources for feeding during migration and breeding and milkweed host plants (*Asclepias* spp.) to complete their lifecycle (USFWS 2020b). Although unlikely due to the limited habitat present, milkweed plants could be present in the disturbance footprint at the time of construction. Grading and excavation for construction of the project could remove milkweed plants if present; however, this would not be substantial given the small size of the project (0.048 acre of temporary disturbance and 0.16 acre of permanent project features). Furthermore, there is an abundance of potential

milkweed habitat throughout RCAN (approximately 5,428 acres). Thus, given that no suitable overwintering habitat is present in the project area, and that only a potential small number of milkweed plants could be removed, the impact of the project on the local and regional population of monarch butterfly would be **less than significant.**

Monterey Roach

Llagas Creek provides suitable habitat for Monterey roach (*Lavinia symmetricus subditus*), a CDFW Species of Special Concern. Monterey roach has been documented to occur downstream from the project area and upstream from Chesbro Dam, and there are no barriers to movement of the species from downstream into the project area above the dam. Therefore, the species may be present within the project area. The project would not result in permanent structures below the OHWM of Llagas Creek; therefore, the project would not result loss of habitat for Monterey roach. The bridge would be 8 feet wide and although it would result in shading of the creek, the shaded area would not impact a substantial portion of the creek within the project area and would not result in a substantial impact to suitable habitat for Monterey roach.

Construction of the bridge may require that a crew truck and mini excavator cross the existing ford to access the southern bank of the creek. If crossing the ford is required, the crossing would only occur during the dry period of the year when water is not present on the ford. Therefore, there would be no direct impacts to Monterey roach from this activity. The vehicles that would use the ford are of similar weight to vehicles that currently use the ford, and the ford would be abandoned once construction is complete; therefore, the project is not anticipated to have a substantial adverse effect on habitat within the ford.

Other construction activities could result in runoff of sediment into Llagas Creek which could degrade habitat for Monterey roach; however, temporary erosion control measures would be installed prior to construction (refer to Section 2.4, "Construction Activities and Timing"), which would avoid and minimize sediment flow to the creek. In addition, all disturbed portions of the project area would be reseeded with a native plant seed mix following construction, and all runoff from the trails and seating areas would disperse into surrounding natural areas to percolate into the ground (refer to Section 2.3.3, "Stormwater Drainage and Landscaping"). The Authority is also 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 (refer to Section 2.7, "Habitat Plan Conditions on Covered Activities"). Condition 3 of the Habitat Plan requires measures to protect water quality, such as preventing the accidental release of fuel and lubricants and minimizing site erosion. Condition 4 requires minimization of sediment/pollutant discharge into waterways, disturbance of earth and riparian vegetation, and alteration of the hydrologic and hydraulic characteristics of water bodies. Condition 7 requires that runoff from impermeable surfaces be directed to natural or landscaped areas. Condition 11 specifies setbacks and buffer zones from streams based on the projects location in relation to the urban service area. These permit conditions would protect water quality in Llagas Creek from potential adverse effects, which would further protect Monterey roach habitat.

The project would avoid direct impacts to Monterey roach, would not shade a substantial portion of the creek, would install of temporary erosion control measures, would reseed disturbed areas, would disperse runoff from trails, and the Authority would be required to implement the conditions of the PSE permit, including Condition 3, 4, 7, and 11. Therefore, the project would not substantially adversely affect Monterey roach or its habitat, and the impact of the project would be **less than significant**.

Habitat Plan-Covered Special-Status Amphibians and Reptiles

Four special-status amphibian and reptile species, which are all covered under the Habitat Plan, may occur within the project area. Foothill yellow-legged frog (*Rana boylii*), listed as endangered under CESA, is known to occur within the study area. California red-legged frog (*Rana draytonii*), listed as threatened under ESA, and the Central California Distinct Population Segment of California tiger salamander (*Ambystoma californiense*), listed as threatened under both CESA and ESA, could also occur based on habitat and range of the species. Western pond turtle (*Actinemys marmorata*), a CDFW species of special concern could occur within the project area. Western pond turtles use both aquatic and upland habitat and may be found within Llagas Creek or nesting within 325 feet of the creek.

The project would not result in permanent structures below the OHWM of Llagas Creek and would avoid the small ephemeral stream within the project area; therefore, the project would not result in permanent impacts on aquatic

habitat for these species. However, construction of the bridge may require that a crew truck and mini excavator cross the existing ford to access the southern bank of the creek. If crossing the ford is required, the crossing would only occur during the dry period of the year when water is not present on the ford. The vehicles that would use the ford are of similar weight to vehicles that currently use the ford, and the ford would be abandoned once construction is complete; therefore, the project is not anticipated to have a substantial adverse effect on habitat within the ford.

Ground-disturbing and soil destabilizing construction activities could result in runoff of sediment into aquatic habitat which could result in indirect effects through degradation of habitat for these species. However, temporary erosion control measures would be installed prior to construction (refer to Section 2.4, "Construction Activities and Timing"), which would avoid and minimize sediment flow to the creek during construction. In addition, all disturbed portions of the project area would be reseeded with a native plant seed mix following construction, which would help to stabilize disturbed areas, and all runoff from the trails and gathering areas would disperse into surrounding natural areas to percolate into the ground (refer to Section 2.3.3, "Stormwater Drainage and Landscaping"). The Authority is also 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 (refer to Section 2.7, "Habitat Plan Conditions on Covered Activities"). Condition 3 of the Habitat Plan would require measures to protect water quality, such as preventing the accidental release of fuel and lubricants and minimizing site erosion. Condition 4 requires minimization of sediment/pollutant discharge into waterways, disturbance of earth and riparian vegetation, and alteration of the hydrologic and hydraulic characteristics of water bodies. Condition 7 requires that runoff from impermeable surfaces be directed to natural or landscaped areas and requires revegetation of all disturbed soils with native plants. Condition 11 specifies setbacks and buffer zones from streams based on the projects location in relation to the urban service area. These permit conditions would protect water quality in Llagas Creek, minimize disturbance, stabilize disturbed areas of the project area, and restore vegetation within the disturbance footprint, which would further reduce impacts to aquatic and riparian habitats of foothill yellow-legged frog, California red-legged frog, California tiger salamander, and western pond turtle. In addition to specific project conditions outlined in the PSE permit, participation in the Habitat Plan by the Authority supports the Habitat Plan through maintaining a system of preserves throughout Santa Clara County, thereby reducing adverse impacts to regional populations of covered species through development activities. The avoidance of aquatic habitat, the use of temporary erosion control measures during construction, reseeding of disturbed areas, the direction of runoff from impervious into areas to percolate into the ground, and participation in the Habitat Plan as a PSE would avoid and minimize potential adverse effects to foothill yellow-legged frog, California red-legged frog, California tiger salamander, and western pond turtle. Therefore, the project would not substantially affect these species or their habitat, and the impact on these species would be **less than significant**.

<u>Other Special-Status Amphibians and Reptiles</u>

Two other special-status amphibians could also occur in the project area, California giant salamander (*Dicamptodon ensatus*) and Santa Cruz black salamander (*Aneides niger*). Both California giant salamander and Santa Cruz black salamander are CDFW species of special concern. In addition, another special-status reptile, coast horned lizard (*Phrynosoma blainvillii*), a CDFW species of special concern, may also occur in the project area. These three species have been documented in the project region, the project area is within the range of each species, and there is suitable habitat present in the project area (Attachment A of Appendix B). While the project would temporarily and permanently remove habitat for these species, the loss of habitat would not be substantial and there is abundant available habitat within RCAN. In addition, 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 (refer to Section 2.7, "Habitat Plan Conditions on Covered Activities"). Condition 3 of the Habitat Plan would require measures to protect water quality, such as preventing the accidental release of fuel and lubricants and minimizing site erosion. Condition 4 requires minimization of sediment/pollutant discharge into waterways, disturbance of earth and riparian vegetation, and alteration of the hydrologic and hydraulic characteristics of water bodies. Condition 7 requires that runoff from impermeable surfaces be directed to natural or landscaped areas, and require revegetation of all temporally disturbed soils with native plants. Condition 11 specifies setbacks and buffer zones from streams based on the projects location in relation to the urban service area. These permit conditions would protect water quality in Llagas Creek from potential adverse effects, minimize disturbance, and restore

vegetation within the disturbance footprint, which would further reduce impacts to the habitat of these species. However, if California giant salamander, Santa Cruz black salamander, and/or coast horned lizard are present in the project area during construction, ground disturbing activities, vehicle use, and other construction activities could result in injury or death of individuals. Therefore, the effect of the project on California giant salamander, Santa Cruz black salamander, and coast horned lizard would be a potentially significant impact that would be reduced to **less than significant with mitigation incorporated**.

Mitigation Measure BIO-2: Avoid California Giant Salamander, Santa Cruz Black Salamander, and Coast Horned Lizard Mortality:

The following measures will be implemented to avoid or minimize impacts to California giant salamander, Santa Cruz black salamander, and coast horned lizard.

- A speed limit of 15 miles per hour will be maintained along the portion of Casa Loma Road and other portions of the project area for construction vehicles during periods of construction.
- No more than 14 days prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist will conduct a preconstruction survey of the project area. The project biologist will investigate all portions of the project area that are suitable habitat for California giant salamander, Santa Cruz black salamander, and coast horned lizard. If special-status amphibians are detected during preconstruction surveys, the Authority will conduct biological monitoring during use of heavy equipment to stop work if individual special-status amphibians/reptiles are present within the project area. The animal will be allowed to leave the work area on its own; however, animals may be moved to outside the project area by a qualified biologist with the appropriate permits, if it does not leave on its own.
- The Authority will conduct worker environmental awareness training to educate workers in the identification of special-status amphibians and to stop work and notify the Authority if individual special-status amphibians/reptiles are present within the project area.

Significance after Mitigation

Implementation of Mitigation Measure BIO-2 would avoid adverse effects on California giant salamander, Santa Cruz black salamander, and coast horned lizard by requiring a construction speed limit of 15 miles per hour, conducting a preconstruction survey of the project area, conducting worker environmental awareness training and stopping work if an individual special-status amphibian/reptile is present. Therefore, with implementation of Mitigation Measure BIO-2, the impact to California giant salamander, Santa Cruz black salamander, and coast horned lizard would be clearly reduced to **less than significant with mitigation incorporated**.

Least Bell's Vireo

Least Bell's vireo (*Vireo bellii pusillus*), which is listed as endangered under CESA and ESA, is a covered species under the Habitat Plan. Least Bell's vireo nests in early successional vegetation typically dominated by willow shrubs and other thick understory vegetation. While there are small patches of dense willows, poison oak, and Himalayan blackberry within 250 feet of the project area (Figure 3.4-1), this habitat is not expected to support nesting least Bell's vireo. This determination is based on the relatively small size of the habitat patches, the lack of recorded occurrences near the project area, existing disturbance to this sensitive species from regular public access, the location of the project outside of the range of the species (USFWS 2019), and the distance (16.5 miles) to the nearest record of nesting (CNDDB 2021a). Although it is unlikely that least Bell's vireo would nest within or near the project area during construction and no suitable nesting habitat is proposed for removal, if active nests are present near the project, loss of the nests including eggs and young could occur due to noise and other human disturbance. However, the project is within an area where surveys for the species are required as a Condition of Approval in the Habitat Plan (i.e., Condition 16), along with the requirement that no work would be performed within 250 feet of active least Bell's vireo nests during the breeding season (March 15 through July 31; refer to Section 2.7, "Habitat Plan Conditions on Covered Activities"). Implementation of Condition 16, as required for the project by participation in the Habitat Plan as a PSE, would avoid loss of least Bell's vireo nests including eggs and young. Therefore, the impact on this species would be **less than significant**.

Tricolored Blackbird

Tricolored blackbird (*Agelaius tricolor*), which is listed as threatened under CESA, is a covered species under the Habitat Plan. While there are no previous records of tricolored blackbird nesting along the portion of Llagas Creek within the project area, the nearest documented occurrence of tricolored blackbird nesting is only approximately 2.5 miles north near Calero Reservoir (CNDDB 2021b). Nesting habitat for tricolored blackbird includes flooded, thorny, or spiny vegetation (e.g., cattails, bulrushes, willows, blackberries, thistles, or nettles). Potentially suitable nesting habitat that consists of Himalayan blackberry and poison oak is located just downstream from the bridge location (refer to Figure 3.4-1). This potentially suitable habitat would not be directly disturbed by project construction. However, if tricolored blackbirds are actively nesting within 250 feet of project activities during construction, loss of the nests including eggs and young could occur due to noise and other human disturbance. To avoid and minimize impacts, surveys for nesting tricolored blackbird are required as a condition of the PSE permit under the Habitat Plan when potential habitat is located within 250 feet of disturbance (i.e., Condition 17), along with a requirement that no work be performed within 250 feet of active tricolored blackbird nests during the breeding season (March 15 through July 31; refer to Section 2.7, "Habitat Plan Conditions on Covered Activities"). With the avoidance of direct habitat removal and implementation of Condition 17 as required for the project by participation in the Habitat Plan as a PSE, the loss of tricolored blackbird eggs and young would be avoided. Therefore, the impact on this species would be **less than significant**.

Other Special-Status Birds

The project area contains foraging habitat for golden eagle (*Aquila chrysaetos*), a CDFW fully protected species, and the species has been documented within RCAN (Authority 2010). The largest trees within the project area may be suitable for nesting; however, golden eagles are sensitive to human disturbance and the adjacent existing recreational and other human activity makes it unlikely that golden eagles would nest in or near the project area.

The project area contains both suitable nesting and foraging habitat for three CDFW species of special concern: loggerhead shrike (*Lanius ludovicianus*), purple martin (*Progne subis*), and yellow-breasted chat (*Icteria virens*). Suitable nesting and foraging habitat are also present for the CDFW fully protected white-tailed kite (*Elanus leucurus*).

Construction of the project would result in temporary disturbance and permanent removal of foraging and nesting habitat for these special-status birds; however, this reduction in habitat would not be substantial due the small impact area (0.048 acre of temporary disturbance and 0.16 acre of permanent new project features) and the abundance of available habitat in the vicinity of the project area. However, construction of the project could result in the disturbance of active nests of loggerhead shrike, purple martin, yellow-breasted chat, and white-tailed kite that nest within or adjacent to the project area. This nest disturbance could result in loss of nests, eggs, and young, which is a potentially significant impact on the local populations of these species that would be reduced to **less than significant with mitigation incorporated**.

Mitigation Measure BIO-3: Avoid Special-Status Bird Nests, Common Raptor Nests, and Nests of Other Common Birds

To avoid or minimize impacts to special-status birds, common raptors, and other nesting birds, the Authority will implement the following measures.

- To the extent feasible, the Authority will schedule work after August 31 or before January 1 to avoid the nesting period for special-status birds, common raptors, and other nesting birds.
- If work is required during the nesting season (January 1 to August 31), a qualified biologist will conduct a preconstruction survey to identify raptor nests within 500 feet and other bird nests within 50 feet of the project area. The survey will be conducted no more than 14 calendar days before the beginning of construction.
- If non-raptor bird nests are located within 50 feet of the project area, no construction will occur within 50 feet of the nest during the nesting season or until the young have fledged, as determined by a qualified biologist. If raptor nests are located within 500 feet of the project area, no construction will occur within 500 feet of the nest during the nesting season or until the young have fledged, as determined by a qualified biologist.

Significance after Mitigation

The implementation of Mitigation Measure BIO-3 would avoid and minimize adverse effects on loggerhead shrike, purple martin, yellow-breasted chat, and white-tailed kite by avoiding construction during the nesting season if feasible, conducting surveys for nests prior to project construction that occurs within the nesting season, and applying non-disturbance buffers around active nests that are present within or adjacent to the Project area. Therefore, with the implementation Mitigation Measure BIO-3, the impact to loggerhead shrike, purple martin, yellow-breasted chat, and white-tailed kite would be clearly reduced to **less than significant with mitigation incorporated**.

Special-Status Bats

While Townsend's big-eared bat (*Corynorhinus townsendii*) and western mastiff bat (*Eumops perotis californicus*) may forage in the area, typical roosting habitat for these species is not found in or adjacent to the project area. However, pallid bat (*Antrozous pallidus*), a CDFW species of special concern, may roost in large trees within or adjacent to the project area. Construction of the project would result in the permanent disturbance of foraging habitat for special-status bats; however, this reduction in habitat would not be substantial due the small project impact area (0.048 acre of temporary disturbance and 0.16 acre of new permanent project features). Furthermore, there is an abundance of available foraging habitat in the vicinity of the project area and throughout RCAN. While tree removal is not proposed as part of the project, tree trimming and pruning may occur. If tree trimming or pruning is performed on a tree containing a pallid bat roost or if construction activities occur within 50 feet of a roost during the maternity roosting season (April 1 through August 31), this disturbance could result in bats abandoning the roost, which could result in injury or death of young bats. The disturbance of a pallid bat maternity roost could result in a potentially significant effect on the local population that would be reduced to **less than significant with mitigation incorporated**.

Mitigation Measure BIO-4: Avoid and Minimize Impacts to Pallid Bat Maternity Roosts

To avoid and minimize impact to pallid bat maternity roosts the Authority will implement the following measures.

- If the Authority performs work during the period of April 1 through August 31, preconstruction bat surveys will be required. Within 14-days prior to initiating work, a qualified bat biologist will inspect the area of disturbance and adjacent areas (within 50 feet) for bat roosts (most likely mature trees in the riparian and mixed oak woodland portions of the project area). Surveys will consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats within potential roosts.
- During preconstruction surveys, if no bat roosts are found, then no further mitigation will be required. If evidence of bat use is observed, the number and species of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts but are not required. If roosts of pallid bats are determined to be present within the project area, direct disturbance to the roost, such as work within 50 feet of the roost tree, or pruning of trees occupied by bats, will be avoided during the breeding season (April 1 through August 31).

Significance after Mitigation

The implementation of Mitigation Measure BIO-4 would avoid and minimize adverse effects on pallid bat maternity roosts by conducting surveys for roosts prior to project construction and avoiding roosts when present in the project area during the breeding season. Therefore, with the implementation Mitigation Measure BIO-4, the impact to pallid bat maternity roosts would be clearly reduced to **less than significant with mitigation incorporated**.

American Badger and Ringtail

Suitable habitat is present within the study area for American badger (*Taxidea taxus*), a CDFW species of special concern, and ringtail (*Bassariscus astutus*), a CDFW fully protected species, and both have been documented in the project region. American badgers are often found in open stages of shrub, woodland, and herbaceous habitats and dig burrows for shelter and reproduction (CWHR 1990). Within maternity dens, pups are present between mid-February and early July. Ringtail is most often associated with riparian and scrub habitats (CWHR 2005); however, may occur in other habitats with dense brush and other cover. Denning occurs in hollow trees, logs, abandoned woodrat nests, and other similar structures. Young ringtails may be found in maternity dens between April 15 and June 30.

Construction of the project would result in temporary disturbance and permanent removal of habitat for American badger and ringtail; however, this reduction in habitat would not be substantial due the small project impact and the abundant available habitat in RCAN. However, the project could disturb active dens of these species if any are present within or adjacent to the project area during construction. The removal of active dens could result in injury or death of American badger individuals year-round; however, during the non-breeding season adult ringtails will sense noise and vibration from construction and likely flee the immediate vicinity (Wyatt, pers. comm., 2021). Noise and vibration from construction activities would not likely result in substantial disturbance of ringtail maternity dens, as females in maternity dens with immobile kits are not likely to move out of the den when disturbed (Wyatt pers. comm. 2021); however, noise and vibration could result in the disturbance of American badger maternity dens if disturbance occurs during the season when young may be in the den. The disturbance of American badger maternity dens could result in the injury or death of young if the female abandons the den, or is forced to leave the den for extended periods, which is a potentially significant impact on the local populations of these species that would be reduced to **less than significant with mitigation incorporated**

Mitigation Measure BIO-5: Avoid American Badger and Ringtail Dens

To avoid and minimize impacts to other sensitive species, the Authority will implement the following measures.

- No more than 14 days prior to ground disturbance or vegetation clearing, a qualified biologist will conduct preconstruction surveys for occupied American badger and ringtail den sites within 100 feet of the project area.
- If any occupied American badger dens are located during preconstruction surveys, no work will 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) to the extent feasible.
- If any occupied ringtail dens (e.g., brush piles, appropriately sized hollow logs, and hollow trees with signs of use) are located during preconstruction surveys, a 100-foot buffer during the period May 1 through June 30 will be required, within which construction will not occur to the extent feasible. No buffer is required during the non-breeding season.
- If American badger or ringtail dens cannot be avoided and must be removed by project construction, further consultation with the Habitat Agency and CDFW will be required to determine the appropriate avoidance and minimization measures for ringtail. The Habitat Agency and CDFW-directed measures will be implemented.

Significance after Mitigation

The implementation of Mitigation Measure BIO-5 will avoid and minimize adverse effects on American badger and ringtail by requiring preconstruction surveys for American badger and ringtail dens prior to construction, and the application of 50-foot non-disturbance buffers during the non-breeding season and 100-foot buffers during the breeding season to avoid and minimize direct and indirect disturbance of dens. Therefore, with the implementation Mitigation Measure BIO-5, the impact to American badger and ringtail would be clearly reduced to **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 mountain lions have been documented to occur in the region (Authority and CBI 2017) and project vicinity (Santa Cruz Puma Project 2021). The project area and vicinity contain suitable foraging habitat for mountain lion; however, the project area and vicinity are not likely to be used by mountain lions as denning or nursery habitat due to the existing recreational use and the sensitivity of the species to human presence near den sites. Construction of the project could result in the permanent and temporary disturbance of potential habitat for mountain lion; however, this reduction in habitat (0.048 acre of temporary disturbance and 0.16 acre of new permanent project features) would not be substantial. In addition, there is an abundance of available habitat in the vicinity of the project area, and the site isn't likely used for denning or nursery habitat due to existing human presence. Furthermore, the minor, localized disturbance would not create a substantial barrier to mountain lion movement during foraging activities. Therefore, the impact of the project on the Central Coast Evolutionary Significant Unit of mountain lion would be **less than significant**.

San Francisco Dusky-Footed Woodrat

Mixed riparian and oak woodland habitats within the study area are suitable for San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), a CDFW species of special concern, and they have been documented to occur near the project area. San Francisco dusky-footed woodrat builds large nests of sticks and other similar materials that may be used by multiple generations of woodrats, and competition for nests can be substantial (CWHR 2008). Most nests are built on the ground surface but may also be built above ground in dense shrubs and low in the hollows of trees. Construction of the project would result in the permanent removal and temporary disturbance of habitat for San Francisco dusky-footed woodrat; however, this reduction in habitat (0.048 acre of temporary disturbance and 0.16 acre of new permanent project features) would not be substantial. Furthermore, there is an abundance of available habitat in the vicinity of project area and throughout RCAN. In addition, no dusky-footed woodrat nests were observed during assessment of the land cover within the project area (Appendix B-1). However, if dusky-footed woodrat nests occur within the project area and are removed entirely by project construction, this could have a substantial adverse effect on the local population due to the limited number of nests in any location. The removal or disturbance of nests could also result in the injury or death of individual woodrats, and if disturbance or removal occurs during the season when young are in the nest (April through July), injury or death of young woodrats could also occur. The injury or death of individuals and young would have a substantial adverse effect on the local population. Therefore, the project would result in a potentially significant impact to San Francisco dusky-footed woodrats that would be reduced to **less than significant with mitigation incorporated**.

Mitigation Measure BIO-6: Avoid and Minimize Impacts to San Francisco Dusky Footed Woodrats

To avoid and minimize impacts to San Francisco dusky footed woodrat, the Authority will implement the following measures.

- Prior to removal of any vegetation within riparian or mixed oak woodland and within 14 days of the start of work, a qualified biologist will conduct a preconstruction survey for woodrat nests within the area to be disturbed. If no woodrat nests are found, no further mitigation would be necessary.
- During preconstruction surveys, if woodrat nests are found, they will be avoided if possible and a minimum non-disturbance buffer of 10 feet will be established around the nest(s). This buffer may be adjusted in consultation with CDFW.
- If the nests cannot be avoided, the Authority will consult with CDFW in areas where removal of San Francisco dusky-footed woodrat nests is required. Consultation will occur prior to removal of the nests. Actions needed to protect woodrat nests will be determined in consultation with CDFW and may include the live capture and relocation of woodrats to suitable adjacent habitats and removal and reconstruction of nests. If performed, trapping activities will occur prior to April and after July each year to prevent impacts to woodrats rearing young or young woodrats. Nest middens will be dismantled by hand under the supervision of a biologist and nest material will be moved to suitable adjacent areas that will not be disturbed by project activities.

Significance after Mitigation

Implementation of Mitigation Measure BIO-6 will avoid and minimize adverse effects on San Francisco dusky-footed woodrat by requiring surveys for woodrat nests prior to construction and avoiding nests when present in the project area or consulting with CDFW to determine measures to remove and reconstruct nests outside of the limit of work for the project. Therefore, with the implementation Mitigation Measure BIO-6, the impact to San Francisco dusky-footed woodrat would be clearly reduced to **less than significant with mitigation incorporated**.

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 under the Migratory Bird Treaty Act. Construction of the project could result in the disturbance or destruction of nests of common raptors and other nesting birds that may nest within the project area. Disturbance of the nests of

common raptors and other nesting birds could occur and would be a potentially significant impact on the local and regional populations of these species that would be reduced to **less than significant with mitigation incorporated.**

Significance after Mitigation

The implementation of Mitigation Measure BIO-3 will avoid and minimize adverse effects on common raptors and other nesting birds by avoiding construction during the nesting season if feasible, requiring surveys for nests prior to project construction that occurs within the nesting season, and applying non-disturbance buffers around active nests that are present within or adjacent to the project area. Therefore, with the implementation Mitigation Measure BIO-3, the impact common raptors and other nesting birds would be clearly reduced to **less than significant with mitigation incorporated**.

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 impact. Construction of the project would occur within riparian habitat and oak woodland, which are given special consideration under the Habitat Plan and are defined as sensitive natural communities in this analysis. In addition, the riparian habitat along Llagas Creek is regulated by CDFW under Section 1602 of the California Fish and Game Code, which provides for the protection of fish, wildlife, and native plant resources. Construction of the project would not result in removal of trees within the riparian corridor along Llagas Creek or oak woodland habitat; however, tree trimming and pruning could occur. Vegetation removal within riparian or oak woodland habitat would be limited and would not cause a change to habitat type or function. Additionally, a portion of the existing barbed wire fencing would be realigned along the northwest side of the bridge to allow for the expansion of riparian corridor along Llagas Creek. The area is currently grazed and understory riparian vegetation is not present in this area. Once the fence is realigned, approximately 1/10th acre of riparian vegetation would be allowed to naturally re-establish over time.

Temporary erosion control measures would be installed prior to construction (refer to Section 2.4, "Construction Activities and Timing"), which would avoid or minimize erosion and sediment flow during construction. All disturbed portions of the project area would be reseeded with a native plant seed mix following construction, and all runoff from the trails and gathering areas would disperse into surrounding natural areas to percolate into the ground (refer to Section 2.3.3, "Stormwater Drainage and Landscaping"). In addition, the Authority would submit a Streambed Alteration Notification to CDFW. If the project is determined to be subject to CDFW jurisdiction under Section 1602, the Authority would abide by the conditions of any executed Streambed Alteration Agreement.

With the avoidance of tree removal, inclusion of project design elements to restore disturbed areas and control erosion, removing grazing from a portion of the riparian zone, and compliance with a Lake and Streambed Alteration Agreement if required, the impact to riparian and oak woodland habitats 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 impact. Llagas Creek and the unnamed ephemeral stream located within the project area are both potentially jurisdictional waters of the state and waters of the United States. The project would not result in dredging or fill below the OHWM of Llagas Creek; although the existing ford may be used to cross the creek during construction. If required for access to the southern bank of Llagas Creek, a crew truck and mini excavator would cross the existing ford. Any crossing would only occur during the dry period of the year when water is not present on the ford, the vehicles that would cross are of similar weight to vehicles that currently use the ford, and the ford would be abandoned after construction of the bridge is complete; therefore, the project would not result in substantial direct impacts to the streambed of Llagas Creek itself. Similarly, the project would avoid working within the unnamed ephemeral stream, and no direct impacts would occur to that feature. Ground-disturbing construction activities would occur within the bank of the stream, above high water, and could result in destabilization of soils and

associated runoff and sedimentation, which could indirectly affect watercourses in the project area by the addition of sediment. However, temporary erosion control measures would be installed prior to construction such as straw wattles and silt fencing (refer to Section 2.4, "Construction Activities and Timing"), which would avoid and minimize erosion and sedimentation that could potentially degrade protected waters during construction. In addition, all disturbed portions of the project area would be reseeded with a native plant seed mix following construction, and all runoff from the trails and gathering areas would disperse into surrounding natural areas to percolate into the ground (refer to Section 2.3.3, "Stormwater Drainage and Landscaping"). The Authority is also 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 (refer to Section 2.7, "Habitat Plan Conditions on Covered Activities"), including Condition 3, which would require measures to protect water quality, such as preventing the accidental release of fuel and lubricants and minimizing site erosion. Condition 4 requires minimization of sediment/pollutant discharge into waterways, disturbance of earth and riparian vegetation, and alteration of the hydrologic and hydraulic characteristics of water bodies. Condition 11 specifies setbacks and buffer zones from streams based on the projects location in relation to the urban service area. The implementation of Condition 3, 4, and 11 would minimize disturbance and further avoid and minimize potential runoff impacts to Llagas Creek and the unnamed ephemeral stream. In addition, the Authority would submit a Streambed Alteration Notification to CDFW for work within the bank of Llagas Creek. If the project is determined to be subject to CDFW jurisdiction under Section 1602, the Authority would abide by the conditions of any executed Streambed Alteration Agreement.

Therefore, with avoidance of dredging, fill, or other substantial direct impacts to Llagas Creek and the unnamed ephemeral stream; the restoration of disturbed areas; dispersal of runoff from trails and other areas; use of temporary erosion control; Condition 3, 4, and 11 the Habitat Plan PSE permit; and the conditions of any executed Streambed Alteration Agreement the impact to state or federally protected wetlands and other 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 impact. The project area does not contain suitable habitat to support wildlife nursery sites, such as bird colonies or rookeries. However, the upland habitat within the project area and Llagas Creek provide landscape linkages (Santa Clara County et al. 2012a) that are important to the movement of native resident and migratory wildlife species. While the project may temporarily restrict movement of wildlife through the project area during the hours when construction is occurring (between 7:00 a.m. and 7:00 p.m.), this would not have a substantial adverse effect on wildlife movement through the area because construction would not occur at dawn, dusk, and night when many wildlife species are most active. Additionally, construction would be temporary, lasting up to six months, and the construction footprint is relatively small when compared to the habitat available for wildlife movement within RCAN. The construction of the bridge over Llagas Creek would occur during the historically dry period for Llagas Creek, any crossing of the ford for construction would occur when the ford is dry, and all permanent disturbance would be above the OHWM of the creek; therefore, construction is not anticipated to result in a barrier to movement of aquatic organisms within the creek. In addition, other features of the project, (i.e., trails, seating areas, fencing) would not be tall or continuous enough to prevent the passage of wildlife though the project area. The realignment of existing fencing along the northwest side of the bridge would not create a new barrier to movement and would allow for the expansion of riparian corridor, which would be a benefit to native wildlife movement. Therefore, the project would not interfere substantially with fish or wildlife movement, 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?

No impact. The project is located within the city of San José, and the project would be subject to the policies in the City of San José General Plan (City of San José 2018) for the protection of special-status species, sensitive communities and riparian habitats, and waters. The potential for adverse effects on special-status species, sensitive

communities and riparian habitats, and waters are addressed in checklist questions a), b), and c) respectively. Because the project would not result in any significant and unavoidable adverse effects to any of these resources, it would be consistent with the protections required by the General Plan. The City of San José Tree Ordinance applies to trees on private property; however, the project would occur on land owned by the Authority (i.e., public lands). Therefore, the tree ordinance would not apply to the pruning and trimming proposed by the project. Therefore, the project would have **no impact**.

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

No impact. The 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). 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 Habitat Plan Conditions outlined in the PSE permit as a part of the project. 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?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Substantially disturb human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

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 and Paleontological Resources Inventory and Effects Assessment Report was prepared for the project by Natural Investigations Company (NIC) (NIC 2019). The report contains confidential, sensitive information regarding the nature and location of archaeological sites. Public access to the report is restricted per Section 304 of the National Historic Preservation Act; Section 9(a) of the Archaeological Resources Protection Act; Executive Order 13007; and is exempt from the California Public Records Act under Government Code Section 6254.10. The project area was historically occupied by the tribelets of the Costanoan linguistic group, known today as the Ohlone. Neighboring groups included the Coast Miwok north across the Carquinez Strait, the Miwok and Northern Valley Yokuts to the east, and the Salinan and Esselen to the south.

Traditional Ohlone lifeways were altered drastically beginning in the late 1700s and early 1800s with the establishment of presidios at Monterey and San Francisco by the Spanish military and of seven Franciscan missions within Ohlone territory (Levy 1978:486-487). Following the movement by many Ohlone to the missions, large-scale epidemics decimated the mission population and those who had remained in their villages (NIC 2019). It is estimated that the combined Ohlone population fell from a pre-contact total of 10,000 down to 2,000 by the end of the mission period in 1834 (Levy 1978:486).

During the mission period, the Santa Clara Valley was prime agricultural land, due to excellent soil, the mild climate, and an abundant supply of fresh water (Hoover et al. 2002:423-424). In 1777, Mission Santa Clara de Asís, the eighth of the 21 California missions, was established on the west bank of the Guadalupe River, but due to intermittent

flooding and earthquakes the mission was relocated to its current location within the Santa Clara University campus in the City of Santa Clara.

During the Mexican Period (1822–1848) which followed the establishment of Spanish missions, the Ohlone introduced the Spanish settlers in the Santa Clara Valley to cinnabar, an ore that contains mercury. In 1842, Mexican Governor Alvarado made several land grants in this area, now known as the Cinnabar Hills. The New Almaden mine, named in 1846 after a mine in Spain, soon became one of the most productive mercury (quicksilver) mines in the world, supplying mercury for the reduction of gold ore. Historic maps show the location of the mine, a school, tunnel, and numerous buildings at New Almaden 3 miles northwest of the project area. Operations at the mine did not begin to decline until the late 1800s. In the 1970s, Santa Clara County began purchasing land for what would become Almaden Quicksilver County Park, which now occupies 4,163 acres and a majority of Capitancillos Ridge.

The American Period was initiated in 1848 with the signing of the Treaty of Guadalupe Hidalgo, which ended the Mexican-American War (1846-1848), and California became a territory of the United States. Santa Clara County, named for Mission Santa Clara de Asís, was one of the original 27 counties established when California became a state in 1850. The population and economy of the county and the Santa Clara Valley expanded and prospered alongside the Gold Rush, the construction of the San Francisco-San José Railroad in 1864, and the completion of the transcontinental railroad in 1869 (Laffey 1992). By the 1850s, the valley was known for its plums, cherries, and apples, among other fruits (Caltrans 2007:55, 60–61). Historic aerial photographs show that the project area was part of an orchard from at least 1948 into the 1970s. Orchards were also scattered along Casa Loma Road northeast to Uvas Road and then south along Uvas Road. There were also fields of hay or alfalfa beside some of the Uvas Road orchards. The 1940 Los Gatos USGS 15-minute quadrangle shows a series of scattered buildings along the canyon road (today's Casa Loma Road) to Mountain Home and names Mayfair Ranch approximately 0.25 mile southwest of the project area. Today, the Mayfair Ranch Trail heads north from the main parking lot. As shown by the aerial image for 1980, the orchard trees were no longer present area within the project area, although some of the groves continued closer to Uvas Road. The overflow parking lot is visible on the 2005 aerial, developed when the preserve was opened to the public. Other than the orchard, no development is shown within the project area on the historic maps or aerials.

RECORDS SEARCH

A cultural resources literature search was completed on July 24, 2019, by the Northwest Information Center of the California Historical Resources Information System at Sonoma State University in Rohnert Park, California. The records search was conducted to determine if prehistoric or historic cultural resources were previously recorded within the project area, the extent to which the project area had been previously surveyed, and the number and type of cultural resources within the project area. Reference materials from archaeological and historical records, national and state databases, and historic maps were consulted for the literature search. Based on the results of the records search, no 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 (NIC 2019).

FIELD INVESTIGATION

An intensive-level field survey was conducted by NIC as a part research for the Cultural and Paleontological Resources Inventory and Effects Assessment Report (NIC 2019). An archaeologist meeting the Standards of the Secretary of the Interior, completed the field survey on July 10, 2019 by examining all visible ground surface within the project area for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Ground disturbances (e.g., animal burrows, embankment, dirt road, etc.) were visually inspected. No prehistoric archaeological resources, ethnographic sites, or historic-era resources were identified during the survey of the project area.

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. Therefore, **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). No known archeological resources were identified through the records search and field investigation conducted by NIC. The potential for unknown archeological resources within the project area is low due to the land use history of the area. The project area is situated on land previously disturbed by clearing and grading for construction of Casa Loma Road, 30 years of agricultural activities, removal of orchard trees, construction of the existing overflow parking lot and paved Llagas Creek Loop Trail within RCAN, and seasonal variation in the water levels along Llagas Creek. However, even with the low probability of archeological resources being present within the project area, the Ohlone previously inhabited the region, along with other neighboring groups including the Coast Miwok, Miwok, Northern Valley Yokuts, and the Salinan and Esselen (NIC 2019); therefore, it is possible that unrecorded prehistoric archaeological materials could be unearthed during ground disturbing construction activities and from use of heavy equipment, which would be a potentially significant impact that would be reduced to **less than significant with mitigation incorporated.** The following mitigation measures would be implemented to reduce impacts to cultural resources.

Mitigation Measure CUL-1: Conduct Cultural Sensitivity Training and Monitoring

- 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 resource 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.
- A representative or representatives from culturally affiliated Native American Tribe(s) will be invited to monitor all ground disturbing construction activities.

Mitigation Measure CUL-2: Avoid and Minimize Impacts to Inadvertent Cultural Resource Discoveries

In the event that a prehistoric archeological site (including midden soil, chipped stone, bone, or shell) or historic-period archaeological site (such as concentrated deposits of bottles, amethyst glass, or historic refuse) 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. 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 TCR (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.

Significance after Mitigation

Mitigation Measures CUL-1 and CUL-2 would reduce impacts to any unknown archaeological resources discovered during construction by providing cultural sensitivity training to construction workers, having a tribal monitor onsite during construction, and requiring all work to stop 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 consultation with the affiliated Native American tribe if the discovery is a prehistoric archeological site. With implementation of Mitigation Measure CUL-1 and CUL-2, the project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5, and impact would be clearly reduced to **less than significant with mitigation incorporated**.

c) Substantially disturb 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, along with other neighboring groups including the Coast Miwok, Miwok, Northern Valley Yokuts, and the Salinan and Esselen (NIC 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. Therefore, the impact is potentially significant. The following mitigation measure would be implemented in the event that human remains were discovered during project construction, which would reduce to the impact to **less than significant with mitigation incorporated**.

Mitigation Measure CUL-3: Avoid and Minimize Impacts to Human Remains

If any human remains are exposed during construction, they shall be treated in accordance with the State of California Health and Safety Code Section 7050.5 which work in the area to stop until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner shall be notified of the find immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the California Native American Heritage Commission (NAHC) within 24 hours, which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Significance after Mitigation

Implementation of Mitigation Measure CUL-3 would reduce potential impacts from the discovery of human remains by requiring all work to stop immediately and the County Coroner to be notified. If the human remains are Native American in origin, the NAHC will be notified within 24 hours and the Authority will adhere to the NAHC's guidelines regarding the treatment and disposition of the remains. The NAHC-designated MLD will determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. Implementation of Mitigation Measure CUL-3 would limit disturbance to human remains, including those interred outside of formal cemeteries, and the impact would be clearly reduced to **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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

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. 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-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 REGION

The city of San José is served by San José Clean Energy (SJCE), which is a locally-run electricity supplier and Community Choice Aggregation. SJCE was established in May 2017 and officially launched in 2019, and works in partnership with Pacific Gas & Electric (PG&E) to deliver greenhouse gas (GHG)-efficient electricity to customers in San José. Consistent with state law, all electricity customers were automatically enrolled in SJCE; however, customers can choose to opt out and be served by PG&E. SJCE buys its power from a number of suppliers and invests in new renewable sources. Sources of renewable and carbon-free power include California wind, solar, geothermal, and hydroelectric power from the Pacific Northwest.

PG&E supplies natural gas service to Santa Clara County through state-regulated public utility contacts. 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 (2017 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 CO_2 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, Statues 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 aim to 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.

San José

The City of San José's 2030 Greenhouse Gas Reduction Strategy (2030 GHGRS) is a comprehensive update to the City's original GHGRS and reflects the plans, policies, and codes as approved by the City Council. The 2030 GHGRS is in alignment with the goals of SB 32 (i.e., a 40 percent reduction in statewide GHG emissions from 1990 levels by 2030). The 2030 GHGRS established two new reduction targets for 2030 represented as 2.94 metric tons of carbon dioxide equivalent ($MTCO_2e$)/service population (SP) emissions intensity target and a 5.3 million metric tons of carbon dioxide ($MTCO_2$)/year mass emissions target.

3.6.2 Discussion

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

Less-than-significant impact. The 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 620 gallons of gasoline and 7,200 gallons of diesel fuel would be used during construction of the project (see Appendix A).

