Ladies and Gentleman:

SUBJECT: YOUNG RANCH RESIDENTIAL PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT (SCH# 2016092022)
FILE NO. 10256-14CSP-14Z

The enclosed Draft Environmental Impact Report (DEIR) has been prepared to evaluate the potential environmental impacts of the project described below:

The 2,150-acre project site is located southeast of downtown San Jose along Coyote Ridge, which runs along the eastern side of the Santa Clara Valley. YCS Investments, Inc. (the applicant) has submitted an application for a Cluster Subdivision consisting of 30 lots and a 4,000-square-foot community center on two parcels located in the unincorporated area of Santa Clara County. The applicant has also applied for a Zoning Ordinance Text Amendment to allow transfer of density from parcels located within the City’s jurisdiction to parcels located within the County’s jurisdiction, which would result in an additional 40 lots on County parcels. The applicant has also requested a density bonus, allowable under State law, to enable an additional 9 lots on the County parcels, bringing the total of proposed lots to 79.

Your comments regarding the significant environmental effects of this project and the adequacy of the DEIR are welcome. Written comments, submitted to the Santa Clara County Planning Office by 5:00 p.m., April 9, 2017, will be included in the Final EIR. Please address comments to:

David Rader
Santa Clara County Planning Office, County Government Center
70 W. Hedding Street, 7th Floor, East Wing, San Jose, CA 95110
david.rader@pln.sccgov.org Fax: (408) 288-9198

The Planning Commission meeting to receive comments on the Draft EIR has been tentatively scheduled for March 23, 2017 in the Isaac Newton Senter Auditorium, located on the first floor of the County Government Center, at 70 West Hedding St. San Jose. An agenda will be posted at the following location at least 10 days prior to the meeting: www.sccgov.org/sites/dpd/Commissions/PC/Pages/PC.aspx

Sincerely,

Manira Sandhir, Principal Planner, AICP

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian
County Executive: Jeffrey V. Smith
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<td>PM₂.₅</td>
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EXECUTIVE SUMMARY

ES-1 INTRODUCTION

This environmental impact report (EIR) is intended to provide the public and decision-makers with an analysis of potential environmental impacts that may result from the implementation of the proposed Young Ranch Residential Project (project), as submitted by YCS Investments, Inc. (the applicant). The 2,150-acre Young Ranch property (the project site), includes two parcels totaling 906 acres within unincorporated Santa Clara County (County parcels), and four parcels totaling 1,244 acres within the City of San Jose (City parcels) outside of its urban service area. Approval of the proposed project would allow for the subdivision of the property into 79 residential lots, improvements to existing ranch roads and creation of new private roads, and extension of utilities to serve the proposed lots. All of the proposed development, except for an emergency access road, would be located on the County parcels. Approval of the proposed project would also approve an amendment to the County’s Zoning Ordinance, which would allow for a transfer of density from parcels located within the City’s jurisdiction to parcels located within the County’s jurisdiction, in exchange for an open space easement dedication on the City parcels.

The County has primary discretionary authority over the project and serves as the Lead Agency responsible under the California Environmental Quality Act (CEQA).

ES-2 PROJECT OBJECTIVES

The applicant has identified the following objectives for the proposed project:

1) Develop rural residential uses at densities sufficient to encourage the landowner to exceed nexus requirements by conveying extensive biological and scenic resource areas for permanent preservation and enhancement consistent with the Valley Habitat Plan, thereby contributing towards a systematic, unified approach to habitat conservation on a regional basis.

2) Implement General Plan provisions relating to rural uses, scenic resources, contiguity of undeveloped areas, land uses and location efficiencies, and State housing laws that mandate density bonuses, by developing a clustered rural community at densities allowed by the General Plan, on a site that is close to existing development and major arterials, and that contains extensive areas of high quality biological habitat.

3) Develop rural residential uses at densities sufficient to support the construction of infrastructure, utilities and services needed to serve the site.

4) Maintain the rural nature of the site by developing at densities sufficient to make feasible the maintenance of a private roadway network and service by a private water supplier with a proven track record, all to implement General Plan provisions promoting non-urban, rural development.

ES-3 PROJECT SETTING AND LOCATION

The project is situated in the foothills on a 2,150-acre Young Ranch property located southeast of downtown San Jose along the Coyote Ridge, which runs along the eastern side of the Santa Clara Valley. The project site consists of six parcels located in both County and City. The City of San Jose is located in northern Santa Clara County, 42
miles south of San Francisco and 29 miles north of Gilroy. Regional access to the project site is provided by Highway 101 and State Route 85. These freeways converge at an interchange at Silicon Valley Boulevard, approximately one mile southwest of the project site.

While the property has frontage along Silver Creek Valley Road, current access to the project site is via a semi-paved access road from a parking lot at the corner of Hellyer Avenue and Silver Creek Valley Road. Access from Metcalf Road along the southern boundary of the project site is available by an unpaved ranch road that extends through the project site. The project site also contains a network of internal, unpaved dirt and gravel ranch roads.

The Silver Creek Country Club residential community is adjacent to and north of the project site, and the Ranch on Silver Creek residential development is slightly further north at the northern end of Coyote Ridge. Office parks and research and industrial uses, as well as the Basking Ridge community and horse farms, lie to the west and southwest of the project site. Grazing land is to the east and south of the project site. The 460-acre Santa Clara County Motorcycle Sports Park is south of the property, just across Metcalf Road.

ES-4 PROJECT DESCRIPTION

Overview

YCS Investments, Inc. (the applicant) has submitted an application for a Cluster Subdivision, consisting of 30 lots and a 4,000-square-foot Community Center to be located on the 2,150-acre Young Ranch property (the project site), 906 acres of which are within unincorporated Santa Clara County (the County). The remainder of the property is located in the City of San Jose (City) outside of its urban service area. The applicant has also applied for a Zoning Ordinance Text Amendment which would allow for the transfer of density from parcels located within the City’s jurisdiction to parcels located within the County’s jurisdiction, which would result in an additional 40 lots on County parcels. The applicant has also requested a density bonus, allowable under State law, to authorize an additional 9 lots on the County parcels, bringing the total of proposed lots to 79. Additionally, the applicant is proposing development of secondary units on up to 16 of the lots, four of which would be permanently dedicated to affordable housing.

Open space on the remainder of the County parcels would be preserved in perpetuity and managed in a natural state through dedication of an open space easement that would be owned by the County, per the provisions of § 5.45.050(D) of the Zoning Ordinance. Open space on the City parcels would also be preserved as open space in perpetuity. Together, this equates to approximately 1,947 acres (91 percent of the total project site) that would be preserved and managed as open space in support of the sensitive habitats and species that occur there, consistent with the goals and policies of the project’s Design Guidelines and Resource Management Plan.

After construction of initial infrastructure in several phases, individual lots would be sold to homeowners or custom home builders who would construct all residences, including single-family homes and secondary units, in accordance with the Design Guidelines and Standards, which are part of the project.

Access to the proposed project would be provided via a new entry road connecting Silver Creek Valley Road to the existing main ranch road through the site, and a network of new private roadways. Emergency ingress and
egress would be provided via an improved existing ranch road that crosses the portion of the property within the City of San Jose’s jurisdiction.

**Project Components**

The project includes the following components

- Application for a Zoning Ordinance Text Amendment, which would allow for transfer of density from parcels located within the City’s jurisdiction to parcels within the County’s jurisdiction, and would require dedication of an open space easement over all of the City parcels (with the exception of an emergency vehicle access road).
- Creation of a 79 residential lot cluster subdivision, with a minimum lot size of 2 acres.
- Development of 79 single-family homes and 16 secondary units, four of which would be permanently dedicated to affordable housing in order to qualify for a density bonus under State law (Government Code Sections 65915 – 65918).
- Construction of a 4,000-square-foot Community Center.
- Permanent preservation of approximately 1,946 acres of open space.
- Extension of utilities to new residential lots, including wiring and piping for electrical, natural gas, telephone, and cable television services.
- Construction of individual septic systems and leach fields for each lot and the Community Center.
- Construction of low-impact development measures for stormwater drainage.
- Construction of new access roads, including improvement to the existing ranch road for emergency ingress and egress.

**ES-5 ALTERNATIVES**

Three alternatives to the proposed project, including the No Project Alternative, are considered in this EIR and summarized below.

**Alternative A: No Project Alternative**

Alternative A, the No Project Alternative, assumes the current application is not approved, a Zoning Ordinance Text Amendment is not approved, the project area is not subdivided into 79 lots, and the future residences are not built. Each of the 6 parcels, 2 in the County and 4 in the City, would be developed with a single family residential development. Similar to the proposed project, although every approved building site would be entitled to a secondary unit under the County Zoning Ordinance, it is assumed that approximately 20 percent of lots would have secondary units, which equates to one secondary unit. Potable water would be provided to each home by new groundwater wells. New individual septic systems and leach fields would serve each home’s wastewater treatment needs. Electricity, natural gas, and telecommunications would be provided by private utility companies. It is assumed that stormwater management would be handled on site. Roadway improvements would be limited to those required to access the new residences.
The remaining areas outside of the building sites within the six parcels would remain as open space, although construction of accessory structures, such as barns, would be allowed for the County parcels. However, on the County parcels there would be no dedication of open space to the County for management of the parcels in a natural state, and on the City parcels there would be no transfer of development rights from the City to the County for open space easement dedication.

**Alternative B: Reduced Project Visibility Alternative**

Alternative B, the Reduced Visibility Alternative would include development of 58 single-family lots of approximately 2 acres and a Community Center on the County-owned parcels. It is assumed that up to 12 secondary units would be constructed. A Zoning Ordinance Text Amendment and associated transfer of density would be part of this alternative. Similar to the proposed project, the remainder of the City and County acres would be permanently preserved in accordance with County cluster subdivision policies and the project’s Design Guidelines/Resource Management Plan (RMP).

Alternative B would reduce the visibility of the proposed project by not including development on 21 of the 79 lots that are most visible from the Santa Clara Valley floor. Design guidelines for building height, forms and massing, color, materials and lighting and utility and roadway improvements would be the same as the proposed project.

**Alternative C: Reduced Development Density Alternative**

Alternative C, the Reduced Development Density Alternative would include development of 30 single-family lots of approximately 2 acres and a Community Center on the County-owned parcels. It is assumed that up to 6 secondary units would be constructed. There would not be a Zoning Ordinance Text Amendment or transfer of density from the City parcels. Similar to the proposed project, open space on the remainder of the County parcels would be preserved in perpetuity and managed in a natural state through dedication of an open space easement that would be owned by the County. However, unlike the proposed project, there would be no permanent dedication of open space on the City parcels.

The Design Guidelines and RMP would remain in effect on the County parcels only. Design Guidelines for building height, forms and massing, color, materials and lighting and utility and roadway improvements would be the same as the proposed project.

**ES-6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

Table ES-1 provides a comparison of project to the three alternatives with respect to the potential to avoid or substantially reduce environmental impacts. The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. As shown in the table, the No Project Alternative would provide the greatest reduction in environmental impacts, and thus would be the environmentally superior alternative.

Section 15126.6(e) (2) of the CEQA Guidelines stipulates, “If the environmentally superior alternative is the No Project alternative, the EIR shall also identify an environmentally superior alternative among the alternatives.” As shown in Table ES-1, both Alternative C would avoid the proposed project’s significant and unavoidable impacts related to aesthetics and land use and planning, but could still have a significant and unavoidable impact in
relation to traffic safety, similar to the proposed project. In comparison, Alternative B would only avoid the project’s significant and unavoidable impact related to aesthetics, but would still have significant and unavoidable impacts in relation to land use and planning, and traffic safety. In addition, Alternative C would not require the approval of a Zoning Ordinance Amendment, as would be required for the proposed project and Alternative B.

As such, Alternative C, the Reduced Development Density Alternative, is identified as the environmentally superior alternative.

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<th>Alternative A: No Project</th>
<th>Alternative B: Reduced Project Visibility</th>
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</table>

Acronyms:
- S&U = Significant and Unavoidable Impact
- LTSM = Less than Significant with Mitigation Impact
- LTS = Less than Significant Impact
- NI = No Impact

Notes:
* The level of impact related to biological resources and cultural and paleontological resources under the No Impact Alternative would be determined through a separate CEQA analysis, if necessary, depending on the proximity of future development to such resources. As a conservative approach, it is assumed that such impacts would be of a similar level to the proposed project.
ES-7 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Areas of controversy known to the lead agencies, including issues raised by agencies and the public, must be identified in the Executive Summary of an EIR (14 Cal. Code Regs. § 15123). A Notice of Preparation (NOP) was published on September 8, 2016, and was sent to local, state, and federal agencies, the State Clearinghouse, and potentially affected property owners for a 30-day review period. A public scoping meeting was held on September 22, 2016. Two comment letters were received and oral comments were provided at the public meeting. Comments were received related to the following topics:

- **Aesthetics**: Comments regarding formal landscaping and potential for residences being visible along the hillsides and possibly scarring them.
- **Agriculture and Forestry Resources**: Comments related to displacement of existing ranches and grazing.
- **Biological Resources**: Comments related to threatened species, in particular Bay checkerspot butterfly; indirect impacts from human habitation in natural areas, Tule elk herds, and weed management.
- **Geology and Soils**: Comments regarding impacts of septic systems on groundwater quality.
- **Hydrology and Water Quality**: Comments relating to ponding and runoff, groundwater quality, impacts to waters of the State, and water supplies.
- **Land Use and Planning**: Comments regarding density of project, management of open space, proposed zoning ordinance amendment, and inconsistency with Urban Growth Boundary and City General Plan policies.
- **Population and Housing**: Comments regarding growth inducement and displacement of existing ranches.
- **Public Services**: Comments regarding impacts to police, fire, schools, and City services.
- **Transportation/Traffic**: Comments regarding traffic safety on Silver Creek Valley Road, pedestrian safety along San Felipe Road, transportation demand management programs, Traffic Control Plans, potential impacts to Caltrans roadway facilities.
- **Utilities and Energy Resources**: Comments regarding City of San Jose utilities and service systems, and existing water supplies.

ES-8 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Resource Areas Evaluated

Existing conditions and the potential direct, indirect, and cumulative impacts of the proposed project are described and evaluated in Chapter 3 of this EIR for the resource areas listed below. The assessment of EIR alternatives is provided in Chapter 4, and other CEQA considerations are addressed in Chapter 5. Chapter 3 is organized into the following 17 environmental resource or issue areas:
SUMMARY OF IMPACTS

The potentially significant impacts of the project and associated mitigation measures for each of the resource areas assessed in this EIR are identified in Table ES-2 included at the end of this Executive Summary. Detailed analyses of impacts are contained in Chapter 3. A summary of the project-specific and cumulative impacts by environmental resource topic is as follows:

**Significant and Unavoidable Impacts:**
- Aesthetics (project-specific and cumulative)
- Land Use and Planning (project-specific)
- Traffic and Transportation (project-specific)

**Less than Significant with Mitigation Impacts:**
- Air Quality (project-specific)
- Biological Resources (project-specific)
- Cultural and Paleontological Resources (project-specific)
- Hazards and Hazardous Materials (project-specific)
- Noise (project-specific)
- Traffic and Transportation (cumulative)

**Less than Significant Impacts:**
- Agriculture and Forestry Resources (project-specific and cumulative)
- Air Quality (cumulative)
- Biological Resources (cumulative)
- Cultural and Paleontological Resources (cumulative)
• Geology and Soils (project-specific)
• Greenhouse Gas Emissions (project-specific and cumulative)
• Hazards and Hazardous Materials (cumulative)
• Hydrology and Water Quality (project-specific and cumulative)
• Noise (cumulative)
• Population and Housing (project-specific and cumulative)
• Public Services (project-specific and cumulative)
• Recreation (project-specific and cumulative)
• Utilities and Energy Resources (project-specific and cumulative)

No Impacts

• Geology and Soils (cumulative)
• Land Use (cumulative)
• Mineral Resources (project-specific and cumulative)
## Table ES-2: Summary of Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aesthetics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AES-1: The proposed project would have a substantial adverse effect on a scenic vista</td>
<td>Potentially Significant</td>
<td>No feasible mitigation identified</td>
<td>Significant and Unavoidable</td>
</tr>
<tr>
<td>AES-2: The proposed project would not substantially damage scenic resources within a state scenic highway.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>AES-3: The proposed project could substantially degrade the existing visual character or quality of the site and its surroundings.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>AES-4: The proposed project could create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td><strong>C-AES-1:</strong> The proposed project could have a cumulatively considerable impact on scenic vistas.</td>
<td>Potentially Significant</td>
<td>No feasible mitigation identified</td>
<td>Significant and Unavoidable</td>
</tr>
<tr>
<td><strong>C-AES-2:</strong> The proposed project could have a cumulatively considerable impact on visual character, or light and glare.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td><strong>Agricultural and Forestry Resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFR-1: The proposed project would not convert farmland classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>AFR-2: The proposed project would not conflict with existing zoning for agricultural use or with a Williamson Act contract.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>AFR-3: The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>AFR-4: The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>AFR-5: The proposed project could cause changes in the existing environment that would impair the use of agricultural land.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td><strong>C-AFR:</strong> The proposed project would have a cumulatively considerable impact on agricultural resources.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td><strong>Air Quality</strong></td>
<td></td>
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<tr>
<td>AQ-1: The proposed project could conflict with or obstruct implementation of an applicable air quality plan.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>AQ-2: The proposed project could violate any air quality standard or contribute substantially to an existing or projected air quality violation.</td>
<td>Potentially Significant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mitigation Measure AQ-2: Implement BAAQMD Basic Construction Mitigation Measures. The following measures will be implemented by the project applicant during all phases of construction on the project site:

- a) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered 2 times per day.
- b) All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- c) 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.
- d) All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- e) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads will be laid as soon as possible after grading, unless seeding or soil binders are used.
- f) Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- g) All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment will be checked by a certified visible emissions evaluator.
- h) A publicly visible sign shall be posted at the project site with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD’s phone number also shall be visibly posted, for compliance with applicable regulations.
**Table ES-2: Summary of Impacts and Mitigation Measures**

<table>
<thead>
<tr>
<th>Environmental Impact</th>
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<th>Mitigation Measures</th>
<th>Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ-3: The proposed project could result in a cumulatively considerable net increase of any nonattainment pollutant.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>AQ-4: The proposed project could expose sensitive receptors to substantial pollutant concentrations.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>AQ-5: The proposed project could create objectionable odors affecting a substantial number of people.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>C-AQ: The proposed project could have a cumulatively considerable impact on air quality.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less than Significant</td>
</tr>
</tbody>
</table>

**Mitigation Measure BR-1a: Implement Worker Environmental Awareness Program.** An education program for construction personnel shall take place prior to construction, and a qualified biologist shall explain to workers how best to avoid the accidental harm of the California tiger salamander, California red-legged frog, western pond turtle, western burrowing owl, Bay checkerspot butterfly, and other sensitive wildlife and plant species that may occur on the site. The biologist shall train workers on species recognition, their potential for occurrence in the impact footprint, measures to avoid harm, and penalties for take of a listed species. The program shall consist of a brief presentation by a qualified biologist to explain endangered species concerns to all personnel involved in the proposed project. The program shall include a description of the special-status species that may occur and their habitat needs, an explanation of their status and its protection under the FESA, and a description of the measures being taken to reduce effects to these species during project implementation. Upon completion of the program, employees shall sign a form stating that they attended the training session and understand all the conservation and protection measures. The program shall be recorded electronically, and all future construction personnel shall be required to review the presentation prior to their initiation of work in the project site and sign the form. The signed forms shall be kept on file for the duration of construction and provided to the County upon request.

**Mitigation Measure BR-1b: California Tiger Salamander:** Prior to any ground disturbance, exclusion fencing shall be constructed along the proposed ultimate limits of grading and disturbance. The exclusion fencing shall be at least 3 feet tall and buried at a depth of at least 6 inches below the soil surface. The exclusion fencing shall be continuous between project activities and adjacent natural habitats, with openings only as needed for vehicular access; openings would be sealed when not in use. A qualified biologist shall conduct a pre-construction survey of this area for CTS prior to installation of this exclusion fencing. The exclusion fencing shall remain in place for the duration of project construction activities and shall be removed after project construction activities have ceased. After the exclusion fence is installed and immediately prior to construction, the project proponent shall have preconstruction surveys performed by a qualified biologist in construction areas where CTS are most likely to occur.

In work areas where exclusion fencing cannot be installed, a qualified biologist shall be present during all construction activities performed in suitable habitat for the CTS. During the dry season (roughly April 15 to October 15), dedicated construction personnel trained by the qualified biologist can perform this monitoring function after all clearing and grubbing has been performed and the construction site has been surrounded by exclusion fencing. In work areas where exclusion fencing can be installed and the work area can be enclosed by exclusion fencing, a qualified biologist shall be present during all initial ground disturbing activities (e.g., exclusion fence installation, vegetation removal, clearing, grubbing). For monitoring, the biologist shall conduct surveys of the work area during the rainy season (between October 15 and April 15), and following rain events, prior to the initiation of work each day, and shall be present during construction activities to remove any CTS that disperse into the work area. The biologist shall also help to ensure that work is confined to predetermined construction areas through monitoring. If a CTS (or CRLF) is encountered during project activities, the following protocol shall be implemented:

i. All work that could result in direct injury, disturbance, or harassment of the individual animal shall immediately cease.

ii. A dedicated project contact (e.g., a supervisor) shall be immediately notified.

iii. The dedicated project contact shall immediately notify USFWS.

**Biological Resources**

BR-2: The proposed project could 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 CDFW or USFWS.
Table ES-2: Summary of Impacts and Mitigation Measures

<table>
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<tr>
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<tr>
<td></td>
<td>iv. With approval of the USFWS, a qualified biologist approved by USFWS to handle the individual CRLF or CTS shall move the individual to a safe location nearby and monitor it until it is determined that it is not imperiled by predators or other dangers.</td>
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</table>

**Mitigation Measure BR-1c: Golden Eagle**: No construction activities shall occur within a viewshed buffer zone within 0.5 mile of the nest, or within 1,000 feet (regardless of whether the construction is within the viewshed) around any eagle nest during the breeding season (January 15 to August 1, or as determined by a qualified biologist, as the breeding season may be shorter). The viewshed buffer, defined as all project areas that are within 0.5 mile of the nest and that can be seen by an eagle on the nest, shall be mapped by a qualified biologist.

**Mitigation Measure BR-1d: San Francisco Dusky-footed Woodrat**: Prior to any clearing of, or work within, mixed evergreen woodland, redwood forest, chaparral, willow riparian, coyote brush scrub, or coastal oak woodland habitats, a qualified biologist shall conduct a pre-construction survey for San Francisco dusky-footed woodrat nests. If active nests are determined to be present, implement the following measures:

i. Dusky-footed woodrats are year-round residents. Therefore, avoidance mitigation is limited to restricting project activities to avoid direct impacts to woodrats and their active nests to the extent feasible. Ideally, a minimum 10-foot buffer shall be maintained between project activities and each nest to avoid disturbance. In some situations, a smaller buffer may be allowed if in the opinion of a qualified biologist removing the nest would be a greater impact than that anticipated as a result of project activities.

ii. If avoidance of active nests is not feasible, then the woodrats shall be evicted from their nests prior to the removal of the nests and onset of any clearing or ground-disturbing activities to avoid injury or mortality of the woodrats. The nests shall be dismantled and the nestling materials moved to a new location outside the project’s impact areas so that it can be used by woodrats to construct new nests. Prior to nest deconstruction, each active nest shall be disturbed by a qualified wildlife biologist to the degree that all woodrats leave the nest and seek refuge out of the impact area. Whether the nest is on the ground or in a tree, the nest shall be nudged to cause the woodrats to flee. For tree nests, a tarp shall be placed below the nest and the nest dismantled using hand tools (either from the ground or from a lift). If feasible, the nest material shall then be piled at the base of a nearby hardwood tree or shrub (preferably an oak with refuge sites among the tree roots or with dense vegetation or other refugia nearby) outside of the impact area. The spacing between relocated nests shall not be less than 100 feet, unless a qualified biologist has determined that the habitat can support higher densities of nests.

**Mitigation Measure BR-1e: Special-status Bats**: A survey for roosting bats shall be conducted by a qualified biologist prior to removal of trees, or groundbreaking work. Any trees or buildings within or immediately adjacent to (i.e., within 100 feet of) the work areas shall be assessed to determine whether they provide high potential roost sites. If suitable roost sites are found and a visual survey is not adequate to determine presence or absence of bats (such as in tree cavities), acoustic equipment shall be used to determine occupancy. This survey may be conducted during preconstruction surveys or prior to the breeding season (i.e., April 1) in the year(s) in which removal of trees, demolition of buildings, modification of buildings, and/or ground-breaking disturbance are scheduled to occur so that adequate measures can be implemented under the direction of a qualified bat biologist, if feasible, to evict the bats during the non-breeding season. If no active roosts are found, then no further action is warranted. If bats are found, implement the following measures:

i. If a maternity roost supporting more than 20 individuals of non-special-status bats, or a pallid bat maternity roost of any size, is detected during the pre-construction survey, a qualified bat biologist shall determine the construction-free buffer around the active roost that shall be maintained. This construction-free buffer shall be maintained from April 1 until the young are flying, typically after
Table ES-2: Summary of Impacts and Mitigation Measures

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<tbody>
<tr>
<td>ii.</td>
<td>If a pallid bat day roost or a large day roost of common bat species is found in a tree to be removed, or near planned work areas such that the colony could be disturbed by project activities to the point of abandoning the roost, the bats shall be safely evicted under the direction of a qualified bat biologist. Eviction of bats shall occur at night to decrease the likelihood of predation (compared with eviction during the day). Eviction shall occur between September 1 and March 31, outside the maternity season, but shall not occur during long periods of inclement or cold weather (as determined by the bat biologist) when prey are not available or bats are in torpor. Eviction activities shall be performed under the supervision of a qualified bat biologist, and in consultation with the CDFW if a pallid bat roost is found. Following eviction, bat exclusion devices shall be installed to prevent bats from taking up occupancy of the structure prior to the onset of the proposed activity. In some circumstances, it could be beneficial to allow roosting bats to continue using a roost while construction is occurring on or near the roost site. For example, if a roost is found in a portion of a structure that shall not be heavily disturbed during construction, a qualified bat biologist (in consultation with the CDFW) shall determine whether the bats shall be evicted or whether they shall remain in-place. If it is determined that the risks to bats from eviction (e.g., increased predation or exposure, or competition for roost sites) are greater than the risk of colony abandonment, then the bats shall not be evicted.</td>
<td>Mitigation Measure BR-1f: Nesting Birds: To the extent feasible, construction activities shall be scheduled to avoid the nesting season. The nesting season for most birds, including most raptors, in Santa Clara County extends from February 1 through August 31 (with the exception of golden eagle nesting). If construction must occur during the nesting season, the following measures shall be implemented:</td>
<td></td>
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<tr>
<td>iii.</td>
<td>If a day roost of pallid bats or of a large colony of non-special-status bats shall be evicted, an alternative bat roost structure shall be provided within the project site. One alternative roost structure shall be provided for each roost that is impacted. The design and placement of this structure shall be determined by a bat biologist, in coordination with CDFW, based on the species of bat to be displaced, the location of the original roost, and the habitat conditions in the vicinity. The roost structure shall be built to specifications as determined by a qualified biologist and CDFW, or it may be purchased from an appropriate vendor. The structure shall be placed outside the potential impact area (at least 100 feet from project impacts), but otherwise as close to the impacted roost site as feasible. This bat structure shall be erected prior to removal of the original roost structure to encourage bats to begin using the new structure.</td>
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</tbody>
</table>
## Table ES-2: Summary of Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Impact BR-2: The proposed project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
<td></td>
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</tbody>
</table>

| BR-3: The proposed project could have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. | No Impact | N/A | No Impact |

| BR-4: The proposed project could 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 | N/A | Less Than Significant |

| BR-5: The proposed project could conflict with local policies or ordinances protecting biological resources. | Less Than Significant | N/A | Less Than Significant |

| BR-6: The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or State habitat conservation plan. | Less Than Significant | N/A | Less Than Significant |

| C-BR: The proposed project would have a cumulatively considerable impact on biological resources. | Less Than Significant | N/A | Less Than Significant |