Table 3.6-1 Construction Energy Consumption

Construction Year	Diesel (Gallons)	Gasoline (Gallons)
2023	7,200	620

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 A (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

Operational Energy Type	Energy Consumption	Units
Gasoline	6,112	gal/year
Diesel	177	gal/year

Notes: gal/year = gallons per year.

Source: Appendix A (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 not 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

Less-than-significant 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., trails and seating areas), the policies on conservation and energy efficiency in buildings do not apply. 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. Therefore, the project would not conflict with or obstruct the County's Sustainability Master Plan strategies outlined above, and this would be a **less-than-significant** 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.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

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 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 in the foothills of the Santa Cruz Mountains. The elevation of the project area varies from approximately 730 feet in the southeast portion of the project area to 695 feet near Llagas Creek.

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. Table 3.7-1 lists the soil associations present in the project area 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
Zamora loam, 2 to 9 percent slopes	63.1	11 to 12 inches	Very slow	None to slight
Vallecitos rocky loam, 15 to 30 percent slopes, eroded	32.9	1 to 6 inches	Medium to very rapid	Moderate to high
Los Gatos gravelly loam, 15 to 30 percent slopes, eroded	3.7	4 to 7 inches	Rapid	High
Zamora loam, 0 to 2 percent slopes	0.03	11 to 12 inches	Very slow	None to slight

Source: NRCS 2021; NRCS 2001; NRCS 1974; NRCS 1958.

As shown in Table 3.7-1, The Zamora loam soil series, 0 to 2 percent slopes and 2 to 9 percent slopes, comprise the majority of the project area (63.1 percent) and consists of very deep, well drained soils that formed in alluvium from mixed sedimentary rocks. In a representative profile, the surface layer is dark grayish-brown, neutral clay loam about 15 inches thick. In some places the surface layer is loam. The subsoil is dark-brown and brown, neutral clay loam that is underlain at a depth of 35 inches by brown and pale-brown, neutral sandy clay loam and gravelly sandy clay loam that extends to a depth of 60 inches or more. Zamora soils are used mainly for irrigated row crops, orchards, vineyards, and dryland hay and pasture. A few areas are used for housing and commercial development (NRCS 1974). The Vallecitos soil series comprises 32.9 percent of the project area and consists of shallow, well drained soils that formed in residuum from metamorphic bedrock. This soil series typically supports grass and scattered oak trees, along with brush on the steeper slopes (NRCS 1958). The Los Gatos gravelly loam soil series comprises 3.7 percent of the project area and consists of moderately deep, well drained soils that formed in residuum from sandstone, shale, and metasedimentary rocks (NRCS 2015).

GEOLOGIC HAZARDS

Subsistence

Regional subsidence is the settling or sinking of the land surface because of ongoing groundwater extraction from alluvial geologic formations. Groundwater removal from the aquifers beneath Santa Clara Valley caused historic subsidence of the ground surface over broad areas. The rate of subsidence was greatest within the city of San José in the first half of the 20th century when pumping for agriculture was at its peak. Subsidence has stopped or greatly slowed now because of improved groundwater management. Regional subsidence is not expected to be a problem within the city limits unless groundwater pumping increases above the rate of recharge (City of San José 2011b).

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. These soil conditions can impact the structural integrity of buildings and other structures. The project area does not contain expansive soils (Santa Clara County 2012).

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. a). Within the city of San José, the most common type of landslides are rockfall, earthslide, debris flow, earth flow, and complex slides. Most landslide activity has occurred in the Diablo Range to the east, however the Santa Cruz Mountain foothills, the general vicinity of the project area, has experienced landslide activity (City of San José 2011b). The USGS Landslide Inventory Map does not designate any portion of the project area as being within a potential landslide area (USGS n.d. b). However, Santa Clara County does designate the project area as being within a landslide hazard zone (Santa Clara County 2012).

PRIMARY SEISMIC HAZARDS

The San Francisco Bay Area is recognized is one of the most seismically active regions in the United States. Significant earthquakes occurring in the Bay Area are generally associated with crustal movement along well-defined, active fault zones of the San Andreas Fault system, which spans the Coast Ranges from the Pacific Ocean to the San Joaquin Valley (City of San José 2011b). The San Andreas Fault passes through the Santa Cruz Mountains southwest of San José. 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 (DOC 2019a). The San Andreas Fault is approximately 7 miles southwest of the project area and the Calaveras Fault is approximately 8 miles to the northeast. Both faults are capable of generating strong earthquake-induced ground shaking within the project area.

SECONDARY SEISMIC HAZARDS

Seismic activity can also result in secondary seismic hazards from several forms of ground failure. Ground failure refers to seismically-induced ground movements which are significant enough to cause severe distress or infrastructure failure. Specific secondary hazards that could occur from seismic activity include liquefaction, lateral spreading, seismically induced landslides, differential seismic settlement, and seismically induced flooding. Refer to Section 3.10, "Hydrology and Water Quality" for a discussion of seismically induced flooding from tsunami, seiche, and dam failure.

Liquefaction and Lateral Spreading

Factors that influence liquefaction and lateral spreading potential include geologic age of a soil deposit, soil type, soil cohesion, and ground water level. Along active stream channels, liquefaction susceptibility is typically high. Lateral spreading is a type of ground failure that can occur where an open slope face is present. It typically occurs as a form of horizontal displacement of relatively flat-lying material toward an open face such as an excavation (either temporary or permanent), channel, or body of water. This movement is generally due to failure along a weak plane in soils and may be associated with liquefaction. The project area is traversed by Llagas Creek, and is susceptible to liquefaction and lateral spreading given its proximity to a water body, the high ground water level, and soil type (Santa Clara County 2012; CGS 2003).

Seismically Induced Landslides

Earthquakes can induce landslides in hillside areas and along creeks. The project area is bisected by Llagas Creek and contains steep hillsides to the west making the area susceptible to a seismically induced landslide.

Differential Seismic Settlement

Loose unsaturated sandy soils can settle during strong seismic shaking. In San José, sandy soils are present along creeks, areas adjacent to creeks, and other low-lying areas where sandy sediments were deposited during past flooding events. Differential settlement during seismic shaking can be a hazard to buildings, roadways, trails, and hardscape improvements (City of San José 2011b). Given that Llagas Creek is within the project area, differential seismic settlement could occur in the immediate vicinity of the creek following an earthquake.

PALEONTOLOGICAL RESOURCES

A search of the paleontological records maintained by the University of California Museum of Paleontology (UCMP) was conducted on July 25, 2019 as a part of the Cultural and Paleontological Resources Inventory and Effects Assessment Report prepared by NIC (NIC 2019). The project area is underlain by the Mesozoic Franciscan Complex (KJf) (Gutierrez et al. 2010; Wagner et al. 1991). Except for one of the invertebrate localities, for which there are no specimens in the UCMP database, none of the geologic rock units recorded in the UCMP database for Santa Clara County occur in the project area. Geologic maps further indicate the predominant rock type within the Franciscan Complex underlying the Project is greenstone (gs), which is altered submarine basalt (Gutierrez et al. 2010). This metamorphosed basic igneous rock formed through the cooling and solidification of magma or lava beneath the earth's surface. Greenstone is unlikely to contain organic remains given the way it is formed, and has little to no probability of yielding fossils (NIC 2019).

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 2019a). Furthermore, no Alquist-Priolo Earthquake Fault Zones are located immediately adjacent to the project area. The closest faults to the project area are the San Andreas Fault located approximately 7 miles southwest of the project area and the Calaveras Fault located approximately 8 miles to the northeast. 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 impact. While the project area is not within or immediately adjacent to an active Alquist-Priolo Earthquake Fault Zone, the San Andreas and Calaveras Faults are approximately 7 miles and 8 miles from the project area, respectively. An earthquake originating from either of these faults 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 would be limited to the Llagas Creek Bridge and benches. No overhead structures that could potentially collapse and cause injury during strong seismic ground shaking would be developed. The public's use of the area would be outdoors, and if strong ground shaking were to occur in 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.

The project includes the installation of a new bridge over Llagas Creek, which could experience strong seismic ground shaking and associated failure in the event of strong earthquake at the nearby faults. However, the bridge design is in compliance with all relevant provisions of the current California Building Code (CBC) and San José Building Code, including potential hazards caused from strong seismic ground shaking.

Given the outdoor use of the project area, limited structures with the potential to collapse in an earthquake, and project compliance with the CBC and San José Building Code, 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 impact. The project area is traversed by Llagas Creek, and is susceptible to seismic-related ground failure, including liquefaction given its proximity to a water body, the high ground water level, and soil type (Santa Clara County 2012; CGS 2003). Adverse impacts to people or structures could occur from seismic-related ground failure. However, as discussed above under criterion a) (ii), visitors to the project area would be outdoors, no new overhead or enclosed structures would be developed, 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 and San José Building Code, including potential hazards caused from 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 impact. The USGS Landslide Inventory Map does not designate any portion of the project area as being within a potential landslide area (USGS n.d. b). However, Santa Clara County does designate the project area as being within a landslide hazard zone, and Llagas Creek and the steep hillsides to the west of the project area could experience a seismically induced landslide (Santa Clara County 2012). Adverse impacts to people or structures could occur if there was a landslide in the project area. However, the construction and operation of the project features, including the Llagas Creek Bridge, benches, and trails, would not substantially increase the risk of a landslide due to the low intensity recreational use of the area during project operation. Therefore, the impact would be **less than significant**.

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

Less-than-significant impact. The project area is underlain with soils possessing various erosion potentials. The primary soil series in the project area Zamora loam has a "none to slight" erosion hazard potential. The other two soil series in the project area, Vallecitos rocky loam and Los Gatos gravelly loam, have a "Moderate to High" erosion hazard potential. Project construction activities that could result in soil erosion or the loss of topsoil include grading and smoothing areas where project features would be built and demolishing existing recreational amenities including an asphalt pad, concrete picnic table, barbed wire fencing, and remnants of the ranch road located in the northeast portion of the project area. Installation of the Llagas Creek Bridge would require 4 feet of excavation to install the abutments into the ground to support the bridge. Existing topsoil would be stockpiled for redistribution post-construction into disturbed areas. To reduce soil erosion and the loss of topsoil, temporary erosion control measures would be installed during the site preparation phase of construction. Erosion control would include the use of construction stormwater capture elements such as straw wattles and silt fencing. In addition, only 0.048-acre of total temporary ground disturbance would occur, which would not result in substantial soil erosion or loss of topsoil.

Given that the project area is mostly underlain with the Zamora loam soil series which has a "none to slight" erosion hazard potential, extension ground disturbance would not occur, and that the Authority would implement erosion control measures, the impact from erosion and loss of topsoil during construction 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 impact. The project area is susceptible to liquefaction and lateral spreading given the presence of Llagas Creek, the high ground water level, and soil type (Santa Clara County 2012; CGS 2003). Implementation of the project would include the development of recreational features that would increase visitation to the project area, which could cause potential substantial adverse effects if liquefaction or lateral spreading were to occur following an earthquake. However, new structures would be limited to the Llagas Creek Bridge and benches. The Llagas Creek Bridge design would be in compliance with all relevant provisions of the current CBC and San José Building Code to reduce the potential hazardous impacts, including potential hazards caused from liquefaction and lateral spreading. Given the limited number of new structures that would be built with implementation of the project and compliance with current CBC and San José Building Code, the project would have a **less-than-significant impact**.

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?

No impact. As discussed above in Section 3.7.1., "Environmental Setting", the project area is not located on expansive soil. Furthermore, the project includes the construction of a few new recreational facilities, including benches and the Llagas Creek Bridge, all of which would be built in accordance with the current CBC and San José Building Code to limit potential risks to life or property from soil expansion. Implementation of the project would not result in direct or indirect risks to life or property from being located on expansive soil. Therefore, **no impact** would occur.

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?

No impact. The development of septic tanks or alternative waste water disposal systems is not proposed. **No impact** would occur from the project area being located on soils incapable of adequately supporting the use of these systems.

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

Less-than-significant impact. The predominant rock type underlying the project area is greenstone (gs), which is unlikely to contain organic remains given the way it is formed, and has little to no probability of yielding fossils (NIC 2019). Although during construction of the project with its grading and excavation, the potential to unearth a currently unknown paleontological resource cannot be entirely ruled out. However, because the record of the underlying geologic strata indicates little or no probability of fossils, this impact would be **less than significant**.

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

3.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as 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 CO_2, methane (CH_4), nitrous oxide (N_2O), 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 CO_2 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. CO_2 is the main byproduct of fossil fuel combustion. CH_4, 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). N_2O emissions are largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water); respectively, these are the two of the most common processes for removing CO_2 from the atmosphere.

The total GHG inventory for the city of San José was 5,477,619 metric tons of CO_2 equivalents in 2019 and sequestration by trees and forests totaled 65,465 $MTCO_2e$ leading to net emissions of 5,412,154 $MTCO_2e$ (City of San José 2021). The most recent local GHG inventory for the City is presented in Table 3.8-1 to provide context for the GHG emissions associated with the project.

Table 3.8-1 San José 2019 GHG Emissions Inventory

Sector	$MTCO_2e$	Percent
Transportation	2,793,585	51%
Natural Gas	1,040,747	19%
Electricity	766,866	14%
Process & Fugitive Emissions	492,985	9%
Solid Waste	273,880	5%
Other Residential Fuel	54,776	1%
Wastewater	21,910	0.4%
Total	**5,477,619**	**100%**

Source: City of San José 2021.

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 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 in San José. 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 aim to result in the reduction of GHG emissions such as carbon neutrality by 2045.

City of San José

The City of San José's 2030 GHGRS is a comprehensive update to the City's original GHGRS and reflects the plans, policies, and codes as approved by the City Council. The 2030 GHGRS is in alignment with the goals of SB 32 (i.e., a 40 percent reduction in statewide GHG emissions from 1990 levels by 2030). The 2030 GHGRS established two new reduction targets for 2030 represented as 2.94 $MTCO_2e$/SP emissions intensity target and a 5.3 million $MTCO_2$/year mass emissions target.

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 impact. BAAQMD has developed a bright-line threshold of 1,100 $MTCO_2e$ 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 263 $MTCO_2e$ from equipment use and vehicle trips. During operations, the project is estimated to generate less than 50 $MTCO_2e$ 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	49
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 50 $MTCO_2e$ 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. 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?

Less-than-significant 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 and the City's GHGRS promote the reduction in GHG emissions through renewable energy use, zero-net carbon construction, building retrofits, zero waste, and water conservation. 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 City's efforts to reduce GHG emissions. This would result in a **less-than-significant** 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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

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 schools to the project area are Stratford School, approximately 6 miles to the east, Martin Murphy School, approximately 5.4 miles to the north, and Simonds Elementary School, located 7 miles to the northwest.

AIRPORTS

San Martin Airport is the closest airport to the project area, located approximately 10.75 miles to the southeast of the project area. Other airports in the region include Reid Hillview County Airport and San José International Airport, located 13 miles and 17 miles to the north, respectively.

EMERGENCY RESPONSE AND EVACUATION PLANS

The Emergency Operations Plan (EOP) prepared by the City of San José provides an overview of the city's approach to emergency response. The EOP identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to City departments, agencies, and community partners. The EOP is an adaptive document and provides the structure for the continued development of emergency response procedures in response to emergencies that occur in the city and region. Following the 2018 Camp Fire, 2017 North Bay Fires, and 2017 Coyote Creek Flood, additional policies were added to aid evacuation and care of those with access and functional needs and family pets. These policies led to the development of several emergency annexes including crisis communications, damage assessment, debris clearance, mass care and shelter, and recovery (City of San José 2019).

NATURALLY OCCURRING ASBESTOS

Asbestos is a term used for a group of naturally occurring silicate minerals found in specific soil and rock types in the form of asbestiform fibers having high tensile strength, flexibility, and heat and chemical resistance. Asbestos is a known carcinogen and inhalation of asbestos may result in the development of lung cancer or mesothelioma. The asbestos contents of many manufactured products have been regulated in the U.S. for several years. For example, CARB has regulated the amount of asbestos in crushed serpentinite used in surfacing applications, such as for gravel on unpaved roads, since 1990. In 1998, new concerns were raised about possible health hazards from activities that disturb rocks and soil containing asbestos that may generate asbestos-laden dust (i.e., naturally occurring asbestos [NOA]). These concerns led CARB to adopt a new rule requiring best practices and dust control measures for activities that disturb rock and soil containing NOA (DOC 2019b).

NOA is present all over the state of California — in 42 of 58 counties — and California includes over 1,988 square miles of serpentine outcrops. EPA's Pacific Southwest Region has a long history of involvement in assessing and minimizing the risk from asbestos in California, including in Alameda, Calaveras, Fresno, Los Angeles, Santa Clara, Santa Cruz, San Benito, and San Mateo counties. Most ultramafic rocks, including serpentinite, contain NOA. Human activity that can expose or release dust that contains NOA fibers primarily involves disturbing dry soils that contain NOA. As long as NOA fibers remain bound in rock or soil, they pose very little health threat (UCANR 2009).

Potentially serpentine soils are located in the vicinity of the project area, including in the portion of the project area south of the Llagas Creek Bridge (Appendix B).

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. 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. The local CUPA with jurisdiction over the project area is the Santa Clara County Hazardous Materials Compliance Division (Santa Clara County n.d.). 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 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.

California Air Resources Board and Bay Area Air Quality Management District

At its July 2001 hearing, CARB approved an Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations. This ATCM requires road construction and maintenance activities, construction and grading operations, and quarrying and surface mining operations in areas where NOA is likely to be found to employ best available dust mitigation measures. Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the air district or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or NOA on the site. The ATCM also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity (CARB 2002).

For construction and grading projects that would disturb 1 acre or less, the regulation requires specific actions to minimize emissions of dust. These include the following:

- Vehicle speed limit is 15 mph or less;
- water must be applied prior to and during ground disturbance;
- keep storage piles wet or covered; and
- track-out prevention and removal.

Construction projects that would disturb more than 1 acre must prepare and obtain air district approval for an asbestos dust mitigation plan. The plan must specify how the operation would minimize emissions and must address specific emission sources (BAAQMD 2006).

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 impact. Construction of the project would require the use of limited quantities of common hazardous materials, such as fuels, oils, lubricants, or other fluids associated with the operation and maintenance of vehicles or mechanical equipment. 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). The use of these hazardous materials would be temporary and intermittent over the project construction period (i.e., up to 6 months), and no routine transport, use, or disposal would occur. In addition, construction activities would comply with the CalEPA's Unified Program, which requires that any significant vehicle oil spills be reported to the local CUPA and be properly cleaned up (Santa Clara County n.d. b), and all hazardous materials would be used, stored, and disposed of in accordance with applicable federal, state, and local laws.

During operations, the only routine use or transport of hazardous materials would be to operate vehicles and equipment within the project area for maintenance, which would include weekly leaf clearing/leaf removal; occasional filling of squirrel holes; pruning back of trees close to the trail; herbicide spraying within 1 foot of the trail twice per year; and removal of vegetation within 3 feet of the trail around four times per year. These types of maintenance activities require little mechanical equipment or use of hazardous materials. The herbicide spraying would be conducted as a part of the Authority's Integrated Pest Management (IPM) Program, which includes specific measures to reduce impacts from herbicide use including requirements to minimize spills and unintended herbicide drift, properly dispose of and clean containers, lawfully store and handle herbicides, and dispose of unused herbicide and herbicide containers to adequately safeguard human, fish, and wildlife health and prevent soil and water contamination.

Therefore, 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 impact. Construction would involve ground-disturbing activities including grading and clearing, 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 generally undeveloped, with the exception of the surrounding existing recreational features, 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. In the unlikely event that 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.

As discussed under "Vegetation and Habitat Types" in Section 3.4.1, "Environmental Setting," a portion of the California annual grassland and mixed oak woodland within the project area overlaps with a soil map unit that contains two percent serpentine soils throughout the unit (Appendix B). Therefore, there is a potential for serpentine soils that could contain NOA to exist in the project area. If NOA is present within the project footprint, asbestos could be released during ground-disturbing project construction, such as grading, which would pose a direct risk of exposure to workers. The soil map unit is large (47,696 acres), the major soil type in this map unit is derived from shale rather than serpentine, and the small proportion of serpentine in the map unit (i.e., two percent of the unit) may not occur in any one location and is unlikely to overlap with the project area or the even smaller area of ground disturbance (0.16 acre of permanent disturbance and 0.048 acre of temporary disturbance). In addition, no differences in plant species composition (e.g., presence of serpentine bunchgrass) were observed between potential serpentine and non-serpentine areas during surveys of the project area in 2019, and there were no other indications that the soil in this portion of the study area is serpentine (Appendix B). If ultramafic rock, serpentine, or asbestos is discovered during any project operation or activity, then CARB's ATSM for Construction, Grading, Quarrying, and Surface Mining Operations would apply and the Authority would implement all required actions to minimize emissions of dust during construction (e.g., limiting vehicle speeds, watering prior to and during ground disturbance), which would avoid and minimize the release of NOA during construction.

For the reasons described above, the project would not create a significant hazard to the public or environment and 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 Martin Murphy School located approximately 5.4 miles to the north. 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. Therefore, **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 closest airport to the project area is San Martin Airport, located approximately 10.75 miles to the southeast. The project would not result in a safety hazard or excessive noise for people residing or working in the project area. Therefore, **no impact** would occur.

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

Less-than-significant impact. The project is within the jurisdiction of the City of San José's Office of Emergency Management (OEM), which is the agency responsible for coordinating with the City's Fire Chief, Police Chief, Mayor, and City Manager, along with all City staff to organize response efforts following an emergency. OEM also organizes and manages programs aimed at responding to natural and man-made disasters and emergencies, which includes the EOP for the City (City of San José n.d. a). The EOP identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to City departments, agencies, and community partners (City of San José 2019).

No new roads or parking lots are proposed that could impair implementation of OEM's EOP; however, the project would develop additional public access features which would generally attract more visitors into the area. Additional people in this rural area could impact the implementation of evacuation procedures if an emergency occurred. However, the existing parking lots would limit the number of visitors to the project area. The main parking lot and the overflow parking lot together provide parking for up to 96 vehicles and 5 horse trailers (or fewer vehicles and additional horse trailers in the overflow lot). Given that public access would be limited by the existing parking lots, the increase in visitation to the project area would not impair implementation of evacuation procedures detailed in the EOP. The project would 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 impact. As discussed in Section 3.20, "Wildfire", the project area is within a Fire Hazard Severity Zone (FHSZ) designated as Very High (CAL FIRE 2008). The Very High FHSZ designation allows local officials to require measures that reduce the rate of spread and potential intensity of uncontrolled fires that threaten to destroy resources, life, and/or property at the urban edge of their jurisdiction (CAL FIRE 2007). The project area already experiences regular visitation. The project would improve public access to the area through the development of additional facilities to support the same types of low-intensity recreation currently occurring there. As a result, the project would increase the number of visitors exposed to existing wildfire hazards, but would not substantially alter the risk of wildfire, i.e., not exacerbate the existing risk, recognizing the types of recreation activity would not change. Project structures would be limited to benches and the Llagas Creek Bridge. The limited addition of new facilities within the project area would not substantially expose people or structures to a significant risk of loss, injury, or death involving wildland fires. In addition, smoking is prohibited in all Authority preserves, including the project area, which would minimize the risk of ignition during operations. Furthermore, all internal combustion equipment would be required to be equipped with a spark arrester maintained in effective working order when working on any forest-covered, brush-covered, or grass-covered lands, consistent with PRC Section 4442. 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?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
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;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Environmental Setting

HYDROLOGIC SETTING

Situated approximately 25 miles south of the San Francisco Bay, the project area is within the boundaries of the Uvas-Llagas watershed, which covers an area of approximately 104 square miles (SCVWD n.d. a). Part of the larger Pajaro River watershed, the creeks in this watershed are the only waterways in Santa Clara County that flow southward. The Llagas Creek sub-watershed includes the Chesbro Reservoir approximately 3 miles southeast of the project area. Llagas Creek joins the Pajaro River south of Gilroy, appropriately 25 miles southeast of the project area. The river flows south, then west to the Pacific Ocean at Monterey Bay.

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 Central Coast RWQCB, which prepared and periodically updates the Water Quality Control Plan for the Central Coastal Basin (Basin Plan). The Basin Plan describes beneficial uses of water bodies within the Central Coastal 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; freshwater replenishment; industrial process and service supply; groundwater recharge; navigation; hydropower generation; water contact recreation; noncontact water recreation; commercial and sport fishing; aquaculture; inland saline water habitat; cold freshwater habitat; warm freshwater habitat; estuarine habitat; marine habitat; wildlife habitat; preservation of biological habitats of special significance; rare, threatened, or endangered species; migration of aquatic organisms; spawning, reproduction, and/or early development; and shellfish harvesting (Central Coast RWQCB 2019).

In addition to preparing and updating the Basin Plan, the Central Coast RWQCB administers the adoption of waste discharge requirements, manages groundwater quality, and approves projects within its boundaries under the National Pollutant Discharge Elimination System 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). Llagas Creek is designated under Section 303(d) of the Clean Water Act as impaired for temperature and pH (SWRCB 2017).

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 not within a groundwater basin. The closest groundwater basin to the project area is the Santa Clara Valley Groundwater Basin (DWR n.d.). The Santa Clara Valley Water District (SCVWD) prepared the 2016 Groundwater Management Plan for the Santa Clara Valley Groundwater Basin which describes SCVWD's comprehensive groundwater management framework, including existing and potential actions to achieve basin sustainability goals and ensure continued sustainable groundwater management (SCVWD 2016). 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 2016).

FLOOD HAZARDS

The Pacific Ocean is approximately 14 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 closest large body of water with the potential to cause a seiche is the Calero County Reservoir located approximately 2 miles north of the project area. The 2.2-mile-long reservoir can store 9,934 acre-feet of water and has a surface area of 349 acres (SCVWD n.d. b). The project area is outside of the dam failure inundation zone for the reservoir due to its elevation and positioning within the Santa Cruz Mountain foothills (SCVWD 2019). Additionally, SCVWD is currently seismically retrofitting the Calero Dam due to the presence of alluvium under the downstream dam embankment. During a major earthquake, the alluvium could liquefy causing the dam to fail which would risk an uncontrolled release of the reservoir water. In response, the state Division of Safety and Dams imposed storage restrictions for the reservoir of 19-feet below the spillway crest, keeping water levels lower than normal to prevent topping in the event of a major earthquake until seismic retrofitting efforts of the dam are complete (SCVWD n.d. c).

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 impact. Construction of the project would involve ground disturbing activities including grading and clearing which could degrade surface or groundwater quality if pollutants or contaminants entered Llagas Creek, a Section 303(d) impaired waterbody, or any other waterbodies within the Uvas-Llagas watershed (SWRCB 2017). However, construction would be temporary, lasting up to 6 months total, and the project would result in only 0.16 acre of permanent ground disturbance and 0.048 acre of temporary ground disturbance during construction. During the site preparation and demolition phase of construction, the Authority would install temporary erosion control measures including construction stormwater capture elements such as straw wattles and silt fencing. The stormwater capture elements would help prevent pollutants or contaminants unearthed during ground disturbing activities from entering Llagas Creek or other surrounding water bodies. The new Llagas Creek Bridge would be prefabricated and lifted into place using a crane. Installation of the bridge abutments would require approximately 8 feet of excavation; however, all work would occur outside of the OHWM of the creek. Buried rock slope protection would be installed between the bridge footings and the creek channel to prevent erosion into the creek. The Authority is also 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 (refer to Section 2.7, "Habitat Plan Conditions on Covered Activities"). Habitat Plan Condition 3, 4 and 11 would apply to the project and includes several measures 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 watercourses; minimizing site erosion and sedimentation during construction; and washing vehicles only at approved sites outside of a project area.

Installation of stormwater capture elements prior to construction, installation techniques used for the Llagas Creek Bridge, and implementation of Habitat Plan Condition 3, 4, and 11 would prevent the project from substantially degrading surface or groundwater quality. Therefore, the impact 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?

No impact. The project would implement several new features to support public access and recreation. Construction would only require water for dust abatement via a water truck. Dust abatement activities would be temporary and intermittent and would not involve the substantial use of water or otherwise affect recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. No new permanent water supply or facilities would be provided onsite, and the increase in impervious surfaces in the project area would not be substantial, particularly relative to the surrounding undeveloped areas that allow groundwater recharge. Thus, groundwater supplies would not be substantially decreased and there would be **no impact**.

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

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

Less-than-significant impact. Ground-disturbing construction activities could lead to a temporary increase in on- or offsite erosion or siltation. However, as discussed above under criterion a), the Authority would install construction stormwater capture elements such as straw wattles and silt fencing to prevent offsite erosion or siltation. The installation of stormwater capture elements would prevent erosion and siltation during and following rain by filtering surface runoff.

The project would result in less than a 15,000 square foot increase in impervious surface in the project area, and is therefore exempt from the Municipal Stormwater Permit (Santa Clara Valley Urban Runoff Pollution Prevention Program 2016). However, to aid with groundwater infiltration and reduce the potential for offsite erosion or siltation, all disturbed portions of the project area would be reseeded with a native plant seed mix. Runoff from the trails and gathering areas would disperse into surrounding natural areas and percolate into the ground.

Given the small overall project footprint, and with the installation of stormwater capture elements and reseeding the site following construction, the project would have a **less-than-significant** impact resulting from 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 impact. The project would result in an increase in impervious surface, and any impervious surface increase has the potential to result in an increase in the rate or amount of surface runoff. However, the project would result in less than 15,000 square feet additional impervious surface on the project area; the minimal increase in impervious surface is not enough to trigger the need for a Municipal Stormwater Permit. Following construction, all disturbed portions of the project area would be reseeded with a native plant seed mix. Surface runoff from the trails and gathering areas would disperse into surrounding natural areas to percolate into the ground. Given the limited addition of impervious surfaces, the fact that the disturbed areas would be reseeded to aid in percolation of surface runoff, and the generally undisturbed surrounding area where most of the runoff would naturally flow into and percolate into the ground, the project would have a **less-than-significant** impact on substantially increasing the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.

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

Less-than-significant impact. The project would not require the use of existing or planned stormwater drainage systems. As described above in criterion a), the Authority would install temporary erosion control measures during construction, which would prevent substantial runoff from the project area filter out any polluted runoff. Furthermore, as described above in criterion c) i), the project would result in less than a 15,000 square foot addition of impervious surface in the project area. The potential runoff created from the additional impervious surface would be minimal given the limited creation of impervious surface and the general undisturbed surrounding area where most of the runoff would naturally flow and percolate into the ground. For these reasons, the project would have a **less-than-significant** impact on creating or contributing to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff.

iv) Impede or redirect flood flows?

Less than significant. The project would result in the development of new 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 15,000 square feet of new, permanent project features including the Llagas Creek Bridge, seating areas; new trails, and other features that do not 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 2 miles south of the Calero County Reservoir; however, it is outside of the dam failure inundation zone for the reservoir due to its elevation and positioning within the Santa Cruz Mountain foothills (SCVWD 2019). 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 impact. The project is within the jurisdiction of the Central Coast 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), prior to any construction or ground disturbing activities, erosion control measures would be installed around the project area to filter construction runoff that could impact water quality. The stormwater capture elements would help prevent pollutants or contaminants unearthed during ground disturbing activities from entering waterbodies such as Llagas Creek, a designated impaired waterbody under Section 303(d) of the Clean Water Act for temperature and pH (SWRCB 2017). The Llagas Creek Bridge was designed so that all bridge features would be outside of the OHWM for Llagas Creek, to further limit potential water quality impacts, and all construction work would occur outside of the OHWM. The project would, therefore, not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.11.1 Environmental Setting

The project would be located adjacent to existing public access features associated with RCAN within the city of San José. The adjacent existing public access features include the 0.5-mile, ADA-accessible Llagas Creek Loop Trail, ADA-accessible restroom, picnic tables, wayfinding and interpretive signage, and two parking lots (a main parking lot and an overflow parking lot) that provide parking for cars and horse trailers. The project would build upon these existing public access features and develop a pedestrian, bicycle, and equestrian-accessible bridge over Llagas Creek to allow for year-around access to the meadow on the south side of Llagas Creek. In addition to being within RCAN, the project is directly adjacent to Calero County Park, a 4,471-acre park that offers recreational opportunities for hikers and equestrians. Few land uses other than open space recreation exist in the immediate vicinity of the project area. The closest facilities to the project area are the Cinnabar Hills Golf Club 2 miles to the northeast and Coyote Valley Sporting Clays, a shooting range, 3.8 miles to the east.

The project area is zoned as Open Space and designated as Open Hillside within the City of San José General Plan (City of San José 2011a; Ankola 2021a). Land within the city of San José zoned as Open Space is meant to be preserved for outdoor recreation and the enjoyment of scenic resources. The regulations contained in the Open Space zoning designation are meant to enhance the scenic visual qualities of the land as well as implement the open space and hillside policies of the San José General Plan (San José Municipal Code Section 20.20.010). Land uses that result in the harmful discharges of waste material into the ground, water, or atmosphere are prohibited; as well as those that create a menace to persons or property through the creation of fire, or other physical hazards, or through air pollution, odor, smoke, or noise (San José Municipal Code Section 20.20.300). The General Plan Open Hillside Designation applies to land outside of the Urban Growth Boundary with the intent of preserving a greenbelt of open space along the eastern and southern edges of the city. The Open Hillside designation limits land uses to those that have little physical impact on the land, do not require urban facilities or services, and have minimal visibility from the Santa Clara Valley floor. New development is limited to projects that will not have a significant impact on sensitive habitats, special status species, geologic resources, or the visual environment (City of San José 2011a).

3.11.2 Discussion

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?

No impact. As discussed above in Section 3.11.1, "Environmental Setting", the project area is zoned as Open Space and is within the Open Hillside designation of the General Plan. The project could result in a conflict with the either the zoning or general plan designation if implementation resulted in incompatible land uses. However, the project would comply with the land use requirements of both designations by building upon existing public access features in the area to provide for more recreational access.

As discussed in Section 3.1, "Aesthetics", project features would be constructed from material that is visually similar to existing recreational facilities in the area to create an aesthetically coherent environment, and would not detract from the scenic visual qualities of the land. None of the project features would be visible from the Santa Clara Valley floor given their size, the surrounding tree and vegetative cover, and distance from the valley floor. Furthermore, the project would not result in harmful discharges into the ground or water as discussed in Section 3.10, "Hydrology and Water Quality". While project construction would require grading and other ground disturbing activities, the Authority would install stormwater capture elements to prevent the project from resulting in the discharges into the ground or water. In addition, Habitat Plan Condition 3, 4 and 11 would apply to the project and include several measures to protect water quality (Table 6-2 in the Habitat Plan) from design through post-construction. No other harmful discharges of waste material would occur, as described in Section 3.9, "Hazards and Hazardous Materials". The project would also not result in substantial air pollution, odor, or noise as described in Sections 3.3, "Air Quality" and 3.13, "Noise." The project would not in a significant impact on sensitive habitats and special status species, as discussed in Section 3.4, "Biological Resources." Thus, the project would be consistent with the zoning and general plan designations.

In addition, as described in Section 3.4, "Biological Resources" criterion f), the project area falls within the Plan Area of the Habitat Plan, which is a habitat conservation plan and a natural community conservation 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. The Authority is in the process of obtaining coverage under the Habitat Plan as a PSE and would implement all applicable Habitat Plan Conditions outlined in the PSE permit as a part of the project. In addition, the mitigation measures 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.

Construction and operation of the project would not result in conflicts with the Open Space zoning designation, Open Hillside designation of the General Plan, or with the Habitat Plan; therefore, **no impact** would occur.

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.12.1 Environmental Setting

No locally important mineral resource recovery sites are known to be located within the project area (DOC 1987; Stinson et. al 1982). The site is not classified as being within a mineral resource zone (i.e., MRZ-1, MRZ-2, MRZ-3, MRZ-4). The City of San José General Plan does not designate the project area or surrounding vicinity as containing mineral deposits of statewide significance or of significance that requires further evaluation (City of San José 2011a).

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? Or

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. As discussed above in Section 3.12.1, "Environmental Setting", the project area does not contain known mineral resources. The project would build upon existing recreational facilities within RCAN and develop a pedestrian bridge, trails, seating areas, and other public access facilities. The project would not result in zoning or land use changes that would prevent the recovery of minerals or the loss of availability of a known mineral resource site. Therefore, no impact would occur.

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

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.

Term	Definition
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.

Table3.13-2 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 within RCAN. The noise environment within the project area results primarily from vehicle trips along McKean Road and Casa Loma Road, which do not support high volumes of vehicle trips. Existing noise levels are relatively quiet, consistent with the project area's rural location and low volume of vehicle traffic.

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 located in a preserve and is not within the vicinity of any nearby sensitive receptors.

AIRPORTS AND PRIVATE AIRSTRIPS

San Martin Airport is the closest airport to the project area, located approximately 10.75 miles to the southeast of the project area. Other airports in the region include Reid Hillview County Airport and San José International Airport, located 13 miles and 17 miles to the north, respectively.

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.

Table3.13-3 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.

Table3.13-4 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

City of San José

Envision San José 2040 General Plan

The Envision San José 2040 General Plan includes the following policies which are specific to noise and vibration and are applicable to the project.

- Policy EC-1.1: Locate new development in areas where noise levels are appropriate for the proposed uses. Consider federal, state and City noise standards and guidelines as a part of new development review. Applicable standards and guidelines for land uses in San José include:
  - Interior Noise Levels: The City's standard for interior noise levels in residences, hotels, motels, residential care facilities, and hospitals is 45 dBA DNL. Include appropriate site and building design, building construction and noise attenuation techniques in new development to meet this standard. For sites with exterior noise levels of 60 dBA DNL or more, an acoustical analysis following protocols in the City-adopted California Building Code is required to demonstrate that development projects can meet this standard. The acoustical analysis shall base required noise attenuation techniques on expected Envision General Plan traffic volumes to ensure land use compatibility and General Plan consistency over the life of this plan.
  - Exterior Noise Levels: The City's acceptable exterior noise level objective is 60 dBA DNL or less for residential and most institutional land uses (refer to Table EC-1 in the General Plan) Residential uses are considered "normally acceptable" with exterior noise exposures of up to 60 dBA DNL and "conditionally compatible" where the exterior noise exposure is between 60 and 75 dBA DNL such that the specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features are included in the design.
- Policy EC-1.2: Minimize the noise impacts of new development on land uses sensitive to increased noise levels (Land Use Categories 1, 2, 3 and 6 in Table EC-1 in the General Plan) by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would:

- Cause the DNL at noise sensitive receptors to increase by five dBA DNL or more where the noise levels would remain "Normally Acceptable"; or
- Cause the DNL at noise sensitive receptors to increase by three dBA DNL or more where noise levels would equal or exceed the "Normally Acceptable" level.

- Policy EC-1.3: Mitigate noise generation of new nonresidential land uses to 55 dBA DNL at the property line when located adjacent to uses through noise standards in the City's Municipal Code.
- Policy EC-1.7: Require construction operations within San José to use best available noise suppression devices and techniques and limit construction hours near residential uses per the City's Municipal Code. The City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would:
  - Involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months.

  For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses.
- Policy EC-2.3: Require new development to minimize continuous vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or buildings that are documented to be structurally weakened, a continuous vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to a building. A continuous vibration limit of 0.20 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction. Avoid use of impact pile drivers within 25 feet of any buildings, and within 100 feet of a historical building, or building in poor condition. On a project-specific basis, this distance of 100 feet may be reduced to 50 feet where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

Municipal Code – Construction Standards
Chapter 20.100.450 of the Municipal Code establishes allowable hours of construction within 500 feet of a residential unit between 7:00 a.m. to 7:00 p.m. on Monday through Friday, unless otherwise expressly allowed in a Development Permit or other planning approval. The Municipal Code does not establish quantitative noise limits for demolition or construction activities occurring in the City.

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 impact. 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 Chapter 20.100.450 of the San José

Municipal Code. 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, and rollers. However, the specific construction equipment used would vary depending on the project phase and specific activities occurring. Typical hourly average construction generated noise levels are about 75 A-weighted decibels (dBA) to 80 dBA measured at a distance of 100 feet from the source during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Construction generated noise levels drop off at a rate of about six dBA per doubling of distance between the source and receptor. There are no sensitive receptors located within 1,000 feet from the project area; therefore, the exposure of high volume of noise in exceedance of the applicable construction noise standard of 60 dBA equivalent noise level (L_{eq}) at the nearest noise-sensitive land uses would not occur. Moreover, the existing environment of the project area, which is heavily wooded and supports mostly non-asphalt surfaces, would attenuate noise within and beyond the project area.

Additionally, 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

Operation of the project could generate new vehicle trips from expanded maintenance of the project area and visitors accessing new and expanded recreational amenities. 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. Also, the project area is not within the vicinity of a sensitive receptor, 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 San José Municipal Code, and would not exceed applicable standards (i.e., 60 dBA L_{eq} at the nearest noise-sensitive land use). Project operation would not expose offsite sensitive receptors to excessive traffic or other operational noise that would exceed City 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 impact. 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 inches per second (in/sec) peak particle velocity (PPV) with respect to structural damage. The project area is not within 1,000 feet from a sensitive receptor; thus, negating the chance of subjecting a sensitive receptor to high levels of vibration. 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 vibration decibels 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. San Martin Airport is the closest airport to the project area, located approximately 10.75 miles to the southeast of the project area. Other airports in the region include Reid Hillview County Airport and San José International Airport, located 13 miles and 17 miles to the north, respectively. 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

The project is within the larger RCAN in the city of San José, northwest of the City of Morgan Hill. No housing or communities are on or adjacent to the project area; the closest development to the project area are the existing public access features associated with recreation within RCAN. The closest population centers to the project area are San José and Morgan Hill. San José 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. 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 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 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?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.15.1 Environmental Setting

FIRE PROTECTION

The project area is within a local responsibility area and fire protection services are provided by the San José Fire Department (SJFD), which responds to all fires, hazardous materials spills, and medical emergencies (including injury accidents) in the city (CAL FIRE 2008). The City of San José participates in the county-wide Automatic Aid and Mutual Aid programs. San José, Santa Clara, Milpitas, and the Santa Clara County Fire Department are all members of the Automatic Aid program. This program allows the station closest to the scene of the fire, when available, to respond to the scene first. Therefore, neighboring departments can work together to reduce reflex and response times. For fire protection, the existing General Plan identifies a goal of having a 4-minute average response time to all calls (City of San José 2011b).