### Cultural and Paleontological Resources

| CR-1: The proposed project could cause substantial adverse change in the significance of a historical resource or unique archaeological resource. | Potentially Significant | Mitigation Measure CR-1a: Data Recovery. To mitigate potential project impacts to the historical resources YR-19 and CA-SCL-651 (YR-12 and YR-13-a-c), an archaeological data recovery plan shall be developed and carried out by a qualified archaeologist, prior to project construction. Archaeological data recovery, guided by a comprehensive plan that identifies research questions and data needs, would provide a better definition of site boundaries and identification of cultural constituents within the sites. This would yield a greater understanding of these resources that would potentially lead to a better understanding of chert quarrying assay sites within the Santa Clara Valley. Subsurface archaeological testing efforts, detailed in Appendix H, indicate that cultural materials are present only in discreet portions of these two previously recorded sites. Data recovery excavations shall focus on better defining the cultural constituents present at these two sites, within the areas of direct project ground disturbance, as well as better definition of the site boundaries (e.g., through a program of subsurface auger transects). The data recovery plan shall be submitted to the County for approval, prior to implementation, as well as the final archaeological resources report documenting the results of the data recovery program and any special studies (e.g., lithic analysis, etc.). | Less than Significant with Mitigation Incorporated |

| CR-2: The proposed project could cause a substantial adverse change in the significance of an as-yet undiscovered/unrecorded historical resource or unique archaeological resource | Potentially Significant | Mitigation Measure CR-2a: Monitoring Plan. In addition to the data recovery plan implemented for the two historical resources, a monitoring plan shall be developed and implemented. This plan could be a standalone document or a component of the data recovery plan specified under MM CR-1a. This document shall have sufficient background and analysis of research questions and data needs, to allow | Less than Significant with Mitigation Incorporated |
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<tr>
<td>Treatment of any unanticipated discoveries that may occur during archaeological monitoring. All earth disturbances including scarification, grading, etc., within 50 meters of any previously recorded archaeological resources (regardless of findings of significance) shall be monitored by a qualified archaeologist. If unanticipated discoveries are made during monitoring, protocol outlined in the monitoring plan and in Mitigation Measure CR-2b will be followed. Mitigation Measure CR-2b: Contractor Training. Prior to construction, the construction contractor and subcontractors shall be informed of the legal and regulatory consequences of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other significant cultural materials from the site. Significant cultural materials include but are not limited to aboriginal human remains; chipped stone; groundstone; shell and bone artifacts (both human and animal); concentrations of fire-cracked rock; bottle glass; ceramics; ash and charcoal; and historic features such as privies or building foundations/remains. If cultural resources are uncovered during ground disturbing activities associated with the project, work will stop within 50 ft. of the initial find and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per the CRHR and develop appropriate mitigation. The Applicant shall comply with the mitigation requirements identified by the archaeologist and approved by the County.</td>
<td></td>
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</tr>
<tr>
<td>CR-3: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</td>
<td>Potentially Significant</td>
<td>Mitigation Measure CR-3: Paleontological Resources. If a paleontological resource is encountered during implementation of the project, the Applicant shall notify the County and all activity within the vicinity of the find shall halt until it can be evaluated by a qualified paleontologist as defined by the SVP (SVP, 2010). The paleontologist shall evaluate the resource and determine its significance. If significant, the paleontologist shall notify the County and the Applicant, in consultation with the County and the paleontologist, shall prepare a treatment plan such that the resource would be recovered and scientific information preserved. The paleontologist shall implement the treatment plan in consultation with the County and Applicant prior to allowing work in the vicinity to resume.</td>
<td></td>
</tr>
<tr>
<td>CR-4: The proposed project could result in a substantial adverse change in the significance of an as-yet undiscovered human remains.</td>
<td>Potentially Significant</td>
<td>Mitigation Measure CR-4: Human Remains. If human remains are uncovered during construction, the construction contractors shall stop potentially damaging work, assess the significance of the find, and pursue appropriate management. California law recognizes the need to protect interred human remains, particularly Native American burials and associated items of patrimony, from vandalism and inadvertent destruction. The procedures for the treatment of discovered human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all such activities in the vicinity of the find shall be halted immediately and the County’s designated representative shall be notified. The County shall immediately notify the Santa Clara County coroner and a qualified professional archaeologist. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code, Section 7050.5(b)). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code, Section 7050(c)). The responsibilities of the County for acting upon notification of a discovery of Native American human remains are identified in detail in California Public Resources Code Section 5097.9, as well as Santa Clara County Ordinance Division B. Upon a determination by the County Coroner that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission, pursuant to Health and Safety Code § 7050.5(c), and the County Coordinator of Indian Affairs. No further disturbance of the site may be made except as authorized by the County Coordinator of Indian Affairs in accordance with the provisions of state law and County Ordinance. Within 24 hours following receipt of information that a Native American burial site has been discovered or unearthed, the County Coordinator of Indian...</td>
<td>Less than Significant with Mitigation Incorporated</td>
</tr>
<tr>
<td>Environmental Impact</td>
<td>Significance Before Mitigation</td>
<td>Mitigation Measures</td>
<td>Significance After Mitigation</td>
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</tr>
<tr>
<td>C-CR: The proposed project could have a cumulatively considerable impact on cultural resources.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td><strong>Geology and Soils</strong></td>
<td></td>
<td></td>
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<tr>
<td>GS-3: The proposed project could expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</td>
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</tr>
<tr>
<td>(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.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>GS-2: The proposed project could result in substantial soil erosion or the loss of topsoil.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>GS-3: The proposed project could be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project, and could result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>GS-4: The proposed project could be located on expansive soil, as defined in Table 18-1-8 of the Uniform Building Code (1994), creating substantial risks to life or property.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>GS-5: The proposed project site has soils that could be incapable of adequately supporting the use of septic systems.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>C-GS: The proposed project would not have a cumulatively considerable impact related to geology and soils</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td><strong>GHG Emissions</strong></td>
<td></td>
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</tr>
<tr>
<td>GG-1: The proposed project would generate GHG emissions that could have a significant impact on the environment.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>GG-2: The proposed project could conflict with any applicable plan, policy or regulation.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>C-GG: The proposed project could have a cumulatively considerable impact related to GHG emissions.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td><strong>Hazards and Hazardous Materials</strong></td>
<td></td>
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</tr>
<tr>
<td>HH-1: The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</td>
<td>Less than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>HH-2: The proposed project would not emit hazardous or acutely hazardous substances, or waste within 0.25 mile of an existing or proposed school.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>HH-3: The proposed project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>HH-4: The proposed project would not be located within an airport land use plan or within 2 miles of a public airport or public use airport, and would therefore not have the potential to result in a safety hazard for people residing or working in the project area.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>HH-5: The proposed project would not be located within the vicinity of a private airstrip, and therefore would not have the potential to result in a safety hazard for people residing or working in the project area.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>HH-6: The proposed project could significantly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>HH-7: The proposed project could have the potential to expose individuals or structures to a significant risk of loss, injury, or death involving wildland fires.</td>
<td>Potentially Significant</td>
<td>Mitigation Measure HH-7: Fire Prevention Measures. The following measures will be implemented by the project applicant and contractors during all phases of construction on the project site:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. Smoking during project construction shall be prohibited except in designated areas, shall be at least 20 feet away from any combustible chemicals or materials, and shall not occur on dry vegetation.</td>
<td>Less Than Significant with Mitigation Incorporated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B. All heavy equipment and construction vehicles shall be equipped with fire extinguishing equipment, such as shovels, axes, or pulaskis, to aid in the prevention or spread of fires. All construction equipment shall be equipped with the appropriate spark arrestors and functioning mufflers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C. Soldering or welding shall not be performed within 15 feet of dry grass or other natural fuels. A fire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Impact</td>
<td>Significance Before Mitigation</td>
<td>Mitigation Measures</td>
<td>Significance After Mitigation</td>
</tr>
<tr>
<td>----------------------</td>
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<td>-------------------------------</td>
</tr>
<tr>
<td>C-HH: The proposed project could have a cumulatively considerable impact related to hazards and hazardous materials.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HW-1: The proposed project would not violate any water quality standards or waste discharge requirements, substantially alter the existing drainage patterns in a manner which would result in substantial erosion or siltation, create or contribute runoff that would exceed the capacity of stormwater drainage systems or provide substantial sources of polluted runoff, or otherwise substantially degrade water quality.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>HW-2: The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>HW-3: The proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding, place housing within a 100-year flood hazard area, place within a 100-year flood hazard area structures that would impede or redirect flood flows, expose people or structures to a significant risk of loss, injury, or death involving flooding or inundation by seiche, tsunami, or mudflow.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>C-HW: The proposed project could have a cumulatively considerable impact on hydrology and water quality.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LU-1: The proposed project would not physically divide an established community.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>LU-2: The proposed project would conflict with general plan policies that have been adopted to mitigate significant environmental effects.</td>
<td>Potentially Significant</td>
<td>No feasible mitigation measures are available</td>
<td>Significant and Unavoidable</td>
</tr>
<tr>
<td>C-LU: The proposed project would not have a cumulatively considerable impact related to land use and planning.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>Mineral Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MR-1: The proposed project would not 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.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>MR-2: The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>C-MR: The proposed project would not have a cumulatively considerable impact on mineral resources.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>Noise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO-1: The proposed project could expose persons noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</td>
<td>Potentially Significant</td>
<td>Mitigation Measure NO-1: Construction Noise Measures. The applicant shall implement the following avoidance and minimization measures during construction:</td>
<td>Less Than Significant with Mitigation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Construction activities within 500 feet of residential use shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday in accordance with the County and City Municipal Code.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Power construction equipment shall be equipped with state-of-the-art noise shielding and muffling devices. All equipment shall be properly maintained to assure that no additional noise attributable to worn or improperly maintained parts would be generated.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Stationary-source construction equipment that may have a flexible specific location on site (e.g., generators and compressors) shall be located to maintain the greatest distance from sensitive land uses, and unnecessary idling of equipment shall be prohibited.</td>
<td></td>
</tr>
<tr>
<td>NO-2: The proposed project could expose persons to excessive groundborne vibration or groundborne noise levels.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>NO-3: The proposed project could result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>NO-4: The proposed project could result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.</td>
<td>Potentially Significant</td>
<td>Mitigation Measure NO-1: Construction Noise Measures. (see above)</td>
<td>Less Than Significant with Mitigation</td>
</tr>
<tr>
<td>NO-5: The proposed project could expose people residing or working in the project area to excessive airport-related noise levels.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>C-NOI: The proposed project could have a cumulatively considerable impact related to noise and vibration.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
</tbody>
</table>
### Table ES-2: Summary of Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population and Housing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH-1: The proposed project could induce a substantial direct or indirect population growth.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>PH-2: The proposed project would not displace existing housing or people, necessitating the construction of replacement housing.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>C-PH: The project could induce substantial cumulative population growth.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td><strong>Public Services</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS-1: The proposed project could result in substantial adverse physical impacts related to fire protection services.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>PS-2: The proposed project could result in substantial adverse physical impacts related to law enforcement services.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>PS-3: The proposed project would not result in substantial adverse physical impacts related to school services.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>PS-4: The proposed project would not result in substantial adverse physical impacts related to other public facilities.</td>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
</tr>
<tr>
<td>C-PS: The proposed project could have a cumulatively considerable impact on public services.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td><strong>Recreation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REC-1: The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>REC-2: The proposed project could include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>C-REC: The proposed project could have a cumulatively considerable impact on recreational resources.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td><strong>Transportation and Traffic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TT-1: The proposed project could conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>TT-2: The proposed project could conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>TT-3: The proposed project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.</td>
<td>No Impacts</td>
<td>N/A</td>
<td>No Impacts</td>
</tr>
<tr>
<td>TT-4: The proposed project would substantially increase traffic safety hazards due to a design feature or incompatible uses.</td>
<td>Potentially Significant</td>
<td>Mitigation Measure TT-4: Construct Traffic Safety Improvements at the Intersection of Silver Creek Valley Road with the Proposed Access Road. The project applicant shall provide a left-turn pocket (for ingress into the project site) and a merge lane (for egress from the project site) along westbound Silver Creek Valley Road at the intersection with the proposed access road. Objects within the sight distance triangle that could obstruct the vision of exiting motorists shall also be relocated or removed. Because these improvements are required as a direct result of the project, the project shall fund 100 percent of the cost to plan, design, and construct the proposed improvements. The improvements shall be completed prior to the issuance of any building permit. Significant and Unavoidable(^1)</td>
<td>Potentially Significant</td>
</tr>
<tr>
<td>TT-5: The proposed project could result in inadequate emergency access.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>TT-6: The proposed project could conflict with adopted policies, plans, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.</td>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
</tr>
<tr>
<td>C-TT: The proposed project could conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.</td>
<td>Potentially Significant</td>
<td>Mitigation Measure C-TT: Make a Fair Share Contribution towards the Edenvale Area Development Policy’s Planned Improvements at the Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road Intersection. The project applicant shall make a fair-share contribution towards the planned EADP improvements at this location, which involve adding a left-turn lane to the northbound U.S. 101 off-ramp. Less Than Significant with Mitigation</td>
<td>Potentially Significant</td>
</tr>
</tbody>
</table>

\(^1\) Mitigation Measure TT-4 is considered technically feasible, and implementation of the required improvements would reduce project impacts on traffic safety hazards to a less-than-significant level. However, the City of San Jose has the authority and responsibility to review and approve any improvements to Silver Creek Valley Road, and the City has not confirmed that they would approve of such mitigation. Therefore, the County cannot guarantee that the proposed mitigation would be implemented as described. Therefore, this traffic safety impact is conservatively deemed **significant and unavoidable**.

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**County of Santa Clara  February 9, 2017**

**Young Ranch Residential Project**
Table ES-2: Summary of Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>adding an eastbound through lane, and adding a westbound through lane at this intersection, as well as widening the Blossom Hill Road overpass. The project’s fair-share contribution toward the cost of the planning, design, and construction of these improvements shall be calculated based on the number of vehicle-trips the project adds to the overall traffic at the intersection and shall be paid prior to issuance of building permits.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities and Energy Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UE-1: The proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, result in the construction of new or expanded wastewater treatment facilities, or result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve the project’s projected demand.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Impact</td>
<td>N/A</td>
<td>No Impact</td>
<td></td>
</tr>
<tr>
<td>UE-2: The proposed project would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
<td></td>
</tr>
<tr>
<td>UE-3: The proposed project would not require the construction of new or expanded water treatment facilities or require new or expanded water entitlements to serve its water supply needs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
<td></td>
</tr>
<tr>
<td>UE-4: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate its solid waste disposal needs and comply with federal, State, and local statutes and regulations related to solid waste.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
<td></td>
</tr>
<tr>
<td>UE-5: The proposed project would not encourage activities that result in large amounts of fuel, water, or energy use, or use of these in a wasteful manner, result in inefficient use of energy, as indicated by a substantial increase in per capita energy consumption in the jurisdiction, require construction of additional energy infrastructure facilities, the construction or operation of which could cause significant environmental effects, or conflict with applicable plan, policy, or regulation adopted for the purpose of reducing energy use, particularly non-renewable energy use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
<td></td>
</tr>
<tr>
<td>UE: The proposed project could have a cumulatively considerable impact relating to utilities.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Than Significant</td>
<td>N/A</td>
<td>Less Than Significant</td>
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</tbody>
</table>
1.0 INTRODUCTION

This environmental impact report (EIR) for the proposed Young Ranch Residential Project (proposed project) has been prepared in accordance with, and complies with, all criteria, standards, and procedures of the California Environmental Quality Act (CEQA) of 1970 as amended (Public Resources Code [PRC] Section 21000 et seq.) and State CEQA Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). Per Section 21067 of CEQA and Sections 15367 and 15050 through 15053 of the State CEQA Guidelines, Santa Clara County (County) is the lead agency under whose authority this document has been prepared. As an informational document, this EIR is intended for use by the Santa Clara County decision makers and members of the general public in evaluating the potential environmental effects of the proposed project.

1.1 ENVIRONMENTAL REVIEW PROCESS—CEQA COMPLIANCE

An EIR is an informational document used by a lead agency (in this case, Santa Clara County) when considering approval of a project. The purpose of an EIR is to provide public agencies and members of the general public with detailed information concerning the environmental effects associated with the implementation of a project. An EIR should analyze the environmental consequences of a project, identify ways to reduce or avoid potential environmental effects resulting from the project, and identify alternatives to the project that are capable of avoiding or reducing impacts. CEQA requires that all State and local government agencies consider the environmental consequences of projects over which they have discretionary authority. This EIR provides information to be used in the planning and decision-making process. It is not the purpose of an EIR to recommend approval or denial of a project.

Prior to approval of the proposed project, the County, as lead agency and the decision-making entity, is required to certify that the EIR has been completed in compliance with CEQA, that the information in this EIR has been considered, and that the EIR reflects the independent judgment of the County. CEQA requires decision makers to balance the benefits of a project against its unavoidable environmental consequences. If environmental impacts are identified as significant and unavoidable, the County may still approve the project if it finds that social, economic, or other benefits outweigh the unavoidable impacts. The County would then be required to state in writing the specific reasons for approving a project, based on information in the EIR and other information sources in the administrative record. This reasoning is called a “statement of overriding considerations” (PRC Section 21081 and State CEQA Guidelines Section 15093).

In addition, the County as lead agency must adopt a mitigation monitoring and reporting program (MMRP) describing the measures that were made a condition of project approval in order to avoid or mitigate significant effects on the environment (PRC Section 21081.6; State CEQA Guidelines Section 15097). The MMRP is adopted at the time of project approval and is designed to ensure compliance with the project description and mitigation measures of the EIR during and after project implementation. If the County decides to approve the proposed project, it would be responsible for verifying that implementation of the MMRP for this project occurs.

The EIR will primarily be used by the County during approval of future discretionary actions and permits.
1.2 PURPOSE AND LEGAL AUTHORITY

Notice of Preparation and Scoping Meeting

Consistent with the requirements of CEQA, a good-faith effort has been made during the preparation of the EIR to contact all responsible and trustee agencies; organizations; persons who may have an interest in the proposed project; and all government agencies, including the Governor’s Office of Planning and Research, State Clearinghouse. This includes the circulation of a Notice of Preparation (NOP) on September 8, 2016, which began a 30-day comment period that ended on October 5, 2016. Twelve comment letters were received on the NOP during this time. The NOP and the comment letters are included in this document as Appendix A.

A scoping meeting was held on September 22, 2016, starting at 6:30 p.m. at Evergreen Community Center, 4860 San Felipe Road, Santa Clara County, to inform the public about the proposed project and receive comments. At least 27 individuals attended the scoping meeting and provided verbal comments on the content of the Draft EIR. A summary of the comments received is provided at the beginning of each environmental topic discussion within Chapter 3.0, “Environmental Setting and Impacts”.

Public Review

The County filed a Notice of Completion with the State Clearinghouse, indicating that this Draft EIR has been completed and is available for review. A Notice of Availability of the EIR has been published concurrently with distribution of this document. This Draft EIR is being circulated for a 45-day public review and comment period. During this period, comments from the general public, organizations, and agencies regarding environmental issues identified in the EIR and concerning the EIR’s accuracy and completeness may be submitted to the lead agency at the following address:

David Rader  
Santa Clara County Department of Planning and Development  
County Government Center, East Wing, 7th Floor  
70 W. Hedding St., San Jose, CA 95110

or

david.rader@pln.sccgov.org

In addition, the Draft EIR and all related technical appendices are available for review during the public review and comment period in the office of the Department of Planning and Development at 70 W. Hedding St., San Jose, CA 95110. Copies of the Draft EIR are also available at the following location:

Evergreen Branch Library  
2635 Aborn Road  
San Jose, CA 95121

Comments may be made on the Draft EIR in writing before the end of the comment period. The County will prepare written responses to comments made in writing. Upon completion of the public review and comment period, a Final EIR will be prepared and will include the comments on the Draft EIR received during the formal public review period and responses to those comments.
1.3 DOCUMENT ORGANIZATION

This EIR is divided into the following chapters and appendices:

- Chapter 1.0, “Introduction,” provides introductory information, including the history of the proposed project, and the lead agency for the proposed project.
- Chapter 2.0, “Project Description,” presents a detailed discussion of the location, setting, and characteristics of the project site, the project objectives, the project features, environmental review requirements, and cumulative projects to be considered.
- Chapter 3.0, “Environmental Setting and Impacts,” contains individual sections for CEQA Appendix G environmental resource areas that describe existing conditions, detail the regulatory framework, and assess the potential environmental impacts of the proposed project. When the analysis identifies potentially significant effects, mitigation measures are presented. Implementing these measures would reduce potentially significant impacts to less-than-significant levels whenever feasible.
- Chapter 4.0, “Alternatives,” presents the objectives of the proposed project and summarizes its significant effects, describes the alternatives selected for evaluation, and compares the effects of the alternatives to those of the proposed project. This chapter also identifies the environmentally superior alternative, as required by CEQA.
- Chapter 5.0, “Other CEQA Considerations,” describes the significant and unavoidable environmental impacts of the proposed project, as well as the significant irreversible environmental changes that would result from project implementation.
- Chapter 6.0, “List of Preparers,” identifies County staff and consultants who helped prepare this document.
- Appendices provide additional information regarding multiple issues discussed throughout this document.
Chapter 2.0 Project Description

2.0 PROJECT DESCRIPTION

2.1 PROJECT SUMMARY

YCS Investments, Inc. (the applicant) has submitted an application for a Cluster Subdivision (Young Ranch Residential Project [the proposed project]) consisting of 30 lots and a 4,000-square-foot Community Center to be located on the 2,150-acre Young Ranch property (the project site), 906 acres of which are within unincorporated Santa Clara County (the County). The remainder of the property is located in the City of San Jose (City) outside of its urban service area. The applicant has also applied for a Zoning Ordinance Text Amendment (see Appendix B) which would allow for the transfer of density from parcels located within the City’s jurisdiction to parcels located within the County’s jurisdiction. This would result in an additional 40 lots on County parcels. The applicant has also requested a density bonus, allowable under State law, to authorize an additional 9 lots on the County parcels, bringing the total of proposed lots to 79, as summarized in Table 2-1.

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Number of Residential Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster subdivision on County parcels under Hillside zoning, using the 20–160 acre variable slope-density formula</td>
<td>30</td>
</tr>
<tr>
<td>Zoning Text Amendment to transfer allowable density from City parcels (cluster subdivision under Open Hillside zoning using variable slope-density formula)</td>
<td>40</td>
</tr>
<tr>
<td>Density bonus due to inclusion of affordable housing lots under State law (Government Code Sections 65915 – 65918).</td>
<td>9</td>
</tr>
</tbody>
</table>

**Total Number of Proposed Lots** 79

Source: AECOM, 2016

As required by the County’s cluster development policies, the minimum parcel size for any lot created as part of a cluster subdivision is no less than two (2) acres.

After construction of initial infrastructure in several phases, individual lots would be sold to homeowners or custom home builders who would construct all residences, including single-family homes and secondary units, in accordance with the Design Guidelines and Standards (Design Guidelines; Appendix C) for the project. The applicant projects that typical single-family residences would be up to 5,000 square feet (SF) in interior floor area, with 5 bedrooms. For the purposes of environmental analysis within this environmental impact report (EIR), primary residences are assumed to be 8,000 SF, which is more comparable to the average home size within unincorporated County. It is assumed that each of these single-family residences would have 2.9 residents, based on the average countywide household size (USCB, 2016).

Additionally, the applicant is proposing development of up to 16 secondary units, four of which would be permanently dedicated to affordable housing. As discussed further in Section 2.4.2 below, it is assumed that up to 16 secondary units would be developed as part of the project, including secondary units permanently dedicated to affordable housing. Secondary units are assumed to be up to 800 SF in floor area, with 2 bedrooms and 2 occupants per unit, based on the County zoning regulations for secondary units on rural lots between 1 acre and 2.5 acre in size. However, four of the proposed lots are greater than 2.5 acres, which have an allowable maximum
floor area for secondary units of 1,000 SF. The project also proposes a Community Center of 3,000 to 4,000 square feet.

Open space on the remainder of the County parcels would be preserved in perpetuity and managed in a natural state through dedication of an open space easement that would be owned by the County, per the provisions of § 5.45.050(D) of the Zoning Ordinance. Open space on the City parcels would also be preserved as open space in perpetuity. Together, this equates to approximately 1,947 acres (91 percent of the total project site) that would be preserved as open space in perpetuity and managed in support of the sensitive habitats and species that occur there, according to the goals and policies of the Design Guidelines (Appendix C), the Resource Management Plan prepared for the project site (Appendix D), and the goals and policies of the Santa Clara Valley Habitat Plan (Valley Habitat Plan; ICF, 2012).

Access to the proposed project would be provided via a new entry road connecting Silver Creek Valley Road to the existing main ranch road through the site, and a network of new private roadways. Emergency ingress and egress would be provided via an improved existing ranch road that crosses the portion of the property within the City of San Jose’s jurisdiction.

2.2 PROJECT LOCATION AND SETTING

2.2.1 Regional and Local Setting

The 2,150-acre proposed project location (the “project site”) is southeast of downtown San Jose along Coyote Ridge, which runs along the eastern side of the Santa Clara Valley (see Figure 2-1). The project site consists of six parcels as indicated on Figure 2-2. The two northernmost parcels (Parcels A and B) are in unincorporated Santa Clara County (collectively the “County parcels”) and total approximately 906 acres. The remaining four parcels (Parcels C, D, E, and F) are in the City of San Jose (collectively the “City parcels”) and total approximately 1,244 acres. The City of San Jose is located in northern Santa Clara County, 42 miles south of San Francisco and 29 miles north of Gilroy.