POLICE PROTECTION

Police protection services in San José are provided by the San José Police Department (SJPD). The SJPD is administered by a command staff including the Chief, Assistant Chief and four Deputy Chiefs, presiding over an Operations Command divided into four Bureaus: The Bureaus of Administration, Field Operations, Investigations, and Technical Services. The Bureaus are comprised of 11 divisions with over 67 specialized units and assignments. The SJPD employs over 1,300 sworn officers. The existing General Plan identifies a response time goal of 6 minutes or less for 60 percent of all Priority 1 calls, and 11 minutes or less for 60 percent of all Priority 2 calls (City of San José 2011b).

SCHOOLS

The City of San José includes 22 public school districts that currently operate 222 public schools serving students in San José (City of San José 2011b). The closest schools to the project area are Stratford School, approximately 6 miles to the east, Martin Murphy School, approximately 5.4 miles to the north, and Simonds Elementary School, located 7 miles to the northwest.

PARKS

The project area is within the larger RCAN, a 5,428-acre open space preserve that includes 12 miles of multi-use trail open to hikers, mountain bikers, and equestrians managed by the Authority. Several trails can be accessed from the project area including Mayfair Ranch Trail, a multi-use trail open to hikers, equestrians, and bikers. Little Llagas Creek Trail, a dual-use trail open to hikers and bikers, along with Longwall Canyon Trail, a multi-use trail, can be accessed from Casa Loma Road east of the project area (Authority n.d. c).

The project is also directly adjacent to Calero County Park, a 4,471-acre park that includes Calero County Reservoir, which offers a host of water-oriented recreational activities, along with expansive back country which offers hiking, biking, and equestrian opportunities for recreationalists (Santa Clara County Parks n.d.).

In addition to RCAN and the Calero County Park, several parks located in the greater San José area are managed by the Department of Parks, Recreation, and Neighborhood Services. Approximately 3,500 acres of regional and neighborhood/community serving parkland is managed by the City's Department of Parks, Recreation, and Neighborhood Services (City of San José 2011b).

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 impact. 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 project area through the development of new public access features, which could increase the need for fire protection services over existing conditions. However, visitation would be limited by available parking in the existing parking lots, which provide parking for a total of 96 vehicles and 5 horse trailers, or additional horse trailers and fewer vehicles in the overflow lot. In addition, no smoking is allowed onsite per Authority regulations for all preserves) 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. Given the limited increase of new visitors to the project area and limited sources of ignition, 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 impact. The project is not growth inducing and does not include the development of new residences requiring increased police protection. However, any increase in visitation to an area could lead to the need for additional police protection services. While the project would develop additional recreational features which would increase the number of visitors to the area over existing conditions, the existing parking lots would limit visitation. Additionally, the project area would only be open to the public from sunrise to sunset. 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. Therefore, **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 develop additional public access features in RCAN, increasing recreational opportunities in the region. Therefore, **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. Therefore, **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?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.16.1 Environmental Setting

The project area is surrounded by recreational opportunities. Situated within RCAN, a 5,428-acre open space preserve, the project area is close to 12 miles of multi-use trails open to a variety of recreationalists (Authority n.d. c). The project is also directly adjacent to Calero County Park, a 4,471-acre park that includes Calero County Reservoir, which offers water-oriented recreational activities at the Calero County Reservoir, along with hiking, biking, and equestrian opportunities for recreationalists in the expansive back county (Santa Clara County Parks n.d.). In addition to RCAN and the Calero County Park, several parks are located in the greater San José area and managed by the Department of Parks, Recreation, and Neighborhood Services including Avenida Espana Park, Carrabelle Park, and Los Paseos Park, which are closest to the project area (City of San José 2011b; City of San José n.d. d).

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 increased recreational opportunities for the region by providing additional public access and recreation features within RCAN. The project would not cause a substantial physical deterioration to existing recreational facilities. Therefore, 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 impact. 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 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?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Environmental Setting

ROADWAY NETWORK

Regionally, the city of San José is served by a roadway network consisting of federal and state freeways, expressways, arterials, collectors, 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 federal and state highways which are operated and maintained by Caltrans: US 101 and State Route (SR) 85. 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 more than five miles east of the project area at its closest point. US 101 is also known as the South Valley Freeway south of San José.
- SR 85 is a four-lane north-south freeway extending through the city of San José from the SR 85/US 101 interchange in the City of Mountain View to the SR 85/US 101 interchange in south San José. The terminus in south San José is approximately 6.5 miles northeast of the project area.

City Roadways

As of 2015, the city of San José operates and maintains approximately 2,400 miles of roads (City of San José 2015). City roads are also part of the regional roadway system and typically provide connections to the highway and freeway systems. The following roadways provide access to the project area:

- Bailey Avenue is a southwest-northeast bi-directional two-lane roadway located northeast of the project area. Bailey Avenue connects the U.S. 101 to McKean Road providing access to the project area from the freeway. The posted speed limit is 35 miles per hour. No sidewalks or bicycle facilities are present on Bailey Road approaching McKean Road.
- McKean Road is a north-south bi-directional two-lane roadway located east of the project area. McKean Road connects Bailey Avenue and Casa Loma Road which provides direct access to the project. There are no

pedestrian facilities present on McKean Road. Although, there are no existing bike lanes on McKean Road, signage is posted along the roadway allowing bicyclists to use the full vehicular lane.

- Casa Loma Road is an east-west bi-directional roadway providing direct access to the project area from McKean Road. There are no lane markings on Casa Loma Road from RCAN to approximately halfway between the preserve and McKean Road. Additionally, the pavement ends just west of the preserve's main parking lot entrance, and the roadway continues to the unpaved overflow parking lot. Casa Loma Road extends southwest through the Santa Cruz mountains. There are no bicycle or pedestrian facilities present on Casa Loma Road.

BICYCLE AND PEDESTRIAN FACILITIES

The bicycle and pedestrian transportation system in the city of San José is composed of local bikeways and trails. The San José Better Bike Plan classifies bicycle facilities into the following four types:

- Multi-use Path (Class I): Multi-use paths, also known as trails, are off-street two-way bikeways physically separated from motor vehicle traffic and used by people bicycling, people walking, and other non-motorized users. They may cross roadways at grade or at under- or over-crossings. Multi-use paths are often located along creeks, utility corridors, and former rail corridors but may also be constructed along roadways with car traffic.
- Separated Bike Lanes (Class IV): Separated bike lanes, also known as cycle tracks or protected bike lanes, are a dedicated bikeway that combines the user experience of a multi-use path but are located on a street. They are physically distinct from the sidewalk and separated from motor vehicle traffic by a physical object such as parking, a curb, or posts.
- Bike Lane (Class II): Bike lanes provide dedicated on-street space for bicyclists in the roadway, delineated with painted pavement stripes and symbols on the roadway surface. Bicycle lanes are usually provided in each direction on two-way streets and on one side of one-way streets. Bike lanes may also have a striped buffer area between bicycle and general-purpose travel lanes. In San José, bike lane approaches to and departures from signalized intersections are generally painted green to draw attention to these conflict zones.
- Bike Routes (Class III): Bike routes are on-street bikeways where bicyclists must share the travel lane with motor vehicles because the lane is not wide enough to fit a bike lane. They may be marked with signs and/or a shared lane marking ("sharrow") pavement markings, which is a bike symbol with two chevrons on top.
- Bike Boulevard (Class III): Bike Boulevards are basic bike routes on calmer streets that are enhanced with additional elements to increase comfort for people bicycling. These elements include crossing enhancements and traffic calming features such as speed humps, bulbouts, or traffic diverters.

The city of San José has over 450 miles of existing bikeways. As of 2020, San José had 62 miles of bicycle paths, six miles of cycles tracks, 291 miles of bicycle lanes, 95 miles of bicycle routes, and less than 1 mile of bike boulevards (City of San José 2020a). There are no on-street bike facilities present in the project area; however, the 5,428-acre RCAN preserve, encompassing the project area, includes 12 miles of multi-use trail open to hikers, mountain bikers, and pedestrians.

TRANSIT SYSTEM

The Santa Clara Valley Transportation Authority operates light rail, bus, and paratransit services throughout Santa Clara County including the city of San José. The nearest bus service is provided by the 68-bus route that operates between San José Diridon Station and Gilroy Transit Center and is located over four miles from the project area.

Caltrain and Amtrak provide passenger rail services in the region. 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)(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. this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate. Additionally, 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).

City of San José

Transportation Analysis Handbook

San José City Council adopted the Transportation Analysis (TA) Handbook in April 2020 as a comprehensive guide to analyzing impacts to the city's transportation system resulting from proposed projects. The TA Handbook provides the TA significance criteria, screening criteria, and thresholds of significance for environmental clearance for development projects, city transportation projects, and General Plan amendments. Additionally, it provides the appropriate methodologies, procedures, and process for the preparation of a TA report within the context of CEQA and SB 743.

Table 3.17-1 presents the screening criteria for projects that are expected to result in less-than significant VMT impacts based on project description, characteristics, and/or location (City of San José 2020b:10).

Table 3.17-1 Screening Criteria for CEQA Transportation Analysis for Development Projects

Type	Screening Criteria
Small Infill Projects	▶ Single-family detached housing of 15 units or less; OR ▶ Single-family attached or multi-family housing of 25 units or less; OR ▶ Office of 10,000 square feet of gross floor area or less; OR ▶ Industrial of 30,000 square feet of gross floor area or less
Local-Serving Retail	▶ 100,000 square feet of total gross floor area or less without drive-through operations[1]

Type	Screening Criteria
Local-Serving Public Facilities	▶ Local-serving public facilities
Residential/ Office Projects or Components	▶ Planned Growth Areas: Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; AND ▶ High-Quality Transit: Located within ½ a mile of an existing major transit stop[2] or an existing stop along a high-quality transit corridor[3]; AND ▶ Low VMT: Located in an area in which the per-capita or per-employee VMT is less than or equal to the threshold of significance for the land use; AND ▶ Transit-Supporting Project Density: ■ Minimum Gross Floor Area Ratio (FAR) of 0.75 for office projects or components; ■ Minimum of 35 units per acre for residential projects or components; ■ If located in a Planned Growth Area that has a maximum density below 0.75 FAR or 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; AND ▶ Parking: ■ No more than the minimum number of parking spaces required[4]; ■ If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed[5]; however, if the parking is shared, publicly available, and/or "unbundled"[6], the number of parking spaces can be up to the zoned minimum; AND ▶ Active Transportation: Not negatively impact transit, bike, or pedestrian infrastructure.[7]
Restricted Affordable Residential Projects or Components	▶ Affordability: 100% restricted affordable units[8], excluding unrestricted manager units; affordability must extend for a minimum of 55 years for rental homes or 45 years for for-sale homes; AND ▶ Planned Growth Areas: Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; AND ▶ High Quality Transit: Located within ½ a mile of an existing major transit stop or an existing stop along a high quality transit corridor; AND ▶ Transit-Supporting Project Density: o Minimum of 35 units per acre for residential projects or components; o If located in a Planned Growth Area that has a maximum density below 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; AND ▶ Transportation Demand Management (TDM): If located in an area in which the per capita VMT is higher than the CEQA significance threshold, a robust TDM plan must be included; AND ▶ Parking: ■ No more than the minimum number of parking spaces required; ■ If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled," the number of parking spaces can be up to the zoned minimum; AND ▶ Active Transportation: Not negatively impact transit, bike, or pedestrian infrastructure.

[1] Defined in the Council Policy 6-10, Criteria for the Review of Drive-through Uses.

[2] Defined in the Pub. Resources Code § 21064.3 ("Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods").

[3] Defined in the Pub. Resources Code § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours").

[4] Defined in Title 20 of the San José Municipal Code.

[5] Defined in Chapter 20.90.220 of the San José Municipal Code.

[6] Defined in Chapter 20.200 of the San José Municipal Code.

[7] Defined in Council Policy 5-1, Appendix A.

[8] At or below income levels defined in the General Plan Policy IP-5.12.

Local serving public facilities, as defined in the TA Handbook are "publicly-owned or controlled, such as police stations, fire stations, passive parks, branch libraries, pumping stations, community centers, or other public utilities, etc., are located within established communities and serve local needs. These services improve people's proximity to recreational, community, and other necessary community needs" (City of San José 2020b:13). If a public facility is determined to be local-serving, the project would not require a detailed CEQA transportation analysis. Additionally, Council Policy 5-1, Transportation Analysis Policy, states that local-serving public facilities either produce very low VMT or divert existing trips from established local facilities to new local facilities without measurably increasing trips outside of the area (City of San José 2018).

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 impact. There are no existing or planned transit, bicycle, or pedestrian facilities in the vicinity of the project area. The project involves the construction of new public access features at RCAN, including the implementation of a new bridge over Llagas Creek, and new trails and seating areas to support year-around public access and recreation; thus, enhancing the pedestrian connectivity within the project area. 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 traveled?

Less-than-significant impact. The VMT analysis herein relies on the guidance provided in CEQA Guidelines Section 15064.3, the 2018 Technical Advisory (OPR 2018), and the TA Handbook (City of San José 2020b).

Construction

As detailed in Chapter 2, "Project Description," construction is scheduled to start in April 2023 and conclude in October 2023. Construction crews would include between three to 10 personnel throughout the construction period. 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 at most a total of 20 average daily trips, assuming that construction workers would not carpool and would generate two trips per worker per day in order to commute to and from the project area. The City of San José has not established VMT guidance related to construction activity; and thus, the OPR screening criteria for small projects stating that projects generating or attracting fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact, was applied to this portion of the analysis. Therefore, the number of daily construction trips generated would be well below 110 trips per day; thus, satisfying the screening threshold for small projects as detailed in the OPR Technical Advisory. For these reasons, construction activities are not expected to significantly increase VMT in the region.

Operations

As identified in the "Regulatory Setting" section above, local-serving public facilities may be screened from additional VMT analysis through the City of San José TA Handbook. The TA Handbook describes public facilities as publicly owned or controlled such as police stations, fire stations, passive parks, branch libraries, pumping stations, community centers, or other public utilities. Further, these services are "located within established communities and serve local needs" and "improve people's proximity to recreational, community, and other necessary community

needs" (City of San José 2020b:13). The public facility type applicable to this project is passive park. As defined in Appendix A of the TA Handbook, passive parks are "less structured recreational activities and casual pursuit of hobbies that allow for the preservation of natural habitat" (City of San José 2020b:81). The purpose of the project is to expand public access within RCAN through the construction of multi-use trails, gathering areas, and a new bridge. The project would allow portions of the preserve, typically accessible only seasonally, to be open year-round. Therefore, the project consists of expansion of an existing and established park that serves the surrounding community, and would provide users with an improved and expanded park such that they would not have to travel to more distant locations for these same types of amenities and activities. Thus, the project satisfies the City of San José's description of a passive park and would not be subject to a detailed CEQA transportation analysis under the TA Handbook screening criteria for local-serving facilities. As stated in the TA Handbook, projects that meet the screening criteria area expected to result in less than significant VMT impacts based on project description, characteristics, and/or location (City of San José 2020b:10).

Additionally, the project's anticipated trip generation was calculated 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 3.17-2 shows the weekday, Saturday, and Sunday daily trip generation rates for the "Public Parks" land use category.

Table 3.17-2 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 2017.

The project area where the recreational facilities would be developed is approximately 5 acres. To provide a conservative estimate of the number of average daily trips potentially generated by the project, the highest daily trip rate from Table 3.17-2 (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 3.17-2 above, the project is estimated to generate approximately 11 new 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

As detailed above, construction trips are not newly generated, but rather, temporary and redistributed. Additionally, even if the trips generated during project construction were considered to be new trips, project-generated construction workers would generate fewer than 110 daily trips; thus, meeting the screening criteria established in the OPR Technical Advisory. The project is a local-serving facility and does not require detailed VMT analysis based on the City of San José screening criteria for CEQA transportation analysis. According to the TA Handbook, projects screened from further analysis are presumed to result in less than significant VMT impacts. Furthermore, the project would generate well below 110 daily trips satisfying the screening criteria established in the OPR Technical Advisory for small projects. For these reasons, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) and the 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 impact. The project involves the development of new trails, seating areas, and a new pedestrian and equestrian bridge. The project would not result in any changes to the roadway network or parking and staging areas; therefore, the project would not increase hazards due to a geometric design feature.

During project construction, construction equipment, vehicles, and materials would be transported to/from the project area. Some equipment and materials would be large, such as the new Llagas Creek bridge, and could cause roadway hazards during transport. However, construction would be short-term, lasting approximately 6 months, and the transport of large equipment and materials would be temporary and intermittent. Furthermore, the City does not typically require a traffic control plan for these types of small public facility projects (Ankola 2021b). However, the Authority would coordinate with the City to determine appropriate traffic handling during construction, if needed, and the contractor would be required to follow all City protocol related to the safe movement of construction equipment and materials in an effort to minimize disturbance and hazards during construction activity. 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 impact. The project would develop new trails, seating areas, and construct a new multi-use bridge. Vehicular ingress/egress would not be modified, and the project would not change the existing road network, including parking facilities. Thus, existing emergency access would be maintained. Therefore, the project would not result in inadequate emergency access 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)?	☒ Yes		☐ 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)?	☐	☒	☐	☐
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?	☐	☒	☐	☐

3.18.1 Environmental Setting

TRIBAL CULTURAL RESOURCE SETTING

As described in Section 3.5, Cultural Resources, the project area was historically occupied by the tribelets of the Costanoan linguistic group, who are also known today as the Ohlone. Neighboring groups included the Coast Miwok north across the Carquinez Strait, the Miwok and Northern Valley Yokuts to the east, and the Salinan and Esselen to the south.

Each of the numerous Ohlone tribelets occupied one or more villages plus a number of seasonal camps (Levy 1978:487). Tribelets were also political units that were structured by similarities in language and ethnicity, each holding claim to a designated portion of territory. Topographic features, such as rivers, watersheds, and ridgelines, defined tribelet territories and the boundaries were strictly respected. Inland villages were typically situated along a river or stream while coastal villages were situated on high ground away from the shoreline (Levy 1978:492). Dwellings were domed structures thatched with tule or grass over a pole framework; coastal groups constructed conical houses from redwood. Villages also contained assembly halls, dance plazas, and sweathouses. The deceased were either buried or cremated (Levy 1978:490-491).

The rich resources of the ocean, bays, valleys, and mountains provided Costanoan-speaking peoples with food and all their material needs (Levy 1978:491-492). The primary food staple was the acorn, supplemented by a great variety of animal and plant resources. They consumed a variety of nuts, seeds, berries, wild onions, tule roots, and greens. Large and small game included deer, elk, antelope, bear, mountain lion, raccoon, ground squirrels, rabbit, and

jackrabbit, plus seals and stranded whales. Migrating waterfowl, pigeons, quails, and hawks were also part of their diet, along with a variety of anadromous fish (steelhead, salmon, and sturgeon), sharks, sardines, lampreys, mussels, and abalone. Throughout the Bay Area, the large number of shell middens attests to their reliance on marine resources. The Ohlone also practiced annual burning to ensure an abundance of seed-bearing annuals, to increase foraging areas for large game, and to facilitate the gathering of fall-ripened acorns.

A wide array of tools, implements, and enclosures were used by the Ohlone for hunting, gathering and processing natural resources (Levy 1978:491–493). Bows and arrows, traps and snares, deer-head disguises, bolas, nets and net sinkers, and enclosures/blinds were employed for hunting land mammals and birds. Tule watercraft was used for transportation and for hunting fish and waterfowl on enclosed bays and marshes. Fire-hardened digging sticks, beaters, and long poles were used for collecting plant resources. Once collected, seeds, roots, and nuts were placed in burden baskets and transported for processing or storage. The tools used process food resources included portable stone mortars and pestles, bedrock mortars, hopper mortars, anvils, woven strainers and winnowers, leaching and boiling baskets, woven drying trays, and knives. Various foods were baked in earthen ovens. There were also shell spoons, basket dippers and mush bowls for serving food, woven water jugs, and woven containers for storing food. Most basketry was twined rather than coiled, woven from willow, rush and tule, and ornamented with Olivella shell beads, abalone pendants, quail plumes and woodpecker scalps.

The Ohlone traded actively with neighboring groups (Davis 1961:23). The Ohlone traded mussels, abalone shells, dried abalone, and salt to the Yokuts and Olivella shells to the Miwok. From the groups to the east, they obtained pine nuts, feather blankets, basketry materials, paints, and obsidian. Historic records also indicate Ohlone triblets engaged in warfare with the Esselen, Salinan, and Northern Valley Yokuts over territorial disputes (Levy 1978:488).

Today, descendants of Costanoan tribelets are concerned with revitalizing aspects of their culture, learning the language through notes collected by anthropologist John Harrington, and preserving the natural resources that played a vital role in traditional culture. These groups include the Amah-Mutsun Tribal Band, Costanoan Band of Carmel Mission Indians, Costanoan Ohlone Rumsen-Mutsen Tribe, Costanoan Rumsen Carmel Tribe, Costanoan/Mutsun Indians of California, and Ohlone/Costanoan Esselen Nation, several of which have petitioned the Bureau of Indian Affairs for federal recognition (500 Nations 2019).

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 (Statutes of 2014), Native American tribal contacts in Santa Clara County were sent letters via certified mail on October 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, and Kanyon Sayers-Roods, MLD, Indian Canyon Mutsun Band of Costanoan; Charlene Nijmeh, chairperson, and Monica Arellano, vice chairperson, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area; Katherine Erolinda Perez, chairperson, and Timothy Perez, North Valley Yokuts Tribe; Andrew Galvan, Ohlone Indian Tribe; Kenneth Woodrow, chairperson, Wuksache Indian Tribe/Eshom Valley Band; Corrina Gould, chairperson, The Confederated Villages of Lisjan; and Quirina Luna Geary, chairperson, Tamien Nation.

A request to consult was received from the Tamien Nation. The Authority met with members of the Tamien Nation on November 15, 2021 to discuss the project. Following this meeting, the Authority integrated recommendations from the Tamien Nation that were received during AB 52 consultation into mitigation measures to avoid impacts to inadvertent discoveries of TCRs. The Authority summarized these measures in a letter that was sent to tribal representatives on November 17, 2021. A response was received on January 3, 2022, from Chairwoman Quirina Luna Geary stating that concerns were addressed during AB 52 consultation. AB 52 consultation is considered complete.

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 or historical resources, as defined by PRC Section 5024.1, are known to occur in the project area. 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.

Ground disturbing activities associated with construction of the project could result in the discovery of an unknown TCR or historical resource, which could lead to a significant impact if the appropriate measures were not taken to preserve the significance of the discovery. The Authority will implement Mitigation Measure CUL-1, which requires cultural awareness training for construction workers and that a tribal monitor be invited to monitor construction activities. The Authority will also implement Mitigation Measure CUL-2 in the event of discovery of unknown potential TCRs, which would reduce potential impacts associated with the discovery of a TCR or historical resource by requiring all work to stop within 50 feet of discovery of a potential prehistoric archeological site (including midden soil, chipped stone, bone, or shell) that could contain TCRs until a qualified archaeologist can assess the find. If the qualified archaeologist determines the archaeological material to be Native American in nature, the Authority will contact the appropriate Native American tribe for their input on the preferred treatment of the find.

Mitigation Measure CUL-3 would also be implemented if human remains were discovered during construction, which will require all work to stop and the County Coroner to be notified immediately. If the human remains are Native American in origin, the NAHC will be notified within 24 hours and the Authority will adhere to the NAHC's guidelines regarding the treatment and disposition of the remains. The NAHC-designated MLD will determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed.

Mitigation Measures CUL-1 through CUL-3 were developed through the AB 52 consultation process. 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 be clearly reduced to **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?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.19.1 Environmental Setting

The project is within the larger, undeveloped RCAN, with no major utility services, such as water, wastewater treatment, electricity, natural gas, or stormwater drainage facilities. The City of San José Code Enforcement Division is certified by the California Department of Resources, Recycling and Recovery as the Local Enforcement Agency for the city of San José, which includes the project area. The Code Enforcement Division inspects and monitors for compliance with federal, state, and local solid waste regulations; authorizes facilities to operate under a permit that imposes strict conditions for the type and volume of material that may be processed or disposed; participates in the review of proposed developments on closed landfill sites; and responds to compost odor complaints and posts reports of findings of investigations (City of San José n.d. b).

Garbage within the project vicinity is collected by Garden City Sanitation; recycling is collected by California Waste Solutions; and yard trimmings are collected by Green Waste Recovery (City of San José n.d. c). The closest landfill to the project area is Kirby Landfill, located approximately 6 miles to the east. Kirby Landfill is an 852-acre waste disposal site that accepts non-hazardous solid waste including construction and demolition debris, industrial and special waste, and municipal solid wase (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?

No impact. The project does not propose the construction or relocation of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities. As described in Section 3.10, "Hydrology and Water Quality," runoff from the trails and gathering areas would disperse into surrounding natural areas and percolate into the ground, and no additional stormwater drainage systems would be required. While the project would result in an increase in visitation to the area, the existing parking lots would limit the number of visitors. For these reasons, project would not require the construction or relocation of utility services which could cause significant environmental effects; **no impact** would occur.

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. Some water would temporarily be required for dust abatement during construction, which would be sourced from a water truck. No other water would be required for construction or operation. 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?

No impact. The project does not propose the construction of vault toilets, or other forms of wastewater utilities. An existing restroom associated with the existing public access features adjacent to the project area would service the project. The additional public access features developed by the project have the potential to increase visitation, which could increase the use of the existing restroom to an extent that would impact the wastewater treatment provider's ability to service the area. A third-party contractor services the existing restroom and transports wastewater to the South County Regional Wastewater Treatment Plant (WWTP) which has a 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 contribution to wastewater 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. Furthermore, the size of the existing parking lots would help limit visitation. For these reasons, the project would not result in a determination by the WWTP that it is unable to serve the project's projected demand and **no impact** would occur.

d) e) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals and comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No impact. 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 demolished materials and trash generated by construction personnel. Existing project features to be demolished would be limited to an asphalt pad, concrete picnic table, barbed wire fencing, and remnants of the ranch road located in the northeast portion of the project area. Construction crews would be small, consisting of 5-10 personnel, and the trash generated from construction personnel would be minimal.

During operation, the number of visitors to the project area would increase over existing conditions with the additional public access facilities, however the existing parking lots would limit the number of visitors to the project area. Trash generated by recreational users would be minimal, typically consisting of food and beverage waste. Given the ample existing capacity of the Kirby Canyon Landfill (16,191,600 tons) and the limited amount of solid waste that would be generated during construction and operation, solid waste would not be generated in excess of local standards or capacity of local infrastructure and there would be no impact.

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?	☒ Yes		☐ No	
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐

3.20.1 Environmental Setting

REGIONAL SETTING

The project is within Santa Clara County, which contains "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). The California Department of Forestry and Fire Protection (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). The city of San José is largely composed of urban and suburban neighborhoods with generally lower wildfire risk; however, the portions of the city within the Wildland Urban Interface, which includes portions of the Santa Cruz Mountains where the project is located, are vulnerable to wildfires given their proximity to vegetative fuels (City of San José 2011b).

FIRE HAZARD SEVERITY ZONE

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 designated as Very High (CAL FIRE 2008). The purpose of classifying

areas as very high fire hazard severity zones is to allow local officials to require mitigation measures that reduce the rate of spread and potential intensity of uncontrolled fires that threaten to destroy resources, life, and/or property at the urban edge of their jurisdiction (CAL FIRE 2007).

The project area is within the city of San José, where the SJFD has jurisdiction. As discussed in Section 3.15, "Public Services", the SJFD works in collaboration with the Santa Clara, Milpitas, and Santa Clara County Fire Departments through county-wide Automatic Aid and Mutual Aid programs to provide fire protection services. This program allows the station closest to the scene of the fire, when available, to respond to the incident first.

EMERGENCY RESPONSE PLANS

As described in Section, 3.9, "Hazards and Hazardous Materials", the EOP prepared by the city of San José provides an overview of the city's approach to emergency response, including response to wildland fires. Following the 2018 Camp Fire, 2017 North Bay Fires, and 2017 Coyote Creek Flood, additional policies were added to aid evacuation and care of those with access and functional needs and family pets. These policies led to the development of several emergency annexes including crisis communications, damage assessment, debris clearance, mass care and shelter, and recovery (City of San José 2019).

To further assist with wildfire issues, Santa Clara County prepared the County Community Wildfire Protection Plan (CWPP) (Santa Clara County 2016b). The project area is within the Almaden Valley Planning Area of the CWPP. Characteristics of the Almaden Valley Planning Area that increase wildfire risk include the fact that many of the homes and buildings in the area are historic and have wooden roofs and siding that are at an increased risk of ignition from flying embers; the limited presence of fire hydrants in the area; and the remote roads typical of the area that make emergency access more difficult. To encourage the retrofitting of wooden roofs common in the area, Mitigation Measure SCC-EO3-1 of the CWPP would support workshops and other community events to increase awareness regarding home hardening and defensible space. Mitigation Measures SCC-FC13.1, SCC-FC13.2, SCC-FC13.3 would help identify needed improvements to the water distribution system, initially focusing on areas of highest wildfire hazard. Additionally, Mitigation Measure SCC-FC8.1 would help improve ingress/egress capabilities by establishing secondary access roads in current single access areas and ensure the safe and rapid evacuation of residents during fire response and suppression activities (Santa Clara County 2016b).

3.20.2 Discussion

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

Less-than-significant impact. The project area is within the jurisdiction of both the city of San José OEP and the Santa Clara County CWPP (City of San José 2019; Santa Clara County 2016b). The project would not impair the San José OEP 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. However, the existing parking lots, which have a capacity of 96 vehicles and 5 horse trailers (or fewer vehicles and additional horse trailers in the overflow lot), would help limit the visitation of the project area. Furthermore, project structures would be limited to the Llagas Creek Bridge, which would be constructed from prefabricated weathering steel with a concrete deck, along with seating areas. None of the project features would affect characteristics of the Almaden Valley Planning Area that increase wildfire risk such as emergency access and the limited presence of fire hydrants in the area. Furthermore, smoking is prohibited within the project area at all times per Authority regulations, and all internal combustion equipment used in the project area be equipped with federal- or state-approved spark arrestors per PRC 4442, which would minimize accidental wildfire ignitions. 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 impact. The project area consists of California annual grassland, blue oak woodland, mixed oak woodland, and mixed riparian vegetation (Authority 2019a). The oak woodland and grassland habitats are susceptible to wildfire (Heady 1972; McCreary 2004); and as described above in criterion a), the project would increase public access to the area, which could increase the potential for ignitions. However, the existing parking lots would limit visitation to the project area, and the project features would be limited and composed mainly of non-flammable material. In addition, only low intensity recreation would be permitted, such as hiking and horseback riding, thus no recreation equipment with a potential to create sparks would present in the project area. Furthermore, smoking is prohibited within the project area at all times per Authority regulations, and all internal combustion equipment used in the project area be equipped with federal- or state-approved spark arrestors per PRC 4442, which would minimize accidental wildfire ignitions. For the reasons described, 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?

No impact. The project would not require the installation of associated infrastructure such as roads, fuel breaks, power lines, or other utilities that may exacerbate fire risk; therefore, **no impact** would occur.

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

Less-than-significant impact. The 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?	☐	☒	☐	☐
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.)	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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 impact (for all other topics). As described in Chapter 2 "Project Description," the project would result in approximately 2,090 feet of temporary disturbance (0.048 acre), which would be reseeded with a native plant seed mix following construction, and approximately 7,000 square feet (0.16 acre) of permanent disturbance.

Construction would occur within riparian habitat and oak woodland, which are given special consideration under the Habitat Plan and are defined as sensitive natural communities. In addition, the riparian habitat along Llagas Creek is regulated by CDFW under Section 1602 of the California Fish and Game Code, which provides for the protection of fish, wildlife, and native plant resources. The project would therefore have the potential to degrade wildlife habitat, adversely affect wildlife populations, or restrict the range of special-status species.

There are six special-status plants that could occur in the project area, one of these species is covered under the Habitat Plan. The minor loss of or temporary disturbance to habitat associated with construction of the Llagas Creek

Bridge, gathering and seating areas, trails, and other project elements would not result in a substantial reduction in the habitat for special-status plants, due to the relative abundance of undisturbed land cover of the same types within RCAN. Furthermore, protocol botanical surveys conducted within the project area did not detect the presence of special-status plants and it is therefore unlikely that the construction of the project would result in direct impacts to individual special-status plants.

Two special-status invertebrates, one special-status fish, seven special-status amphibians and reptiles, six special-status birds, and seven special-status mammals are known to occur or could occur in the project area. The two special-status invertebrates (Crotch bumble bees [*Bombus crotchii*] and monarch butterfly [*Danaus plexippus*]) could be affected by project construction if host plants are trampled or removed. To avoid adverse effects on the Crotch bumble bee, the Authority would implement Mitigation Measure BIO-2 which would avoid disturbance and destruction of bumble bee nest colonies through preconstruction surveys and as well as prohibiting ground disturbing activities in the vicinity of the nest during the season when colonies are active. Mitigation Measure BIO-1 would also preserve adequate nectar resources around active colonies during the flight period to support reproduction. Due to the small size of the temporary (0.048 acre) and permanent (0.16 acre) disturbance footprint, the impact to monarch butterfly by the potential removal or trampling of host plants would not be substantial. In addition, there is abundant habitat for monarch butterfly host plants in the vicinity of the project area.

The project would also have a substantial effect on the special-status fish species (Monterey roach [*Lavinia symmetricus subditus*]) because all permanent disturbance associated with the Llagas Creek Bridge would occur above the OHWM of Llagas Creek. Crossing of the creek during construction may occur, but would use the existing ford when there is no water present, and the vehicles used would be comparable to those that currently use the ford (e.g., crew trucks, mini excavator) and are therefore not likely to cause substantial disturbance of the creek bed. The bridge would result in shading of the creek; however, the shaded area would not impact a substantial portion of the creek and would not result in a substantial impact to suitable habitat for Monterey roach.

Four of the special-status amphibian and reptile species (Foothill yellow-legged frog [*Rana boylii]*, California red-legged frog [*Rana draytonii*], Central California Distinct Population Segment of California tiger salamander [*Ambystoma californiense*], and Western pond turtle [*Actinemys marmorata*]) are covered under the Habitat Plan and may occur within the project area. The project would not result in permanent impacts below the OHWM of Llagas Creek and would avoid the small ephemeral stream within the project area. Crossing of the creek during construction may occur, but would use the existing ford when there is no water present, the vehicles used would be comparable to those that currently use the ford (e.g., crew trucks, mini excavator), and the ford would be abandoned once construction is complete; therefore, the project is not likely to cause substantial disturbance of the creek bed. Therefore, the project would not result in substantial impacts on aquatic habitat for these species. Construction activities could result in runoff of sediment into aquatic habitat which could degrade habitat for these species; however, temporary erosion control measures would be installed prior to construction, which would avoid or minimize sediment flow to the creek during construction.

Three other special-status amphibian and reptile species not covered under the Habitat Plan could also occur in the project area: California giant salamander (*Dicamptodon ensatus*), Santa Cruz black salamander (*Aneides niger*), and coast horned lizard (*Phrynosoma blainvillii*). If California giant salamander, Santa Cruz black salamander, and/or coast horned lizard are present in the project area during construction, ground disturbing activities, vehicle use, and other construction activities could result in injury or death of individuals. To avoid injury or death of these species the Authority would implement Mitigation Measure BIO-2, which requires a speed limit of 15 miles per hour within the project area, preconstruction surveys, worker awareness training, and work stoppage if California giant salamander, Santa Cruz black salamander, and coast horned lizard are found within the project area during construction.

Special-status bird species known to occur or could occur in the project area are: Least Bell's vireo (*Vireo bellii pusillus*), tricolored blackbird (*Agelaius tricolor*), golden eagle (*Aquila chrysaetos*), loggerhead shrike (*Lanius ludovicianus*), purple martin (*Progne subis*), yellow-breasted chat (*Icteria virens*), and white-tailed kite (*Elanus leucurus*). Potentially suitable nesting habitat is present in and around the project area for Least Bell's vireo and tricolored blackbird. Suitable nesting and foraging habitat is present for the loggerhead shrike, purple martin, and yellow-breasted chat. And only suitable foraging habitat is present for the golden eagle and white-tailed kite.

Construction of the project would result in temporary disturbance and permanent removal of foraging and nesting habitat for these special-status birds; however, this reduction in habitat would not be minimal. Furthermore, there is an abundance of available habitat in the vicinity of the project area. The project is within an area where surveys for the species are required as a Condition of Approval of the Habitat Plan (i.e., Condition 16 and 17), along with the requirement that no work would be performed within a species-specific buffer around nests during the breeding season (March 15 through July 31). The Authority would also implement Mitigation Measure BIO-3, which requires preconstruction surveys for nesting birds and establishes non-disturbance buffers within a 500-foot radius of active nests for raptors and a 50-foot non-disturbance buffer for non-raptors if construction occurs during the nesting bird season (January 1 – August 31).

Special-status mammals known to occur or could occur in the project area are: While Townsend's big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis californicus*), pallid bat (*Antrozous pallidus*), American badger (*Taxidea taxus*), ringtail (*Bassariscus astutus*), Southern California and Central Coast Evolutionary Significant Units of mountain lion (*Puma concolor*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). Construction of the project could result in the permanent disturbance of foraging and nesting habitat for special-status mammals; however, this reduction in habitat would not be substantial due the relatively small impact area when compared to the available foraging and roosting habitat in the RCAN. While tree removal is not proposed as part of the project, if tree trimming or pruning is performed on a tree containing a pallid bat roost or if construction activities occur within 50 feet of a bat roost during the maternity roosting season (April 1 through August 31), bats could abandon their roost, which could result in injury or death of young bats. To avoid and minimize adverse effects on pallid bat maternity roosts the Authority would implement Mitigation Measure BIO-4 which would require preconstruction surveys for roosts prior to project construction and avoidance of roosts when present in the project area during the breeding season.

The project could also disturb active American badger and ringtail dens if any are present within or adjacent to the project area during construction. The removal of active dens could result in injury or death of individuals of these species. Noise and vibration from construction activities could also result in the disturbance of maternity dens if disturbance occurs during the season when young may be in the den. The Authority would implement Mitigation Measure BIO-5, which requires preconstruction surveys for American badger and ringtail dens, and the application of 50-foot non-disturbance buffers during the non-breeding season and 100-foot buffers during the breeding season for American badger to avoid and minimize direct and indirect disturbance of dens, and application of 100 foot buffers around ringtail dens during the breeding season, which would reduce potential adverse effects on American badger and ringtail dens.

If dusky-footed woodrat nests occur within the project area and are removed entirely by project construction, this could have a substantial adverse effect on the local population due to the limited number of nests in any location. The removal or disturbance of nests could also result in the injury or death of individual woodrats, and if disturbance or removal occurs during the season when young are in the nest (April through July), injury or death of young woodrats could also occur. The injury or death of individuals and young would have a substantial adverse effect on the local population. The Authority would implement Mitigation Measure BIO-6 to avoid and minimize adverse effects on San Francisco dusky-footed woodrat by conducting preconstruction surveys for woodrat nests prior to construction and avoiding nests when present in the project area or consulting with CDFW to determine measures to remove and reconstruct nests outside of the limit of work for the project.

With implementation of Mitigation Measure BIO-1 through Mitigation Measure BIO-6, as well as applicable Habitat Plan Conditions, the project would not substantially degrade wildlife habitat, adversely affect wildlife populations, or restrict the range of special-status species. Therefore, the project would avoid mandatory significance findings and the impact would be clearly reduced to **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 and Mitigation Measure CUL-2 to reduce impacts to cultural and tribal cultural resources from ground disturbance. Mitigation Measure CUL-1 requires cultural awareness training for construction workers and that a tribal monitor be invited to monitor construction activities. Per

Mitigation Measure CUL-2, 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 consultation with the affiliated Native American tribe if the discovery is a prehistoric archeological site. With implementation of Mitigation Measure CUL-1 and CUL-2, the project would not risk the elimination of important examples of the major periods of California history or prehistory. The impact would be clearly reduced to **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 impact. 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 project, and reasonably foreseeable future projects. Information pertaining to closely related 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:

- Santa Clara Valley Water District (SCVWD)
- City of San José
- City of Santa Clara
- Santa Clara County
- City of Morgan Hill

As shown in Table, 11 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

No.	Project Name	Agency	Description	Status/Timing	Location
1	Calero County Dam Seismic Retrofit Project	SCVWD	The SCVWD proposes to seismically retrofit the Calero County Dam due to the presence of alluvium (gravel and sand from the underlying creek bed) under the downstream dam embankment that could liquefy during a major earthquake on a nearby fault and cause the dam to deform significantly.	The project is currently in the planning and design stage, and CEQA compliance is underway.	Calero County Reservoir, approximately 2.7 miles north of the project area.
2	Upper Llagas Creek Flood Control Project	SCVWD	The Upper Llagas Creek Flood Control Project consists of 13.9 miles of flood protection improvements along East Little Llagas Creek, West Little Llagas Creek, and Llagas Creeks.	Construction of Phase 1 of the project began in September 2019 and is expected to be complete in December 2023.	Located within the cities of Gilroy, Morgan Hill, and the unincorporated area of San Martin. The closest flood protection improvements to the project are in the City of Morgan Hill, approximately 6 miles east of the project area.
3	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, approximately 5.6 miles northeast of the project area.
4	Malech Road Public Access Improvement Project	Authority	The Authority proposes to develop a parking and staging area and new public access features within the boundary of the Malech Road property with CRID. The project would include the establishment of a formal entrance with a paved access road and public parking areas; an ADA-accessible central gathering area and restroom; and two walking/hiking trails compliant with the ABA Accessibility Guidelines for Outdoor Developed Areas and associated picnic areas, benches, and overlooks equipped with shade structures and interpretive signage.	The project is currently in the planning and design stage, and CEQA compliance is underway. First phase of construction planned for July 2022.	Adjacent to CRID, approximately 5.6 miles northeast of the project area.

No.	Project Name	Agency	Description	Status/Timing	Location
5	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 4 miles northeast of the project area.
6	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 4 miles southwest of the project area.
7	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 was approved by the Board in September 2021. IPM implementation will be ongoing.	All Authority lands, including the project area.
8	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.
9	Bikeways, Trails, Parks, and Recreation Master Plan	City of Morgan Hill	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 6 miles east of the project area.
10	Magical Bridge Playground at Community Park	City of Morgan and County of Santa Clara	The City of Morgan Hill and the City of Santa Clara are working in collaboration with the Magical Bridge Foundation to construct an accessible park at Community Park.	Construction began in July 2020 and is expected to be complete in late fall 2021.	Community Park, approximately 7.5 miles southeast of the project area.
11	Gateway Crossings New Neighborhood Park	City of Santa Clara Parks and Recreation	The Holland Partner Group is developing a schematic design for a new public neighborhood park called Gateway Crossings.	The project is in the planning phase; the City of Santa Clara Parks and Recreation is seeking the community's input on the park design elements.	1205 Coleman Avenue approximately 8.5 miles northwest of the project area.

Notes: SCVWD = Santa Clara Valley Water District, CEQA = California Environmental Quality Act, CRID = Coyote Ridge Open Space Preserve, ADA = Americans with Disabilities Act, ABA = Architectural Barriers Act, IPM = Integrated Pest Management

Source: Authority 2018; Authority 2019b; Authority 2021a; Authority 2021b; Authority n.d. a; Authority n.d. b; City of Morgan Hill 2017; City of Morgan Hill n.d.; POST 2020; SCVWD n.d. c; SCVWD n.d. d; SCVWD 2021; City of Santa Clara Parks and Recreation n.d.

Cumulative Impact Analysis

The project would have no impact on Agriculture and Forest Resources, Land Use and Planning, Mineral Resources, Population and Housing, and Utilities and Service Systems, as discussed above in Section 3.2, "Agriculture and Forest Resources," Section 3.11, "Land Use and Planning," Section 3.12, "Mineral Resources," Section 3.14, "Population and Housing," and Section 3.19, "Utilities and Service Systems." Therefore, the project would not cause or contribute to any cumulative impact to these resource areas, and no corresponding cumulative analysis is provided.

Aesthetics

The project would not damage scenic resources (e.g., trees, rock outcroppings, and historic buildings) within a state scenic highway (significance criterion "b"), 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 aesthetics because aesthetic and visual resource impacts are highly localized. The geographic extent for considering cumulative aesthetic impacts includes all projects located within the Santa Cruz Mountain foothills in the same viewshed as the project (i.e., area visible from a viewer's location). The viewshed includes IPM Program and operation and maintenance activities occurring within RCAN. 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. 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.**

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 regions 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.

Santa Clara County is designated as nonattainment for ozone, PM_{10}, and $PM_{2.5}$ with respect to the CAAQS and ozone and $PM_{2.5}$ with respect to the NAAQS, as shown in Table 3.3-2 of Section 3.3 "Air Quality." 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 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. In addition, the Authority would implement BAAQMD's Basic Construction Mitigation Measures, as required by Mitigation Measure AQ-1, which would minimize fugitive dust emissions during construction. 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 regions 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 RCAN. 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. Sensitive receptors, which include land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly, are limited given that the project area is within the rural RCAN used mainly for recreation. 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 any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (significance criterion "e"); or 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. These impacts are 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"), and the movement wildlife species (significance criterion "d"). 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 included in this cumulative analysis.

Special-Status Plant Species

Six special-status plants, one of which is covered in the Habitat Plan, could occur in the project area (see Table 3.4-1 for species names and blooming periods of these species). However, protocol surveys of the project area did not detect special-status plants, so it is unlikely that any special-status plants would be directly adversely affected by the project. Furthermore, the project would not substantially reduce habitat for special-status plants. Therefore project construction would not result in a substantial adverse effect on local and regional populations of these species. Cumulative projects containing areas where these identified plant species are known to occur or could occur could result in a cumulatively considerable impact; therefore, the cumulative scenario for special-status plants is significant. However, because the project is not likely to have a substantial adverse effect on special-status plants, the project's impact would **not be a considerable contribution to this cumulative impact.**

Special-Status Animal Species

According to the Habitat Plan EIR/EIS, cumulative impacts were determined to be significant for the American badger 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 not covered in the Habitat Plan were determined to not be cumulatively significant and because the project would not result in any significant and unavoidable impacts to these 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 American badger and monarch butterfly is significant.

Overwintering sites for monarch butterflies do not occur in the project area. In addition, the project would not disturb a substantial number of milkweed host plants if present in the project area because the project is of limited size and would result in only 0.048 acre of temporary disturbance and 0.16 acre of permanent project features. Furthermore, there is an abundance of potential milkweed habitat throughout RCAN (approximately 5,428 acres). Due to the lack of monarch overwintering sites in the project area, the small number of milkweed plants that could potentially be removed, should any occur, and the abundance of potential habitat in the vicinity of the project area, the project **would not result in a cumulatively considerable contribution to this cumulative impact**.

Impacts to American badger as a result of the project were determined to be less than significant with implementation of mitigation. The Authority would implement Mitigation Measure BIO-5, which requires preconstruction surveys for American badger dens, and the application of 50-foot non-disturbance buffers during the non-breeding season and 100-foot buffers during the breeding season to avoid and minimize direct and indirect disturbance of dens. Therefore, with implementation of Mitigation Measure BIO-5, significant impacts to American Badger would be avoided or substantially minimized and 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 impacts to riparian habitat and other sensitive natural communities is not significant.

Although construction of the project would occur within riparian habitat and oak woodland designated as sensitive natural communities, vegetation removal within riparian and oak woodland habitat would be limited and would not cause a change to habitat type or function. Furthermore, the Authority would install temporary erosion control measures; all disturbed portions of the project area would be reseeded with a native plant seed mix following construction; and all runoff from the trails and gathering areas would disperse into surrounding natural areas to percolate into the ground. In addition, the Authority would submit a Streambed Alteration Notification to CDFW. If the project is determined to be subject to CDFW jurisdiction under Section 1602, the Authority would abide by the conditions of any executed Streambed Alteration Agreement. Implementation of these measures and the limited vegetation removal would ensure that 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 result in dredging or fill below the OHWM of Llagas Creek; although the existing ford may be used to cross the creek during construction, the project would not result in substantial adverse effects on the streambed of Llagas Creek itself. Similarly, the project would avoid working within the unnamed ephemeral stream, and no direct impacts would occur to that feature. The

Authority would also install temporary erosion control measures prior to construction, which would avoid or minimize erosion and sediment flow that could potentially degrade protected waters during construction. All disturbed portions of the project area would be reseeded with a native plant seed mix following construction, and all runoff from the trails and gathering areas would disperse into surrounding natural areas to percolate into the ground. The Authority is also 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 (refer to Section 2.7, "Habitat Plan Conditions on Covered Activities"), including Condition 3, 4, and 11, which would minimize disturbance, require stream setbacks, and require measures to protect water quality, such as preventing the accidental release of fuel and lubricants and minimizing site erosion, which would further avoid and minimize potential runoff impacts to Llagas Creek and the unnamed ephemeral stream. 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 public access cumulative projects and programs listed in Table 3.21-1 and the project would include the construction of linear features (i.e., trails), 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 (i.e., trails, gathering and seating areas, fencing) would not be tall or continuous enough to prevent the passage of wildlife though the project area. Therefore, the project would not create a cumulatively significant impact and there is **no 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), the Ohlone previously inhabited the region, along with other neighboring groups including the Coast Miwok, Miwok, Northern Valley Yokuts, and the Salinan and Esselen (NIC 2019); therefore, it is possible that unrecorded prehistoric archaeological materials could be unearthed during ground disturbing construction activities and from use of heavy equipment. To reduce the potential impact on archaeological resources, the Authority will implement Mitigation Measure CUL-1, which requires cultural sensitivity training for construction workers and inviting a tribal representative to monitor construction activities. If an unknown archeological resource is discovered during project construction, the Authority will implement Mitigation Measure CUL-2. Per Mitigation Measure CUL-2, all work will stop within 50 feet of the discovery until a qualified archaeologist can assess the find. Depending on the significance and type of find, specific actions will be implemented, which could include consultation with the affiliated Native American tribe if the discovery is a prehistoric archeological site. With implementation of Mitigation Measures CUL-1 and CUL-2, the project would not cause a substantial adverse change

in the significance of an archaeological resource pursuant to Section 15064.5, and 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-3, which requires discovered human remains to be treated in accordance with the State of California Health and Safety Code Section 7050.5, 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 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 also 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 public access projects implemented by the Authority (CRID Public Access Improvement Project, Malech Road Public Access Improvement Project, Heart's Delight Trail Improvements Project, and Coyote Valley Conservation Areas Master Plan) 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 public access cumulative projects along with the other cumulative projects listed in Table 3.21-1, such as the Calero County Dam Seismic Retrofit Project, Upper Llagas Creek Flood Control Project, and Magical Bridge Playground at Community Park, 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.

While construction and operation of the project would result in increased energy use, the 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. Additionally, the project would not conflict with or obstruct the City of County's Sustainability Master Plan strategies because the policies on conservation and energy efficiency in buildings do not apply given that the project only involves the construction of minor infrastructure. 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"); be located on expansive soil creating substantial direct or

indirect risks to life or property (significance criterion "d"); or 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 (significance criterion "e"); therefore, the project would not contribute to corresponding cumulative impacts; these impacts are 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"); 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 0.10-mile radius from the project area. Within 0.1 mile of the project area are the general operation and maintenance activities implemented by the Authority and pest management activities implemented under the IPM Program in RCAN.

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. Thus, no cumulative impact would occur related to seismic ground shaking, seismic-related ground failure, unstable geologic units or soil, expansive soil, 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. In addition, ground disturbing pest management activities would occur throughout the Authority's preserves; the frequency and extent that they would occur within 0.10-mile of the project would be minimal. Thus, the cumulative scenario for geologic and seismic hazards is not cumulatively significant.

Similarly, the project's cumulative contribution to seismic hazards would be minimal because no habitable structures would be developed. New facilities would be limited to the Llagas Creek Bridge and benches; no overhead structures would be built that could result in injury due to a seismic hazard. In addition, only 0.048-acre of total temporary ground disturbance would occur, which would not result in substantial soil erosion or loss of topsoil. 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 cumulative scenario encompasses 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 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 263 $MTCO_2e$ from equipment use and vehicle trips during construction. During operations, the project is estimated to generate less than 50 $MTCO_2e$ per year from area sources (i.e., landscape equipment), solid waste generation, wastewater generation, and mobile sources (i.e., vehicle trips). The annual operational emissions under the project would be well below 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 promote carbon sequestration through participation in the Habitat Plan's Reserve System. As described in Section 3.8.2, criterion b), the project would not conflict with the City's efforts to reduce GHG emissions because it would not result in substantial ongoing energy use,

would be a local serving use for low intensity recreational activities, and would promote restoration of land. 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 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 RCAN.

Operations and maintenance and IPM Program activities 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 activities would occur within the project area and RCAN, 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 activities associated with the IPM Program, and general operations and maintenance of the project area and RCAN. For these reasons, the cumulative scenario is not significant.

Similarly, construction of the project would require the use of limited quantities of common 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. In addition, in the event NOA is identified in the project area, the Authority would implement CARB's ATSM for Construction, Grading, Quarrying, and Surface Mining Operations and all required actions to minimize emissions of dust during construction. 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 substantially decrease groundwater supplies or interfere substantially with groundwater recharge (significance criterion "b") or risk release of pollutants due to project inundation from being within a flood hazard, tsunami, or seiche zones (significance criterion "d"); therefore, the project would not contribute to corresponding cumulative impacts. These impacts are 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"), 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 and general operations and maintenance activities conducted in the project area and RCAN.

Operations and maintenance activities and manual and mechanical IPM treatments conducted within the project area and RCAN include vehicle and equipment use for road and trail maintenance and vegetation management. These activities would be minor and intermittent, limited to the areas requiring upkeep, and would not result in ongoing water use, 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. For these reasons, the cumulative scenario would not be significant.

Similarly, the project would not construct buildings or large areas of impervious surfaces that could lead to water quality impacts. Construction stormwater capture elements would be installed prior to construction to help prevent erosion and sedimentation, and pollutants or contaminants from entering Llagas Creek or other surrounding water bodies. All work to install the Llagas Creek Bridge would occur outside of the OHWM and buried rock slope protection would be installed between the bridge footings and the creek channel to prevent erosion into the creek. 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 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels (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 given the highly localized nature of noise and vibration impacts. Within 0.25-mile of the project are the IPM Program activities and general operation and maintenance work conducted at RCAN and within the project area.

IPM treatments and operations and maintenance activities could generate noise as a result of mechanical equipment use, such as mowers, weed whips, and occasional all-terrain vehicles. 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 RCAN. Therefore, the cumulative scenario for noise would not be significant.

While the project would generate construction noise and vibration, construction activities would occur during the less sensitive daytime hours, as required in the San José Municipal Code, and would not exceed applicable standards (i.e., 60 dBA L_{eq} at the nearest noise-sensitive land use). 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 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 jurisdictions of the SJFD and SJPD. All of the cumulative projects listed in Table 3.21-1 are within the jurisdiction of either the SJFD, SJPD, or both and are included in this cumulative analysis.

The cumulative projects involve water infrastructure and flood protection improvements, 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 project would increase visitation, the project includes recreation features for passive recreation, including hiking and nature appreciation and only be open to the public from sunrise to sunset, which would limit the need for additional police or fire protection. Furthermore, RCAN is currently accessible to the public, so any increase in need for police and fire protection would be minimal. 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 the county of Santa Clara, therefore, all of the cumulative projects listed in Table 3.21-1 are included in this analysis.

The cumulative projects involve water infrastructure and flood protection improvements, 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 cumulative projects involving the construction of recreational facilities could lead to an adverse effect on the physical environment. However, many of the projects, including the CRID Public Access Improvement Project, Malech Road Public Access Improvement Project, and Heart's Delight Trail Improvements Project, consist of 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 significant.

Similarly, the project would develop public access features to allow the public to further enjoy a portion of RCAN, 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 project 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 5 miles to encompass the local roadways that serve the project area: Casa Loma Road, Bailey Avenue, and McKean Road. Cumulative projects within 5 miles of the project area are operations and maintenance activities and IPM Program activities occurring within RCAN, along with the Calero County Dam Seismic Retrofit Project, Upper Llagas Creek Flood Control Project, Coyote Valley Conservation Areas Master Plan, and Heart's Delight Trail Improvements 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 County Dam Seismic Retrofit Project and Upper Llagas Creek Flood Control Project are water

infrastructure improvement projects that would not result in substantial new project-related trips on local roadways during operation. Construction of both projects may result in an incremental increase due to construction-related trips, however, the additional trips would be temporary and limited to the construction phase. The Coyote Valley Conservation Areas Master Plan and Heart's Delight Trail Improvements Project would develop 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, and construction-related trips would be temporary, lasting only the duration of the construction period. Operation of the Coyote Valley Conservation Areas Master Plan and Heart's Delight Trail Improvements Project would allow for additional public access opportunities which would increase trips over existing conditions, however, passive recreation opportunities provided by both projects is not anticipated to substantially increase daily trips in the region nor along the primary access route to the project area, Casa Loma Road. 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.

The region was historically occupied by the tribelets of the Costanoan linguistic group, who are also known today as the Ohlone. Neighboring groups included the Coast Miwok north across the Carquinez Strait, the Miwok and Northern Valley Yokuts to the east, and the Salinan and Esselen to the south. The cumulative projects listed in Table 3.21-1 are within either the areas historically occupied by the Ohlone or neighboring tribes, and inadvertent discovery or damage of unknown TCRs could occur, 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 requires cultural sensitivity training for all construction workers and inviting a tribal representative to monitor construction activities. If potential TCRs are found during construction, the Authority will implement Mitigation Measure CUL-2, which would reduce potential impacts associated with the discovery of a TCR or archaeological resource by requiring all work to stop within 50 feet of discovery of a potential prehistoric archeological site (including midden soil, chipped stone, bone, or shell) that could contain TCRs until a qualified archaeologist can assess the find. If the qualified archaeologist determines the archaeological material to be Native American in nature, the Authority will contact the appropriate Native American tribe for their input on the preferred treatment of the find. Mitigation Measure CUL-3 would also be implemented if human remains were discovered during construction, which will require all work to stop and the County Coroner to be notified immediately. If the human remains are Native American in origin, the NAHC will be notified within 24 hours and the Authority will adhere to the NAHC's guidelines regarding the treatment and disposition of the remains. 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**.

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 county of Santa Clara. All of the cumulative projects listed in Table 3.21-1 are included in the cumulative analysis of wildfire.

The cumulative projects involve water infrastructure and flood protection improvements, 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 is not 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 impact. 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 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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5 REPORT PREPARERS

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 Modeling

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

Llagas Creek Bridge

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	117.20	1000sqft	2.69	117,200.00	0
City Park	0.50	Acre	0.50	21,780.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	3			**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 - Climate zone 3 based on project area zip code.

Land Use - Updated acreage to match PD. Various trail and seating area improvements + new bridge.

Construction Phase - Project to occur over a 6 month period ending in October.

Off-road Equipment - Equipmnt specific for this task.

Off-road Equipment - equipment specific to this action.

Off-road Equipment - Equipment specific for this action.

Trips and VMT - maximum number of construction workers would be 10.

On-road Fugitive Dust - 96% paved roads

Grading -

Vehicle Trips - New trips from expanded maintenance activites and new visitor trips.

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

Construction Off-road Equipment Mitigation - EPM AQ-1

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	NumDays	230.00	70.00
tblConstructionPhase	NumDays	8.00	54.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2024	10/19/2023
tblConstructionPhase	PhaseEndDate	4/19/2023	7/13/2023
tblConstructionPhase	PhaseEndDate	4/7/2023	4/28/2023
tblConstructionPhase	PhaseStartDate	4/20/2023	7/14/2023
tblConstructionPhase	PhaseStartDate	4/8/2023	4/29/2023
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblVehicleTrips	HO_TL	0.00	7.30
tblVehicleTrips	HO_TTP	0.00	6.00

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

tblVehicleTrips	HS_TL	0.00	7.30
tblVehicleTrips	HS_TTP	0.00	28.00
tblVehicleTrips	HW_TL	0.00	9.50
tblVehicleTrips	HW_TTP	0.00	66.00
tblVehicleTrips	ST_TR	1.96	65.00
tblVehicleTrips	SU_TR	2.19	65.00
tblVehicleTrips	WD_TR	0.78	65.00

2.0 Emissions Summary

Exhibit B

Llagas Creek Bridge - 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					
2023	0.1139	1.1423	0.9851	2.3400e-003	3.1700	0.0475	3.2174	0.4303	0.0442	0.4745			208.9927	0.0423	6.9100e-003	212.1087
Maximum	**0.1139**	**1.1423**	**0.9851**	**2.3400e-003**	**3.1700**	**0.0475**	**3.2174**	**0.4303**	**0.0442**	**0.4745**			**208.9927**	**0.0423**	**6.9100e-003**	**212.1087**

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					
2023	0.1139	1.1423	0.9851	2.3400e-003	3.0189	0.0475	3.0664	0.3589	0.0442	0.4031			208.9925	0.0423	6.9100e-003	212.1086
Maximum	**0.1139**	**1.1423**	**0.9851**	**2.3400e-003**	**3.0189**	**0.0475**	**3.0664**	**0.3589**	**0.0442**	**0.4031**			**208.9925**	**0.0423**	**6.9100e-003**	**212.1086**

	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**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**4.77**	**0.00**	**4.70**	**16.59**	**0.00**	**15.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-3-2023**	**7-2-2023**	0.5141	0.5141
2	**7-3-2023**	**9-30-2023**	0.6012	0.6012
		Highest	0.6012	0.6012

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	0.0103	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-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
Mobile	0.0257	0.0283	0.2466	5.2000e-004	0.0576	3.7000e-004	0.0580	0.0154	3.4000e-004	0.0157			48.6733	3.0400e-003	2.2400e-003	49.4172
Waste						0.0000	0.0000		0.0000	0.0000			8.1200e-003	4.8000e-004	0.0000	0.0201
Water						0.0000	0.0000		0.0000	0.0000			0.1929	3.0000e-005	0.0000	0.1948
Total	**0.0360**	**0.0283**	**0.2476**	**5.2000e-004**	**0.0576**	**3.7000e-004**	**0.0580**	**0.0154**	**3.4000e-004**	**0.0157**			**48.8765**	**3.5600e-003**	**2.2400e-003**	**49.6344**

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	0.0103	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-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
Mobile	0.0257	0.0283	0.2466	5.2000e-004	0.0576	3.7000e-004	0.0580	0.0154	3.4000e-004	0.0157			48.6733	3.0400e-003	2.2400e-003	49.4172
Waste						0.0000	0.0000		0.0000	0.0000			8.1200e-003	4.8000e-004	0.0000	0.0201
Water						0.0000	0.0000		0.0000	0.0000			0.1929	3.0000e-005	0.0000	0.1948
Total	**0.0360**	**0.0283**	**0.2476**	**5.2000e-004**	**0.0576**	**3.7000e-004**	**0.0580**	**0.0154**	**3.4000e-004**	**0.0157**			**48.8765**	**3.5600e-003**	**2.2400e-003**	**49.6344**

	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	N20	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	4/3/2023	4/28/2023	5	20	
2	Grading	Grading	4/29/2023	7/13/2023	5	54	
3	Material Laydown	Building Construction	7/14/2023	10/19/2023	5	70	

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 54

Acres of Paving: 2.69

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	Rubber Tired Dozers	1	8.00	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	8.00	97	0.37
Material Laydown	Cranes	1	7.00	231	0.29
Material Laydown	Forklifts	3	8.00	89	0.20
Material Laydown	Generator Sets	1	8.00	84	0.74
Site Preparation	Graders	1	8.00	187	0.41
Material Laydown	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Material Laydown	Welders	1	8.00	46	0.45

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	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

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

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 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					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0122	0.1330	0.0703	1.8000e-004		5.4700e-003	5.4700e-003		5.0300e-003	5.0300e-003			16.0336	5.1900e-003	0.0000	16.1632
Total	**0.0122**	**0.1330**	**0.0703**	**1.8000e-004**	**0.0708**	**5.4700e-003**	**0.0763**	**0.0343**	**5.0300e-003**	**0.0393**			**16.0336**	**5.1900e-003**	**0.0000**	**16.1632**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

3.2 Site Preparation - 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
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	5.0000e-004	3.5000e-004	4.4800e-003	1.0000e-005	0.0818	1.0000e-005	0.0818	8.4200e-003	1.0000e-005	8.4200e-003			1.2227	3.0000e-005	3.0000e-005	1.2336
Total	**5.0000e-004**	**3.5000e-004**	**4.4800e-003**	**1.0000e-005**	**0.0818**	**1.0000e-005**	**0.0818**	**8.4200e-003**	**1.0000e-005**	**8.4200e-003**			**1.2227**	**3.0000e-005**	**3.0000e-005**	**1.2336**

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					0.0319	0.0000	0.0319	0.0154	0.0000	0.0154			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0122	0.1330	0.0703	1.8000e-004		5.4700e-003	5.4700e-003		5.0300e-003	5.0300e-003			16.0336	5.1900e-003	0.0000	16.1632
Total	**0.0122**	**0.1330**	**0.0703**	**1.8000e-004**	**0.0319**	**5.4700e-003**	**0.0373**	**0.0154**	**5.0300e-003**	**0.0204**			**16.0336**	**5.1900e-003**	**0.0000**	**16.1632**

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

3.2 Site Preparation - 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
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	5.0000e-004	3.5000e-004	4.4800e-003	1.0000e-005	0.0816	1.0000e-005	0.0816	8.3900e-003	1.0000e-005	8.3900e-003			1.2227	3.0000e-005	3.0000e-005	1.2336
Total	**5.0000e-004**	**3.5000e-004**	**4.4800e-003**	**1.0000e-005**	**0.0816**	**1.0000e-005**	**0.0816**	**8.3900e-003**	**1.0000e-005**	**8.3900e-003**			**1.2227**	**3.0000e-005**	**3.0000e-005**	**1.2336**

3.3 Grading - 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					0.1912	0.0000	0.1912	0.0925	0.0000	0.0925			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0370	0.4010	0.2501	5.8000e-004		0.0168	0.0168		0.0155	0.0155			50.7273	0.0164	0.0000	51.1374
Total	**0.0370**	**0.4010**	**0.2501**	**5.8000e-004**	**0.1912**	**0.0168**	**0.2081**	**0.0925**	**0.0155**	**0.1080**			**50.7273**	**0.0164**	**0.0000**	**51.1374**

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

3.3 Grading - 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
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	1.3500e-003	9.4000e-004	0.0121	4.0000e-005	0.2207	2.0000e-005	0.2208	0.0227	2.0000e-005	0.0227			3.3013	9.0000e-005	9.0000e-005	3.3307
Total	**1.3500e-003**	**9.4000e-004**	**0.0121**	**4.0000e-005**	**0.2207**	**2.0000e-005**	**0.2208**	**0.0227**	**2.0000e-005**	**0.0227**			**3.3013**	**9.0000e-005**	**9.0000e-005**	**3.3307**

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					0.0861	0.0000	0.0861	0.0416	0.0000	0.0416			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0370	0.4010	0.2501	5.8000e-004		0.0168	0.0168		0.0155	0.0155			50.7272	0.0164	0.0000	51.1374
Total	**0.0370**	**0.4010**	**0.2501**	**5.8000e-004**	**0.0861**	**0.0168**	**0.1029**	**0.0416**	**0.0155**	**0.0571**			**50.7272**	**0.0164**	**0.0000**	**51.1374**

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

3.3 Grading - 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
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	1.3500e-003	9.4000e-004	0.0121	4.0000e-005	0.2204	2.0000e-005	0.2204	0.0226	2.0000e-005	0.0227			3.3013	9.0000e-005	9.0000e-005	3.3307
Total	**1.3500e-003**	**9.4000e-004**	**0.0121**	**4.0000e-005**	**0.2204**	**2.0000e-005**	**0.2204**	**0.0226**	**2.0000e-005**	**0.0227**			**3.3013**	**9.0000e-005**	**9.0000e-005**	**3.3307**

3.4 Material Laydown - 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					
Off-Road	0.0551	0.5035	0.5685	9.4000e-004		0.0245	0.0245		0.0230	0.0230			81.1317	0.0193	0.0000	81.6142
Total	**0.0551**	**0.5035**	**0.5685**	**9.4000e-004**		**0.0245**	**0.0245**		**0.0230**	**0.0230**			**81.1317**	**0.0193**	**0.0000**	**81.6142**

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

3.4 Material Laydown - 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
Vendor	2.5300e-003	0.0999	0.0327	4.5000e-004	0.0346	5.7000e-004	0.0352	9.1200e-003	5.5000e-004	9.6700e-003			43.7376	9.2000e-004	6.4300e-003	45.6767
Worker	5.2500e-003	3.6600e-003	0.0470	1.4000e-004	2.5708	8.0000e-005	2.5709	0.2633	8.0000e-005	0.2634			12.8385	3.7000e-004	3.5000e-004	12.9529
Total	**7.7800e-003**	**0.1036**	**0.0797**	**5.9000e-004**	**2.6054**	**6.5000e-004**	**2.6061**	**0.2724**	**6.3000e-004**	**0.2731**			**56.5762**	**1.2900e-003**	**6.7800e-003**	**58.6296**

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	0.0551	0.5035	0.5685	9.4000e-004		0.0245	0.0245		0.0230	0.0230			81.1316	0.0193	0.0000	81.6141
Total	**0.0551**	**0.5035**	**0.5685**	**9.4000e-004**		**0.0245**	**0.0245**		**0.0230**	**0.0230**			**81.1316**	**0.0193**	**0.0000**	**81.6141**

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3.4 Material Laydown - 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
Vendor	2.5300e-003	0.0999	0.0327	4.5000e-004	0.0319	5.7000e-004	0.0325	8.4500e-003	5.5000e-004	9.0000e-003			43.7376	9.2000e-004	6.4300e-003	45.6767
Worker	5.2500e-003	3.6600e-003	0.0470	1.4000e-004	2.5670	8.0000e-005	2.5671	0.2624	8.0000e-005	0.2625			12.8385	3.7000e-004	3.5000e-004	12.9529
Total	**7.7800e-003**	**0.1036**	**0.0797**	**5.9000e-004**	**2.5989**	**6.5000e-004**	**2.5996**	**0.2708**	**6.3000e-004**	**0.2715**			**56.5762**	**1.2900e-003**	**6.7800e-003**	**58.6296**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	0.0257	0.0283	0.2466	5.2000e-004	0.0576	3.7000e-004	0.0580	0.0154	3.4000e-004	0.0157			48.6733	3.0400e-003	2.2400e-003	49.4172
Unmitigated	0.0257	0.0283	0.2466	5.2000e-004	0.0576	3.7000e-004	0.0580	0.0154	3.4000e-004	0.0157			48.6733	3.0400e-003	2.2400e-003	49.4172

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
City Park	65.00	65.00	65.00	155,804	155,804
Total	65.00	65.00	65.00	155,804	155,804

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-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
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

5.0 Energy Detail

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

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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 Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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 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

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

6.1 Mitigation Measures Area

	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	0.0103	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-003
Unmitigated	0.0103	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-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	2.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7800e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.0103**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**2.1000e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

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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	2.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7800e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.0103**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**2.1000e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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	0.1929	3.0000e-005	0.0000	0.1948
Unmitigated	0.1929	3.0000e-005	0.0000	0.1948

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.595741	0.1929	3.0000e-005	0.0000	0.1948
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.1929**	**3.0000e-005**	**0.0000**	**0.1948**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.595741	0.1929	3.0000e-005	0.0000	0.1948
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.1929**	**3.0000e-005**	**0.0000**	**0.1948**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.1200e-003	4.8000e-004	0.0000	0.0201
Unmitigated	8.1200e-003	4.8000e-004	0.0000	0.0201

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**8.1200e-003**	**4.8000e-004**	**0.0000**	**0.0201**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**8.1200e-003**	**4.8000e-004**	**0.0000**	**0.0201**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

Llagas Creek Bridge

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	117.20	1000sqft	2.69	117,200.00	0
City Park	0.50	Acre	0.50	21,780.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	3			**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 - Climate zone 3 based on project area zip code.

Land Use - Updated acreage to match PD. Various trail and seating area improvements + new bridge.

Construction Phase - Project to occur over a 6 month period ending in October.

Off-road Equipment - Equipmnt specific for this task.

Off-road Equipment - equipment specific to this action.

Off-road Equipment - Equipment specific for this action.

Trips and VMT - maximum number of construction workers would be 10.

On-road Fugitive Dust - 96% paved roads

Grading -

Vehicle Trips - New trips from expanded maintenance activites and new visitor trips.

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

Construction Off-road Equipment Mitigation - EPM AQ-1

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	NumDays	230.00	70.00
tblConstructionPhase	NumDays	8.00	54.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2024	10/19/2023
tblConstructionPhase	PhaseEndDate	4/19/2023	7/13/2023
tblConstructionPhase	PhaseEndDate	4/7/2023	4/28/2023
tblConstructionPhase	PhaseStartDate	4/20/2023	7/14/2023
tblConstructionPhase	PhaseStartDate	4/8/2023	4/29/2023
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblVehicleTrips	HO_TL	0.00	7.30
tblVehicleTrips	HO_TTP	0.00	6.00

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Llagas Creek Bridge - Santa Clara County, Summer

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

tblVehicleTrips	HS_TL	0.00	7.30
tblVehicleTrips	HS_TTP	0.00	28.00
tblVehicleTrips	HW_TL	0.00	9.50
tblVehicleTrips	HW_TTP	0.00	66.00
tblVehicleTrips	ST_TR	1.96	65.00
tblVehicleTrips	SU_TR	2.19	65.00
tblVehicleTrips	WD_TR	0.78	65.00

2.0 Emissions Summary

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2023	1.8050	17.2331	18.6173	0.0440	88.1642	0.7184	88.8826	9.1656	0.6762	9.8419			4,363.2628	0.6734	0.2125	4,442.7962
Maximum	**1.8050**	**17.2331**	**18.6173**	**0.0440**	**88.1642**	**0.7184**	**88.8826**	**9.1656**	**0.6762**	**9.8419**			**4,363.2628**	**0.6734**	**0.2125**	**4,442.7962**

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	lb/day										lb/day					
2023	1.8050	17.2331	18.6173	0.0440	87.9707	0.7184	88.6891	9.1182	0.6762	9.7944			4,363.2628	0.6734	0.2125	4,442.7962
Maximum	**1.8050**	**17.2331**	**18.6173**	**0.0440**	**87.9707**	**0.7184**	**88.6891**	**9.1182**	**0.6762**	**9.7944**			**4,363.2628**	**0.6734**	**0.2125**	**4,442.7962**

	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**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.22**	**0.00**	**0.22**	**0.52**	**0.00**	**0.48**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

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	lb/day										lb/day					
Area	0.0571	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
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
Mobile	0.1571	0.1432	1.3678	3.0100e-003	0.3276	2.0300e-003	0.3296	0.0872	1.8900e-003	0.0891			311.0655	0.0173	0.0129	315.3383
Total	**0.2142**	**0.1433**	**1.3798**	**3.0100e-003**	**0.3276**	**2.0700e-003**	**0.3297**	**0.0872**	**1.9300e-003**	**0.0891**			**311.0913**	**0.0173**	**0.0129**	**315.3658**

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	lb/day										lb/day					
Area	0.0571	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
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
Mobile	0.1571	0.1432	1.3678	3.0100e-003	0.3276	2.0300e-003	0.3296	0.0872	1.8900e-003	0.0891			311.0655	0.0173	0.0129	315.3383
Total	**0.2142**	**0.1433**	**1.3798**	**3.0100e-003**	**0.3276**	**2.0700e-003**	**0.3297**	**0.0872**	**1.9300e-003**	**0.0891**			**311.0913**	**0.0173**	**0.0129**	**315.3658**

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	N20	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	4/3/2023	4/28/2023	5	20	
2	Grading	Grading	4/29/2023	7/13/2023	5	54	
3	Material Laydown	Building Construction	7/14/2023	10/19/2023	5	70	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 54

Acres of Paving: 2.69

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	Rubber Tired Dozers	1	8.00	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	8.00	97	0.37
Material Laydown	Cranes	1	7.00	231	0.29
Material Laydown	Forklifts	3	8.00	89	0.20
Material Laydown	Generator Sets	1	8.00	84	0.74

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

Site Preparation	Graders	1	8.00	187	0.41
Material Laydown	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Material Laydown	Welders	1	8.00	46	0.45

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	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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

3.2 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.2183	13.3011	7.0249	0.0183		0.5470	0.5470		0.5033	0.5033			1,767.4004	0.5716		1,781.6907
Total	**1.2183**	**13.3011**	**7.0249**	**0.0183**	**7.0826**	**0.5470**	**7.6296**	**3.4247**	**0.5033**	**3.9280**			**1,767.4004**	**0.5716**		**1,781.6907**

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	lb/day										lb/day					
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	0.0528	0.0311	0.4852	1.4100e-003	9.6965	7.9000e-004	9.6973	0.9942	7.2000e-004	0.9949			143.8191	3.6100e-003	3.4400e-003	144.9348
Total	**0.0528**	**0.0311**	**0.4852**	**1.4100e-003**	**9.6965**	**7.9000e-004**	**9.6973**	**0.9942**	**7.2000e-004**	**0.9949**			**143.8191**	**3.6100e-003**	**3.4400e-003**	**144.9348**

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

3.2 Site Preparation - 2023

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	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.2183	13.3011	7.0249	0.0183		0.5470	0.5470		0.5033	0.5033			1,767.4004	0.5716		1,781.6907
Total	**1.2183**	**13.3011**	**7.0249**	**0.0183**	**3.1872**	**0.5470**	**3.7342**	**1.5411**	**0.5033**	**2.0444**			**1,767.4004**	**0.5716**		**1,781.6907**

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	lb/day										lb/day					
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	0.0528	0.0311	0.4852	1.4100e-003	9.6840	7.9000e-004	9.6848	0.9911	7.2000e-004	0.9918			143.8191	3.6100e-003	3.4400e-003	144.9348
Total	**0.0528**	**0.0311**	**0.4852**	**1.4100e-003**	**9.6840**	**7.9000e-004**	**9.6848**	**0.9911**	**7.2000e-004**	**0.9918**			**143.8191**	**3.6100e-003**	**3.4400e-003**	**144.9348**

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

3.3 Grading - 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	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.3709	14.8515	9.2616	0.0214		0.6233	0.6233		0.5734	0.5734			2,071.0089	0.6698		2,087.7540
Total	**1.3709**	**14.8515**	**9.2616**	**0.0214**	**7.0826**	**0.6233**	**7.7059**	**3.4247**	**0.5734**	**3.9982**			**2,071.0089**	**0.6698**		**2,087.7540**

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	lb/day										lb/day					
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	0.0528	0.0311	0.4852	1.4100e-003	9.6965	7.9000e-004	9.6973	0.9942	7.2000e-004	0.9949			143.8191	3.6100e-003	3.4400e-003	144.9348
Total	**0.0528**	**0.0311**	**0.4852**	**1.4100e-003**	**9.6965**	**7.9000e-004**	**9.6973**	**0.9942**	**7.2000e-004**	**0.9949**			**143.8191**	**3.6100e-003**	**3.4400e-003**	**144.9348**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

3.3 Grading - 2023

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	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.3709	14.8515	9.2616	0.0214		0.6233	0.6233		0.5734	0.5734			2,071.0089	0.6698		2,087.7540
Total	**1.3709**	**14.8515**	**9.2616**	**0.0214**	**3.1872**	**0.6233**	**3.8105**	**1.5411**	**0.5734**	**2.1146**			**2,071.0089**	**0.6698**		**2,087.7540**

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	lb/day										lb/day					
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	0.0528	0.0311	0.4852	1.4100e-003	9.6840	7.9000e-004	9.6848	0.9911	7.2000e-004	0.9918			143.8191	3.6100e-003	3.4400e-003	144.9348
Total	**0.0528**	**0.0311**	**0.4852**	**1.4100e-003**	**9.6840**	**7.9000e-004**	**9.6848**	**0.9911**	**7.2000e-004**	**0.9918**			**143.8191**	**3.6100e-003**	**3.4400e-003**	**144.9348**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

3.4 Material Laydown - 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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**			**2,555.2099**	**0.6079**		**2,570.4061**

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	lb/day										lb/day					
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	0.0739	2.7548	0.9178	0.0128	1.0248	0.0163	1.0411	0.2695	0.0156	0.2851			1,376.5955	0.0292	0.2022	1,437.5857
Worker	0.1583	0.0934	1.4555	4.2200e-003	87.1394	2.3600e-003	87.1417	8.8961	2.1700e-003	8.8983			431.4574	0.0108	0.0103	434.8044
Total	**0.2322**	**2.8482**	**2.3733**	**0.0171**	**88.1642**	**0.0187**	**88.1829**	**9.1656**	**0.0178**	**9.1834**			**1,808.0529**	**0.0400**	**0.2125**	**1,872.3901**

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

3.4 Material Laydown - 2023

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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**			**2,555.2099**	**0.6079**		**2,570.4061**

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	lb/day										lb/day					
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	0.0739	2.7548	0.9178	0.0128	0.9435	0.0163	0.9599	0.2496	0.0156	0.2652			1,376.5955	0.0292	0.2022	1,437.5857
Worker	0.1583	0.0934	1.4555	4.2200e-003	87.0272	2.3600e-003	87.0295	8.8686	2.1700e-003	8.8708			431.4574	0.0108	0.0103	434.8044
Total	**0.2322**	**2.8482**	**2.3733**	**0.0171**	**87.9707**	**0.0187**	**87.9894**	**9.1182**	**0.0178**	**9.1359**			**1,808.0529**	**0.0400**	**0.2125**	**1,872.3901**

4.0 Operational Detail - Mobile

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	0.1571	0.1432	1.3678	3.0100e-003	0.3276	2.0300e-003	0.3296	0.0872	1.8900e-003	0.0891			311.0655	0.0173	0.0129	315.3383
Unmitigated	0.1571	0.1432	1.3678	3.0100e-003	0.3276	2.0300e-003	0.3296	0.0872	1.8900e-003	0.0891			311.0655	0.0173	0.0129	315.3383

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
City Park	65.00	65.00	65.00	155,804	155,804
Total	65.00	65.00	65.00	155,804	155,804

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-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

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	0.0571	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
Unmitigated	0.0571	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274

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	lb/day										lb/day					
Architectural Coating	0.0134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0426					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
Total	**0.0571**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**			**0.0258**	**7.0000e-005**		**0.0274**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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	lb/day										lb/day					
Architectural Coating	0.0134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0426					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
Total	**0.0571**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**			**0.0258**	**7.0000e-005**		**0.0274**

7.0 Water Detail

7.1 Mitigation Measures Water

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Land Cover and Habitat Survey Report

Exhibit B

Revised November 2022

LAND COVER AND HABITAT SURVEY REPORT

Llagas Creek Bridge and Day Use Area Project at Rancho Cañada del Oro Open Space Preserve

PREPARED FOR:

OPEN SPACE AUTHORITY
SANTA CLARA VALLEY
Santa Clara Valley Open Space Authority
33 Las Colinas Lane
San José, CA 95119

Exhibit B

Land Cover and Habitat Survey Report

Llagas Creek Bridge and Day Use Area Project at Rancho Cañada del Oro Open Space Preserve

Prepared For:

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33 Las Colinas Lane
San Jose, CA 95119
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Ted Thayer, Wildlife Biologist

October 2021

Revised November 2022

18010171.06

Exhibit B

TABLE OF CONTENTS

Attachments

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LIST OF ABBREVIATIONS

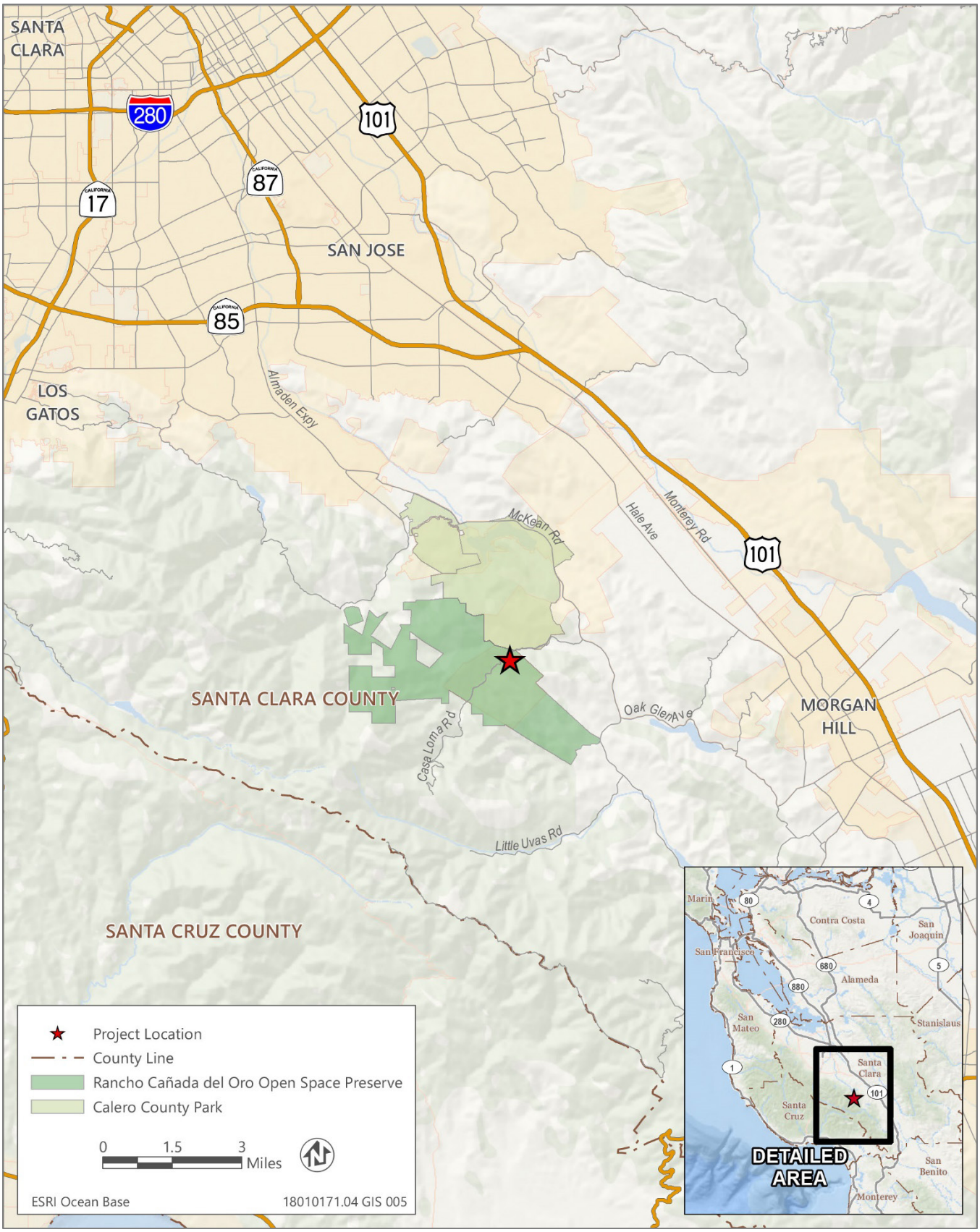
Authority	Santa Clara Valley Open Space Authority
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
ESA	federal Endangered Species Act
Habitat Plan	Santa Clara Valley Habitat Plan
Project	Llagas Creek Bridge and Day Use Area Project
RCAN	Rancho Cañada del Oro Open Space Preserve
VHA	Valley Habitat Agency

1 INTRODUCTION

The proposed Llagas Creek Bridge Crossing Project (Project) would cross Llagas Creek within the Rancho Cañada del Oro Open Space Preserve (RCAN) in the western portion of Santa Clara County, California (Figure 1). RCAN is owned and managed by the Santa Clara Valley Open Space Authority (Authority) and is within the plan area for the Santa Clara Valley Habitat Plan (Habitat Plan).