Regional access to the project site is provided by Highway 101 and State Route 85. These freeways converge at an interchange at Silicon Valley Boulevard, approximately one mile southwest of the project site. The Blossom Hill Caltrain station is approximately 1.5 miles southwest of the project site.

While the property has frontage along Silver Creek Valley Road, current access to the project site is via a semi-paved access road from a parking lot at the corner of Hellyer Avenue and Silver Creek Valley Road. Access from Metcalf Road along the southern boundary of the project site is available by an unpaved ranch road that extends through the project site. The project site also contains a network of internal, unpaved dirt and gravel ranch roads.

The Silver Creek Country Club residential community is adjacent to and north of the project site, and the Ranch on Silver Creek residential development is slightly further north, at the northern end of Coyote Ridge. Office parks and research and industrial uses, as well as the Basking Ridge community and horse farms lie to the west and southwest of the project site. Grazing land is to the east and south of the project site. The 460-acre Santa Clara County Motorcycle Sports Park is south of the property, just across Metcalf Road.
Figure 2-1 Project Site Regional and Local Location
Figure 2-2

Project Site Parcel Map
2.2.2 Existing Project Site Character

General Characteristics

The project site is along Coyote Ridge, the westernmost ridge of the Mt. Hamilton Range. The hills of the project site are generally characterized by steep to very steep flanks with broad rolling crests. The project site is composed primarily of grazed ranching lands dominated by California nonnative annual grassland and serpentine bunchgrass grasslands that cover 90 percent of the project site (about 1,948 acres). Upper Silver Creek runs southeast to northwest through the eastern portion of the project site. The project site is drained by Silver Creek to the northeast and unnamed tributaries to Coyote Creek to the south and west.

Serpentine bunchgrass grassland is concentrated in the southeastern portion of the project site, on Parcels D, E, and F, although pockets also exist elsewhere, including near the western boundaries of Parcels A, B, and C, and in the northeastern corner of Parcel C. Approximately 675 acres of serpentine bunchgrass grassland occur within the project site, mostly within the City parcels. The serpentine bunchgrass provides habitat for the federally-listed endangered Bay checkerspot butterfly (BCB). Figure 2-3 shows the mapped environmental resources and existing infrastructure easements on the project site.

Riparian vegetation within the project site is composed primarily of mixed riparian woodland. A number of aquatic features also occur on the project site, including ephemeral and perennial streams with seasonal wetlands, seep wetlands, freshwater marshes, and stock ponds.

While the vast majority of the project site is undeveloped, there are limited areas that have been improved in the past. The upper hills and slopes are crossed by cattle trails, and unpaved dirt, and gravel ranch roads cross the ridge tops and hillsides. Evidence of historic-era quicksilver and/or magnesite mining is present in various locations throughout the project site. Approximately 5 acres of the 2,150-acre project site are developed, including a semi-paved access road to a City of San Jose water tank site near the western corner of the project site.

An active high-pressure gas pipeline crosses the project site from northwest to southeast, within a 50-foot easement held by Pacific Gas & Electric Company (PG&E). Electrical transmission lines and towers run in a north-south direction across the eastern portion of the project site. Additional overhead electrical transmission lines and towers run northwest to southeast from Silver Creek Valley Road along the northwestern boundary of the project site. Other miscellaneous easements exist on the project site for access and for electrical, gas pipeline, telephone, abandoned irrigation canal, and water utilities.
Figure 2-3

Project Site Environmental Resources and Infrastructure Easements
City Parcels

The four parcels within the City’s jurisdiction, totaling 1,244 acres, are located south of the County parcels and, with the exception of Parcel C, vary considerably from the County parcels in terms of vegetation, habitat, topography, and aspect. No development is proposed on these City parcels apart from upgrades to the existing access road. However, the applicant has proposed a Zoning Ordinance Text Amendment, which would transfer density from the City parcels to the County parcels and create an open space easement dedication on the City parcels.

Similar to the County parcels, City parcel C is covered mostly with California non-native annual grassland and is dominated by the ridge crest that traverses the center of the County parcels. In contrast, the remaining three City parcels (D, E, and F) are composed of mostly serpentine bunchgrass grassland. On these parcels, large areas of thin, rocky serpentine soils support contiguous expanses of serpentine bunchgrass grassland and significant stands of the primary BCB larval host plant, dwarf plantain. Large numbers of the adult BCB nectar plants also grow in these areas, at times forming dense carpets of native wildflowers. This habitat occurs on hillsides and relatively large, flat ridge top expanses with a variety of aspects, providing warm slopes with southern exposure and slopes with cooler, less windy northeastern exposure. Rock outcrops are also found scattered throughout the serpentine bunchgrass grassland. Surveys conducted from 2008 to 2014 show that the southern City parcels support a large population of BCB (WRA, 2014).

2.2.3 General Plan Land Use Designation

The Santa Clara County General Plan (SCC, 1994) designates the two County parcels as “Hillsides.” Proposed residential cluster subdivision developments must preserve permanently as open space no less than 90 percent of the project land area. Subdivided lots in the HS-d1 zoning district must be a minimum of two acres. The County zoning designation for the two County parcels is Hillside-Design Review combining district (HS-d1). In this Hillside zoning district, an approved cluster development plan is required to subdivide land into lots of less than 160 acres. The Design Review combining district is intended to conserve the scenic attributes of hillside lands and to minimize the visual impacts of structures and grading on the natural topography and landscape.

The City of San Jose General Plan (City, 2011) designates the four City parcels as “Open Hillside,” a designation that allows a minimum land area per dwelling unit of between 20 and 160 acres based on the average slope of an existing legal parcel. City zoning for the four City parcels is R-1-1, a single-family residence district that allows no more than one dwelling unit per acre.

2.3 PROJECT OBJECTIVES

The applicant has identified the following objectives for the proposed project:

1) Develop rural residential uses at densities sufficient to encourage the landowner to exceed nexus requirements by conveying extensive biological and scenic resource areas for permanent preservation and

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1 The Hillsides use designation allows development of one dwelling unit per 160 acres unless the development is proposed as a “cluster development,” in which case the allowable density is between 20 and 160 acres per unit, as determined by the “20–160 acre variable slope-density” formula.
enhancement consistent with the Valley Habitat Plan, thereby contributing towards a systematic, unified approach to habitat conservation on a regional basis.

2) Implement General Plan provisions relating to rural uses, scenic resources, contiguity of undeveloped areas, land uses and location efficiencies, and State housing laws that mandate density bonuses, by developing a clustered rural community at densities allowed by the General Plan, on a site that is close to existing development and major arterials, and that contains extensive areas of high quality biological habitat.

3) Develop rural residential uses at densities sufficient to support the construction of infrastructure, utilities and services needed to serve the site.

4) Maintain the rural nature of the site by developing at densities sufficient to make feasible the maintenance of a private roadway network and service by a private water supplier with a proven track record, all to implement General Plan provisions promoting non-urban, rural development.

2.4 PROPOSED PROJECT CHARACTERISTICS

2.4.1 Development Plan and Tentative Map

The Young Ranch subdivision application, which includes a cluster development plan and tentative subdivision map, is subject to all applicable processing requirements as described in Section 5.20 Common Procedures and those of the County Subdivision Ordinance, Division C12 of the Ordinance Code. The cluster development plan is required to conform to the applicable goals, policies, and requirements of the general plan, in particular the applicable land use designation, and with the purposes of the zoning ordinance. The proposed density of development (total number of dwelling units or lots) shall not exceed and may be reduced from the maximum density allowed under the applicable general plan land use designation and zoning district, unless the application includes additional dwelling units allowed in accordance with the density bonus regulations as provided in Section 4.20.030 of the Zoning Ordinance.

2.4.2 Site Plan and Development Program

Residential Uses

The proposed project would include development of 79 single-family homes and 16 secondary units, as indicated on Figure 2-4. Four secondary units would be permanently dedicated to affordable housing in order to qualify for a density bonus under State law (Government Code Sections 65915 – 65918). Proposed land uses and acreages are provided in Table 2-2.

As required by the County’s cluster development policies, all single-family homes would be on two-acre minimum lots, and all development on individual lots would avoid slopes greater than 30 percent. After construction of streets and relevant utilities, individual lots would be sold to homeowners or custom homebuilders who would construct all residences, including single-family homes and secondary units.
Table 2-2: Proposed Young Ranch Land Uses

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Lot Areas</td>
<td>172.5</td>
</tr>
<tr>
<td>Roads</td>
<td>27.9</td>
</tr>
<tr>
<td>Community Center</td>
<td>2.8</td>
</tr>
<tr>
<td>Open Space</td>
<td>1,946.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,150.1</strong></td>
</tr>
</tbody>
</table>


Under the County Zoning Ordinance, each residential lot would be eligible to construct a secondary unit. However, it is anticipated that only 16 of the proposed 79 residential lots (i.e., 20 percent) would include a secondary unit (Perkins Coie, 2016). This projection is based in part on the average number of secondary units that have been constructed in other California jurisdictions (Cultivate, 2016), on the County’s forecast production of secondary dwellings in its 2015 Housing Element Update (SCC, 2014), and on the project’s Design Guidelines (see Appendix E, Homesite Matrix).

The proposed project includes four affordable units to be eligible for a density bonus under State law (Government Code Sections 65915 – 65918). The affordable units would be built as secondary units on four specified market-rate, single-family lots and would be permanently restricted to a rent affordable to very low-income households, as defined in Section 50105 of the California Health and Safety Code. The very low-income units must be self-sufficient with complete independent living facilities, including a kitchen and bathrooms, and must be ancillary to the single-family home on the same lot. The proposed project’s affordable units would likely be controlled by recorded covenants, conditions, and restrictions (CC&Rs) that run with the land. The CC&Rs would be enforced in perpetuity by the Young Ranch Homeowners’ Association or another entity approved by the County.

**Recreational and Open Space Uses**

**Community Center**

The Community Center is proposed to serve as a local gathering place for residents and would be suitable for a variety of community events, from small parties to larger gatherings. Detailed design of the facility has not yet been developed; however, conceptual design proposes an approximately 3,000- to 4,000-square-foot building, as well as an outdoor pool and parking spaces for 20–25 vehicles on a 2.8-acre lot denoted as “Community Center” in Figure 2-4. The Community Center is an allowable land use under the HS zoning district, subject to a use permit.
Figure 2-4

Proposed Project Land Use Development Plan
Open Space

The proposed project would designate 1,947 acres as open space, which would be approximately 91 percent of the total project site area of 2,150 acres. The total open space area would include approximately 675 acres of serpentine bunchgrass grassland. The serpentine bunchgrass grassland on the southern City parcels includes high-quality BCB habitat with a well-documented BCB population. The proposed open space area also provides habitat for several serpentine-associated special-status plant species and listed wildlife species, such as California red legged frog and California tiger salamander.

Because of its value as habitat for BCB and other protected species, most open space on the project site is suitable for inclusion in the reserve system proposed under the Valley Habitat Plan (ICF, 2012). The project site is between several large habitat areas covered under the HCP/NCCP, but is currently under private ownership and, therefore, is not formally preserved.

The proposed project would include an interior trail system (see Figure 2-5; Cultivate, 2014b), and other trails could be created within the open space area, in accordance with County plans. The Countywide Trails Master Plan Update (SCC, 1995) identifies Regional Trail Route C23 (the South Metcalf Trail) in the potential open space area on parcels currently under City jurisdiction.

2.4.3 Architectural and Landscape Design

The proposed project includes Community Design Guidelines (refer Appendix C), which would be administered and enforced by the Young Ranch Design Review Board, as part of the Young Ranch Homeowners’ Association. Per the proposed Design Guidelines, the proposed project would include two main areas for each proposed single family lot: the “improvement envelope,” where all major improvements would occur (other than the septic leach field) and the “natural area,” which must be preserved as natural space with a landscape palette limited to approved native plants. The improvement envelope would contain all residential development and built structures, including primary and secondary dwellings, parking, and associated improvements. The natural envelope would be the majority of the lot outside of the improvement envelope. This area would remain in an essentially natural condition. In addition, the Design Guidelines include maximum building heights of 25 and 30 feet and maximum building coverage\(^2\) of 15 percent (approximately 0.3 acres). Figure 2-6 shows the location of each proposed lot, and Figure 2-7 shows a sample diagram. The proposed project also incorporates Sustainable Sites Initiative (SITES) and Cal Green Tier 2 requirements related to sustainability performance standards for energy and resource usage.

Per the proposed Resource Management Plan (refer Appendix D), the proposed project would also manage and preserve the project site’s resources, including native or naturalized landscaping within relevant natural areas of proposed lots, road rights-of-way, and common areas. Common area landscaping (for road rights-of-way, open space areas, and the Community Center) would be maintained by the Young Ranch Homeowners’ Association through a covenant agreement.