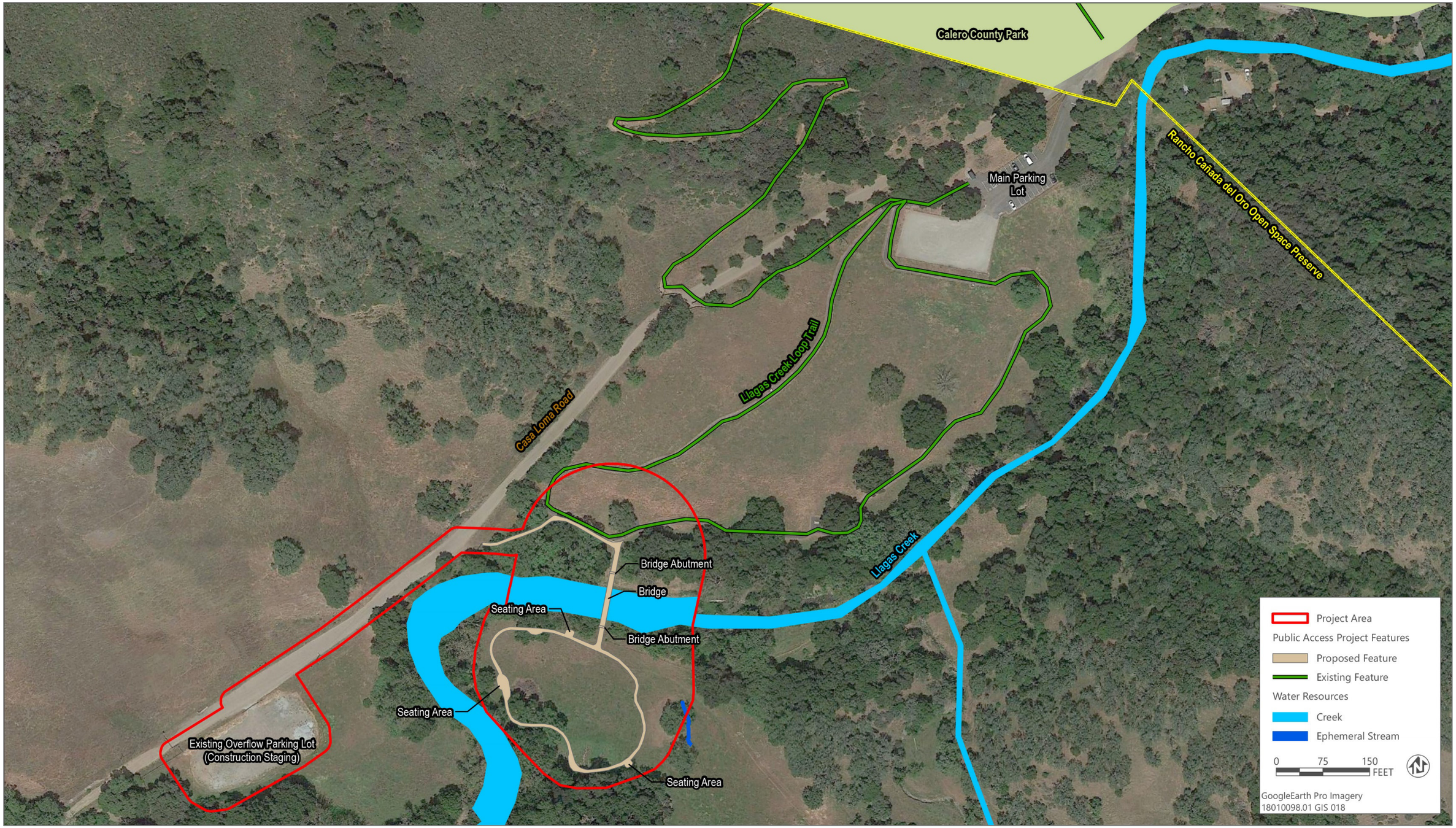
The Authority proposes to expand upon existing public access and recreation facilities at RCAN. Accordingly, the proposed Project includes the implementation of several new features to support public access and low intensity recreation. The location of the proposed Project features and adjacent land around those features constitute the Project area (see Figure 2). The primary Project features include the development of a bridge over Llagas Creek; a new equestrian trail leading to the bridge, several gathering areas consisting of benches and picnic tables; and an Americans with Disabilities Act (ADA) -accessible loop trail. Additional features that would be installed within the Project area include interpretive and wayfinding signage, fencing, and revegetation of disturbed areas with native stockpiled soils onsite or an appropriate native seed mix. Project construction is anticipated to occur between April 15 and October 15, 2023. RCAN is owned and managed by the Authority and is within the plan area for the Santa Clara Valley Habitat Plan.

This report summarizes the methods and results of land cover surveys, habitat surveys, and review of existing special-status species occurrence data conducted to support the design of the Project and a permit application for the Santa Clara Valley Habitat Agency (Habitat Agency or VHA) for endangered species take coverage under the Habitat Plan as a Participating Special Entity. The Habitat Plan requires verification of land cover and the assessment of nesting habitat for least Bell's vireo and tricolored blackbird where the potential for nesting habitat exists. Information on Habitat Plan Conditions on Covered Activities related to land cover types and covered species is also provided in this report. In addition, the report contains a discussion of the potential for other special-status plants and animals to occur in the study area, and suggested avoidance measures that may be applied to the project to avoid impacts to these species.



Source: Adapted by Ascent Environmental in 2019

Figure 1 Project Vicinity



Source: Adapted by Ascent Environmental in 2019 and 2021

Figure 2 Project Area

2 METHODS

The study area for land cover and nesting habitat surveys encompasses the Project area as shown on Figure 2, as well as 250 feet around the Project features (see Figure 3). The study area was surveyed by Ascent biologists on July 11, 2019, and again on August 30, 2021, using a global positioning system (GPS) unit to digitally map riparian and aquatic habitat. For other habitat types, biologists field verified existing georectified aerial photography. Field verification consisted of the biologists walking the study area making note of the vegetation present and classifying the land cover based on the land cover type descriptions in the Habitat Plan. Based on the presence of riparian land cover along Llagas Creek, the biologists also assessed vegetation in the study area to determine if potential nesting habitat for least Bell's vireo and tricolored blackbird is present based on the nesting habitat descriptions for these species contained in the Habitat Plan. In addition to the 2021 land cover and nesting habitat survey, floristic surveys were conducted on April 28 and June 24, 2022. The surveys were conducted in accordance with the protocols described in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

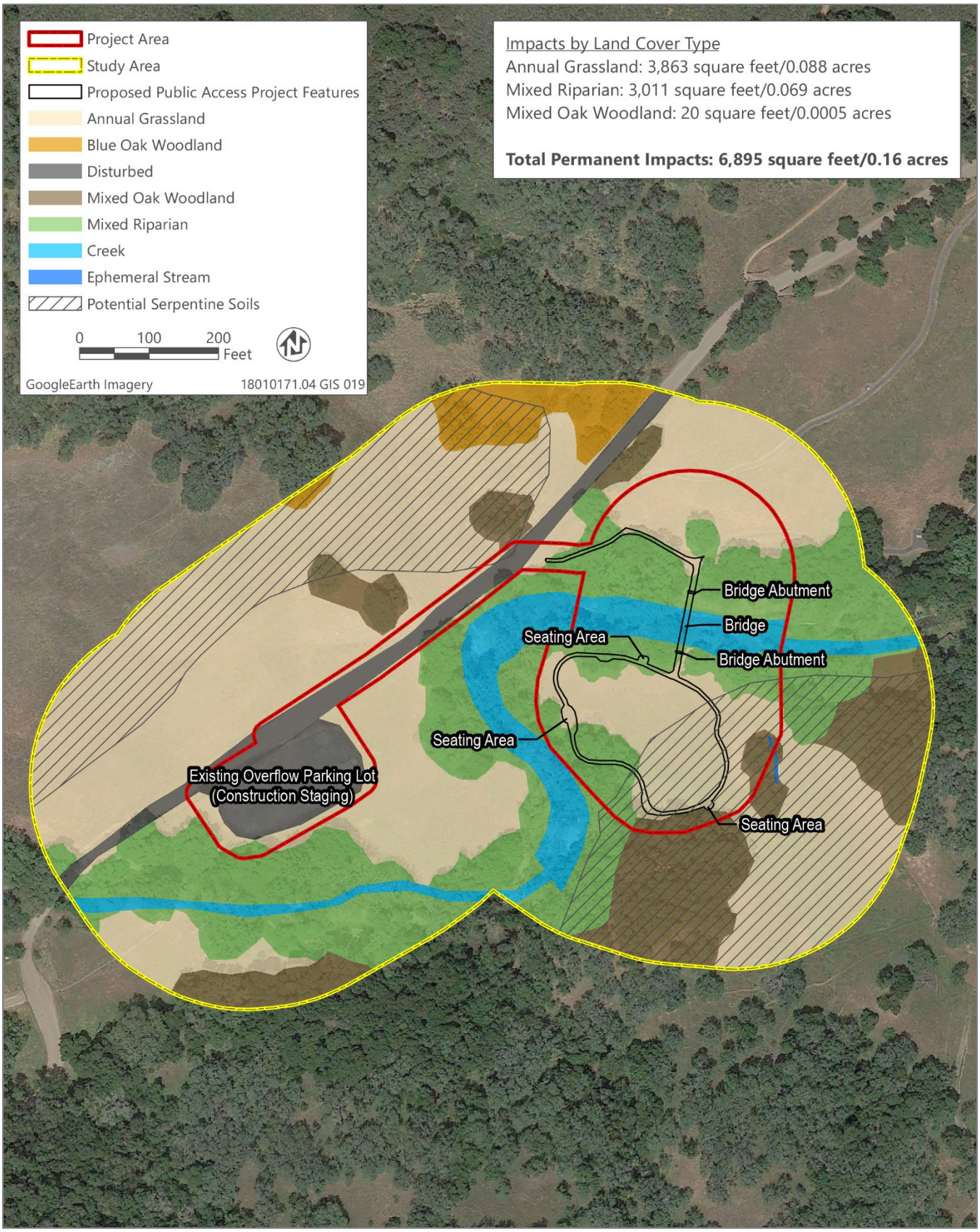
In addition to the field surveys, a search of the California Natural Diversity Data Base (CNDDB) (CNDDB 2019) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2019) within the San Jose West, San Jose East, Lick Observatory, Los Gatos, Santa Teresa Hills, Morgan Hill, Laurel, Loma Prieta, and Mt. Madonna U.S. Geological Survey 7.5-minute quadrangles was conducted to identify records of any occurrences of special-status botanical or animal species in or near the study area. These database searches were updated in 2022 (CNPS 2022; CNDDB 2022). Available reports and other documents applicable to the study area were reviewed.

For the purpose of this report, special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- officially listed by California or the federal government as endangered, threatened, or rare;
- a candidate for state or federal listing as endangered or threatened;
- taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations Section 15380 of the State California Environmental Quality Act (CEQA) Guidelines;
- species identified by California Department of Fish and Wildlife (CDFW) as species of special concern;
- species listed as Fully Protected under the California Fish and Game Code;
- species listed as covered species under the Habitat Plan;
- species afforded protection under other local planning documents; and
- taxa considered by the CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR). The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern, summarized as follows:
  - CRPR 1A - Plants presumed to be extinct in California;
  - CRPR 1B - Plants that are rare, threatened, or endangered in California and elsewhere;
  - CRPR 2A - plants presumed to be extinct in California but that are more common elsewhere; and
  - CRPR 2B - Plants that are rare, threatened, or endangered in California but more common elsewhere.

The term "California species of special concern" is applied by CDFW to animals not listed under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA), but that are considered to be declining at a rate that could result in listing, or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW's fully protected status was California's first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered

under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.



Source: Adapted by Ascent Environmental in 2019 and 2021

Figure 3 Field-Verified Land Cover

3 RESULTS

This section describes the results of surveys performed in the study area to verify Habitat Plan land cover types, identify Habitat Plan covered species and other potential special-status species that may occur in the study area, and to determine if potential nesting habitats for least Bell's vireo and tricolored blackbird are present for Habitat Plan permitting compliance.

3.1 LAND COVER AND POTENTIAL SERPENTINE SOILS

Section 6.8.3, "Item 3: Land Cover Types on Site" and Section 6.8.4. "Item 4: Map of Wetlands, Ponds, Streams, and Riparian Woodlands" of the Habitat Plan describes specific requirements for verification of land cover types at the time applications are submitted to the VHA. Because the Authority intends to submit an application to the VHA for Project coverage under the Habitat Plan, verification of land cover within the study area was conducted. The following Habitat Plan land cover types were observed in the study area: California annual grassland, blue oak woodland, mixed oak woodland, mixed riparian, and riverine (Figure 3). In the event that any of these land cover types would be affected by the Project as determined after final design, the Authority would adhere to the Habitat Plan Conditions related to the specific land cover type that would be affected.

3.1.1 California Annual Grassland

California annual grassland is located throughout the study area on both the north and south sides of Llagas Creek between stands of oak woodland and mixed riparian woodland (Figure 3). The California annual grassland located between Casa Loma Road and Llagas Creek within the existing day use area of RCAN had been mowed prior to survey. The grassland north of Casa Loma Road and south of Llagas Creek appeared relatively undisturbed and consisted of annual grasses and forbs such as bristly dogtail grass (*Cynosurus echinatus*), slender oats (*Avena barbata*), Italian ryegrass (*Festuca perennis*), foxtail barley (*Hordeum murinum*), soft chess (*Bromus hordeaceus*), rose clover (*Trifolium hirtum*), tall sock-destroyer (*Torilis arvensis*), and redstem filaree (*Erodium cicutarium*).

3.1.2 Blue Oak Woodland

Blue oak woodland was observed in the northeastern portion of the study area on the north side of Casa Loma Road, and outside of the study area to the south. Blue oak (*Quercus douglasii*) is the dominant tree species in this land cover type and few individuals of other species are present. The understory of the blue oak woodland in the study area consisted of mostly annual grasses with little shrub cover. The Project as currently proposed would not disturb the portion of the study area containing blue oak woodland; therefore, no Habitat Plan permit conditions specific to this land cover type would be needed.

3.1.3 Mixed Oak Woodland

Small patches of mixed oak woodland were observed on both sides of Casa Loma Road north of Llagas Creek. Larger areas of mixed oak woodland were observed on the south side of Llagas Creek. These stands of mixed oak woodland are located adjacent to mixed riparian woodland and continue upslope beyond the study area to the south. The mixed oak woodland in the study area is composed primarily of California laurel (*Umbellularia californica*), coast live oak (*Quercus agrifolia*), interior live oak (*Quercus wislizeni*), California buckeye (*Aesculus californica*), and blue oak.

3.1.4 Mixed Riparian Woodland

Mixed riparian woodland was observed along the portion of Llagas Creek that flows through the study area. The canopy of the mixed riparian woodland within the study area is composed of California laurel, California sycamore (*Platanus racemosa*), interior live oak, and other subdominant tree species. The understory consists of shrubs and

forbs under a canopy of mature trees, with more dense understory vegetation present where the tree canopy is open. Species present in the understory along Llagas Creek include willow (*Salix* spp.), poison oak (*Toxicodendron diversilobum*), California rose (*Rosa californica*), Himalayan blackberry (*Rubus armeniacus*), white alder (*Alnus rhombifolia*), blue elderberry (*Sambucus nigra*), and mugwort (*Artemisia douglasiana*). Upstream of the proposed bridge, the riparian corridor meets the adjacent mixed oak woodland above the south bank of the creek (Figure 4).

3.1.5 Riverine

Llagas Creek is a perennial creek that flows west to east though the study area (Figure 3). Llagas Creek flows into Chesbro Reservoir south and east of the study area and then on to the Pajaro River. The dam at Chesbro Reservoir is a barrier to anadromous fish movement into the portion of the creek within the study area; however, the creek may support a fishery. The segment of Llagas Creek that runs through the study area is a braided channel with a mixed cobble and pebble substrate.

In addition to Llagas Creek, a small unnamed ephemeral stream is present within the study area (Figure 3). This ephemeral stream originates upslope where the hillside cleaves, passes though California annual grassland, and dissipates downslope before reaching Llagas Creek. Vegetation in this drainage is dominated by upland grasses and forbs that are part of the California annual grassland land cover type. Due to its ephemeral nature and lack of connection with Llagas Creek, this ephemeral stream does not contain suitable fish habitat. A detailed discussion of Llagas Creek and the ephemeral stream is provided in the aquatic resources delineation report prepared for the project (Ascent 2021).

3.1.6 Potential Serpentine Soils

According to the Soil Survey of Santa Clara County (NRCS 2017), Katykat-Mouser-Sanikara complex, 30 to 50 percent slopes soil unit is located north of Casa Loma Road. This soil type includes serpentine soil components; however, no ground disturbance is proposed to occur within this portion of the study area.

A portion of the project disturbance footprint overlaps with a soil map unit (Vallecitos rocky loam, 15-30% slopes, eroded) that contains two percent serpentine soils throughout the unit (Davis, pers. comm. 2016). However, the soil map unit is large (47,696 acres), the major soil type in this map unit is derived from shale rather than serpentine, and the small proportion of serpentine in the map unit (i.e., two percent of the unit) may not occur in any one location. Furthermore, no serpentine bunchgrass habitat was observed in the study area, and no differences in plant species composition were observed between grassland, mixed oak woodland, and mixed riparian areas on or off Vallecitos rocky loam soil map units during land cover and habitat surveys conducted in 2019. Therefore, there are no indications that the soil in this portion of the study area has serpentine inclusions. In addition, protocol botanical surveys were conducted on April 28 and June 24, 2022 and no serpentine bunchgrass, serpentine endemics, or special-status plant species, including Habitat Plan covered plant species, were detected (see section 3.3, "Potential for Additional Special-Status Species" below).

Source: Taken by Ascent Environmental in 2018

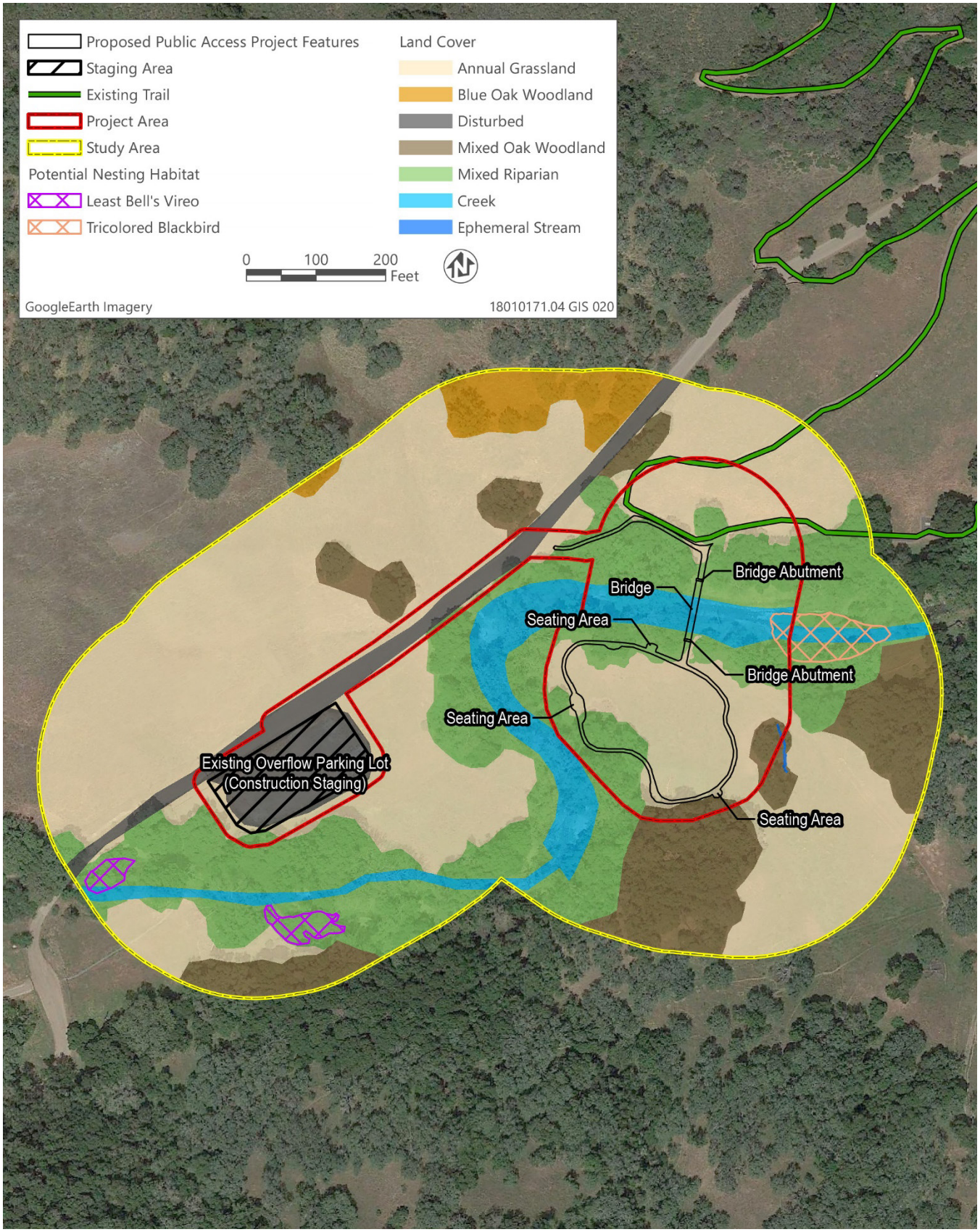
Figure 4 Llagas Creek Upstream of the Proposed Bridge

3.2 POTENTIAL COVERED SPECIES NESTING HABITAT

Section 6.6.1, "Selected Covered Wildlife Species," of the Habitat Plan describes specific conditions related to the avoidance and minimization of impacts to covered species. These conditions include requirements for surveying potential nesting habitat within the vicinity of covered projects. Because the Authority intends to apply to the VHA for coverage of the Project under the Habitat Plan, and because of the presence of potential nesting habitat as defined by the Habitat Plan and the location of the Project within a Habitat Plan-defined survey area for the species, a survey for potential nesting habitat for least Bell's vireo and tricolored blackbird were conducted. This section describes the results of the nesting habitat survey.

3.2.1 Least Bell's Vireo

Due to the presence of riparian land cover within 250 feet of the proposed Project, a habitat assessment was performed to determine whether potential nesting habitat for least Bell's vireo occurs in the study area. Nesting habitat for least Bell's vireo is defined by the Habitat Plan as early successional riparian vegetation (typically dominated by willow shrubs and other thick understory vegetation). As described in Section 3.1.4, "Mixed Riparian Woodland," most of the riparian corridor along Llagas Creek consists of mature overstory trees with relatively sparse understory. However, in several locations where the tree canopy is open, the understory consists of dense willows, poison oak, and Himalayan blackberry. These locations are potentially suitable for nesting by least Bell's vireo using the definition in the Habitat Plan (Figure 5 and Figure 6). No least Bell's vireos or nests were detected at these locations. A nine-quad search of the CNDDB did not identify any recorded nesting on or near RCAN. The nearest documented occurrence of least Bell's vireo nesting is located along Llagas Creek near the confluence with the Pajaro River southeast of Gilroy, approximately 16.5 miles from the Project (CNDDB 2019). The study area is also outside of the range of the species (USFWS 2019).



Source: Adapted by Ascent Environmental in 2019 and 2021

Figure 5 Habitat Plan Covered Species Nesting Habitat

Source: Taken by Ascent Environmental in 2019

Figure 6 Potential Least Bell's Vireo Nesting Habitat

While potentially suitable nesting habitat, as defined by the Habitat Plan, is present within 250 feet of the proposed Project staging area, this habitat is not expected to support nesting least Bell's vireo. This determination is based on the relatively small size of the habitat patches, the lack of recorded occurrences near the Project, existing disturbance from public access, the location of the Project outside of the range of the species, and the distance (16.5 miles) to the nearest record of nesting. However, the potential for least Bell's vireo to nest in this area prior to the construction of the Project cannot be eliminated based on this habitat survey. Because of the presence of potential nesting habitat as defined by the Habitat Plan and the location of the Project within a Habitat Plan-defined survey area for the species, the Project would likely need to follow the published Minor Revisions to Condition 16 in the Habitat Plan (VHA 2017a). Condition 16 requires protocol surveys to determine the presence of active nests prior to construction. If active nests are found during surveys, no work would be permitted within 250 feet of each nest during the breeding season (March 15 through July 31). The Authority may coordinate with the VHA to confirm whether protocol nest surveys would be required.

3.2.2 Tricolored Blackbird

Due to the presence of riparian land cover (including Himalayan blackberry) within 250 feet of the proposed Project, a habitat assessment was performed to determine whether suitable nesting habitat for tricolored blackbird occurs in the study area. Nesting substrate for tricolored blackbird is defined in the Habitat Plan as generally including flooded, thorny, or spiny vegetation (e.g., cattails, bulrushes, willows, blackberries, thistles, or nettles). Within the study area, an area of Himalayan blackberry and poison oak that generally meets the Habitat Plan's description of suitable nesting habitat is located just downstream from the proposed bridge (Figure 5 and Figure 7). No tricolored blackbirds or nests were observed during the survey. A nine-quad search of the CNDDB indicated that there are no previous records of tricolored blackbird nesting along this portion of Llagas Creek. The nearest documented occurrence of tricolored blackbird nesting is approximately 2.5 miles north near Calero Reservoir (CNDDB 2019).

Source: Taken by Ascent Environmental in 2019

Figure 7 Potential Tricolored Blackbird Nesting Habitat

The presence of potentially suitable nesting habitat, as defined in the Habitat Plan, within 250 feet of the Project will likely require pre-construction surveys for the presence of nesting tricolored blackbirds to meet the permit conditions of the Habitat Plan as described in the published Minor Revisions to Condition 17 (VHA 2017b). If nesting tricolored blackbirds are found during pre-construction surveys, no work would be permitted within 250 feet of the nesting colony during the breeding season (March 15–July 31).

3.3 POTENTIAL FOR ADDITIONAL SPECIAL-STATUS SPECIES

In addition to evaluating nesting habitat for least Bell's vireo and tricolored blackbird, searches of the CNDDB and CNPS databases were performed, and other available relevant information was reviewed. This information was evaluated in the context of the land cover types and habitat conditions within the study area to determine the likelihood that special-status botanical and animal species would occur. This section summarizes the additional special-status species known or with potential to occur in the study area, and provides potential avoidance and minimization measures for special-status species that the Authority may consider during Project planning. These potential avoidance and minimization measures are based on the current Project description and an assumption that the Project will be covered under the Habitat Plan. Measures may need to be revised during the CEQA analysis and permitting processes.

3.3.1 Special-Status Botanical Species

Searches of the CNDDB and CNPS databases (CNDDB 2022; CNPS 2022) identified 51 special-status botanical species that occur within the 9-quad search area (Attachment A, Table A-1). Of these 51 special-status plants, six were determined to have potential to occur within the study area based on their ranges and the presence of suitable land cover and soils. None of these species are listed under ESA or CESA. Fragrant fritillary (*Fritillaria liliacea*) a covered species under the Habitat Plan, and weak serpentine associate, was determined to have the potential to occur, although no evidence of serpentine soils was found in the study area, because the species is not restricted to serpentine habitats. These species meet the definition of special-status plants provided in Chapter 2, "Methods," because they have California Rare Plant Ranks of 1B or 2B. These species are shown along with their potential blooming period in Table 1.

Table 1 Special-Status Botanical Species with the Potential to Occur in the Study Area

Species	Potential Blooming Period[1]											
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Bent-flowered fiddleneck *Amsinckia lunaris*												
Western leatherwood *Dirca occidentalis*												
Fragrant fritillary *Fritillaria liliacea*												
Arcuate bush-mallow *Malacothamnus arcuatus*												
Woodland woollythreads *Monolopia gracilens*												
Santa Cruz clover *Trifolium buckwestiorum*												

[1] The potential blooming period is the published blooming period based on recorded blooming for each species across its range and throughout time. Actual blooming periods of each species vary by year and across their ranges. The only way to know when a particular plant species is blooming in a given area is by visual confirmation of blooming in reference populations.

Note: (?) denotes a period when blooming may occur but is not typical.

POTENTIAL AVOIDANCE AND MINIMIZATION MEASURES

No special status plant species were found within the survey area during the protocol-level surveys conducted on April 28 and June 24, 2022. The surveys were floristic in nature, meaning that all vascular plant species encountered were identified to the taxonomic level necessary to determine rarity status. The surveys were conducted during the appropriate time of the year to identify all the target species. Precipitation in the south San Francisco Bay Area was at 75% percent of historic average for the water year October 2021 – June 2022 (DWR 2022).

Therefore, because no special-status plants were found during the floristic surveys conducted according to standard protocols, special-status plants are determined to be absent, and no impacts are expected to occur as a result of project implementation. No additional avoidance and minimization measures for rare plants is required at this time.

3.3.2 Special-Status Animal Species

The CNDDB record search identified 38 special-status animal species documented within the 9-quad search area (Attachment A, Table A-2). Of those 38 species, 20 are known to occur or could occur within the study area based on their ranges and the presence of habitat potentially suitable for these species. All of these species, along with their listing status, Habitat Plan coverage status, preferred habitat, and potential for occurrence in the study area are summarized in Table A-2 in Attachment A.

POTENTIAL AVOIDANCE AND MINIMIZATION MEASURES

To avoid and minimize impacts to the special-status animal species with potential to occur in the study area, the following measures would be implemented by the Authority.

Monterey Roach

To avoid and minimize impacts to Monterey roach (*Lavinia symmetricus subditus*), a CDFW species of special concern that would need to be considered under CEQA, the Authority would implement applicable aquatic habitat avoidance and minimization measures from the Habitat Plan (e.g., avoid work within Llagas Creek, install silt fencing, fuel equipment away from the creek) that reduce the likelihood of impacts to water quality within the Llagas Creek.

Special-Status Amphibians

Foothill yellow-legged frog (*Rana boylii*) is known to occur within the study area. In addition, California red-legged frog (*Rana draytonii*) and California tiger salamander (*Ambystoma californiense*) could also occur based on habitat and range of the species. These three species are covered under the Habitat Plan. While there are general measures in the Habitat Plan for the protection of aquatic and riparian habitats, there are no specific requirements for survey or avoidance for these species in the Habitat Plan. The Habitat Plan mitigates impacts to these species to less than significant through these general habitat focused measures; therefore, if coverage under the Habitat Plan is acquired and general measures are implemented for this Project, no additional survey or avoidance measures are needed for these covered species.

Two other special-status amphibians that are not covered under the Habitat Plan could also occur, California giant salamander (*Dicamptodon ensatus*) and Santa Cruz black salamander (*Aneides niger*). Both California giant salamander and Santa Cruz black salamander are CDFW species of special concern. In addition to the general aquatic habitat avoidance and minimization measures from the Habitat Plan (e.g., avoid work within Llagas Creek, install silt fencing, prevent animal entrapment in trenches, fuel equipment away from the creek), the Authority may implement the following additional measures to avoid and minimize impacts to California giant salamander and Santa Cruz black salamander.

- A speed limit of 15 miles per hour would be maintained along Casa Loma Road and other portions of the Project area that construction vehicles would use.
- No more than 14 days prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist would conduct a pre-construction survey of the Project area. The Project biologist would investigate all portions of the Project area that are suitable habitat for California giant salamander and Santa Cruz black salamander.
- A qualified biological monitor would be present during use of heavy equipment to stop work if individual special-status amphibians are present within the Project area. The animal would be allowed to leave the work area on its own; however, animals may be moved to outside the Project area by a qualified biologist with the appropriate permits.

Special-Status Reptiles

Two special-status reptiles could occur within the study area, coast horned lizard (*Phrynosoma blainvillii*) and western pond turtle (*Actinemys marmorata*), both species are CDFW species of special concern. Western pond turtle is a covered species under the Habitat Plan. The Habitat Plan mitigates impacts to this species to less than significant; therefore, if coverage under the Habitat Plan is acquired and Habitat Plan Conditions are implemented for the Project, no additional survey or avoidance measures would be needed for western pond turtle.

Coast horned lizard is most likely to be found in the oak woodland and rock outcrop habitats within the study area. Western pond turtles use both aquatic and upland habitat and may be found within Llagas Creek or nesting within 325 feet of the creek. The measures described above for Monterey roach and special-status amphibians, such as avoiding entrapment in trenches, a speed limit for construction vehicles, and biological monitoring, would also avoid impacts to coast horned lizard and no other measures would be needed.

Other Special-Status and Common Nesting Birds

In addition to least Bell's vireo and tricolored blackbird discussed above, five other special-status bird species could nest within the study area. Loggerhead shrike (*Lanius ludovicianus*), purple martin (*Progne subis*), and yellow-breasted chat (*Icteria virens*) are CDFW species of special concern and could nest in the study area. Golden eagle (*Aquila chrysaetos*) and White-tailed kite (*Elanus leucurus*), which may also nest in the study area, are CDFW fully protected species. In addition to these special-status bird species, common bird species are also likely to nest in study area. Nests of common raptors and other nesting birds are protected under Section 3503 and Section 3503.5 of the California Fish and Game Code. Impacts to these species would be considered under CEQA and Condition 1 of the Habitat Plan. To avoid or minimize impacts to nests of these species, the Authority would implement the following measures.

- The Authority may choose to schedule work after August 31 and before February 1 to avoid the nesting period for special-status birds, common raptors, and other nesting birds.
- If work is required during the nesting season (February 1 to August 31), a qualified biologist would conduct a survey to identify raptor nests within 500 feet and other bird nests within 50 feet of the Project area. The survey would be conducted no more than 14 calendar days before the beginning of construction.
- If active nests are observed, a no-disturbance buffer would be implemented around the nest, and vegetation removal would not commence until the nest is determined to be inactive by a qualified biologist and all young have fledged. Buffer size would be determined by a qualified biologist in coordination with the Authority, CDFW, and VHA. Factors to be considered for determining buffer location will include presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, and species sensitivity. Monitoring of the nest by a qualified biologist during and after construction activities

would be required if the activity has potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer would be increased until the agitated behavior ceases.

Special-Status Bats

While Townsend's big-eared bat (*Corynorhinus townsendii*) and western mastiff bat (*Eumops perotis californicus*) may forage in the area, typical roosting habitat for these species is not found in the study area. However, pallid bat (*Antrozous pallidus*) a CDFW species of special concern, may roost in large trees within the study area. Impacts to pallid bat roosts could be considered significant under CEQA. To avoid and minimize impacts to pallid bat the Authority would implement the following measures.

- The Authority may choose to perform work that could disturb bat roosts after August 31 and before April 1, to avoid impacts to roosting pallid bats.
- If the Authority chooses to perform work during the period of April 1 through August 31, pre-construction bat surveys would be required. Within 14-days prior to initiating work, a qualified bat biologist would inspect the area of disturbance and adjacent areas (within 50 feet) for bat roosts (most likely mature trees in the riparian and mixed oak woodland portions of the study area). Surveys would consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats. If no bat roosts are found, then no further study would be required. If evidence of bat use is observed, the number and species of bats using the roost would be determined. Bat detectors may be used to supplement survey efforts, but are not required. If roosts of pallid bats are determined to be present within the survey area, direct disturbance to the roost, such as removal or pruning of trees occupied by bats, would be avoided during the breeding season (April 1 through August 31).

American Badger and Ringtail

Suitable habitat is present within the study area for American badger (*Taxidea taxus*) (a CDFW species of special concern) and ringtail (*Bassariscus astutus*) (a CDFW fully protected species). Impacts to these species would be evaluated under CEQA and impacts to ringtail would also fall under Condition 1 of the Habitat Plan. To avoid and minimize impacts to these species, the Authority would implement the following measures.

- No more than 14-days prior to ground disturbance or vegetation clearing, a qualified biologist would conduct pre-construction surveys for potential American badger and ringtail den sites within 100 feet of the Project area.
- If any potentially occupied American badger dens are located during surveys, no work would 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).
- If any potential ringtail dens (e.g., brush piles, appropriately sized burrows, hollow logs, hollow trees) are located during surveys, similar buffers as described for American badger with a 50-foot buffer during the non-breeding season and a 100-foot buffer during the period May 1 through June 30 would be required. If potential ringtail dens would be removed by Project construction, further consultation with the VHA and CDFW would be required to determine the appropriate avoidance and minimization measures for ringtail.

San Francisco Dusky-Footed Woodrat

Mixed riparian and oak woodland habitat within the study area is suitable for San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), a CDFW species of special concern. Impacts to this species would be considered under CEQA. To avoid impacts to this species, the Authority would implement the following measures.

- Prior to removal of any vegetation within riparian, or mixed oak woodland, and within 14 days of the start of work, a qualified biologist would conduct a survey for woodrat nests within the area to be disturbed. If no woodrat nests are found, no further measures would be necessary.
- If woodrat nests are found, they would be avoided if possible and a minimum buffer of 10 feet would be established around the nest(s). This buffer may be adjusted in consultation with CDFW.

- If the nests cannot be avoided, the Authority would consult with CDFW in areas where removal of San Francisco dusky-footed woodrat nests is required. Consultation would occur prior to removal of the nests. Actions needed to protect woodrat nests would be determined in consultation with CDFW and may include the live capture and relocation of woodrats to suitable adjacent habitats and removal of nesting sites. Trapping activities would occur prior to April and after July each year to prevent impacts to woodrats rearing young or young woodrats. Nest middens would be dismantled by hand under the supervision of a biologist. Nest material would be moved to suitable adjacent areas that would not be disturbed by Project activities.

4 KEY FINDINGS

- Five Habitat Plan land cover types were identified during field verification. Although soil units with the potential for serpentine soils are present, no evidence of serpentine habitats were found in the study area. Therefore, no Habitat Plan Conditions related to serpentine habitat types would apply to the Project. The Project area contains California annual grassland, mixed oak woodland, and mixed riparian woodland land cover types. Habitat Plan Conditions related to oak woodland and riparian habitat would apply to the Project as evaluated.
- No Habitat Plan covered plant species or other special-status botanical species that would need to be considered under CEQA were found during protocol botanical surveys; therefore, no avoidance or minimization measures for special-status botanical species would be required for the Project as evaluated.
- Potential habitat for least Bell's vireo and tricolored blackbird, which are covered species under the Habitat Plan, is located within 250-feet of the Project area. Due to the presence of potentially suitable habitat for these covered species, surveys to determine the presence of active nests may be required by the VHA. If active nests are found during surveys, no work would be permitted within 250 feet of each nest during the breeding season (March 15 through July 31). The Authority may coordinate with the VHA to confirm whether protocol nest surveys would be required regardless of the timing of the Project.
- Potential nesting habitat for other special-status bird species is also present within the study area. These species would be subject to analysis under CEQA, and Condition 1 of the Habitat Plan requires protection of these species from covered activities. To avoid impacts to these species, the Authority may choose to construct the Project after August 31 and before February 1. If the Project is constructed outside of this window, pre-construction nest surveys and avoidance measures would need to be implemented.
- The Project area also contains potentially suitable habitat for roosting pallid bats. Impacts to bat roosts would need to be considered under CEQA. To avoid impacts to pallid bats, the Authority may choose to construct the Project after August 31 and before April 1. If the Authority chooses to perform work during the period of April 1 through August 31, surveys and other avoidance measures would need to be implemented.
- The Project area is also suitable habitat for American badger and ringtail, although no potential dens were observed in the Project area during the land cover and habitat survey. Impacts to both species would need to be considered under CEQA, and Condition 1 of the Habitat Plan prohibits impacts to ringtail by covered Projects. Pre-construction surveys may be required prior to ground or vegetation disturbing activities, and buffers between Project activities and potentially active dens could be required. These buffers would be reduced in size after July 1, once the denning season for both species is over. If the Project would remove any potential ringtail dens, additional consultation with CDFW and the VHA would be needed.
- San Francisco dusky footed woodrat could potentially nest in the Project area; however, no nests were observed during the land cover and habitat survey. Impacts to this species would need to be considered under CEQA and pre-construction surveys and other avoidance measures may be required.

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Attachment A

Special-Status Species Tables

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

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Bent-flowered fiddleneck *Amsinckia lunaris*			1B.2	No	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 10 – 2,600 feet in elevation. Blooms March–June.	Could occur: Suitable oak woodland and grassland habitat within the survey area.
Anderson's manzanita *Arctostaphylos andersonii*			1B.2	No	Broadleaved upland forest, chaparral, north coast coniferous forest. Open sites, redwood forest. 200 – 2,500 feet in elevation. Blooms November–May.	Not expected to occur: No suitable habitat within the survey area.
Bonny Doon manzanita *Arctostaphylos silvicola*			1B.2	No	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Only known from Zayante (inland marine) sands in Santa Cruz County. 500 – 1,700 feet in elevation. Blooms January–March.	Not expected to occur: No suitable habitat within the survey area.
Big-scale balsamroot *Balsamorhiza macrolepis*			1B.2	No	Ultramafic. Chaparral, valley and foothill grassland, cismontane woodland. Usually on serpentine. 100 – 4,800 feet in elevation. Blooms March–June.	Not expected to occur: No suitable serpentine habitat within the survey area.
Santa Cruz Mountains pussypaws *Calyptridium parryi* var. *hesseae*			1B.1	No	Chaparral, cismontane woodland. Sandy or gravelly openings. 950 – 5,000 feet in elevation. Blooms May–August.	Not expected to occur: The survey area is below the known elevational range for this species and soil types suitable for this species are not present.
Chaparral harebell *Campanula exigua*			1B.2	No	Ultramafic. Chaparral. Rocky sites, usually on serpentine in chaparral. 900 – 4,100 feet in elevation. Blooms May–June.	Not expected to occur: No suitable chaparral habitat or serpentine substrates within the survey area.
Bristly sedge *Carex comosa*			2B.1	No	Wetland. Marshes and swamps,. Lake margins, wet places in coastal prairie or valley and foothill grassland; site below sea level is on a Delta island. -15 – 5,300 feet in elevation. Blooms May–September.	Not expected to occur: No wetland habitat potentially suitable for this species is present within the survey area.
Deceiving sedge *Carex saliniformis*			1B.2	No	Wetland. Meadows and seeps, marshes and swamps (coastal salt). Mesic sites. 10 – 750 feet in elevation. Blooms June and as late as July in some locations.	Not expected to occur: No suitable habitat within the survey area.
Tiburon paintbrush *Castilleja affinis* var. *neglecta*	E	T	1B.2	Yes	Ultramafic. Valley and foothill grassland. Rocky serpentine sites. 400 – 1,300 feet in elevation. Blooms April–June.	Not expected to occur: No suitable serpentine habitat within the survey area.
Pink creamsacs *Castilleja rubicundula* var. *rubicundula*			1B.2	No	Ultramafic. Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Openings in chaparral or grasslands. On serpentine. 50 – 3,000 feet in elevation. Blooms April–June.	Not expected to occur: No suitable serpentine habitat within the survey area.
Coyote ceanothus *Ceanothus ferrisiae*	E		1B.1	Yes	Ultramafic. Chaparral, valley and foothill grassland, coastal scrub. Serpentine sites in the Mt. Hamilton range. 500 – 1,500 feet in elevation. Blooms January–May.	Not expected to occur: No suitable serpentine habitat within the survey area.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*			1B.1	No	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 0 – 750 feet in elevation. Blooms May–October, may bloom as late as November in some locations.	Not expected to occur: Alkaline soils suitable for this species are not present in the survey area.
Dwarf soaproot *Chlorogalum pomeridianum* var. *minus*			1B.2	No	Ultramafic. Chaparral. Serpentine. 1,000–3,280 feet in elevation. Blooms May–August.	Not expected to occur: No suitable serpentine chaparral habitat within the survey area.
Ben Lomond spineflower *Chorizanthe pungens* var. *hartwegiana*	E		1B.1	No	Lower montane coniferous forest. Zayante coarse sands in maritime ponderosa pine sandhills. 340 – 1,550 feet in elevation. Blooms April–July.	Not expected to occur: No suitable habitat within the survey area.
Monterey spineflower *Chorizanthe pungens* var. *pungens*	T		1B.2	No	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 may bloom as late as July or August in some locations.	Not expected to occur: Sandy soils suitable for this species are not present in survey area.
Scotts Valley spineflower *Chorizanthe robusta* var. *hartwegii*	E		1B.1	No	Meadows, valley and foothill grassland. In grasslands with mudstone and sandstone outcrops. 340 – 800 feet in elevation. Blooms April–July.	Not expected to occur: Potentially suitable annual grassland habitat within the survey area; however, the survey area is outside of the range of the species and mudstone and sandstone substrates suitable for this species are not present.
Robust spineflower *Chorizanthe robusta* var. *robusta*	E		1B.1	No	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 loose sand and sandy terraces and bluffs are not present in the survey area.
Mt. Hamilton fountain thistle *Cirsium fontinale* var. *campylon*			1B.2	Yes	Ultramafic. Cismontane woodland, chaparral, valley and foothill grassland. In seasonal and perennial drainages on serpentine. 330 – 2,900 feet in elevation. Blooms as early as February in some locations; however, blooms April–October under most conditions.	Not expected to occur: No suitable serpentine habitat within the survey area.
San Francisco collinsia *Collinsia multicolor*			1B.2	No	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. 95 – 820 feet in elevation. Blooms (February), March–May.	Not expected to occur: No suitable habitat within the survey area.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Western leatherwood *Dirca occidentalis*			1B.2	No	Broadleaf upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. 80 – 1,400 feet in elevation. Blooms Novmeber–March and as late as April in some locations.	Could occur: Riparian habitat potentially suitable for this species is present within the survey area.
Santa Clara Valley dudleya *Dudleya abramsii* ssp. *setchellii*	E		1B.1	Yes	Ultramafic. Valley and foothill grassland, cismontane woodland. On rocky serpentine outcrops and on rocks within grassland or woodland. 200 – 1,500 feet in elevation. Blooms April–October.	Not expected to occur: Documented to occur within RCAN (Authority 2010). However, suitable habitat (with rocky serpentine substrate) is not present in the survey area.
Ben Lomond buckwheat *Eriogonum nudum* var. *decurrens*			1B.1	No	Coastal. 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: Potentially suitable oak woodland and annual grassland habitat within the survey area: however, the survey area is outside of the known geographic range for this species.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*			1B.1	No	Vernal pools, wetland. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 0 – 170 feet in elevation. Blooms as early as June and as late as August, but blooms in July under most conditions.	Not expected to occur: No suitable alkaline habitat within the survey area and the survey area is outside the known elevation range for this species.
Santa Cruz wallflower *Erysimum teretifolium*	E	E	1B.1	No	Lower montane coniferous forest, chaparral. Inland marine sands (Zayante coarse sand). 590 – 1,690 feet in elevation. Blooms March–July.	Not expected to occur: No suitable habitat within the survey area.
Minute pocket moss *Fissidens pauperculus*			1B.2	No	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: No suitable habitat within the project area.
Fragrant fritillary *Fritillaria liliacea*			1B.2	Yes	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine, though a weak serpentine associate; various soils reported though usually on clay, in grassland. 10 – 1,300 feet in elevation. Blooms February–April.	Could occur: Potentially suitable grassland and woodland habitat is present in the survey area.
Loma Prieta hoita *Hoita strobilina*			1B.1	Yes	Ultramafic. Chaparral, cismontane woodland, riparian woodland. Serpentine; mesic sites. 200 – 3,200 feet in elevation. Blooms May–July and as late as October in some locations.	Not expected to occur: No suitable serpentine habitat within the survey area.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Santa Cruz tarplant *Holocarpha macradenia*	T	E	1B.1	No	Coastal prairie, coastal scrub, valley and foothill grassland. Light, sandy soil or sandy clay; often with nonnatives. 30 – 725 feet in elevation. Blooms June–October.	Not expected to occur: Sandy soils and sandy clay soils suitable for this species are not present in the survey area.
Kellogg's horkelia *Horkelia cuneata* var. *sericea*			1B.1	No	Sandy or gravely openings in closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub. 30- 650 feet in elevation. Blooms April-Sept.	Not expected to occur: No suitable habitat within the survey area.
Contra Costa goldfields *Lasthenia conjugens*	E		1B.1	No	Alkali playa, wetland. Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland. Vernal pools, swales, low depressions, in open grassy areas. 0 – 1,475 feet in elevation. Blooms March–June.	Not expected to occur: Annual grassland habitat within the survey area; however, vernal pools and alkali soils not present.
Mt. Hamilton coreopsis *Leptosyne hamiltonii*			1B.2	No	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 and the survey area is outside of the elevation range of this species.
Smooth lessingia *Lessingia micradenia* var. *glabrata*			1B.2	Yes	Ultramafic. Chaparral, cismontane woodland. Serpentine; often on roadsides. 390 – 1,380 feet in elevation. Blooms as early as May in some locations; however blooms July–November in most conditions.	Not expected to occur: No suitable serpentine habitat within the survey area.
Mt. Hamilton lomatium *Lomatium observatorium*			1B.2	No	Cismontane woodland. Open to partially shaded openings in *Pinus coulteri*-oak woodland. Sedimentary Franciscan rocks and volcanics. 1,780 – 4,000 feet in elevation. Blooms March–May.	Not expected to occur: Oak woodland habitat is present in the survey area; however sedimentary Franciscan rocks and volcanics are not present and the survey area is outside of the known range of the species (CNPS 2022).
Arcuate bush-mallow *Malacothamnus arcuatus*			1B.2	No	Chaparral, cismontane woodland. Gravelly alluvium. 0 – 2,410 feet in elevation. Blooms April–September.	Could occur: Potentially suitable oak woodland habitat within the survey area.
Hall's bush-mallow *Malacothamnus hallii*			1B.2	No	Ultramafic. Chaparral, coastal scrub. Some populations on serpentine. 30 – 2,400 feet in elevation. Blooms May–September, sometimes as late as October.	Not expected to occur: No suitable serpentine chaparral or coastal scrub habitat within the survey area.
Northern curly-leaved monardella *Monardella sinuata* ssp. *nigrescens*			1B.2	No	Sandy soils in chaparral, coastal dunes, coastal scrub, lower montane coniferous forest in the ponderosa pine sandhills of Santa Cruz County. 0-1,000 feet in elevation. Blooms as early as April in some conditions. Blooms either May–July or August–September depending on location.	Not expected to occur: No suitable habitat within the survey area.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Woodland woollythreads *Monolopia gracilens*			1B.2	No	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. 330 – 3,940 feet in elevation. Blooms as early as February in some conditions, in most conditions blooms March–July.	Could occur: Potentially suitable oak woodland and annual grassland habitat on rocky soils within the survey area.
Santa Cruz Mountains beardtongue *Penstemon rattanii* var. *kleei*			1B.2	No	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 chaparral or coniferous forest habitat within the survey area.
White-rayed pentachaeta *Pentachaeta bellidiflora*	E	CE	1B.1	No	Cismontane woodland, and valley and foothill grassland often on serpentinite. 110 – 2,030 feet in elevation. Blooms March–May.	Not expected to occur: No suitable serpentine habitat within the survey area.
Mt. Diablo phacelia *Phacelia phacelioides*			1B.2	No	Ultramafic. 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: Suitable habitat is present in the oak woodland in the survey area; however, the survey area is outside of the known elevation range of the species (CNPS 2022).
Choris' popcornflower *Plagiobothrys chorisianus* var. *chorisianus*			1B.2	No	Chaparral, coastal scrub, coastal prairie. Mesic sites. 50 – 525 feet in elevation. Blooms March–June.	Not expected to occur: No suitable habitat within the survey area.
San Francisco popcornflower *Plagiobothrys diffusus*		E	1B.1	No	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 annual grassland habitat present; however, survey area is outside of the area of marine influence.
Hairless popcornflower *Plagiobothrys glaber*			1A	No	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: No suitable habitat within the survey area.
Scotts Valley polygonum *Polygonum hickmanii*	E	E	1B.1	No	Valley and foothill grassland. Purisima sandstone or mudstone with a thin soil layer; vernally moist due to runoff. 690 – 760 feet in elevation. Blooms May–August.	Not expected to occur: Suitable soil substrate is not present in the survey area.
Rock sanicle *Sanicula saxatilis*			1B.2	No	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 bedrock outcrops and talus slopes are not present in the project area and the project area is outside the known elevation range for this species.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Chaparral ragwort *Senecio aphanactis*			2B.2	No	Dry coastal areas in chaparral, cismontane woodland, coastal scrub, especially in drying alkaline flats. 65 – 2,805 feet in elevation. Blooms January–April, as late as May under some conditions.	Not expected to occur: No alkaline flats or soils are present in the project area.
Metcalf Canyon jewelflower *Streptanthus albidus* ssp. *albidus*	E		1B.1	Yes	Ultramafic. Valley and foothill grassland. Relatively open areas in dry grassy meadows on serpentine soils; also on serpentine balds. 150 – 2,625 feet in elevation. Blooms April–July.	Not expected to occur: No suitable serpentine habitat within the project area.
Most beautiful jewelflower *Streptanthus albidus* ssp. *peramoenus*			1B.2	Yes	Ultramafic. Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 310 – 3,280 feet in elevation. Blooms April–September; although may bloom as early as march and as late as October under some conditions.	Not expected to occur: No suitable serpentine habitat within the project area.
Santa Cruz clover *Trifolium buckwestiorum*			1B.1	No	Coastal prairie, broadleafed upland forest, cismontane woodland. Moist grassland. Gravelly margins. 340 – 2,000 feet in elevation. Blooms April–October.	Could occur: Suitable oak woodland and grassland habitat is present in the project area.
Saline clover *Trifolium hydrophilum*			1B.2	No	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 alkaline habitat within the project area.
Pacific Grove clover *Trifolium polyodon*			1B.1	No	Wetland. Closed-cone coniferous forest, meadows and seeps, coastal prairie, valley and foothill grassland. Along small springs and seeps in grassy openings. 10 – 390 feet in elevation. Blooms April–June and as late as July under some conditions.	Not expected to occur: No wetland habitat suitable for this species is present within the project area and the project area is outside of the specie's range.

Notes: CRPR = California Rare Plant Rank; CNPS California Native Plant Society; ESA = Federal Endangered Species Act; CESA = California Endangered Species Act; RCdO = Rancho Canada del Oro Open Space Preserve

[1] Legal Status Definitions

Federal :
E Endangered (legally protected by ESA)
T Threatened (legally protected by ESA)

State:
C Candidate (legally protected by ESA)
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)

[2] Potential 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 2010; CNPS 2022; VHA 2012.

Table A-2 Special-Status Wildlife Known to Occur in the Project Region and their Potential to Occur in the Study Area

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Invertebrates					
Bay checkerspot butterfly *Euphydryas editha bayensis*	T		Yes	Coastal dunes, ultramafic, valley and foothill grassland. Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *O. purpurscens* are the secondary host plants.	Not expected to occur: Documented to occur within the project region (CNDDB 2019). Study area within range of the species; however, the study area does not contain native grasslands on serpentine soils.
Crotch bumble bee *Bombus crotchii*		CE	No	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, *Dendromecon, Eschscholzia*, and *Eriogonum*.	Not expected to occur: Documented to occur historically within the project region (CNDDB 2019); however, the study area is outside of the current range of the species.
Ohlone tiger beetle *Cicindela ohlone*	E		No	Coastal prairie. Remnant native grasslands with California oatgrass and purple needlegrass in Santa Cruz County. Substrate is poorly-drained clay or sandy clay soil over bedrock of Santa Cruz mudstone.	Not expected to occur: Documented to occur within the project region (CNDDB 2019); however, the study area is outside of the rang of the species.
Smith's blue butterfly *Euphilotes enoptes smithi*	E		No	Coastal dunes, coastal scrub. Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz counties. Hostplant: Eriogonum latifolium and Eriogonum parvifolium are utilized as both larval and adult foodplants.	Not expected to occur: Documented to occur within the project region (CNDDB 2019); however, the study area is outside of the rang of the species.
Western bumble bee *Bombus occidentalis*		CE	No	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: Documented to occur historically within the project region (CNDDB 2019); however, the study area is outside of the current range of the species.
Zayante band-winged grasshopper *Trimerotropis infantilis*	E		No	Chaparral, interior dunes. Isolated sandstone deposits in the Santa Cruz Mountains (the Zayante Sand Hills ecosystem) Mostly on sand parkland habitat but also in areas with well-developed ground cover and in sparse chaparral with grass.	Not expected to occur: The study area is outside of the range of the species and no suitable chaparral or interior dune habitat is present in the study area.
Fish					
Coho salmon - central California coast ESU *Oncorhynchus kisutch* pop. 4	E	E	No	Aquatic. Federal listing = pops between Punta Gorda and San Lorenzo River. State listing includes populations south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	Not expected to occur: The portion of Llagas Creek within the study area is above Chesbro Dam which completely blocks passage of anadromous fishes.
Monterey roach *Lavinia symmetricus subditus*		SC	No	Aquatic, Sacramento/San Joaquin flowing waters, South coast flowing waters. Tributaries to Monterey Bay, specifically the Salinas, Pajaro, and San Lorenzo drainages.	Could occur: Documented to occur in Llagas Creek downstream from the study area and upstream of the Chesbro Dam. Suitable habitat for the species present within the portion of Llagas Creek in the study area.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Steelhead - central California coast DPS *Oncorhynchus mykiss irideus* pop. 8	T		No	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: Llagas Creek is a tributary to the Pajaro River which is outside of the range of this DPS.
Steelhead - south-central California coast DPS *Oncorhynchus mykiss irideus* pop. 9	T		No	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: The portion of Llagas Creek within the study area is above Chesbro Dam which completely blocks passage of anadromous fishes.
Amphibians and Reptiles					
California giant salamander *Dicamptodon ensatus*		SC	No	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.	Could occur: Documented to occur within the project region (CNDDB 2019) and the study area is within the range of the species. Potential habitat for the species occurs in riparian habitat within the study area.
California red-legged frog *Rana draytonii*	T	SC	Yes	Aquatic, artificial flowing waters, artificial standing waters, freshwater marsh, marsh & 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: Documented to occur near study area on RCdO (Authority 2010). Potential dispersal habitat for the species along Llagas creek within largest trees in the study area.
California tiger salamander *Ambystoma californiense*	T	T	Yes	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: Documented to occur within Project region (CNDDB 2019), study area is within of the range of the species. Potentially suitable grassland and oak woodland habitat within the study area. Nearest potentially suitable breeding habitat is more than 0.7 miles southwest of study area which is outside of normal range of migration for the species (0.5 miles); however, individuals have been documented to move up to 1.3 miles from suitable breeding habitat (USFWS 2004, VHA 2012).
Coast horned lizard *Phrynosoma blainvillii*		SC	No	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.	Could occur: Documented to occur within Project region (CNDDB 2019) and the study area is within the range of the species. Potential habitat for the species occurs within the study area.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Foothill yellow-legged frog *Rana boylii*		CE	Yes	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.	Known to occur: Documented to occur within study area on Llagas Creek upstream and below proposed bridge location. Habitat for the species occurs in the study area.
Northern California legless lizard *Anniella pulchra*		SC	No	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: Documented to occur within Project region (CNDDB 2019), study area is within of the range of the species; however, no suitable habitat within the study area.
Santa Cruz black salamander Aneides niger		SC	No	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties. Adults found under rocks, talus, and damp woody debris.	Could occur: Documented to occur within Project region (CNDDB 2019) and the study area is within the range of the species. Potential habitat for the species occurs in oak woodland and riparian habitats within the study area.
Western pond turtle *Actinemys marmorata*		SC	Yes	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 325 feet from water for egg-laying.	Could occur: Documented to occur near study area (Authority 2010). Potential habitat for the species occurs within Llagas Creek within the study area.
Birds					
American peregrine falcon *Falco peregrinus anatum*		FP	No	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Not expected to occur: Documented to occur within the project region (CNDDB 2019), study area is within of the range of the species; however, no suitable nesting habitat within the study area.
Black swift *Cypseloides niger*		SC	No	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: Documented to occur historically within the project region (CNDDB 2019), study area is outside of the range of the species. No suitable nesting habitat within the study area.
Burrowing owl *Athene cunicularia*		SC	Yes	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.	Not expected to occur: Documented to occur within The project region (CNDDB 2019), study area is within the range of the species. Annual grassland within the study area covers a small area within a matrix of oak woodland and is not likely to support burrowing owls.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Golden eagle *Aquila chrysaetos*		FP	No	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:** Documented to occur near study area on RCdO (Authority 2010). Potential foraging habitat for the species occurs in the study area; marginal nesting habitat within largest trees in the study area.
Grasshopper sparrow *Ammodramus savannarum*		SC	No	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.	**Not expected to occur:** Documented to occur within the project region from a single occurrence on Coyote Ridge (CNDDB 2019). study area is outside the range of the species. Annual grassland within the study area covers a small area within a matrix of oak woodland and is not likely to support this species.
least Bell's vireo *Vireo bellii pusillus*	E	E	Yes	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*, and mesquite.	**Not expected to occur:** There are no recorded occurrences on or near RCDO. The nearest documented occurrence is located along Llagas Creek near the confluence with the Pajaro River southeast of Gilroy, approximately 16.5 miles from the Project (CNDDB 2019). Study Area outside of the range of the species (USFWS 2019).
Loggerhead shrike *Lanius ludovicianus*		SC	No	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:** Documented to occur within the project region (CNDDB 2019). Study area is within the range of the species. Potential foraging and nesting habitat for the species occurs in the study area.
Purple martin *Progne subis*		SC	No	Broadleaved upland forest, lower montane coniferous forest. Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	**Could occur:** Documented to occur within the project region from a single occurrence north of the study area (CNDDB 2019). Study area is within the range of the species. Potential foraging and marginal nesting habitat for the species occurs in the study area
Swainson's hawk *Buteo swainsoni*		T	No	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.	**Not expected to occur:** Documented to occur in the project region (CNDDB 2019). Suitable nesting habitat within the study area. However, the amount of suitable foraging habitat in the vicinity is limited, which makes nesting unlikely.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
tricolored blackbird *Agelaius tricolor*		CE	Yes	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.	Could occur: Documented to occur within the project region (CNDDB 2019). Study area is within the range of the species. Potential foraging and limited nesting habitat for the species occurs in the study area.
White-tailed kite *Elanus leucurus*		FP	No	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: Documented to occur near study area on RCdO (Authority 2010). Potential foraging and nesting habitat for the species occurs in the project area.
Yellow rail *Coturnicops noveboracensis*		SC	No	Freshwater marsh, meadow and seep. Summer resident in eastern Sierra Nevada in Mono County. Fresh-water marshlands.	Not expected to occur: Documented to occur historically within the project region (CNDDB 2019); however, Project is outside of the known current range of the species.
Yellow-breasted chat *Icteria virens*		SC	No	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.	Could occur: Documented to occur in the project region (CNDDB 2019). Suitable foraging and nesting habitat within the study area.
Mammals					
American badger *Taxidea taxus*		SC	No	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: Documented to occur in the project region (CNDDB 2019). Suitable foraging and denning habitat within the study area.
Pallid bat *Antrozous pallidus*		SC	No	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. Pallid bats are known to use cracks and crevasses in caves, mines, bridges, buildings, and mature trees for roosting (Sherwin and Rambladini 2005). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Could occur: Documented to occur in the project region (CNDDB 2019). Suitable foraging habitat and potential for roosts in mature trees in the study area.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Ringtail ringtail *Bassariscus astutus*		FP	No	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations. Usually found within 0.6 mile of a permanent water source.	**Could occur:** Species is not tracked in CNDDB. Documented to be relatively common in the project region (VHA 2012). Suitable riparian and woodland habitat within the study area.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*		SC	No	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.	**Could occur:** Documented to occur near study area on RCdO (Authority 2010). Potential forested habitat for the species occurs in the project area.
San Joaquin kit fox *Vulpes macrotis mutica*	E	T	Yes	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:** Documented to occur within the project region (CNDDB 2019); however, Project is outside of the known range of the species.
Townsend's big-eared bat *Corynorhinus townsendii*		SC	No	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 in caves, mines, and buildings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Could occur:** Documented to occur near study area (CNDDB 2019). Potential foraging habitat for the species occurs in the project area. However, it is unlikely to roost in the study area due to a lack of suitable caves or abandon buildings for roosting in the study area.
Western mastiff bat *Eumops perotis californicus*		SC		Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	**Could occur:** No documented occurrences near study area (CNDDB 2019); however, study area is within the range of the species. Potential foraging habitat for the species occurs in the project area. However, it is unlikely to roost in the study area due to a lack of suitable crevices high off the ground for roosting.

Note: CNDDB = California Natural Diversity Database; USFWS = U.S. Fish and Wildlife Service; ESU = Evolutionary Significant Unit; DPS= Distinct Population Segment; RCdO = Rancho Canada del Oro Open Space Preserve

[1] Legal Status Definitions

Federal:

E Endangered (legally protected)
T Threatened (legally protected)
CE Candidate Endangered (legally protected)
E Endangered (legally protected)
T Threatened (legally protected)
FP Fully protected (legally protected)
SC Species of special concern (no formal protection other than CEQA consideration)

[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 2010; CNDDB 2019; Sherwin and Rambladini 2005; VHA 2012; USFWS 2004.

Appendix A

Air Quality and Greenhouse Gas Modeling

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

Llagas Creek Bridge

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	117.20	1000sqft	2.69	117,200.00	0
City Park	0.50	Acre	0.50	21,780.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	3			**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 - Climate zone 3 based on project area zip code.

Land Use - Updated acreage to match PD. Various trail and seating area improvements + new bridge.

Construction Phase - Project to occur over a 6 month period ending in October.

Off-road Equipment - Equipmnt specific for this task.

Off-road Equipment - equipment specific to this action.

Off-road Equipment - Equipment specific for this action.

Trips and VMT - maximum number of construction workers would be 10.

On-road Fugitive Dust - 96% paved roads

Grading -

Vehicle Trips - New trips from expanded maintenance activites and new visitor trips.

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

Construction Off-road Equipment Mitigation - EPM AQ-1

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	NumDays	230.00	70.00
tblConstructionPhase	NumDays	8.00	54.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2024	10/19/2023
tblConstructionPhase	PhaseEndDate	4/19/2023	7/13/2023
tblConstructionPhase	PhaseEndDate	4/7/2023	4/28/2023
tblConstructionPhase	PhaseStartDate	4/20/2023	7/14/2023
tblConstructionPhase	PhaseStartDate	4/8/2023	4/29/2023
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblVehicleTrips	HO_TL	0.00	7.30
tblVehicleTrips	HO_TTP	0.00	6.00

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

tblVehicleTrips	HS_TL	0.00	7.30
tblVehicleTrips	HS_TTP	0.00	28.00
tblVehicleTrips	HW_TL	0.00	9.50
tblVehicleTrips	HW_TTP	0.00	66.00
tblVehicleTrips	ST_TR	1.96	65.00
tblVehicleTrips	SU_TR	2.19	65.00
tblVehicleTrips	WD_TR	0.78	65.00

2.0 Emissions Summary

Exhibit B

Llagas Creek Bridge - 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					
2023	0.1139	1.1423	0.9851	2.3400e-003	3.1700	0.0475	3.2174	0.4303	0.0442	0.4745			208.9927	0.0423	6.9100e-003	212.1087
Maximum	**0.1139**	**1.1423**	**0.9851**	**2.3400e-003**	**3.1700**	**0.0475**	**3.2174**	**0.4303**	**0.0442**	**0.4745**			**208.9927**	**0.0423**	**6.9100e-003**	**212.1087**

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					
2023	0.1139	1.1423	0.9851	2.3400e-003	3.0189	0.0475	3.0664	0.3589	0.0442	0.4031			208.9925	0.0423	6.9100e-003	212.1086
Maximum	**0.1139**	**1.1423**	**0.9851**	**2.3400e-003**	**3.0189**	**0.0475**	**3.0664**	**0.3589**	**0.0442**	**0.4031**			**208.9925**	**0.0423**	**6.9100e-003**	**212.1086**

	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**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**4.77**	**0.00**	**4.70**	**16.59**	**0.00**	**15.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-3-2023**	**7-2-2023**	0.5141	0.5141
2	**7-3-2023**	**9-30-2023**	0.6012	0.6012
		Highest	0.6012	0.6012

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	0.0103	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-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
Mobile	0.0257	0.0283	0.2466	5.2000e-004	0.0576	3.7000e-004	0.0580	0.0154	3.4000e-004	0.0157			48.6733	3.0400e-003	2.2400e-003	49.4172
Waste						0.0000	0.0000		0.0000	0.0000			8.1200e-003	4.8000e-004	0.0000	0.0201
Water						0.0000	0.0000		0.0000	0.0000			0.1929	3.0000e-005	0.0000	0.1948
Total	**0.0360**	**0.0283**	**0.2476**	**5.2000e-004**	**0.0576**	**3.7000e-004**	**0.0580**	**0.0154**	**3.4000e-004**	**0.0157**			**48.8765**	**3.5600e-003**	**2.2400e-003**	**49.6344**

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	0.0103	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-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
Mobile	0.0257	0.0283	0.2466	5.2000e-004	0.0576	3.7000e-004	0.0580	0.0154	3.4000e-004	0.0157			48.6733	3.0400e-003	2.2400e-003	49.4172
Waste						0.0000	0.0000		0.0000	0.0000			8.1200e-003	4.8000e-004	0.0000	0.0201
Water						0.0000	0.0000		0.0000	0.0000			0.1929	3.0000e-005	0.0000	0.1948
Total	**0.0360**	**0.0283**	**0.2476**	**5.2000e-004**	**0.0576**	**3.7000e-004**	**0.0580**	**0.0154**	**3.4000e-004**	**0.0157**			**48.8765**	**3.5600e-003**	**2.2400e-003**	**49.6344**

	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	N20	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	4/3/2023	4/28/2023	5	20	
2	Grading	Grading	4/29/2023	7/13/2023	5	54	
3	Material Laydown	Building Construction	7/14/2023	10/19/2023	5	70	

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

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 54

Acres of Paving: 2.69

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	Rubber Tired Dozers	1	8.00	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	8.00	97	0.37
Material Laydown	Cranes	1	7.00	231	0.29
Material Laydown	Forklifts	3	8.00	89	0.20
Material Laydown	Generator Sets	1	8.00	84	0.74
Site Preparation	Graders	1	8.00	187	0.41
Material Laydown	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Material Laydown	Welders	1	8.00	46	0.45

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	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

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

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 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					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0122	0.1330	0.0703	1.8000e-004		5.4700e-003	5.4700e-003		5.0300e-003	5.0300e-003			16.0336	5.1900e-003	0.0000	16.1632
Total	**0.0122**	**0.1330**	**0.0703**	**1.8000e-004**	**0.0708**	**5.4700e-003**	**0.0763**	**0.0343**	**5.0300e-003**	**0.0393**			**16.0336**	**5.1900e-003**	**0.0000**	**16.1632**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

3.2 Site Preparation - 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
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	5.0000e-004	3.5000e-004	4.4800e-003	1.0000e-005	0.0818	1.0000e-005	0.0818	8.4200e-003	1.0000e-005	8.4200e-003			1.2227	3.0000e-005	3.0000e-005	1.2336
Total	**5.0000e-004**	**3.5000e-004**	**4.4800e-003**	**1.0000e-005**	**0.0818**	**1.0000e-005**	**0.0818**	**8.4200e-003**	**1.0000e-005**	**8.4200e-003**			**1.2227**	**3.0000e-005**	**3.0000e-005**	**1.2336**

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					0.0319	0.0000	0.0319	0.0154	0.0000	0.0154			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0122	0.1330	0.0703	1.8000e-004		5.4700e-003	5.4700e-003		5.0300e-003	5.0300e-003			16.0336	5.1900e-003	0.0000	16.1632
Total	**0.0122**	**0.1330**	**0.0703**	**1.8000e-004**	**0.0319**	**5.4700e-003**	**0.0373**	**0.0154**	**5.0300e-003**	**0.0204**			**16.0336**	**5.1900e-003**	**0.0000**	**16.1632**

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

3.2 Site Preparation - 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
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	5.0000e-004	3.5000e-004	4.4800e-003	1.0000e-005	0.0816	1.0000e-005	0.0816	8.3900e-003	1.0000e-005	8.3900e-003			1.2227	3.0000e-005	3.0000e-005	1.2336
Total	**5.0000e-004**	**3.5000e-004**	**4.4800e-003**	**1.0000e-005**	**0.0816**	**1.0000e-005**	**0.0816**	**8.3900e-003**	**1.0000e-005**	**8.3900e-003**			**1.2227**	**3.0000e-005**	**3.0000e-005**	**1.2336**

3.3 Grading - 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					0.1912	0.0000	0.1912	0.0925	0.0000	0.0925			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0370	0.4010	0.2501	5.8000e-004		0.0168	0.0168		0.0155	0.0155			50.7273	0.0164	0.0000	51.1374
Total	**0.0370**	**0.4010**	**0.2501**	**5.8000e-004**	**0.1912**	**0.0168**	**0.2081**	**0.0925**	**0.0155**	**0.1080**			**50.7273**	**0.0164**	**0.0000**	**51.1374**

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

3.3 Grading - 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
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	1.3500e-003	9.4000e-004	0.0121	4.0000e-005	0.2207	2.0000e-005	0.2208	0.0227	2.0000e-005	0.0227			3.3013	9.0000e-005	9.0000e-005	3.3307
Total	**1.3500e-003**	**9.4000e-004**	**0.0121**	**4.0000e-005**	**0.2207**	**2.0000e-005**	**0.2208**	**0.0227**	**2.0000e-005**	**0.0227**			**3.3013**	**9.0000e-005**	**9.0000e-005**	**3.3307**

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					0.0861	0.0000	0.0861	0.0416	0.0000	0.0416			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0370	0.4010	0.2501	5.8000e-004		0.0168	0.0168		0.0155	0.0155			50.7272	0.0164	0.0000	51.1374
Total	**0.0370**	**0.4010**	**0.2501**	**5.8000e-004**	**0.0861**	**0.0168**	**0.1029**	**0.0416**	**0.0155**	**0.0571**			**50.7272**	**0.0164**	**0.0000**	**51.1374**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Annual

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

3.3 Grading - 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
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	1.3500e-003	9.4000e-004	0.0121	4.0000e-005	0.2204	2.0000e-005	0.2204	0.0226	2.0000e-005	0.0227			3.3013	9.0000e-005	9.0000e-005	3.3307
Total	**1.3500e-003**	**9.4000e-004**	**0.0121**	**4.0000e-005**	**0.2204**	**2.0000e-005**	**0.2204**	**0.0226**	**2.0000e-005**	**0.0227**			**3.3013**	**9.0000e-005**	**9.0000e-005**	**3.3307**

3.4 Material Laydown - 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					
Off-Road	0.0551	0.5035	0.5685	9.4000e-004		0.0245	0.0245		0.0230	0.0230			81.1317	0.0193	0.0000	81.6142
Total	**0.0551**	**0.5035**	**0.5685**	**9.4000e-004**		**0.0245**	**0.0245**		**0.0230**	**0.0230**			**81.1317**	**0.0193**	**0.0000**	**81.6142**

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

3.4 Material Laydown - 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
Vendor	2.5300e-003	0.0999	0.0327	4.5000e-004	0.0346	5.7000e-004	0.0352	9.1200e-003	5.5000e-004	9.6700e-003			43.7376	9.2000e-004	6.4300e-003	45.6767
Worker	5.2500e-003	3.6600e-003	0.0470	1.4000e-004	2.5708	8.0000e-005	2.5709	0.2633	8.0000e-005	0.2634			12.8385	3.7000e-004	3.5000e-004	12.9529
Total	**7.7800e-003**	**0.1036**	**0.0797**	**5.9000e-004**	**2.6054**	**6.5000e-004**	**2.6061**	**0.2724**	**6.3000e-004**	**0.2731**			**56.5762**	**1.2900e-003**	**6.7800e-003**	**58.6296**

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	0.0551	0.5035	0.5685	9.4000e-004		0.0245	0.0245		0.0230	0.0230			81.1316	0.0193	0.0000	81.6141
Total	**0.0551**	**0.5035**	**0.5685**	**9.4000e-004**		**0.0245**	**0.0245**		**0.0230**	**0.0230**			**81.1316**	**0.0193**	**0.0000**	**81.6141**

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

3.4 Material Laydown - 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
Vendor	2.5300e-003	0.0999	0.0327	4.5000e-004	0.0319	5.7000e-004	0.0325	8.4500e-003	5.5000e-004	9.0000e-003			43.7376	9.2000e-004	6.4300e-003	45.6767
Worker	5.2500e-003	3.6600e-003	0.0470	1.4000e-004	2.5670	8.0000e-005	2.5671	0.2624	8.0000e-005	0.2625			12.8385	3.7000e-004	3.5000e-004	12.9529
Total	**7.7800e-003**	**0.1036**	**0.0797**	**5.9000e-004**	**2.5989**	**6.5000e-004**	**2.5996**	**0.2708**	**6.3000e-004**	**0.2715**			**56.5762**	**1.2900e-003**	**6.7800e-003**	**58.6296**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	0.0257	0.0283	0.2466	5.2000e-004	0.0576	3.7000e-004	0.0580	0.0154	3.4000e-004	0.0157			48.6733	3.0400e-003	2.2400e-003	49.4172
Unmitigated	0.0257	0.0283	0.2466	5.2000e-004	0.0576	3.7000e-004	0.0580	0.0154	3.4000e-004	0.0157			48.6733	3.0400e-003	2.2400e-003	49.4172

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
City Park	65.00	65.00	65.00	155,804	155,804
Total	65.00	65.00	65.00	155,804	155,804

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-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
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

5.0 Energy Detail

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

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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 Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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 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

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

6.1 Mitigation Measures Area

	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	0.0103	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-003
Unmitigated	0.0103	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-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	2.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7800e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.0103**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**2.1000e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

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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	2.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7800e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1000e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.0103**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**2.1000e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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	0.1929	3.0000e-005	0.0000	0.1948
Unmitigated	0.1929	3.0000e-005	0.0000	0.1948

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.595741	0.1929	3.0000e-005	0.0000	0.1948
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.1929**	**3.0000e-005**	**0.0000**	**0.1948**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.595741	0.1929	3.0000e-005	0.0000	0.1948
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.1929**	**3.0000e-005**	**0.0000**	**0.1948**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.1200e-003	4.8000e-004	0.0000	0.0201
Unmitigated	8.1200e-003	4.8000e-004	0.0000	0.0201

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Llagas Creek Bridge - 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

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**8.1200e-003**	**4.8000e-004**	**0.0000**	**0.0201**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**8.1200e-003**	**4.8000e-004**	**0.0000**	**0.0201**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

Llagas Creek Bridge

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	117.20	1000sqft	2.69	117,200.00	0
City Park	0.50	Acre	0.50	21,780.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	3			**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 - Climate zone 3 based on project area zip code.