\(^2\) Maximum building coverage includes areas occupied by structures, paving for vehicle use, and all other impervious surfaces.
Figure 2-5

Proposed Project Draft Walking Trails Plan
Figure 2-6

Proposed Project Lot Locations

Source: YCS, 2016
Figure 2-7

Example Proposed Project Lot Layout

Source: YCS, 2016

The purpose of the Homestite Diagram is to aid the Owner in understanding existing site conditions and development requirements. Refer to the Design Guidelines and the Resource Management Plan (RMP) for Young Ranch for information on design criteria including building materials, approved plant materials, and building height calculations for the particular Homestite.
2.4.4 Circulation

Since all homes would be within the County parcels at the northern end of the project site, primary access would be via a new entry road intersecting Silver Creek Valley Road. The proposed project would include the following improvements in the vicinity of this intersection:

1. a stop sign on the entry road at the intersection with Silver Creek Valley Road;
2. curb cuts to allow the entry road to connect to Silver Creek Valley Road;
3. a left-turn lane on south/westbound Silver Creek Valley Road without a traffic signal or a stop sign, to allow access to the entry road;
4. an acceleration lane on south/westbound Silver Creek Valley Road, to allow access from the entry road;
5. raising the south/westbound lanes of Silver Creek Valley Road approximately two feet to bring all travel lanes in both directions to the same level and to form a level intersection with the entry road; and
6. modifying the Silver Creek Valley Road median and curbs for the same purpose as improvement (5).

If needed to address projected conditions, the applicant proposes to:

- fund its fair share of the cost of signalization of the entry intersection in place of improvement (1) above, and/or
- configure the access point to limit ingress and/or egress to right-in/right-out turns only and make any necessary improvements to an existing turning lane that allows U-turns on Silver Creek Valley Road northeast of the access point at Hawkstone Way in place of improvements (3), (4), (5), and (6) above.

Hazard protection and prevention measures would be implemented to protect against and reduce hazards from falling rock along the new entry from Silver Creek Valley Road. Such measures would be subject to review and approval by the County Geologist through compliance with the County’s Geologic Ordinance.

The new entry road would join the existing main ranch road, which would serve as the primary access route to the lots and Community Center. A network of new private roadways, many using existing ranch roads, would provide direct access to the lots from the primary access route (see Figures 2-4 and Figure 2-6).

Emergency ingress and egress would be provided via Metcalf Road in the south and an improved existing road that crosses the City parcels. This road also would allow limited access to habitat lands for preservation purposes. A separate service road built upon an existing ranch road would extend utility systems to the project site.

To the extent feasible, on-site roadways would include a flush edge with roadside drainage swales rather than traditional curb and gutter, to maintain a rural aesthetic that uses low-impact development solutions. Roadways would be no larger than two lanes.

All on-site roads would remain private, with the Young Ranch Homeowners’ Association assuming responsibility for their maintenance and for enforcement of traffic rules.
2.4.5 Parking

Parking would be required for each lot, as permitted per County zoning code. No on-street parking would be permitted. Conceptual design for the Community Center anticipates approximately 20 to 25 parking spaces to accommodate special functions and events.

2.4.6 Utilities

Public utilities are not currently provided to the project site. On-site utility easements serve other properties in the area. As part of the proposed project, domestic water, electricity, natural gas, and communications service would be provided to the project site. Sanitary sewer and stormwater management would be handled on site (see below). Proposed concepts for wet and dry utilities are presented in Figure 2-8 and Figure 2-9, respectively.

Domestic Water

The proposed domestic water provider is the Great Oaks Water Company, a privately-owned utility. The proposed project would extend a 12-inch water line from Tennant Avenue off site approximately 1,800 linear feet to the property line and then approximately 10,000 linear feet (and 700 vertical feet) along an existing service road to a new 480,000-gallon water tank on Parcel B, as shown in Figure 2-8. Due to the elevation gain, the domestic water system includes two pump stations along the Tennant Avenue service road and ranch road. Distribution pipes would convey the water via gravity from the tank to individual lots.

Wastewater

Because the project site is outside of the San Jose Urban Service Area and sewer service is not available, individual septic systems and leach fields are planned to serve each lot and the Community Center. Because the County may require a stand-alone septic system and leach field for each detached secondary unit, the proposed project includes additional wastewater treatment and disposal area for these units. These systems would be designed to avoid affecting slope stability or degrading local groundwater quality, in conformance with the County’s On-site Wastewater Treatment Systems (Septic) Ordinance (Sections B11-60 through B11-95 of the Santa Clara County Code). The systems would also be designed to meet the County’s percolation and nitrate loading standards.

Stormwater

The proposed storm drainage system would be designed to mimic existing drainage patterns and largely avoid traditional pipe drainage systems by using Low-Impact Development measures to infiltrate, treat, and manage stormwater. The system would be designed to maintain pre-development runoff conditions through the use of one or a combination of the following options: landscape dispersion, vegetated swales, bio-retention planter areas, and permeable pavement.
Figure 2-8

Proposed Project Wet Utilities

Source: YCS, 2016
Figure 2-9

Proposed Project Dry Utilities
The proposed project’s expansive open space areas would be employed as a means of reducing stormwater runoff, using two basic storm drainage design approaches:

- In non-hillside areas, where feasible, runoff would sheet flow from the road to the adjacent vegetated landscape areas. Where this is not feasible (i.e., if the road is in a valley and the adjacent topography does not slope away from the road), drainage ditches would be placed on one or both sides of the roadway, to be discharged with proper erosion controls at low points or where the road transitions to a hillside section.

- In hillside areas, where the roadway traverses a slope, a ditch on the upslope side of the road would collect runoff from the hillside. Cross drains, located at intervals, would limit the size of the drainage ditch, which would be naturalistic and lined with native grasses. The cross drains would discharge on the downslope side of the road to energy dissipaters designed to slow and spread runoff. This design would avoid concentration of runoff that often is the main cause of hydromodification of downstream drainages.

Additional storm drain infrastructure, such as concrete curb and gutter and a detention pipe, would be installed where the entry road descends toward Silver Creek Valley Road.

**Electricity and Gas**

PG&E, an independently-owned utility, is expected to have sufficient capacity to provide electricity and gas. PG&E currently provides electric and gas distribution service to nearby communities to the north and west of the project site. Electric distribution service also is provided along Metcalf Road to the south. Electrical and gas service for the project would be extended from the existing distribution lines in Piercy Road, in a new trench below the service road that connects with Tennant Avenue.

**Communications**

AT&T and Comcast currently have facilities within the adjacent Silver Creek residential community to the north of the project site, as well as within the Piercy Road and Basking Ridge Avenue development to the west. Communications services would be extended from these already served developments to the project site in a joint trench with electric and gas services in the improved existing service road from Tennant Avenue.

**2.4.7 Project Site Preparation and Construction**

**Construction Schedule**

Project site work could begin as early as January 2018, pending receipt of necessary approvals and entitlements. Construction of all access roads, the water supply system, utility infrastructure, and recreation and trails infrastructure improvements is expected to require a total of 18 months. After construction of initial infrastructure, individual lots would be sold to homeowners or custom homebuilders who would construct all residences, including single-family homes and secondary units. Residential construction could overlap some of the site work and is anticipated to commence in approximately September 2018. Home construction could continue at varying rates for approximately 10 to 15 years.
Soil Disturbance Limits

The proposed project would involve grading and earthmoving activities. The maximum soil disturbance from roadway/infrastructure construction would be approximately 26 acres, including the proposed water tank site and roads on the County parcels, and limited widening and improvements to the emergency access road on the City parcels. These roadway/infrastructure improvements would be designed to minimize grading and would balance cut and fill to the extent feasible by using existing ranch roads and road designs that closely follow existing topography. Utilities would be installed within the roadways. There would be no off-site export of grading materials. The emergency access road would be widened by approximately 12 feet along the two-mile length of the road, and wider turnouts would be constructed at several locations chosen to minimize impacts on environmental resources.

The maximum soil disturbance from construction on the 79 residential lots and Community Center would be 25 acres. As noted above, this estimate projects that 79 single family homes and the Community Center, would be built, along with 16 detached secondary units. The preliminary grading calculations for driveways and building coverage associated with future residences are based on the maximum improvement envelopes and conceptual designs in the proposed Design Standards (Appendix C). These estimates have not been optimized to balance cut and fill within the residential lots, as the exact size and location of each residence cannot be predicted at this time. The proposed Design Standards and CC&Rs would require that driveway alignments conform to the natural terrain and implement similar design and construction measures to those for the access roads.

2.4.8 Project Site Safety

Several mine shafts are located on the existing project site. All mine shafts on the project site would be secured in a manner that complies with federal, State, and local law, as applicable.

2.5 DISCRETIONARY AND MINISTERIAL ACTIONS AND APPROVALS

The following reviews and approvals will be needed to implement the proposed project:

- Zoning Amendment. An amendment to the County Zoning Ordinance would allow an increase in density on County parcels, in exchange for an open space easement dedication on the City parcels, which would also meet open space requirements associated with cluster subdivisions in the unincorporated County.

- Cluster Development Plan. The proposed project requires approval by the County of a cluster development plan to permit the proposed development configurations and at the proposed densities.

- Vesting Tentative Map. The proposed project requires Vesting Tentative Map approval by the County to enable subdivision of the project site.

- Development Agreement. The Applicant has proposed that the County approve a development agreement to provide public benefits and vest the approvals granted for the proposed project within specific timeframes.

- Conditional Use Permit. The proposed Community Center requires a conditional use permit from the County.

- Grading and Building Permits. County and/or City approval of grading and building permits will be required.
• Permits for the Primary Access Road. One or more permits from the City will be required to connect the primary access road to Silver Creek Valley Road at the boundary of Parcel A.

• Permits for the Emergency Access Road. One or more permits from the City will be required to improve the existing ranch road as an emergency access road through the City parcels to Metcalf Road.

• Santa Clara Valley Habitat Plan. The proposed project is a covered project under the Santa Clara Valley Habitat Plan.

• State Water Resources Control Board/San Francisco Bay Regional Water Quality Control Board. The proposed project will require coverage under the General Permit for Discharge of Storm Water Associated with Construction Activity (State Water Resources Control Board General Permit Order 2009-009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ).

2.6 CUMULATIVE PROJECTS

CEQA requires that in addition to project impacts, an EIR must discuss cumulative impacts. According to Section 15355 of the CEQA Guidelines, ‘Cumulative impacts’ refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

Section 15130(b) of the CEQA Guidelines provides additional guidance with respect to how an adequate cumulative impact analysis might be completed and notes that this may be based on:

• A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the Lead Agency, or

• A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

The cumulative context and the geographical area considered for each topic area are not necessarily the same. For example, because all development in an air basin contributes to regional emissions of criteria pollutants, the cumulative air quality discussion would consider emissions in the entire air basin. In contrast, because use and transport of hazardous materials are localized to the project site and access routes, the cumulative hazards and hazardous materials discussion would consider only other projects in the project area. Therefore, the approach to the cumulative analysis varies by topic.

Table 2-3 identifies current or future projects in the vicinity of the project site.

Given the location of these projects in relation to the proposed project site, and the proposed schedule for buildout of the proposed project over the next 10 to 15 years, it was determined that projections contained in an adopted general plan or related planning document which describes or evaluates regional or area-wide conditions would be the preferred approach to assessing cumulative impacts for this EIR, rather than the list of past, present, and probable future projects.
Table 2-3: Nearby Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>Location</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Oaks Mixed Use Project</td>
<td>154,000 square feet of commercial uses and 26,000 square feet of office/research &amp; development and 702 residential units (high density)</td>
<td>Great Oaks Boulevard near Highway 101 and 85.</td>
<td>Unknown. EIR approved in 2014.</td>
</tr>
<tr>
<td>Canyon Creek Plaza Shopping Center</td>
<td>One new 8,413-square-foot retail commercial building with a maximum height of 28 feet including: 7 offices, each approximately 300 square-feet in size. 5 retail spaces ranging in size from approximately 550 to 1,100 square-feet. Ancillary uses (e.g., lobby, restrooms, utility room, trash enclosure, etc.)</td>
<td>5601–5667 Silver Creek Valley Road</td>
<td>Unknown</td>
</tr>
<tr>
<td>Google Fiber Project</td>
<td>The installation of approximately 2,300 miles of fiber optic cables (consisting of about 1,340 miles of below ground installation and 960 miles of aerial installation using existing utility poles); the installation of approximately ten Local Aggregation Sites either inside pre-fabricated communications shelters (fiber huts) or enclosed within existing commercial buildings; underground utility vaults and utility cabinets; and connections directly to customers. With the exception of the Local Aggregation Sites and connections to customers, the fiber cables, vaults, and cabinets will be located within existing public right-of-ways or easements.</td>
<td>Citywide, including within the immediate vicinity of the project area.</td>
<td>36 months from approval</td>
</tr>
</tbody>
</table>

The County’s General Plan EIR does not project growth beyond 2010; however the 2014–2022 County Housing Element uses ABAG projections for growth in unincorporated Santa Clara County. Build-out of Plan Bay Area (ABAG & MTC, 2013a) has therefore been assumed in the consideration of cumulative projects. Plan Bay Area is used for this purpose in lieu of the County’s General Plan (SCC, 1994), as the buildout date of the General Plan has already passed. In this instance, the anticipated build-out of the proposed project is projected to occur over the next approximately 20 years. As a result, the growth forecasts in Plan Bay Area are considered a more appropriate basis for evaluating cumulative impacts.

At a regional level, the population of all of the Bay Area is anticipated to increase to approximately 9,299,100 by 2040 from 7,461,400 in 2015 (ABAG, 2013a). Santa Clara County population (incorporated and unincorporated areas) is expected to grow by 545,800 during the same time period, to approximately 2,080,600 people by 2035 (project buildout), and 2,423,500 people by 2040 (ABAG, 2013b). Furthermore, the number of housing units in the County is anticipated to increase to approximately 3,309,090 in 2040 from 2,720,410 in 2015 (ABAG, 2013c).

2.7 REFERENCES


City of San Jose (City), 2011. Envision San Jose 2040. General Plan. Adopted November 1, 2011.