Land Use - Updated acreage to match PD. Various trail and seating area improvements + new bridge.

Construction Phase - Project to occur over a 6 month period ending in October.

Off-road Equipment - Equipmnt specific for this task.

Off-road Equipment - equipment specific to this action.

Off-road Equipment - Equipment specific for this action.

Trips and VMT - maximum number of construction workers would be 10.

On-road Fugitive Dust - 96% paved roads

Grading -

Vehicle Trips - New trips from expanded maintenance activites and new visitor trips.

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

Construction Off-road Equipment Mitigation - EPM AQ-1

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	NumDays	230.00	70.00
tblConstructionPhase	NumDays	8.00	54.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2024	10/19/2023
tblConstructionPhase	PhaseEndDate	4/19/2023	7/13/2023
tblConstructionPhase	PhaseEndDate	4/7/2023	4/28/2023
tblConstructionPhase	PhaseStartDate	4/20/2023	7/14/2023
tblConstructionPhase	PhaseStartDate	4/8/2023	4/29/2023
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblOnRoadDust	WorkerPercentPave	100.00	97.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblTripsAndVMT	WorkerTripNumber	58.00	20.00
tblVehicleTrips	HO_TL	0.00	7.30
tblVehicleTrips	HO_TTP	0.00	6.00

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Llagas Creek Bridge - Santa Clara County, Summer

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

tblVehicleTrips	HS_TL	0.00	7.30
tblVehicleTrips	HS_TTP	0.00	28.00
tblVehicleTrips	HW_TL	0.00	9.50
tblVehicleTrips	HW_TTP	0.00	66.00
tblVehicleTrips	ST_TR	1.96	65.00
tblVehicleTrips	SU_TR	2.19	65.00
tblVehicleTrips	WD_TR	0.78	65.00

2.0 Emissions Summary

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2023	1.8050	17.2331	18.6173	0.0440	88.1642	0.7184	88.8826	9.1656	0.6762	9.8419			4,363.2628	0.6734	0.2125	4,442.7962
Maximum	**1.8050**	**17.2331**	**18.6173**	**0.0440**	**88.1642**	**0.7184**	**88.8826**	**9.1656**	**0.6762**	**9.8419**			**4,363.2628**	**0.6734**	**0.2125**	**4,442.7962**

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	lb/day										lb/day					
2023	1.8050	17.2331	18.6173	0.0440	87.9707	0.7184	88.6891	9.1182	0.6762	9.7944			4,363.2628	0.6734	0.2125	4,442.7962
Maximum	**1.8050**	**17.2331**	**18.6173**	**0.0440**	**87.9707**	**0.7184**	**88.6891**	**9.1182**	**0.6762**	**9.7944**			**4,363.2628**	**0.6734**	**0.2125**	**4,442.7962**

	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**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.22**	**0.00**	**0.22**	**0.52**	**0.00**	**0.48**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

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	lb/day										lb/day					
Area	0.0571	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
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
Mobile	0.1571	0.1432	1.3678	3.0100e-003	0.3276	2.0300e-003	0.3296	0.0872	1.8900e-003	0.0891			311.0655	0.0173	0.0129	315.3383
Total	**0.2142**	**0.1433**	**1.3798**	**3.0100e-003**	**0.3276**	**2.0700e-003**	**0.3297**	**0.0872**	**1.9300e-003**	**0.0891**			**311.0913**	**0.0173**	**0.0129**	**315.3658**

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	lb/day										lb/day					
Area	0.0571	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
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
Mobile	0.1571	0.1432	1.3678	3.0100e-003	0.3276	2.0300e-003	0.3296	0.0872	1.8900e-003	0.0891			311.0655	0.0173	0.0129	315.3383
Total	**0.2142**	**0.1433**	**1.3798**	**3.0100e-003**	**0.3276**	**2.0700e-003**	**0.3297**	**0.0872**	**1.9300e-003**	**0.0891**			**311.0913**	**0.0173**	**0.0129**	**315.3658**

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	N20	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	4/3/2023	4/28/2023	5	20	
2	Grading	Grading	4/29/2023	7/13/2023	5	54	
3	Material Laydown	Building Construction	7/14/2023	10/19/2023	5	70	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 54

Acres of Paving: 2.69

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	Rubber Tired Dozers	1	8.00	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	8.00	97	0.37
Material Laydown	Cranes	1	7.00	231	0.29
Material Laydown	Forklifts	3	8.00	89	0.20
Material Laydown	Generator Sets	1	8.00	84	0.74

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

Site Preparation	Graders	1	8.00	187	0.41
Material Laydown	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Material Laydown	Welders	1	8.00	46	0.45

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	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Material Laydown	9	20.00	23.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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

3.2 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.2183	13.3011	7.0249	0.0183		0.5470	0.5470		0.5033	0.5033			1,767.4004	0.5716		1,781.6907
Total	**1.2183**	**13.3011**	**7.0249**	**0.0183**	**7.0826**	**0.5470**	**7.6296**	**3.4247**	**0.5033**	**3.9280**			**1,767.4004**	**0.5716**		**1,781.6907**

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	lb/day										lb/day					
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	0.0528	0.0311	0.4852	1.4100e-003	9.6965	7.9000e-004	9.6973	0.9942	7.2000e-004	0.9949			143.8191	3.6100e-003	3.4400e-003	144.9348
Total	**0.0528**	**0.0311**	**0.4852**	**1.4100e-003**	**9.6965**	**7.9000e-004**	**9.6973**	**0.9942**	**7.2000e-004**	**0.9949**			**143.8191**	**3.6100e-003**	**3.4400e-003**	**144.9348**

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

3.2 Site Preparation - 2023

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	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.2183	13.3011	7.0249	0.0183		0.5470	0.5470		0.5033	0.5033			1,767.4004	0.5716		1,781.6907
Total	**1.2183**	**13.3011**	**7.0249**	**0.0183**	**3.1872**	**0.5470**	**3.7342**	**1.5411**	**0.5033**	**2.0444**			**1,767.4004**	**0.5716**		**1,781.6907**

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	lb/day										lb/day					
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	0.0528	0.0311	0.4852	1.4100e-003	9.6840	7.9000e-004	9.6848	0.9911	7.2000e-004	0.9918			143.8191	3.6100e-003	3.4400e-003	144.9348
Total	**0.0528**	**0.0311**	**0.4852**	**1.4100e-003**	**9.6840**	**7.9000e-004**	**9.6848**	**0.9911**	**7.2000e-004**	**0.9918**			**143.8191**	**3.6100e-003**	**3.4400e-003**	**144.9348**

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

3.3 Grading - 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	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.3709	14.8515	9.2616	0.0214		0.6233	0.6233		0.5734	0.5734			2,071.0089	0.6698		2,087.7540
Total	**1.3709**	**14.8515**	**9.2616**	**0.0214**	**7.0826**	**0.6233**	**7.7059**	**3.4247**	**0.5734**	**3.9982**			**2,071.0089**	**0.6698**		**2,087.7540**

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	lb/day										lb/day					
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	0.0528	0.0311	0.4852	1.4100e-003	9.6965	7.9000e-004	9.6973	0.9942	7.2000e-004	0.9949			143.8191	3.6100e-003	3.4400e-003	144.9348
Total	**0.0528**	**0.0311**	**0.4852**	**1.4100e-003**	**9.6965**	**7.9000e-004**	**9.6973**	**0.9942**	**7.2000e-004**	**0.9949**			**143.8191**	**3.6100e-003**	**3.4400e-003**	**144.9348**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

3.3 Grading - 2023

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	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.3709	14.8515	9.2616	0.0214		0.6233	0.6233		0.5734	0.5734			2,071.0089	0.6698		2,087.7540
Total	**1.3709**	**14.8515**	**9.2616**	**0.0214**	**3.1872**	**0.6233**	**3.8105**	**1.5411**	**0.5734**	**2.1146**			**2,071.0089**	**0.6698**		**2,087.7540**

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	lb/day										lb/day					
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	0.0528	0.0311	0.4852	1.4100e-003	9.6840	7.9000e-004	9.6848	0.9911	7.2000e-004	0.9918			143.8191	3.6100e-003	3.4400e-003	144.9348
Total	**0.0528**	**0.0311**	**0.4852**	**1.4100e-003**	**9.6840**	**7.9000e-004**	**9.6848**	**0.9911**	**7.2000e-004**	**0.9918**			**143.8191**	**3.6100e-003**	**3.4400e-003**	**144.9348**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

3.4 Material Laydown - 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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**			**2,555.2099**	**0.6079**		**2,570.4061**

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	lb/day										lb/day					
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	0.0739	2.7548	0.9178	0.0128	1.0248	0.0163	1.0411	0.2695	0.0156	0.2851			1,376.5955	0.0292	0.2022	1,437.5857
Worker	0.1583	0.0934	1.4555	4.2200e-003	87.1394	2.3600e-003	87.1417	8.8961	2.1700e-003	8.8983			431.4574	0.0108	0.0103	434.8044
Total	**0.2322**	**2.8482**	**2.3733**	**0.0171**	**88.1642**	**0.0187**	**88.1829**	**9.1656**	**0.0178**	**9.1834**			**1,808.0529**	**0.0400**	**0.2125**	**1,872.3901**

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

3.4 Material Laydown - 2023

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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**			**2,555.2099**	**0.6079**		**2,570.4061**

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	lb/day										lb/day					
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	0.0739	2.7548	0.9178	0.0128	0.9435	0.0163	0.9599	0.2496	0.0156	0.2652			1,376.5955	0.0292	0.2022	1,437.5857
Worker	0.1583	0.0934	1.4555	4.2200e-003	87.0272	2.3600e-003	87.0295	8.8686	2.1700e-003	8.8708			431.4574	0.0108	0.0103	434.8044
Total	**0.2322**	**2.8482**	**2.3733**	**0.0171**	**87.9707**	**0.0187**	**87.9894**	**9.1182**	**0.0178**	**9.1359**			**1,808.0529**	**0.0400**	**0.2125**	**1,872.3901**

4.0 Operational Detail - Mobile

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	0.1571	0.1432	1.3678	3.0100e-003	0.3276	2.0300e-003	0.3296	0.0872	1.8900e-003	0.0891			311.0655	0.0173	0.0129	315.3383
Unmitigated	0.1571	0.1432	1.3678	3.0100e-003	0.3276	2.0300e-003	0.3296	0.0872	1.8900e-003	0.0891			311.0655	0.0173	0.0129	315.3383

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
City Park	65.00	65.00	65.00	155,804	155,804
Total	65.00	65.00	65.00	155,804	155,804

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-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

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	0.0571	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
Unmitigated	0.0571	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274

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	lb/day										lb/day					
Architectural Coating	0.0134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0426					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
Total	**0.0571**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**			**0.0258**	**7.0000e-005**		**0.0274**

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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	lb/day										lb/day					
Architectural Coating	0.0134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0426					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0258	7.0000e-005		0.0274
Total	**0.0571**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**			**0.0258**	**7.0000e-005**		**0.0274**

7.0 Water Detail

7.1 Mitigation Measures Water

Exhibit B

Llagas Creek Bridge - Santa Clara County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Land Cover and Habitat Survey Report

Exhibit B

Revised November 2022

LAND COVER AND HABITAT SURVEY REPORT

Llagas Creek Bridge and Day Use Area Project at Rancho Cañada del Oro Open Space Preserve

PREPARED FOR:

OPEN SPACE AUTHORITY
SANTA CLARA VALLEY
Santa Clara Valley Open Space Authority
33 Las Colinas Lane
San José, CA 95119

Exhibit B

Land Cover and Habitat Survey Report

Llagas Creek Bridge and Day Use Area Project at Rancho Cañada del Oro Open Space Preserve

Prepared For:

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October 2021

Revised November 2022

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Exhibit B

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LIST OF ABBREVIATIONS

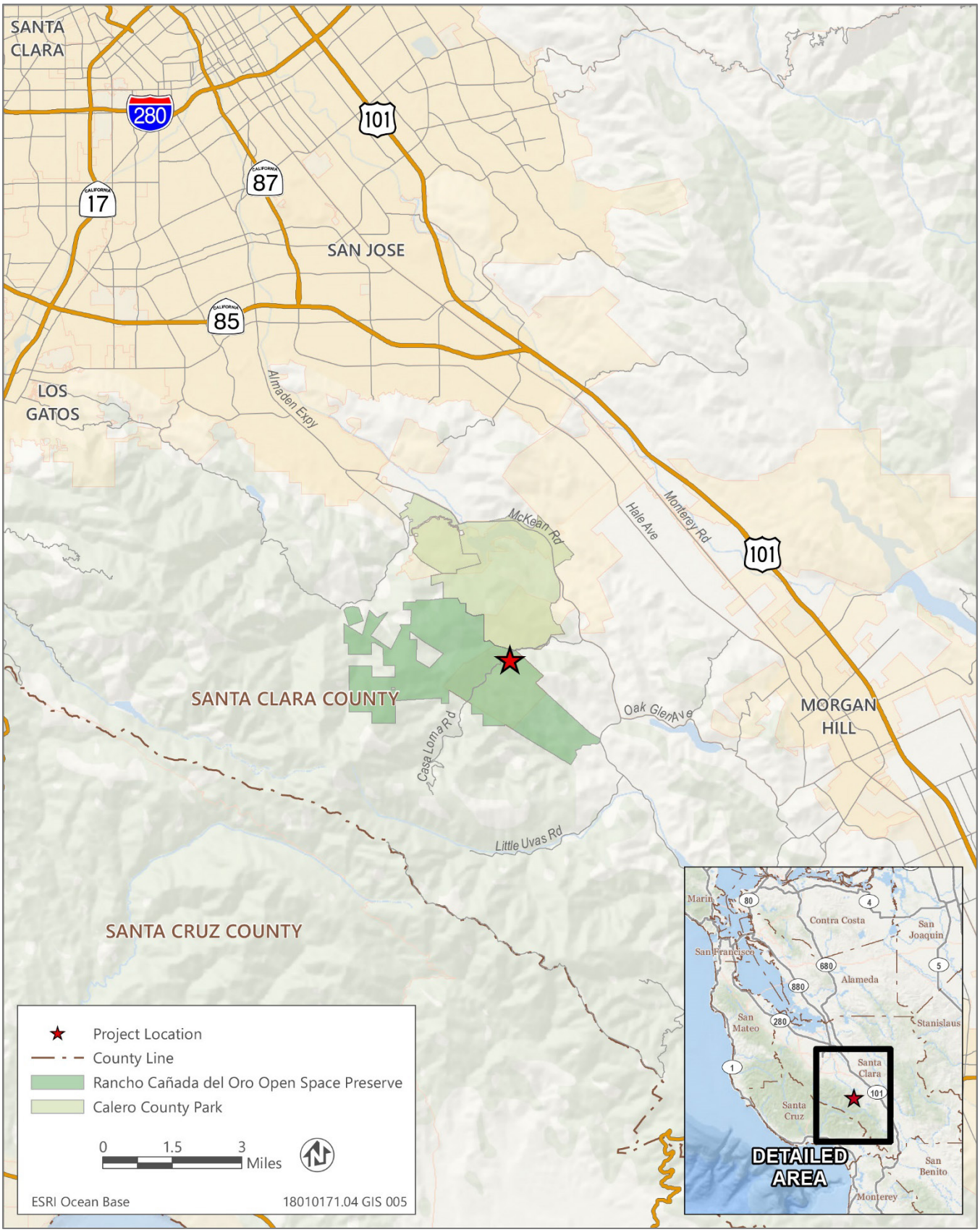
Authority	Santa Clara Valley Open Space Authority
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
ESA	federal Endangered Species Act
Habitat Plan	Santa Clara Valley Habitat Plan
Project	Llagas Creek Bridge and Day Use Area Project
RCAN	Rancho Cañada del Oro Open Space Preserve
VHA	Valley Habitat Agency

1 INTRODUCTION

The proposed Llagas Creek Bridge Crossing Project (Project) would cross Llagas Creek within the Rancho Cañada del Oro Open Space Preserve (RCAN) in the western portion of Santa Clara County, California (Figure 1). RCAN is owned and managed by the Santa Clara Valley Open Space Authority (Authority) and is within the plan area for the Santa Clara Valley Habitat Plan (Habitat Plan).

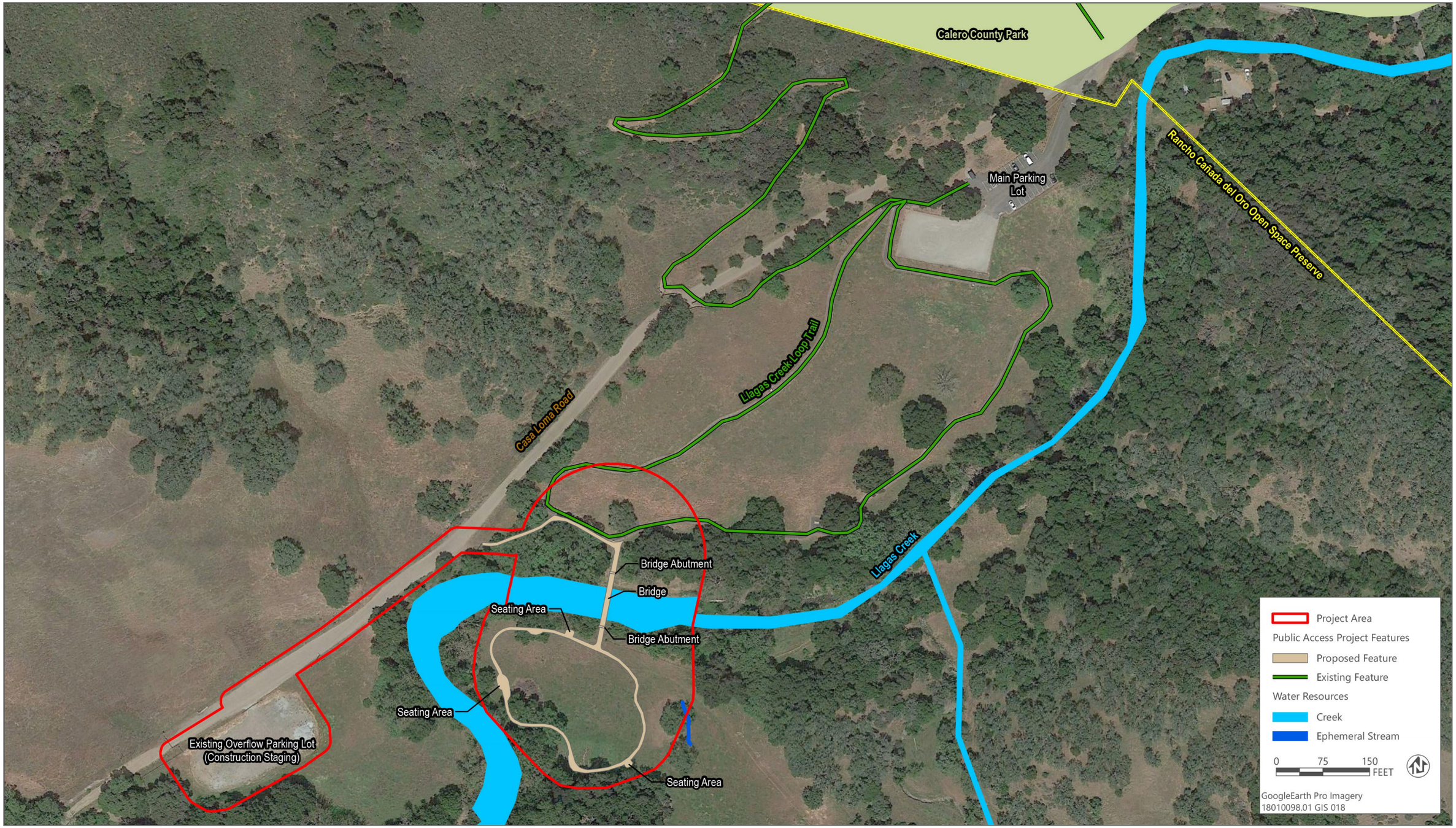
The Authority proposes to expand upon existing public access and recreation facilities at RCAN. Accordingly, the proposed Project includes the implementation of several new features to support public access and low intensity recreation. The location of the proposed Project features and adjacent land around those features constitute the Project area (see Figure 2). The primary Project features include the development of a bridge over Llagas Creek; a new equestrian trail leading to the bridge, several gathering areas consisting of benches and picnic tables; and an Americans with Disabilities Act (ADA) -accessible loop trail. Additional features that would be installed within the Project area include interpretive and wayfinding signage, fencing, and revegetation of disturbed areas with native stockpiled soils onsite or an appropriate native seed mix. Project construction is anticipated to occur between April 15 and October 15, 2023. RCAN is owned and managed by the Authority and is within the plan area for the Santa Clara Valley Habitat Plan.

This report summarizes the methods and results of land cover surveys, habitat surveys, and review of existing special-status species occurrence data conducted to support the design of the Project and a permit application for the Santa Clara Valley Habitat Agency (Habitat Agency or VHA) for endangered species take coverage under the Habitat Plan as a Participating Special Entity. The Habitat Plan requires verification of land cover and the assessment of nesting habitat for least Bell's vireo and tricolored blackbird where the potential for nesting habitat exists. Information on Habitat Plan Conditions on Covered Activities related to land cover types and covered species is also provided in this report. In addition, the report contains a discussion of the potential for other special-status plants and animals to occur in the study area, and suggested avoidance measures that may be applied to the project to avoid impacts to these species.



Source: Adapted by Ascent Environmental in 2019

Figure 1 Project Vicinity



Source: Adapted by Ascent Environmental in 2019 and 2021

Figure 2 Project Area

2 METHODS

The study area for land cover and nesting habitat surveys encompasses the Project area as shown on Figure 2, as well as 250 feet around the Project features (see Figure 3). The study area was surveyed by Ascent biologists on July 11, 2019, and again on August 30, 2021, using a global positioning system (GPS) unit to digitally map riparian and aquatic habitat. For other habitat types, biologists field verified existing georectified aerial photography. Field verification consisted of the biologists walking the study area making note of the vegetation present and classifying the land cover based on the land cover type descriptions in the Habitat Plan. Based on the presence of riparian land cover along Llagas Creek, the biologists also assessed vegetation in the study area to determine if potential nesting habitat for least Bell's vireo and tricolored blackbird is present based on the nesting habitat descriptions for these species contained in the Habitat Plan. In addition to the 2021 land cover and nesting habitat survey, floristic surveys were conducted on April 28 and June 24, 2022. The surveys were conducted in accordance with the protocols described in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

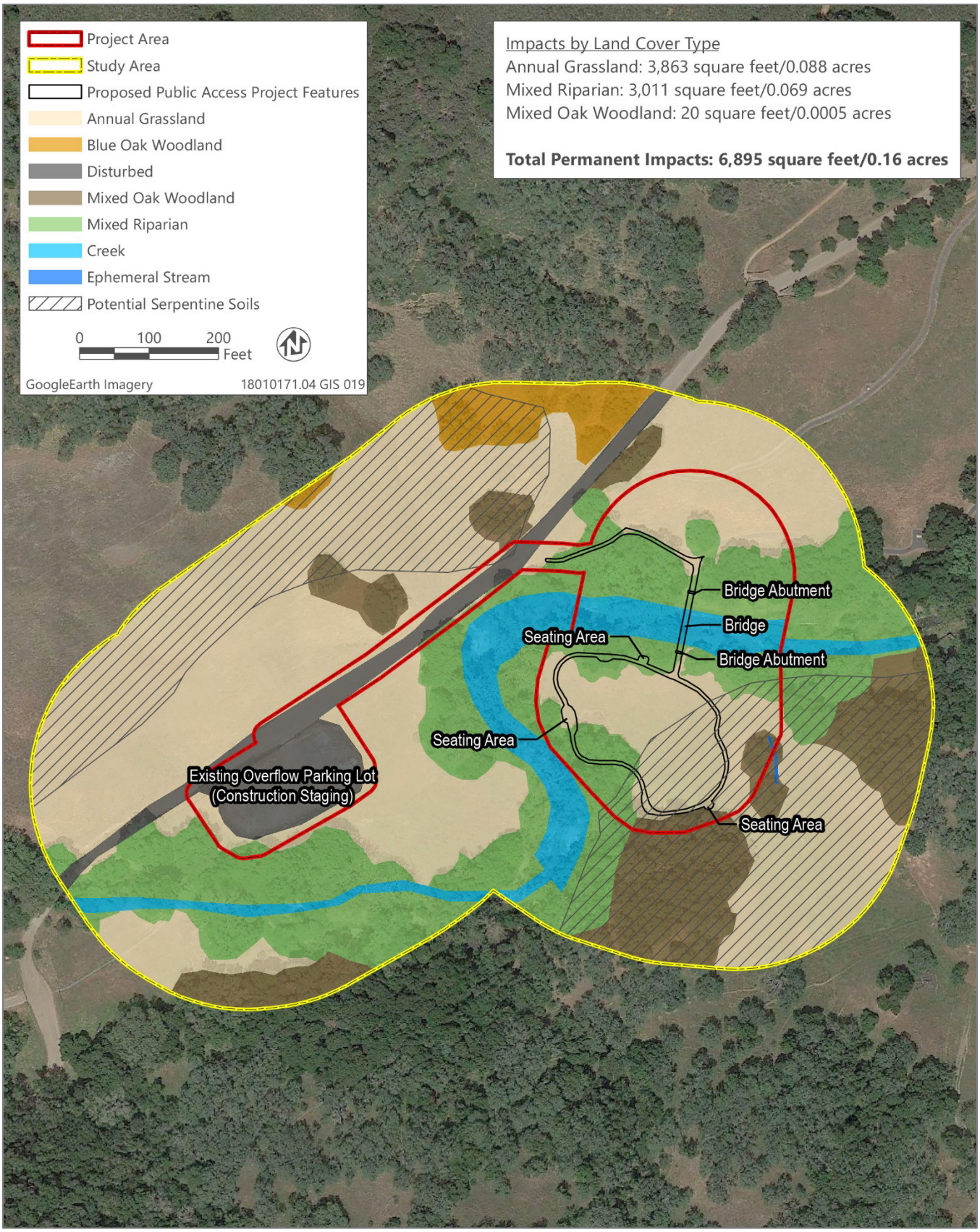
In addition to the field surveys, a search of the California Natural Diversity Data Base (CNDDB) (CNDDB 2019) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2019) within the San Jose West, San Jose East, Lick Observatory, Los Gatos, Santa Teresa Hills, Morgan Hill, Laurel, Loma Prieta, and Mt. Madonna U.S. Geological Survey 7.5-minute quadrangles was conducted to identify records of any occurrences of special-status botanical or animal species in or near the study area. These database searches were updated in 2022 (CNPS 2022; CNDDB 2022). Available reports and other documents applicable to the study area were reviewed.

For the purpose of this report, special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- officially listed by California or the federal government as endangered, threatened, or rare;
- a candidate for state or federal listing as endangered or threatened;
- taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations Section 15380 of the State California Environmental Quality Act (CEQA) Guidelines;
- species identified by California Department of Fish and Wildlife (CDFW) as species of special concern;
- species listed as Fully Protected under the California Fish and Game Code;
- species listed as covered species under the Habitat Plan;
- species afforded protection under other local planning documents; and
- taxa considered by the CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR). The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern, summarized as follows:
  - CRPR 1A - Plants presumed to be extinct in California;
  - CRPR 1B - Plants that are rare, threatened, or endangered in California and elsewhere;
  - CRPR 2A - plants presumed to be extinct in California but that are more common elsewhere; and
  - CRPR 2B - Plants that are rare, threatened, or endangered in California but more common elsewhere.

The term "California species of special concern" is applied by CDFW to animals not listed under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA), but that are considered to be declining at a rate that could result in listing, or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW's fully protected status was California's first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered

under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.



Source: Adapted by Ascent Environmental in 2019 and 2021

Figure 3 Field-Verified Land Cover

3 RESULTS

This section describes the results of surveys performed in the study area to verify Habitat Plan land cover types, identify Habitat Plan covered species and other potential special-status species that may occur in the study area, and to determine if potential nesting habitats for least Bell's vireo and tricolored blackbird are present for Habitat Plan permitting compliance.

3.1 LAND COVER AND POTENTIAL SERPENTINE SOILS

Section 6.8.3, "Item 3: Land Cover Types on Site" and Section 6.8.4. "Item 4: Map of Wetlands, Ponds, Streams, and Riparian Woodlands" of the Habitat Plan describes specific requirements for verification of land cover types at the time applications are submitted to the VHA. Because the Authority intends to submit an application to the VHA for Project coverage under the Habitat Plan, verification of land cover within the study area was conducted. The following Habitat Plan land cover types were observed in the study area: California annual grassland, blue oak woodland, mixed oak woodland, mixed riparian, and riverine (Figure 3). In the event that any of these land cover types would be affected by the Project as determined after final design, the Authority would adhere to the Habitat Plan Conditions related to the specific land cover type that would be affected.

3.1.1 California Annual Grassland

California annual grassland is located throughout the study area on both the north and south sides of Llagas Creek between stands of oak woodland and mixed riparian woodland (Figure 3). The California annual grassland located between Casa Loma Road and Llagas Creek within the existing day use area of RCAN had been mowed prior to survey. The grassland north of Casa Loma Road and south of Llagas Creek appeared relatively undisturbed and consisted of annual grasses and forbs such as bristly dogtail grass (*Cynosurus echinatus*), slender oats (*Avena barbata*), Italian ryegrass (*Festuca perennis*), foxtail barley (*Hordeum murinum*), soft chess (*Bromus hordeaceus*), rose clover (*Trifolium hirtum*), tall sock-destroyer (*Torilis arvensis*), and redstem filaree (*Erodium cicutarium*).

3.1.2 Blue Oak Woodland

Blue oak woodland was observed in the northeastern portion of the study area on the north side of Casa Loma Road, and outside of the study area to the south. Blue oak (*Quercus douglasii*) is the dominant tree species in this land cover type and few individuals of other species are present. The understory of the blue oak woodland in the study area consisted of mostly annual grasses with little shrub cover. The Project as currently proposed would not disturb the portion of the study area containing blue oak woodland; therefore, no Habitat Plan permit conditions specific to this land cover type would be needed.

3.1.3 Mixed Oak Woodland

Small patches of mixed oak woodland were observed on both sides of Casa Loma Road north of Llagas Creek. Larger areas of mixed oak woodland were observed on the south side of Llagas Creek. These stands of mixed oak woodland are located adjacent to mixed riparian woodland and continue upslope beyond the study area to the south. The mixed oak woodland in the study area is composed primarily of California laurel (*Umbellularia californica*), coast live oak (*Quercus agrifolia*), interior live oak (*Quercus wislizeni*), California buckeye (*Aesculus californica*), and blue oak.

3.1.4 Mixed Riparian Woodland

Mixed riparian woodland was observed along the portion of Llagas Creek that flows through the study area. The canopy of the mixed riparian woodland within the study area is composed of California laurel, California sycamore (*Platanus racemosa*), interior live oak, and other subdominant tree species. The understory consists of shrubs and

forbs under a canopy of mature trees, with more dense understory vegetation present where the tree canopy is open. Species present in the understory along Llagas Creek include willow (*Salix* spp.), poison oak (*Toxicodendron diversilobum*), California rose (*Rosa californica*), Himalayan blackberry (*Rubus armeniacus*), white alder (*Alnus rhombifolia*), blue elderberry (*Sambucus nigra*), and mugwort (*Artemisia douglasiana*). Upstream of the proposed bridge, the riparian corridor meets the adjacent mixed oak woodland above the south bank of the creek (Figure 4).

3.1.5 Riverine

Llagas Creek is a perennial creek that flows west to east though the study area (Figure 3). Llagas Creek flows into Chesbro Reservoir south and east of the study area and then on to the Pajaro River. The dam at Chesbro Reservoir is a barrier to anadromous fish movement into the portion of the creek within the study area; however, the creek may support a fishery. The segment of Llagas Creek that runs through the study area is a braided channel with a mixed cobble and pebble substrate.

In addition to Llagas Creek, a small unnamed ephemeral stream is present within the study area (Figure 3). This ephemeral stream originates upslope where the hillside cleaves, passes though California annual grassland, and dissipates downslope before reaching Llagas Creek. Vegetation in this drainage is dominated by upland grasses and forbs that are part of the California annual grassland land cover type. Due to its ephemeral nature and lack of connection with Llagas Creek, this ephemeral stream does not contain suitable fish habitat. A detailed discussion of Llagas Creek and the ephemeral stream is provided in the aquatic resources delineation report prepared for the project (Ascent 2021).

3.1.6 Potential Serpentine Soils

According to the Soil Survey of Santa Clara County (NRCS 2017), Katykat-Mouser-Sanikara complex, 30 to 50 percent slopes soil unit is located north of Casa Loma Road. This soil type includes serpentine soil components; however, no ground disturbance is proposed to occur within this portion of the study area.

A portion of the project disturbance footprint overlaps with a soil map unit (Vallecitos rocky loam, 15-30% slopes, eroded) that contains two percent serpentine soils throughout the unit (Davis, pers. comm. 2016). However, the soil map unit is large (47,696 acres), the major soil type in this map unit is derived from shale rather than serpentine, and the small proportion of serpentine in the map unit (i.e., two percent of the unit) may not occur in any one location. Furthermore, no serpentine bunchgrass habitat was observed in the study area, and no differences in plant species composition were observed between grassland, mixed oak woodland, and mixed riparian areas on or off Vallecitos rocky loam soil map units during land cover and habitat surveys conducted in 2019. Therefore, there are no indications that the soil in this portion of the study area has serpentine inclusions. In addition, protocol botanical surveys were conducted on April 28 and June 24, 2022 and no serpentine bunchgrass, serpentine endemics, or special-status plant species, including Habitat Plan covered plant species, were detected (see section 3.3, "Potential for Additional Special-Status Species" below).

Source: Taken by Ascent Environmental in 2018

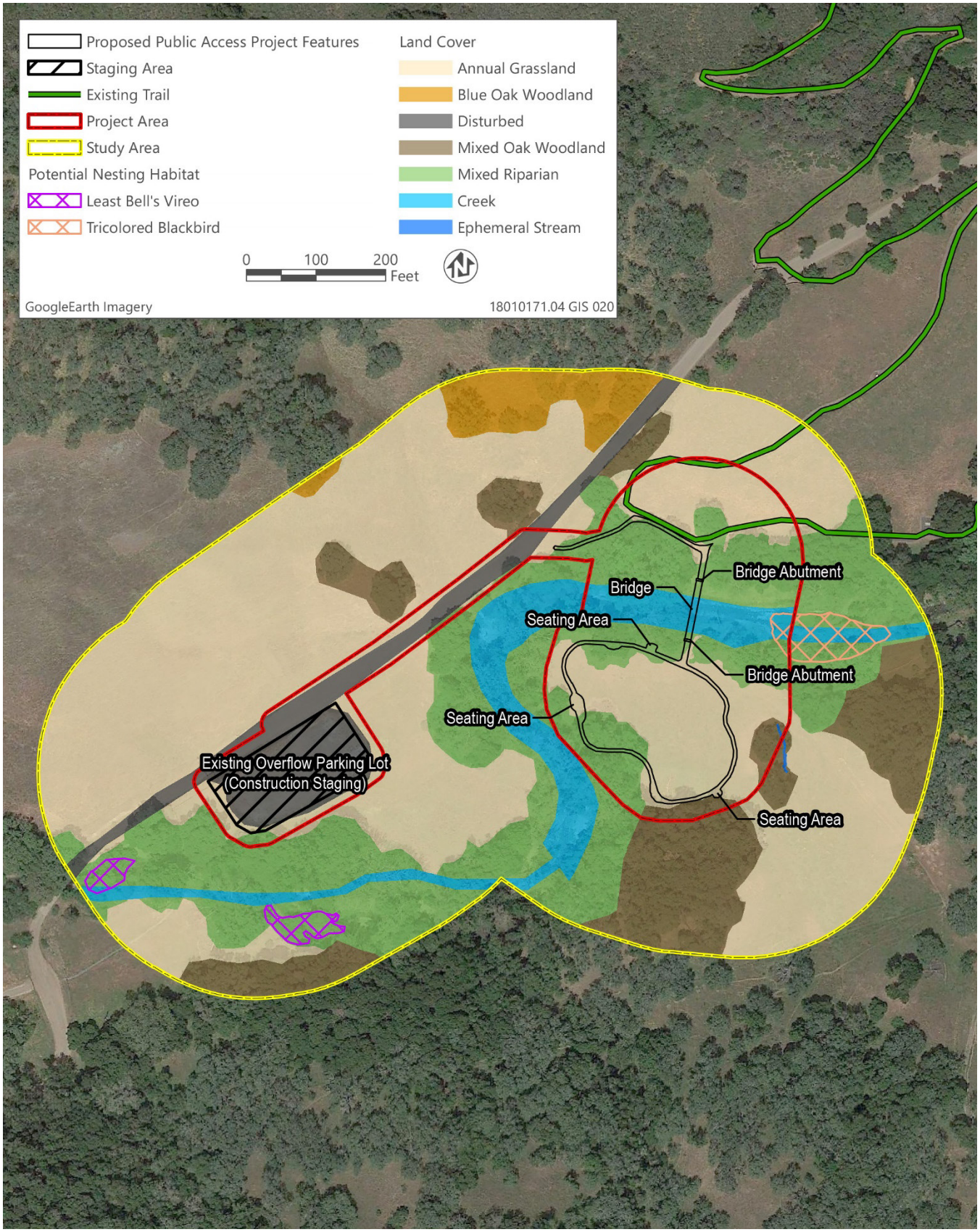
Figure 4 Llagas Creek Upstream of the Proposed Bridge

3.2 POTENTIAL COVERED SPECIES NESTING HABITAT

Section 6.6.1, "Selected Covered Wildlife Species," of the Habitat Plan describes specific conditions related to the avoidance and minimization of impacts to covered species. These conditions include requirements for surveying potential nesting habitat within the vicinity of covered projects. Because the Authority intends to apply to the VHA for coverage of the Project under the Habitat Plan, and because of the presence of potential nesting habitat as defined by the Habitat Plan and the location of the Project within a Habitat Plan-defined survey area for the species, a survey for potential nesting habitat for least Bell's vireo and tricolored blackbird were conducted. This section describes the results of the nesting habitat survey.

3.2.1 Least Bell's Vireo

Due to the presence of riparian land cover within 250 feet of the proposed Project, a habitat assessment was performed to determine whether potential nesting habitat for least Bell's vireo occurs in the study area. Nesting habitat for least Bell's vireo is defined by the Habitat Plan as early successional riparian vegetation (typically dominated by willow shrubs and other thick understory vegetation). As described in Section 3.1.4, "Mixed Riparian Woodland," most of the riparian corridor along Llagas Creek consists of mature overstory trees with relatively sparse understory. However, in several locations where the tree canopy is open, the understory consists of dense willows, poison oak, and Himalayan blackberry. These locations are potentially suitable for nesting by least Bell's vireo using the definition in the Habitat Plan (Figure 5 and Figure 6). No least Bell's vireos or nests were detected at these locations. A nine-quad search of the CNDDB did not identify any recorded nesting on or near RCAN. The nearest documented occurrence of least Bell's vireo nesting is located along Llagas Creek near the confluence with the Pajaro River southeast of Gilroy, approximately 16.5 miles from the Project (CNDDB 2019). The study area is also outside of the range of the species (USFWS 2019).



Source: Adapted by Ascent Environmental in 2019 and 2021

Figure 5 Habitat Plan Covered Species Nesting Habitat

Source: Taken by Ascent Environmental in 2019

Figure 6 Potential Least Bell's Vireo Nesting Habitat

While potentially suitable nesting habitat, as defined by the Habitat Plan, is present within 250 feet of the proposed Project staging area, this habitat is not expected to support nesting least Bell's vireo. This determination is based on the relatively small size of the habitat patches, the lack of recorded occurrences near the Project, existing disturbance from public access, the location of the Project outside of the range of the species, and the distance (16.5 miles) to the nearest record of nesting. However, the potential for least Bell's vireo to nest in this area prior to the construction of the Project cannot be eliminated based on this habitat survey. Because of the presence of potential nesting habitat as defined by the Habitat Plan and the location of the Project within a Habitat Plan-defined survey area for the species, the Project would likely need to follow the published Minor Revisions to Condition 16 in the Habitat Plan (VHA 2017a). Condition 16 requires protocol surveys to determine the presence of active nests prior to construction. If active nests are found during surveys, no work would be permitted within 250 feet of each nest during the breeding season (March 15 through July 31). The Authority may coordinate with the VHA to confirm whether protocol nest surveys would be required.

3.2.2 Tricolored Blackbird

Due to the presence of riparian land cover (including Himalayan blackberry) within 250 feet of the proposed Project, a habitat assessment was performed to determine whether suitable nesting habitat for tricolored blackbird occurs in the study area. Nesting substrate for tricolored blackbird is defined in the Habitat Plan as generally including flooded, thorny, or spiny vegetation (e.g., cattails, bulrushes, willows, blackberries, thistles, or nettles). Within the study area, an area of Himalayan blackberry and poison oak that generally meets the Habitat Plan's description of suitable nesting habitat is located just downstream from the proposed bridge (Figure 5 and Figure 7). No tricolored blackbirds or nests were observed during the survey. A nine-quad search of the CNDDB indicated that there are no previous records of tricolored blackbird nesting along this portion of Llagas Creek. The nearest documented occurrence of tricolored blackbird nesting is approximately 2.5 miles north near Calero Reservoir (CNDDB 2019).

Source: Taken by Ascent Environmental in 2019

Figure 7 Potential Tricolored Blackbird Nesting Habitat

The presence of potentially suitable nesting habitat, as defined in the Habitat Plan, within 250 feet of the Project will likely require pre-construction surveys for the presence of nesting tricolored blackbirds to meet the permit conditions of the Habitat Plan as described in the published Minor Revisions to Condition 17 (VHA 2017b). If nesting tricolored blackbirds are found during pre-construction surveys, no work would be permitted within 250 feet of the nesting colony during the breeding season (March 15–July 31).

3.3 POTENTIAL FOR ADDITIONAL SPECIAL-STATUS SPECIES

In addition to evaluating nesting habitat for least Bell's vireo and tricolored blackbird, searches of the CNDDB and CNPS databases were performed, and other available relevant information was reviewed. This information was evaluated in the context of the land cover types and habitat conditions within the study area to determine the likelihood that special-status botanical and animal species would occur. This section summarizes the additional special-status species known or with potential to occur in the study area, and provides potential avoidance and minimization measures for special-status species that the Authority may consider during Project planning. These potential avoidance and minimization measures are based on the current Project description and an assumption that the Project will be covered under the Habitat Plan. Measures may need to be revised during the CEQA analysis and permitting processes.

3.3.1 Special-Status Botanical Species

Searches of the CNDDB and CNPS databases (CNDDB 2022; CNPS 2022) identified 51 special-status botanical species that occur within the 9-quad search area (Attachment A, Table A-1). Of these 51 special-status plants, six were determined to have potential to occur within the study area based on their ranges and the presence of suitable land cover and soils. None of these species are listed under ESA or CESA. Fragrant fritillary (*Fritillaria liliacea*) a covered species under the Habitat Plan, and weak serpentine associate, was determined to have the potential to occur, although no evidence of serpentine soils was found in the study area, because the species is not restricted to serpentine habitats. These species meet the definition of special-status plants provided in Chapter 2, "Methods," because they have California Rare Plant Ranks of 1B or 2B. These species are shown along with their potential blooming period in Table 1.

Table 1 Special-Status Botanical Species with the Potential to Occur in the Study Area

Species	Potential Blooming Period[1]											
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Bent-flowered fiddleneck *Amsinckia lunaris*												
Western leatherwood *Dirca occidentalis*												
Fragrant fritillary *Fritillaria liliacea*												
Arcuate bush-mallow *Malacothamnus arcuatus*												
Woodland woollythreads *Monolopia gracilens*												
Santa Cruz clover *Trifolium buckwestiorum*												

[1] The potential blooming period is the published blooming period based on recorded blooming for each species across its range and throughout time. Actual blooming periods of each species vary by year and across their ranges. The only way to know when a particular plant species is blooming in a given area is by visual confirmation of blooming in reference populations.

Note: (?) denotes a period when blooming may occur but is not typical.

POTENTIAL AVOIDANCE AND MINIMIZATION MEASURES

No special status plant species were found within the survey area during the protocol-level surveys conducted on April 28 and June 24, 2022. The surveys were floristic in nature, meaning that all vascular plant species encountered were identified to the taxonomic level necessary to determine rarity status. The surveys were conducted during the appropriate time of the year to identify all the target species. Precipitation in the south San Francisco Bay Area was at 75% percent of historic average for the water year October 2021 – June 2022 (DWR 2022).

Therefore, because no special-status plants were found during the floristic surveys conducted according to standard protocols, special-status plants are determined to be absent, and no impacts are expected to occur as a result of project implementation. No additional avoidance and minimization measures for rare plants is required at this time.

3.3.2 Special-Status Animal Species

The CNDDB record search identified 38 special-status animal species documented within the 9-quad search area (Attachment A, Table A-2). Of those 38 species, 20 are known to occur or could occur within the study area based on their ranges and the presence of habitat potentially suitable for these species. All of these species, along with their listing status, Habitat Plan coverage status, preferred habitat, and potential for occurrence in the study area are summarized in Table A-2 in Attachment A.

POTENTIAL AVOIDANCE AND MINIMIZATION MEASURES

To avoid and minimize impacts to the special-status animal species with potential to occur in the study area, the following measures would be implemented by the Authority.

Monterey Roach

To avoid and minimize impacts to Monterey roach (*Lavinia symmetricus subditus*), a CDFW species of special concern that would need to be considered under CEQA, the Authority would implement applicable aquatic habitat avoidance and minimization measures from the Habitat Plan (e.g., avoid work within Llagas Creek, install silt fencing, fuel equipment away from the creek) that reduce the likelihood of impacts to water quality within the Llagas Creek.

Special-Status Amphibians

Foothill yellow-legged frog (*Rana boylii*) is known to occur within the study area. In addition, California red-legged frog (*Rana draytonii*) and California tiger salamander (*Ambystoma californiense*) could also occur based on habitat and range of the species. These three species are covered under the Habitat Plan. While there are general measures in the Habitat Plan for the protection of aquatic and riparian habitats, there are no specific requirements for survey or avoidance for these species in the Habitat Plan. The Habitat Plan mitigates impacts to these species to less than significant through these general habitat focused measures; therefore, if coverage under the Habitat Plan is acquired and general measures are implemented for this Project, no additional survey or avoidance measures are needed for these covered species.

Two other special-status amphibians that are not covered under the Habitat Plan could also occur, California giant salamander (*Dicamptodon ensatus*) and Santa Cruz black salamander (*Aneides niger*). Both California giant salamander and Santa Cruz black salamander are CDFW species of special concern. In addition to the general aquatic habitat avoidance and minimization measures from the Habitat Plan (e.g., avoid work within Llagas Creek, install silt fencing, prevent animal entrapment in trenches, fuel equipment away from the creek), the Authority may implement the following additional measures to avoid and minimize impacts to California giant salamander and Santa Cruz black salamander.

- A speed limit of 15 miles per hour would be maintained along Casa Loma Road and other portions of the Project area that construction vehicles would use.
- No more than 14 days prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist would conduct a pre-construction survey of the Project area. The Project biologist would investigate all portions of the Project area that are suitable habitat for California giant salamander and Santa Cruz black salamander.
- A qualified biological monitor would be present during use of heavy equipment to stop work if individual special-status amphibians are present within the Project area. The animal would be allowed to leave the work area on its own; however, animals may be moved to outside the Project area by a qualified biologist with the appropriate permits.

Special-Status Reptiles

Two special-status reptiles could occur within the study area, coast horned lizard (*Phrynosoma blainvillii*) and western pond turtle (*Actinemys marmorata*), both species are CDFW species of special concern. Western pond turtle is a covered species under the Habitat Plan. The Habitat Plan mitigates impacts to this species to less than significant; therefore, if coverage under the Habitat Plan is acquired and Habitat Plan Conditions are implemented for the Project, no additional survey or avoidance measures would be needed for western pond turtle.

Coast horned lizard is most likely to be found in the oak woodland and rock outcrop habitats within the study area. Western pond turtles use both aquatic and upland habitat and may be found within Llagas Creek or nesting within 325 feet of the creek. The measures described above for Monterey roach and special-status amphibians, such as avoiding entrapment in trenches, a speed limit for construction vehicles, and biological monitoring, would also avoid impacts to coast horned lizard and no other measures would be needed.

Other Special-Status and Common Nesting Birds

In addition to least Bell's vireo and tricolored blackbird discussed above, five other special-status bird species could nest within the study area. Loggerhead shrike (*Lanius ludovicianus*), purple martin (*Progne subis*), and yellow-breasted chat (*Icteria virens*) are CDFW species of special concern and could nest in the study area. Golden eagle (*Aquila chrysaetos*) and White-tailed kite (*Elanus leucurus*), which may also nest in the study area, are CDFW fully protected species. In addition to these special-status bird species, common bird species are also likely to nest in study area. Nests of common raptors and other nesting birds are protected under Section 3503 and Section 3503.5 of the California Fish and Game Code. Impacts to these species would be considered under CEQA and Condition 1 of the Habitat Plan. To avoid or minimize impacts to nests of these species, the Authority would implement the following measures.

- The Authority may choose to schedule work after August 31 and before February 1 to avoid the nesting period for special-status birds, common raptors, and other nesting birds.
- If work is required during the nesting season (February 1 to August 31), a qualified biologist would conduct a survey to identify raptor nests within 500 feet and other bird nests within 50 feet of the Project area. The survey would be conducted no more than 14 calendar days before the beginning of construction.
- If active nests are observed, a no-disturbance buffer would be implemented around the nest, and vegetation removal would not commence until the nest is determined to be inactive by a qualified biologist and all young have fledged. Buffer size would be determined by a qualified biologist in coordination with the Authority, CDFW, and VHA. Factors to be considered for determining buffer location will include presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, and species sensitivity. Monitoring of the nest by a qualified biologist during and after construction activities

would be required if the activity has potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer would be increased until the agitated behavior ceases.

Special-Status Bats

While Townsend's big-eared bat (*Corynorhinus townsendii*) and western mastiff bat (*Eumops perotis californicus*) may forage in the area, typical roosting habitat for these species is not found in the study area. However, pallid bat (*Antrozous pallidus*) a CDFW species of special concern, may roost in large trees within the study area. Impacts to pallid bat roosts could be considered significant under CEQA. To avoid and minimize impacts to pallid bat the Authority would implement the following measures.

- The Authority may choose to perform work that could disturb bat roosts after August 31 and before April 1, to avoid impacts to roosting pallid bats.
- If the Authority chooses to perform work during the period of April 1 through August 31, pre-construction bat surveys would be required. Within 14-days prior to initiating work, a qualified bat biologist would inspect the area of disturbance and adjacent areas (within 50 feet) for bat roosts (most likely mature trees in the riparian and mixed oak woodland portions of the study area). Surveys would consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats. If no bat roosts are found, then no further study would be required. If evidence of bat use is observed, the number and species of bats using the roost would be determined. Bat detectors may be used to supplement survey efforts, but are not required. If roosts of pallid bats are determined to be present within the survey area, direct disturbance to the roost, such as removal or pruning of trees occupied by bats, would be avoided during the breeding season (April 1 through August 31).

American Badger and Ringtail

Suitable habitat is present within the study area for American badger (*Taxidea taxus*) (a CDFW species of special concern) and ringtail (*Bassariscus astutus*) (a CDFW fully protected species). Impacts to these species would be evaluated under CEQA and impacts to ringtail would also fall under Condition 1 of the Habitat Plan. To avoid and minimize impacts to these species, the Authority would implement the following measures.

- No more than 14-days prior to ground disturbance or vegetation clearing, a qualified biologist would conduct pre-construction surveys for potential American badger and ringtail den sites within 100 feet of the Project area.
- If any potentially occupied American badger dens are located during surveys, no work would 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).
- If any potential ringtail dens (e.g., brush piles, appropriately sized burrows, hollow logs, hollow trees) are located during surveys, similar buffers as described for American badger with a 50-foot buffer during the non-breeding season and a 100-foot buffer during the period May 1 through June 30 would be required. If potential ringtail dens would be removed by Project construction, further consultation with the VHA and CDFW would be required to determine the appropriate avoidance and minimization measures for ringtail.

San Francisco Dusky-Footed Woodrat

Mixed riparian and oak woodland habitat within the study area is suitable for San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), a CDFW species of special concern. Impacts to this species would be considered under CEQA. To avoid impacts to this species, the Authority would implement the following measures.

- Prior to removal of any vegetation within riparian, or mixed oak woodland, and within 14 days of the start of work, a qualified biologist would conduct a survey for woodrat nests within the area to be disturbed. If no woodrat nests are found, no further measures would be necessary.
- If woodrat nests are found, they would be avoided if possible and a minimum buffer of 10 feet would be established around the nest(s). This buffer may be adjusted in consultation with CDFW.

- If the nests cannot be avoided, the Authority would consult with CDFW in areas where removal of San Francisco dusky-footed woodrat nests is required. Consultation would occur prior to removal of the nests. Actions needed to protect woodrat nests would be determined in consultation with CDFW and may include the live capture and relocation of woodrats to suitable adjacent habitats and removal of nesting sites. Trapping activities would occur prior to April and after July each year to prevent impacts to woodrats rearing young or young woodrats. Nest middens would be dismantled by hand under the supervision of a biologist. Nest material would be moved to suitable adjacent areas that would not be disturbed by Project activities.

4 KEY FINDINGS

- Five Habitat Plan land cover types were identified during field verification. Although soil units with the potential for serpentine soils are present, no evidence of serpentine habitats were found in the study area. Therefore, no Habitat Plan Conditions related to serpentine habitat types would apply to the Project. The Project area contains California annual grassland, mixed oak woodland, and mixed riparian woodland land cover types. Habitat Plan Conditions related to oak woodland and riparian habitat would apply to the Project as evaluated.
- No Habitat Plan covered plant species or other special-status botanical species that would need to be considered under CEQA were found during protocol botanical surveys; therefore, no avoidance or minimization measures for special-status botanical species would be required for the Project as evaluated.
- Potential habitat for least Bell's vireo and tricolored blackbird, which are covered species under the Habitat Plan, is located within 250-feet of the Project area. Due to the presence of potentially suitable habitat for these covered species, surveys to determine the presence of active nests may be required by the VHA. If active nests are found during surveys, no work would be permitted within 250 feet of each nest during the breeding season (March 15 through July 31). The Authority may coordinate with the VHA to confirm whether protocol nest surveys would be required regardless of the timing of the Project.
- Potential nesting habitat for other special-status bird species is also present within the study area. These species would be subject to analysis under CEQA, and Condition 1 of the Habitat Plan requires protection of these species from covered activities. To avoid impacts to these species, the Authority may choose to construct the Project after August 31 and before February 1. If the Project is constructed outside of this window, pre-construction nest surveys and avoidance measures would need to be implemented.
- The Project area also contains potentially suitable habitat for roosting pallid bats. Impacts to bat roosts would need to be considered under CEQA. To avoid impacts to pallid bats, the Authority may choose to construct the Project after August 31 and before April 1. If the Authority chooses to perform work during the period of April 1 through August 31, surveys and other avoidance measures would need to be implemented.
- The Project area is also suitable habitat for American badger and ringtail, although no potential dens were observed in the Project area during the land cover and habitat survey. Impacts to both species would need to be considered under CEQA, and Condition 1 of the Habitat Plan prohibits impacts to ringtail by covered Projects. Pre-construction surveys may be required prior to ground or vegetation disturbing activities, and buffers between Project activities and potentially active dens could be required. These buffers would be reduced in size after July 1, once the denning season for both species is over. If the Project would remove any potential ringtail dens, additional consultation with CDFW and the VHA would be needed.
- San Francisco dusky footed woodrat could potentially nest in the Project area; however, no nests were observed during the land cover and habitat survey. Impacts to this species would need to be considered under CEQA and pre-construction surveys and other avoidance measures may be required.

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Attachment A

Special-Status Species Tables

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

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Bent-flowered fiddleneck *Amsinckia lunaris*			1B.2	No	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 10 – 2,600 feet in elevation. Blooms March–June.	Could occur: Suitable oak woodland and grassland habitat within the survey area.
Anderson's manzanita *Arctostaphylos andersonii*			1B.2	No	Broadleaved upland forest, chaparral, north coast coniferous forest. Open sites, redwood forest. 200 – 2,500 feet in elevation. Blooms November–May.	Not expected to occur: No suitable habitat within the survey area.
Bonny Doon manzanita *Arctostaphylos silvicola*			1B.2	No	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Only known from Zayante (inland marine) sands in Santa Cruz County. 500 – 1,700 feet in elevation. Blooms January–March.	Not expected to occur: No suitable habitat within the survey area.
Big-scale balsamroot *Balsamorhiza macrolepis*			1B.2	No	Ultramafic. Chaparral, valley and foothill grassland, cismontane woodland. Usually on serpentine. 100 – 4,800 feet in elevation. Blooms March–June.	Not expected to occur: No suitable serpentine habitat within the survey area.
Santa Cruz Mountains pussypaws *Calyptridium parryi* var. *hesseae*			1B.1	No	Chaparral, cismontane woodland. Sandy or gravelly openings. 950 – 5,000 feet in elevation. Blooms May–August.	Not expected to occur: The survey area is below the known elevational range for this species and soil types suitable for this species are not present.
Chaparral harebell *Campanula exigua*			1B.2	No	Ultramafic. Chaparral. Rocky sites, usually on serpentine in chaparral. 900 – 4,100 feet in elevation. Blooms May–June.	Not expected to occur: No suitable chaparral habitat or serpentine substrates within the survey area.
Bristly sedge *Carex comosa*			2B.1	No	Wetland. Marshes and swamps,. Lake margins, wet places in coastal prairie or valley and foothill grassland; site below sea level is on a Delta island. -15 – 5,300 feet in elevation. Blooms May–September.	Not expected to occur: No wetland habitat potentially suitable for this species is present within the survey area.
Deceiving sedge *Carex saliniformis*			1B.2	No	Wetland. Meadows and seeps, marshes and swamps (coastal salt). Mesic sites. 10 – 750 feet in elevation. Blooms June and as late as July in some locations.	Not expected to occur: No suitable habitat within the survey area.
Tiburon paintbrush *Castilleja affinis* var. *neglecta*	E	T	1B.2	Yes	Ultramafic. Valley and foothill grassland. Rocky serpentine sites. 400 – 1,300 feet in elevation. Blooms April–June.	Not expected to occur: No suitable serpentine habitat within the survey area.
Pink creamsacs *Castilleja rubicundula* var. *rubicundula*			1B.2	No	Ultramafic. Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Openings in chaparral or grasslands. On serpentine. 50 – 3,000 feet in elevation. Blooms April–June.	Not expected to occur: No suitable serpentine habitat within the survey area.
Coyote ceanothus *Ceanothus ferrisiae*	E		1B.1	Yes	Ultramafic. Chaparral, valley and foothill grassland, coastal scrub. Serpentine sites in the Mt. Hamilton range. 500 – 1,500 feet in elevation. Blooms January–May.	Not expected to occur: No suitable serpentine habitat within the survey area.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*			1B.1	No	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 0 – 750 feet in elevation. Blooms May–October, may bloom as late as November in some locations.	Not expected to occur: Alkaline soils suitable for this species are not present in the survey area.
Dwarf soaproot *Chlorogalum pomeridianum* var. *minus*			1B.2	No	Ultramafic. Chaparral. Serpentine. 1,000–3,280 feet in elevation. Blooms May–August.	Not expected to occur: No suitable serpentine chaparral habitat within the survey area.
Ben Lomond spineflower *Chorizanthe pungens* var. *hartwegiana*	E		1B.1	No	Lower montane coniferous forest. Zayante coarse sands in maritime ponderosa pine sandhills. 340 – 1,550 feet in elevation. Blooms April–July.	Not expected to occur: No suitable habitat within the survey area.
Monterey spineflower *Chorizanthe pungens* var. *pungens*	T		1B.2	No	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 may bloom as late as July or August in some locations.	Not expected to occur: Sandy soils suitable for this species are not present in survey area.
Scotts Valley spineflower *Chorizanthe robusta* var. *hartwegii*	E		1B.1	No	Meadows, valley and foothill grassland. In grasslands with mudstone and sandstone outcrops. 340 – 800 feet in elevation. Blooms April–July.	Not expected to occur: Potentially suitable annual grassland habitat within the survey area; however, the survey area is outside of the range of the species and mudstone and sandstone substrates suitable for this species are not present.
Robust spineflower *Chorizanthe robusta* var. *robusta*	E		1B.1	No	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 loose sand and sandy terraces and bluffs are not present in the survey area.
Mt. Hamilton fountain thistle *Cirsium fontinale* var. *campylon*			1B.2	Yes	Ultramafic. Cismontane woodland, chaparral, valley and foothill grassland. In seasonal and perennial drainages on serpentine. 330 – 2,900 feet in elevation. Blooms as early as February in some locations; however, blooms April–October under most conditions.	Not expected to occur: No suitable serpentine habitat within the survey area.
San Francisco collinsia *Collinsia multicolor*			1B.2	No	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. 95 – 820 feet in elevation. Blooms (February), March–May.	Not expected to occur: No suitable habitat within the survey area.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Western leatherwood *Dirca occidentalis*			1B.2	No	Broadleaf upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. 80 – 1,400 feet in elevation. Blooms Novmeber–March and as late as April in some locations.	Could occur: Riparian habitat potentially suitable for this species is present within the survey area.
Santa Clara Valley dudleya *Dudleya abramsii* ssp. *setchellii*	E		1B.1	Yes	Ultramafic. Valley and foothill grassland, cismontane woodland. On rocky serpentine outcrops and on rocks within grassland or woodland. 200 – 1,500 feet in elevation. Blooms April–October.	Not expected to occur: Documented to occur within RCAN (Authority 2010). However, suitable habitat (with rocky serpentine substrate) is not present in the survey area.
Ben Lomond buckwheat *Eriogonum nudum* var. *decurrens*			1B.1	No	Coastal. 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: Potentially suitable oak woodland and annual grassland habitat within the survey area: however, the survey area is outside of the known geographic range for this species.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*			1B.1	No	Vernal pools, wetland. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 0 – 170 feet in elevation. Blooms as early as June and as late as August, but blooms in July under most conditions.	Not expected to occur: No suitable alkaline habitat within the survey area and the survey area is outside the known elevation range for this species.
Santa Cruz wallflower *Erysimum teretifolium*	E	E	1B.1	No	Lower montane coniferous forest, chaparral. Inland marine sands (Zayante coarse sand). 590 – 1,690 feet in elevation. Blooms March–July.	Not expected to occur: No suitable habitat within the survey area.
Minute pocket moss *Fissidens pauperculus*			1B.2	No	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: No suitable habitat within the project area.
Fragrant fritillary *Fritillaria liliacea*			1B.2	Yes	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine, though a weak serpentine associate; various soils reported though usually on clay, in grassland. 10 – 1,300 feet in elevation. Blooms February–April.	Could occur: Potentially suitable grassland and woodland habitat is present in the survey area.
Loma Prieta hoita *Hoita strobilina*			1B.1	Yes	Ultramafic. Chaparral, cismontane woodland, riparian woodland. Serpentine; mesic sites. 200 – 3,200 feet in elevation. Blooms May–July and as late as October in some locations.	Not expected to occur: No suitable serpentine habitat within the survey area.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Santa Cruz tarplant *Holocarpha macradenia*	T	E	1B.1	No	Coastal prairie, coastal scrub, valley and foothill grassland. Light, sandy soil or sandy clay; often with nonnatives. 30 – 725 feet in elevation. Blooms June–October.	Not expected to occur: Sandy soils and sandy clay soils suitable for this species are not present in the survey area.
Kellogg's horkelia *Horkelia cuneata* var. *sericea*			1B.1	No	Sandy or gravely openings in closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub. 30- 650 feet in elevation. Blooms April-Sept.	Not expected to occur: No suitable habitat within the survey area.
Contra Costa goldfields *Lasthenia conjugens*	E		1B.1	No	Alkali playa, wetland. Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland. Vernal pools, swales, low depressions, in open grassy areas. 0 – 1,475 feet in elevation. Blooms March–June.	Not expected to occur: Annual grassland habitat within the survey area; however, vernal pools and alkali soils not present.
Mt. Hamilton coreopsis *Leptosyne hamiltonii*			1B.2	No	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 and the survey area is outside of the elevation range of this species.
Smooth lessingia *Lessingia micradenia* var. *glabrata*			1B.2	Yes	Ultramafic. Chaparral, cismontane woodland. Serpentine; often on roadsides. 390 – 1,380 feet in elevation. Blooms as early as May in some locations; however blooms July–November in most conditions.	Not expected to occur: No suitable serpentine habitat within the survey area.
Mt. Hamilton lomatium *Lomatium observatorium*			1B.2	No	Cismontane woodland. Open to partially shaded openings in *Pinus coulteri*-oak woodland. Sedimentary Franciscan rocks and volcanics. 1,780 – 4,000 feet in elevation. Blooms March–May.	Not expected to occur: Oak woodland habitat is present in the survey area; however sedimentary Franciscan rocks and volcanics are not present and the survey area is outside of the known range of the species (CNPS 2022).
Arcuate bush-mallow *Malacothamnus arcuatus*			1B.2	No	Chaparral, cismontane woodland. Gravelly alluvium. 0 – 2,410 feet in elevation. Blooms April–September.	Could occur: Potentially suitable oak woodland habitat within the survey area.
Hall's bush-mallow *Malacothamnus hallii*			1B.2	No	Ultramafic. Chaparral, coastal scrub. Some populations on serpentine. 30 – 2,400 feet in elevation. Blooms May–September, sometimes as late as October.	Not expected to occur: No suitable serpentine chaparral or coastal scrub habitat within the survey area.
Northern curly-leaved monardella *Monardella sinuata* ssp. *nigrescens*			1B.2	No	Sandy soils in chaparral, coastal dunes, coastal scrub, lower montane coniferous forest in the ponderosa pine sandhills of Santa Cruz County. 0-1,000 feet in elevation. Blooms as early as April in some conditions. Blooms either May–July or August–September depending on location.	Not expected to occur: No suitable habitat within the survey area.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Woodland woollythreads *Monolopia gracilens*			1B.2	No	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. 330 – 3,940 feet in elevation. Blooms as early as February in some conditions, in most conditions blooms March–July.	Could occur: Potentially suitable oak woodland and annual grassland habitat on rocky soils within the survey area.
Santa Cruz Mountains beardtongue *Penstemon rattanii* var. *kleei*			1B.2	No	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 chaparral or coniferous forest habitat within the survey area.
White-rayed pentachaeta *Pentachaeta bellidiflora*	E	CE	1B.1	No	Cismontane woodland, and valley and foothill grassland often on serpentinite. 110 – 2,030 feet in elevation. Blooms March–May.	Not expected to occur: No suitable serpentine habitat within the survey area.
Mt. Diablo phacelia *Phacelia phacelioides*			1B.2	No	Ultramafic. 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: Suitable habitat is present in the oak woodland in the survey area; however, the survey area is outside of the known elevation range of the species (CNPS 2022).
Choris' popcornflower *Plagiobothrys chorisianus* var. *chorisianus*			1B.2	No	Chaparral, coastal scrub, coastal prairie. Mesic sites. 50 – 525 feet in elevation. Blooms March–June.	Not expected to occur: No suitable habitat within the survey area.
San Francisco popcornflower *Plagiobothrys diffusus*		E	1B.1	No	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 annual grassland habitat present; however, survey area is outside of the area of marine influence.
Hairless popcornflower *Plagiobothrys glaber*			1A	No	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: No suitable habitat within the survey area.
Scotts Valley polygonum *Polygonum hickmanii*	E	E	1B.1	No	Valley and foothill grassland. Purisima sandstone or mudstone with a thin soil layer; vernally moist due to runoff. 690 – 760 feet in elevation. Blooms May–August.	Not expected to occur: Suitable soil substrate is not present in the survey area.
Rock sanicle *Sanicula saxatilis*			1B.2	No	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 bedrock outcrops and talus slopes are not present in the project area and the project area is outside the known elevation range for this species.

Species	Status [1]			Valley Habitat Plan Covered Species	Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR			
Chaparral ragwort *Senecio aphanactis*			2B.2	No	Dry coastal areas in chaparral, cismontane woodland, coastal scrub, especially in drying alkaline flats. 65 – 2,805 feet in elevation. Blooms January–April, as late as May under some conditions.	Not expected to occur: No alkaline flats or soils are present in the project area.
Metcalf Canyon jewelflower *Streptanthus albidus* ssp. *albidus*	E		1B.1	Yes	Ultramafic. Valley and foothill grassland. Relatively open areas in dry grassy meadows on serpentine soils; also on serpentine balds. 150 – 2,625 feet in elevation. Blooms April–July.	Not expected to occur: No suitable serpentine habitat within the project area.
Most beautiful jewelflower *Streptanthus albidus* ssp. *peramoenus*			1B.2	Yes	Ultramafic. Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 310 – 3,280 feet in elevation. Blooms April–September; although may bloom as early as march and as late as October under some conditions.	Not expected to occur: No suitable serpentine habitat within the project area.
Santa Cruz clover *Trifolium buckwestiorum*			1B.1	No	Coastal prairie, broadleafed upland forest, cismontane woodland. Moist grassland. Gravelly margins. 340 – 2,000 feet in elevation. Blooms April–October.	Could occur: Suitable oak woodland and grassland habitat is present in the project area.
Saline clover *Trifolium hydrophilum*			1B.2	No	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 alkaline habitat within the project area.
Pacific Grove clover *Trifolium polyodon*			1B.1	No	Wetland. Closed-cone coniferous forest, meadows and seeps, coastal prairie, valley and foothill grassland. Along small springs and seeps in grassy openings. 10 – 390 feet in elevation. Blooms April–June and as late as July under some conditions.	Not expected to occur: No wetland habitat suitable for this species is present within the project area and the project area is outside of the specie's range.

Notes: CRPR = California Rare Plant Rank; CNPS California Native Plant Society; ESA = Federal Endangered Species Act; CESA = California Endangered Species Act; RCdO = Rancho Canada del Oro Open Space Preserve

[1] Legal Status Definitions

Federal :
E Endangered (legally protected by ESA)
T Threatened (legally protected by ESA)

State:
C Candidate (legally protected by ESA)
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)

[2] Potential 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 2010; CNPS 2022; VHA 2012.

Table A-2 Special-Status Wildlife Known to Occur in the Project Region and their Potential to Occur in the Study Area

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Invertebrates					
Bay checkerspot butterfly *Euphydryas editha bayensis*	T		Yes	Coastal dunes, ultramafic, valley and foothill grassland. Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *O. purpurscens* are the secondary host plants.	Not expected to occur: Documented to occur within the project region (CNDDB 2019). Study area within range of the species; however, the study area does not contain native grasslands on serpentine soils.
Crotch bumble bee *Bombus crotchii*		CE	No	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, *Dendromecon, Eschscholzia*, and *Eriogonum*.	Not expected to occur: Documented to occur historically within the project region (CNDDB 2019); however, the study area is outside of the current range of the species.
Ohlone tiger beetle *Cicindela ohlone*	E		No	Coastal prairie. Remnant native grasslands with California oatgrass and purple needlegrass in Santa Cruz County. Substrate is poorly-drained clay or sandy clay soil over bedrock of Santa Cruz mudstone.	Not expected to occur: Documented to occur within the project region (CNDDB 2019); however, the study area is outside of the rang of the species.
Smith's blue butterfly *Euphilotes enoptes smithi*	E		No	Coastal dunes, coastal scrub. Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz counties. Hostplant: Eriogonum latifolium and Eriogonum parvifolium are utilized as both larval and adult foodplants.	Not expected to occur: Documented to occur within the project region (CNDDB 2019); however, the study area is outside of the rang of the species.
Western bumble bee *Bombus occidentalis*		CE	No	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: Documented to occur historically within the project region (CNDDB 2019); however, the study area is outside of the current range of the species.
Zayante band-winged grasshopper *Trimerotropis infantilis*	E		No	Chaparral, interior dunes. Isolated sandstone deposits in the Santa Cruz Mountains (the Zayante Sand Hills ecosystem) Mostly on sand parkland habitat but also in areas with well-developed ground cover and in sparse chaparral with grass.	Not expected to occur: The study area is outside of the range of the species and no suitable chaparral or interior dune habitat is present in the study area.
Fish					
Coho salmon - central California coast ESU *Oncorhynchus kisutch* pop. 4	E	E	No	Aquatic. Federal listing = pops between Punta Gorda and San Lorenzo River. State listing includes populations south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	Not expected to occur: The portion of Llagas Creek within the study area is above Chesbro Dam which completely blocks passage of anadromous fishes.
Monterey roach *Lavinia symmetricus subditus*		SC	No	Aquatic, Sacramento/San Joaquin flowing waters, South coast flowing waters. Tributaries to Monterey Bay, specifically the Salinas, Pajaro, and San Lorenzo drainages.	Could occur: Documented to occur in Llagas Creek downstream from the study area and upstream of the Chesbro Dam. Suitable habitat for the species present within the portion of Llagas Creek in the study area.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Steelhead - central California coast DPS *Oncorhynchus mykiss irideus* pop. 8	T		No	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: Llagas Creek is a tributary to the Pajaro River which is outside of the range of this DPS.
Steelhead - south-central California coast DPS *Oncorhynchus mykiss irideus* pop. 9	T		No	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: The portion of Llagas Creek within the study area is above Chesbro Dam which completely blocks passage of anadromous fishes.
Amphibians and Reptiles					
California giant salamander *Dicamptodon ensatus*		SC	No	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.	Could occur: Documented to occur within the project region (CNDDB 2019) and the study area is within the range of the species. Potential habitat for the species occurs in riparian habitat within the study area.
California red-legged frog *Rana draytonii*	T	SC	Yes	Aquatic, artificial flowing waters, artificial standing waters, freshwater marsh, marsh & 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: Documented to occur near study area on RCdO (Authority 2010). Potential dispersal habitat for the species along Llagas creek within largest trees in the study area.
California tiger salamander *Ambystoma californiense*	T	T	Yes	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: Documented to occur within Project region (CNDDB 2019), study area is within of the range of the species. Potentially suitable grassland and oak woodland habitat within the study area. Nearest potentially suitable breeding habitat is more than 0.7 miles southwest of study area which is outside of normal range of migration for the species (0.5 miles); however, individuals have been documented to move up to 1.3 miles from suitable breeding habitat (USFWS 2004, VHA 2012).
Coast horned lizard *Phrynosoma blainvillii*		SC	No	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.	Could occur: Documented to occur within Project region (CNDDB 2019) and the study area is within the range of the species. Potential habitat for the species occurs within the study area.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Foothill yellow-legged frog *Rana boylii*		CE	Yes	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.	Known to occur: Documented to occur within study area on Llagas Creek upstream and below proposed bridge location. Habitat for the species occurs in the study area.
Northern California legless lizard *Anniella pulchra*		SC	No	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: Documented to occur within Project region (CNDDB 2019), study area is within of the range of the species; however, no suitable habitat within the study area.
Santa Cruz black salamander Aneides niger		SC	No	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties. Adults found under rocks, talus, and damp woody debris.	Could occur: Documented to occur within Project region (CNDDB 2019) and the study area is within the range of the species. Potential habitat for the species occurs in oak woodland and riparian habitats within the study area.
Western pond turtle *Actinemys marmorata*		SC	Yes	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 325 feet from water for egg-laying.	Could occur: Documented to occur near study area (Authority 2010). Potential habitat for the species occurs within Llagas Creek within the study area.
Birds					
American peregrine falcon *Falco peregrinus anatum*		FP	No	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Not expected to occur: Documented to occur within the project region (CNDDB 2019), study area is within of the range of the species; however, no suitable nesting habitat within the study area.
Black swift *Cypseloides niger*		SC	No	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: Documented to occur historically within the project region (CNDDB 2019), study area is outside of the range of the species. No suitable nesting habitat within the study area.
Burrowing owl *Athene cunicularia*		SC	Yes	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.	Not expected to occur: Documented to occur within The project region (CNDDB 2019), study area is within the range of the species. Annual grassland within the study area covers a small area within a matrix of oak woodland and is not likely to support burrowing owls.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Golden eagle *Aquila chrysaetos*		FP	No	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:** Documented to occur near study area on RCdO (Authority 2010). Potential foraging habitat for the species occurs in the study area; marginal nesting habitat within largest trees in the study area.
Grasshopper sparrow *Ammodramus savannarum*		SC	No	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.	**Not expected to occur:** Documented to occur within the project region from a single occurrence on Coyote Ridge (CNDDB 2019). study area is outside the range of the species. Annual grassland within the study area covers a small area within a matrix of oak woodland and is not likely to support this species.
least Bell's vireo *Vireo bellii pusillus*	E	E	Yes	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*, and mesquite.	**Not expected to occur:** There are no recorded occurrences on or near RCDO. The nearest documented occurrence is located along Llagas Creek near the confluence with the Pajaro River southeast of Gilroy, approximately 16.5 miles from the Project (CNDDB 2019). Study Area outside of the range of the species (USFWS 2019).
Loggerhead shrike *Lanius ludovicianus*		SC	No	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:** Documented to occur within the project region (CNDDB 2019). Study area is within the range of the species. Potential foraging and nesting habitat for the species occurs in the study area.
Purple martin *Progne subis*		SC	No	Broadleaved upland forest, lower montane coniferous forest. Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	**Could occur:** Documented to occur within the project region from a single occurrence north of the study area (CNDDB 2019). Study area is within the range of the species. Potential foraging and marginal nesting habitat for the species occurs in the study area
Swainson's hawk *Buteo swainsoni*		T	No	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.	**Not expected to occur:** Documented to occur in the project region (CNDDB 2019). Suitable nesting habitat within the study area. However, the amount of suitable foraging habitat in the vicinity is limited, which makes nesting unlikely.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
tricolored blackbird *Agelaius tricolor*		CE	Yes	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.	Could occur: Documented to occur within the project region (CNDDB 2019). Study area is within the range of the species. Potential foraging and limited nesting habitat for the species occurs in the study area.
White-tailed kite *Elanus leucurus*		FP	No	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: Documented to occur near study area on RCdO (Authority 2010). Potential foraging and nesting habitat for the species occurs in the project area.
Yellow rail *Coturnicops noveboracensis*		SC	No	Freshwater marsh, meadow and seep. Summer resident in eastern Sierra Nevada in Mono County. Fresh-water marshlands.	Not expected to occur: Documented to occur historically within the project region (CNDDB 2019); however, Project is outside of the known current range of the species.
Yellow-breasted chat *Icteria virens*		SC	No	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.	Could occur: Documented to occur in the project region (CNDDB 2019). Suitable foraging and nesting habitat within the study area.
Mammals					
American badger *Taxidea taxus*		SC	No	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: Documented to occur in the project region (CNDDB 2019). Suitable foraging and denning habitat within the study area.
Pallid bat *Antrozous pallidus*		SC	No	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. Pallid bats are known to use cracks and crevasses in caves, mines, bridges, buildings, and mature trees for roosting (Sherwin and Rambladini 2005). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Could occur: Documented to occur in the project region (CNDDB 2019). Suitable foraging habitat and potential for roosts in mature trees in the study area.

Species	Listing Status[1]		Valley Habitat Plan Covered Species	Habitat	Potential for Occurrence[2]
	Federal	State			
Ringtail ringtail *Bassariscus astutus*		FP	No	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations. Usually found within 0.6 mile of a permanent water source.	**Could occur:** Species is not tracked in CNDDB. Documented to be relatively common in the project region (VHA 2012). Suitable riparian and woodland habitat within the study area.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*		SC	No	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.	**Could occur:** Documented to occur near study area on RCdO (Authority 2010). Potential forested habitat for the species occurs in the project area.
San Joaquin kit fox *Vulpes macrotis mutica*	E	T	Yes	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:** Documented to occur within the project region (CNDDB 2019); however, Project is outside of the known range of the species.
Townsend's big-eared bat *Corynorhinus townsendii*		SC	No	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 in caves, mines, and buildings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Could occur:** Documented to occur near study area (CNDDB 2019). Potential foraging habitat for the species occurs in the project area. However, it is unlikely to roost in the study area due to a lack of suitable caves or abandon buildings for roosting in the study area.
Western mastiff bat *Eumops perotis californicus*		SC		Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	**Could occur:** No documented occurrences near study area (CNDDB 2019); however, study area is within the range of the species. Potential foraging habitat for the species occurs in the project area. However, it is unlikely to roost in the study area due to a lack of suitable crevices high off the ground for roosting.

Note: CNDDB = California Natural Diversity Database; USFWS = U.S. Fish and Wildlife Service; ESU = Evolutionary Significant Unit; DPS= Distinct Population Segment; RCdO = Rancho Canada del Oro Open Space Preserve

[1] Legal Status Definitions

Federal:

E Endangered (legally protected)
T Threatened (legally protected)
CE Candidate Endangered (legally protected)
E Endangered (legally protected)
T Threatened (legally protected)
FP Fully protected (legally protected)
SC Species of special concern (no formal protection other than CEQA consideration)

[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 2010; CNDDB 2019; Sherwin and Rambladini 2005; VHA 2012; USFWS 2004.