3.0 ENVIRONMENTAL SETTING AND IMPACTS

This chapter sets forth the physical and regulatory environmental setting and addresses the environmental impacts of the proposed project with respect to 17 environmental resource areas. The discussions of the environmental setting describe the present physical conditions, or the baseline conditions, in the area of the proposed project. The baseline used for the analysis of environmental impacts under the California Environmental Quality Act (CEQA) reflects the conditions present at the time the environmental impact report (EIR) Notice of Preparation (NOP) was published.

The potential impacts of the proposed project are compared against the existing baseline conditions for each environmental resource.

The proposed project is analyzed from the viewpoint of the following 17 environmental resource areas.

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Energy Resources

Indirect impacts are discussed for those resources only where they have the potential to occur (e.g., air quality, biological resources, cultural resources). In addition to project-level impacts, cumulative impacts are also analyzed. Project-level impacts are impacts that could occur as a result of implementation of the proposed project, and cumulative impacts are impacts that could occur as a result of implementation of the proposed project in combination with other cumulative projects. As discussed in Section 2.5, “Cumulative Projects,” population growth anticipated for Santa Clara County in Plan Bay Area 2013 is considered the cumulative scenario for analysis of cumulative impacts.

Impacts are analyzed and the respective conclusions are included in this EIR, applying the following levels of significance:

- Significant and Unavoidable Impact
- Less-than-Significant-with-Mitigation-Incorporated Impact
- Less-than-Significant Impact
- No Impact

Impacts are defined in terms of context and intensity. Context is related to the uniqueness of a resource; intensity refers to the severity of the impact. Best management practices are incorporated into the project to limit the
potential for a significant impact. Regulations are discussed and analyzed to the extent they are applicable to reducing impacts. Where necessary, EIR mitigation measures are identified for significant impacts to limit the degree or magnitude of the impact; rectify the impact by repairing, rehabilitating, or restoring the affected environment; or compensate for the impact by replacing or providing substitute resources or environments. Such impacts are concluded to be less than significant with mitigation incorporated.
3.1 AESTHETICS

This section describes the existing aesthetic setting of the project area, and evaluates whether the development of the proposed project would result in adverse effects on aesthetics.

The following comments relating to aesthetics were received during the public scoping period in response to the Notice of Preparation:

- Request to limit formal landscaping to a small area immediately surrounding each residence; and
- Concern about residences being visible along the hillsides and possibly scarring them.

3.1.1 Existing Conditions

Visual Character

Regional

The natural setting and landscape of the County include the Santa Clara Valley, the Diablo Range to the east, Santa Cruz Mountains to the west, and the Baylands in the northwest. The Santa Clara Valley is surrounded by rolling hills and runs the entire length of the County from north to south.

The Diablo Range covers the entire eastern half of the County. It consists mainly of grasslands, brush and oak savannah, due mostly to sparse rainfall. The Santa Cruz Mountains contain rolling grasslands and oak-studded foothills adjacent to the valley, while mixed hardwoods and dense evergreen forests predominate in the higher elevations west.

The Baylands lie in the northwestern part of the County, adjacent to the waters of the southern San Francisco Bay. They consist mostly of vast salt evaporation ponds and remnant areas of salt marsh and wetlands.

The northern Santa Clara Valley is extensively urbanized, housing approximately 90 percent of the County’s residents. Thirteen of the County’s fifteen cities are located in the North Valley, while the remaining two cities, Gilroy and Morgan Hill, are located in the southern portion of the Santa Clara Valley.

The project site is situated along Coyote Ridge, the westernmost ridge of the Mt. Hamilton Range east of Highway 101, between Silver Creek Valley Road to the north and Metcalf Road to the south. The Mt. Hamilton Range is an important topographic, visual feature rising above Santa Clara Valley, east of San Jose. Its mile-long summit includes Kepler Peak and Copernicus Peak, which is the highest point in Santa Clara County. In general, the visual character of the southern portion of Santa Clara County is characterized by hills that are largely undeveloped, an overall visual landscape that is rural, and ridgelines that provide a scenic backdrop from vantage points along the valley floor.
### Project Site and Vicinity

The project site’s hills generally are characterized by steep to very steep flanks with broad rolling crests. Low to moderate slopes (5 to 15 percent) are generally located along the ridgeline, while steeper slopes (30 percent or greater) are more prevalent along the eastern and western sides of the project area. The visual character of the project site consists primarily of grazed ranching lands dominated by California nonnative annual grassland and native serpentine bunchgrass grasslands that cover 90 percent of the project site (about 1,948 acres) and areas of riparian vegetation that is composed primarily of mixed riparian woodland. A number of aquatic features also occur on the project site, including ephemeral and perennial streams with seasonal wetlands, seep wetlands, freshwater marshes, and stock ponds. Upper Silver Creek runs southeast to northwest through the eastern portion of the project site.

While the vast majority of the project site is undeveloped, there are limited areas that have been improved in the past. The upper hills and slopes are crossed by cattle trails, and unpaved dirt and gravel ranch roads cross the ridge tops and hillsides. Evidence of historic quicksilver and/or magnesite mining is present in various locations throughout the project site.

The color and texture of the project site’s appearance varies by season. In summer months, or times of little rainfall, the landscape is generally tan or light brown and dry in appearance. In the winter, or during months of higher rainfall, the landscape turns predominantly dark green because of the vegetation in the area.

The surrounding local area of the project site consists of residential and urban development within the City of San Jose to the north and west of the project site. Lands east and southeast of the project site are undeveloped and are generally used as grazing land. Similar to the project site, these areas are dominated by California nonnative annual grassland and native serpentine bunchgrass grasslands.

### Scenic Views

#### Regional

Scenic views of the Mt. Diablo Range and Santa Clara County Valley are provided by local roads and highways, including Highway 101, Highway 680, State Route 238, and Mount Hamilton Road and the Santa Teresa County Park, Coyote Ridge Trail, and Montgomery Hill Park. Views on the valley floor are also provided from the Lick Observatory, located on Mt. Hamilton.

#### Project Site

The project site is visible from lower elevations to the northwest, north, and west of the project site. The largest numbers of viewers of the project site are those traveling on Highway 101, which is west of the project site. Other locations that provide scenic views of the project site include the Coyote Creek Trail west of the project site; Santa Teresa County Park to the northeast of the project site; Montgomery Hill Park to the north of the project site; the Silver Creek Country Club and the Ranch on Silver Creek residential communities north of the project site; and points along Santa Teresa Boulevard, Silver Creek Valley Road, and Hellyer Avenue where existing office parks and industrial development occurs.
Existing views of the project site from six nearby public viewpoints were identified to illustrate the visual environment in the project vicinity. Viewpoints were selected based on the potential visibility\(^1\) of the proposed project from surrounding areas (Figure 3.1-1), as well on-the-ground reconnaissance of surrounding areas. Appendix D provides more details of the viewpoint selection methodology. Figure 3.1-2 shows the location of each viewpoint, and the top images in Figures 3.1-3 through 3.1-8 show the existing views of the project site from those locations (bottom images in each figure show simulated views of the proposed project, as discussed in Section 3.1.3 below). These viewpoints are representative of the visual and scenic character of the project area. The viewpoints show the ridgelines and landform of the project site and reflect views that are visible from various public vantage points and by a number of receptors. It is noted that the residential communities to the north of the project site (Silver Creek Country Club and the Ranch on Silver Creek) are private communities and therefore were not considered to be a public vantage point.

**State-Designated Scenic Highways**

**Regional**

The Scenic Road System of Santa Clara County includes three basic classifications:

- State scenic routes within the County, which includes all state highways currently designated by the state as scenic highways or proposed for such designation;

- County scenic routes, which includes scenic freeways (those not proposed for state scenic highway designation) and expressways, scenic arterial routes, and scenic rural roads; and

- Local roads requiring scenic protection.

Two routes in Santa Clara County have been officially designated as State Scenic Highways. State Route 35, also known as the Skyline Scenic Recreation Route, begins at the northern end of Skyline Boulevard and follows the crest of the Santa Cruz Mountains from Highway 17 in Santa Clara County to the City and County of San Francisco. State Route 9 runs from Los Gatos to Saratoga, which then turns into the Santa Cruz Mountains under the name of Congress Springs Road, and travels up to Skyline Boulevard (Santa Clara County, 1994).

Five additional routes in Santa Clara County are now in the State’s Scenic Route Master Plan, but have not been officially designated as State Scenic Routes: Highway 17 from Los Gatos to the Santa Cruz County Line, Highway 152 (the Pacheco Pass Highway), Highway 156 from Pacheco Pass Highway south into San Benito County and Hollister, Highway 280 (Junipero Serra Freeway) from San Francisco to its intersection with Highway 17, Highway 35 (Skyline Scenic Recreation Route) between Highway 17 and the Santa Cruz-San Mateo County boundary (SCC, 1994).

\(^1\) Figure 3.1-1 provides an indication of how visible the proposed residential lots might be from surrounding areas within a four mile radius. Note that the figure takes account of topography only and is therefore a conservative estimate—no account is taken of potential screening from existing structures or vegetation.
Figure 3.1-1: Site Visibility Analysis

Source: County of Santa Clara, 2016a.
The Santa Clara County General Plan indicates that Highway 101 through the Santa Clara Valley, State Route 152 (Hecker Pass Highway) from Gilroy west to Mount Madonna Park and the Santa Cruz County line, Highway 280 from the Bay Bridge in San Francisco to Highway 17/880 in San Jose, Highway 24/680 from Oakland to the Alameda-Santa Clara County line, and Highway 17 from Los Gatos to Campbell should be added to the State Scenic Route Master Plan; however, inclusion of these routes and highways has not taken place (SCC, 1994; CDOT, 2016).

The County identifies additional scenic routes and local roadways that require scenic protection. Section 3.30.050 of Chapter 3.30 of the Santa Clara County Zoning Ordinance provides a scenic road inventory that identifies the County’s 64 scenic freeways (those not proposed for State scenic highway designation) and expressways, scenic arterial routes, scenic rural roads, and scenic local roads.

**Project Site**

The project area is not visible from either of the two State Scenic Highways within Santa Clara County. In the vicinity of the project site, Highway 101, Metcalf Road, Silver Creek Road, and San Felipe Road from Delta Road to Metcalf Road are considered County scenic roads (SCC, 2008).

Motorists traveling in both the north and south directions on Highway 101 can see the project area over an approximately 3-mile length. The sensitivity of motorists along Highway 101 to visual change is low to moderate due to the relatively short period of time that the project area is in view and the fact that views of the project area are not directly in front of motorists. There is no to low visibility of the project site from Metcalf Road, Silver Creek Road, and San Felipe Road because of intervening topography (Figure 3.1-1).

**Light and Glare**

**Regional**

The terms “glare” and “skyglow” are used to describe the visual effects of lighting. Glare is direct, indirect, or reflected exposure to bright lights and skyglow is a glow that extends beyond the light source above the horizon at night. Cities and communities throughout the County are sources of glare and skyglow in the region.

**Project Site**

There are no existing nighttime lighting sources within the project site. However, several sources of nighttime lighting exist in the surrounding area. Sources of nighttime lighting near the project site include the City of San Jose, located north and west of the project site; the Silver Creek Country Club residential community, located north of the project site; and the Ranch on Silver Creek residential community, located slightly further north, at the northern end of Coyote Ridge.

Roadways adjacent to the project site, including Highway 101, Hellyer Avenue, and Silver Creek Valley Road, are a source of glare from automobile headlights at night and reflections from metal surfaces during the day. There are no other broad expanses of reflective surface or light-colored surfaces in the vicinity of the project that could produce glare in the direct project vicinity.
Off-site light sources contribute to existing skyglow in the vicinity. Urban development in the City of San Jose to the north and west of project site is a source of skyglow.

3.1.2 Regulatory Framework

Federal

There are no federal plans, policies, regulations, or laws related to aesthetics that are applicable to the proposed project.

State

There are no state plans, policies, regulations, or laws related to aesthetics that are applicable to the proposed project.

Local

Santa Clara County General Plan

The County General Plan contains strategies and policies that are intended to protect the County’s scenic views of surrounding hillsides, ridgelines, and scenic transportation corridors and the visual character of rural unincorporated areas and the Santa Clara Valley floor. The following rural unincorporated area strategies and policies of the County General Plan are applicable to the proposed project.

Growth and Development Chapter

Strategy 1: Preserve Resources and Character of Rural Lands

R-GD 3: Land uses and development permitted under County jurisdiction shall be consistent with the following major County policies:

d) preservation of rural character, rural lifestyle opportunities, and scenic resources;

Strategy 3: Ensure Environmentally-Safe and Aesthetic Hillside Development

R-GD 19: Application of design review guidelines, landscaping standards, retaining wall design requirements, and related matters should reasonably relate to the goals of the General Plan and Zoning Ordinance, address the impacts of a project, and take into account the size of the structure, and the site-specific characteristics involved.

R-GD 24: Where an existing parcel contains multiple possible building or development sites, and where one or more possible site requires less grading, with less overall environmental and visual impacts, greater economy of access roads or other site improvements, and better achieves matters of public health and safety, grading approval may be granted only for the alternative which minimizes grading amounts and is deemed otherwise suitable with respect to other development issues, regulations, and conditions of reviewing agencies. Buildings should also be designed to respect and conform with existing topography of site as much as possible, using stepped designs and multiple levels rather than an expansive single story floor plan on only one level.
R-GD 25: Grading associated with roads, bridges, retaining walls, or similar improvements related to access requirements should not create a significant visual scar or impact to the environment.

a) Grading proposals for driveways and roads should generally follow natural terrain and contours to maximum extent feasible. Requirements and conditions for erosion control, landscaping or plantings, retaining wall design, and other design features may be imposed where necessary to ensure that completed work blends as harmoniously as possible with the natural environment and landscape.

b) Use of native and drought tolerant species for the above purposes should be employed for at least 50% or more of the design.

R-GD 31: Ridgelines and ridge areas have special significance for both public policy and private interests. Ridgeline and hillside development that creates a major negative visual impact from the valley floor should be avoided or mitigated, particularly for those areas most immediately visible from the valley floor. Ridgeline development policy should also take into account the need to allow reasonable use and development of private land.

R-GD 32: For subdivision proposals, land should be subdivided in such a way that building sites are not located on ridgelines, if possible, taking into consideration other development constraints and issues. Where ridgeline locations are proposed, alternatives shall be evaluated to determine relative development suitability. If ridgeline or hilltop locations prove to be more suitable and less visually obtrusive than alternatives, reasonable mitigations for significant, adverse visual impacts may include, but are not limited to:

a) careful locations of building sites;

b) tree and vegetation retention, and use of additional landscaping, as appropriate;

c) building height, façade length, and similar dimensional limitations; and,

d) use of natural materials, colors, and design features that blend with the natural surroundings and reduce apparent bulk.

R-GD 34: For existing legal lots, if a ridgeline or hilltop location is a potentially suitable location for development, consistent with grading or other land development policies and regulations, due to the particular geologic circumstances, access needs, or other suitability characteristics of the lot, the following conditions or mitigations to visual impacts of development shall be considered and applied through applicable land use and development approvals, as necessary and appropriate:

a) landscaping and vegetation retention, as appropriate,

b) color and material choices that blend with the natural surroundings, and

c) any other similar requirements or mitigations that reasonably relate to the degree of visual impact. [Note: Where Design Review zoning applies or is required by condition of subdivision or other approval, such requirements will be addressed through the applicable Design Review procedure].
R-GD 35: In applying and implementing Design Review requirements, the County shall also take into account such factors as distance from the valley floor, existing vegetation, intervening slopes and hillsides, and other factors that tend to mitigate visual impact of hillside development.

**Parks and Recreation Chapter**

**Strategy 2:** Protect Scenic Highway Corridors

R-PR 40: Land use should be controlled along scenic roads so as to relate to the location and functions of these roads and should be subject to design review and conditions to assure the scenic quality of the corridor.

R-PR 45: New structures should be located where they will not have a negative impact on the scenic quality of the area, and in rural areas they should generally be set back at least 100 feet from scenic roads and highways to minimize their visual impact.

**Resource Conservation Chapter**

**Strategy 1:** Maintain Rural Densities That Help Conserve Scenic Resources

R-RC 95: The scenic and aesthetic qualities of both the natural and built environments should be preserved and enhanced for their importance to the overall quality of life for Santa Clara County.

R-RC 96: The general approach to scenic resource preservation for the rural unincorporated areas consists of the following strategies:

a) Minimize scenic impacts in rural areas through control of allowable development densities.

b) Limit development impacts on highly significant scenic resources, such as, ridgelines, prominent hillsides, streams, transportation corridors and County entranceways.

R-RC 97: Scenic qualities of the rural areas of Santa Clara County shall be maintained and enhanced through existing land use and development policies. Development compatible with scenic resource conservation should be encouraged.

**Strategy 2:** Limit Development Impacts on Highly Significant Scenic Resources

R-RC 98: Hillsides, ridgelines, scenic transportation corridors, major County entryways, stream environments, and other areas designated as being of special scenic significance should receive utmost consideration and protection due to their prominence, visibility, and overall contribution to the quality of life in Santa Clara County.

R-RC 101: Roads, building sites, structures and public facilities shall not be allowed to create major or lasting visible scars on the landscape.

R-RC 102: Structures on ridgelines must be located, constructed or landscaped so that they do not create a major negative visual impact from the Valley floor. Land should be divided in such a way that building sites, if possible, are not located on ridgelines.

**Land Use Chapter**

R-LU 21: Design of the cluster development shall incorporate the following basic principles:
6. Structures on or near ridgelines shall be located, constructed, and/or landscaped so that they do not create a significant adverse visual impact as seen from the valley floor.

**Design Review Combining District (Chapter 3.20 of the Santa Clara County Zoning Ordinance)**

The County parcels are zoned with a Design Review combining district (-d1). The -d1 combining district is intended to conserve the scenic attributes of those hillside lands most immediately visible from the Santa Clara Valley floor. The district is intended to minimize the visual impacts of structures and grading on the natural topography and landscape, using a combination of supplemental development standards, design guidelines, design review, and process incentives for smaller and less visible projects.

Development standards and procedures within the -d1 combining district use a tiered regulatory structure based primarily on building size. Design review regulations for each tier are provided for light reflectivity, building form and massing, retaining walls, and ridgeline development. The description below summarizes the three design review tiers, as outlined in Section 3.20.050 of the County’s Zoning Ordinance:

- **Tier 1:** Applies to a building or structure where gross floor area is 5,000 square feet or less. Additions to an existing primary dwelling resulting in total floor area of 5,000 square feet or less after the addition shall also be reviewed as Tier 1 or applicable exemption.

- **Tier 2:** Applies to a building or structure where gross floor area is between 5,001 square feet and 12,500 square feet. Additions to an existing building resulting in total floor area of 12,500 square feet or less after the addition shall be reviewed as Tier 2 or per applicable exemptions or Screencheck design review approval

- **Tier 3:** Applies to a building or structure where gross floor area exceeds 12,500 square feet.

The size of primary residence that individual property owners may wish to construct is not known at this time. As stated in Chapter 2, “Project Description,” it is assumed that typical single-family residences would be about 8,000 square feet (SF) in area and that secondary units would be up to 800 SF in area. Based on this square footage, these structures would be “Tier 2” project structures. However, some lots allow a maximum building coverage of 15 percent, which could result in development of residences that exceed 12,500 SF.

Buildings or structures classified under Tier 2 are subject to design review and must comply with the following guidelines:

- **Design Review.** A building or structure classified under Tier 2 shall be subject to design review, per Chapter 5.50, and will not be eligible for a discretionary exemption or Screencheck design review approval except when Exemption for Sites Not Visible, applies.

- **Siting:** Structures should, to the extent possible and practical, be sited where natural topography, or a combination of topography and existing vegetation, provide at least a fundamental and sufficient measure of visibility mitigation.
Buildings or structures classified under Tier 3 are subject to design review and must comply with the following guidelines:

- **Design Review.** A building or structure classified under Tier 3 shall be subject to design review, per Chapter 5.50, and will not be eligible for a discretionary exemption or Screencheck design review approval except when Exemption for Sites Not Visible, applies. The Planning Commission shall be the approving authority for all Tier 3 design review applications.

- **Low Visibility Siting.** Tier 3 review is intended to ensure that very large buildings are sensitively sited and designed such that they do not result in viewshe impact greater than what might result from a sensitively designed Tier 2 or Tier 1 building. A Tier 3 category building must be sited in an area of the subject property where natural topography, or a combination of topography and existing vegetation, provide at least a fundamental and sufficient measure of visibility mitigation.

Other requirements for buildings or structures classified under Tier 2 or Tier 3 are as follows:

- **Story Poles:** Story poles shall be fully erected, per the story poles standards established by the Planning Office, and shall be approved by the zoning administrator at least seven (7) full days prior to any scheduled hearing, including continued hearings and appeal hearings. Story poles shall, at a minimum, remain in place until the close of the public hearing.

- **Color; Light Reflectivity Value:** The light reflectivity value of exterior surfaces shall not exceed 45. The zoning administrator may additionally specify subdued chroma (color saturation) when warranted for a structure deemed to have high visibility and contrast against the site’s background.

- **Building Massing:** Maximum horizontal length of a continuous wall plane shall be 80 feet. Maximum height of a wall plane, including foundation and other continuous components, shall be 24 feet, with the following exceptions: (a) Any architectural component where façade dimension does not exceed 18 horizontal feet, or (b) multiple such components (18 horizontal feet maximum) where combined horizontal dimension does not exceed 25% of the total horizontal dimension of the façade. Portions of a wall plane must be offset by at least five (5) horizontal feet to be deemed discontinuous.

- **Retaining Walls:** Retaining walls visible from the valley floor shall not exceed 10 feet in height as measured from grade at face to top of wall. Multiple “stepped” retaining walls whose total height exceeds 10 feet must each be offset by at least six (6) horizontal feet. Visible walls shall be colored and textured to complement the background land and vegetation.

- **Ridgeline Development:** The ridgeline protection policies of the General Plan Growth and Development chapter shall be applied to any project situated on or adjacent to a ridgeline.

- **Exemptions for Sites Not Visible:** Any project where buildings or structures would be situated on portions of a lot outside of the visible viewshed area (based on GIS visibility analysis) shall be eligible for a discretionary exemption or Screencheck design review approval (Section 5.50.060 of the County Zoning Ordinance). Additional visibility analysis tools and methods may be utilized by staff to further evaluate the potential visibility of a project proposed on such a site.
3.1 Aesthetics Draft EIR

County of Santa Clara February 9, 2017

Young Ranch Residential Project

3.1.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts relating to aesthetics. The proposed project would have a significant impact on aesthetics if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including but not limited to trees, rock outcrops, and historic buildings, within a state scenic highway;
- substantially degrade the existing visual character or quality of the site and its surroundings; or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

In addition, Santa Clara County considers the proposed project to have a significant impact on aesthetics if it would:

- conflict with the Santa Clara County General Plan policies and zoning related to aesthetic and hillside protection;
- be generally in non-compliance with the Guidelines for Design Review Approval; and
- be located on or near a ridgeline visible from the valley floor.

Assessment Methodology

Analysis of the project’s impacts was based on evaluation of the changes to the existing visual resources that would result from project implementation. The evaluation focuses on the existing visual setting of the project site and surrounding area and analyzes whether the project would substantially degrade the existing visual character or quality of the site and its surroundings and create new sources of lighting and glare.

To demonstrate impacts specifically from the proposed project, photographs of the existing site and simulations of the proposed project are provided in the following impact analysis. The following six key observation points (KOPs) were used for the visual simulations:

- KOP 1 – View from Santa Teresa County Park
- KOP 2 – View from Santa Teresa Blvd, near Great Oaks Boulevard
- KOP 3 – View from Coyote Creek Trail, near Metcalf Road
- KOP 4 – View from Blossom Hill Caltrain Station
- KOP 5 – View from Rahway Drive, near Plaza Invierno
- KOP 6 – View from Montgomery Hill Park
The visual simulations were developed based on the proposed Design Guidelines (Appendix C). Because the residential units have not been designed, the six simulations show the potential building envelope; maximum height of two stories; and exterior colors ranging from browns, grays and tans as recommended by the Design Guidelines. Because designs for the individual homesites are not available, the Design Guideline recommendations for rooflines, massing, and other architectural treatments that would help reduce the visual effect of the development are not reflected in the simulations. Further, hillside landscaping and trees that are part of the project’s Design Guidelines are not shown in the simulations so that masking of the buildings that would occur with mature trees is not reflected and the simulations represent the visual appearance of the development before the landscaping matures. Therefore, the simulations show a worst-case scenario because the structures would be less visible with future landscaping. Appendix E provides a further detailed description of the visual simulation methodology including justification for KOP selection.

Identification of the visual resources and aesthetics impacts of the proposed project is based on the following three steps:

1. An objective inventory of the visual features or visual resources that comprise the landscape.
2. An assessment of the character and quality of the visual resources in the context of the overall character of the regional visual landscape.
3. A determination of the importance to viewers, or sensitivity of the viewers, to the identified visual resources in the landscape.²

Impacts and Mitigation

Impact AES-1: The proposed project would have a substantial adverse effect on a scenic vista. *(Significant and Unavoidable)*

Scenic vistas are panoramic views (visual access to a large geographic area, for which the field of view can be wide and extend into the distance) that can be viewed from many vantage points. Scenic vistas in the project area include prominent landscape containing scenic resources. The project site is situated along the westernmost ridge of the Mt. Hamilton Range. The hillsides and ridgelines of the Mt. Hamilton Range are natural features of the environment, forming an important topographic setting rising above Santa Clara Valley and are considered scenic resources in this analysis.

Implementation of the proposed project would introduce new residential development along the previously undeveloped hillside of Coyote Ridge.

Panoramic views of the project site occur from Santa Teresa County Park, Santa Teresa Boulevard, Coyote Creek Trail, Rahway Drive, and Montgomery Hill Park (Figures 3.1-4, 3.1-5, 3.1-6, 3.1-7, and 3.1-8). Residential development visible from these locations would be seen primarily with ridgelines or hillsides as backdrop. A large amount of the open undeveloped hillside and ridgeline would continue to be visible from these locations and

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² Viewer sensitivity is a measure of public concern for changes to scenic quality. Numbers of viewers, viewer activity, view duration, distance away from seen objects (foreground versus background), adjacent landscape character, and special planning designations such as scenic routes are used to characterize viewer sensitivity.
would remain prominent features from these viewpoints. Residences visible from Santa Teresa County Park and Santa Teresa Boulevard would not appear to protrude above the ridgeline; rather, they would be viewed with distant ridgelines and peaks in the background that would reduce the overall contrast.

The Design Guidelines would serve to reduce or minimize the views of new development on most of the project site (see Impact AES-3 for further discussion). These guidelines (Appendix C) provide standards for building heights, building forms and massing, color palette, building materials, and exterior lighting, the purpose of which is to make the new residential development visually harmonious with the surrounding hillsides and ridges. The level of visual impact would decrease as the hillside landscaping and trees that are part of the proposed Design Guidelines mature and provide additional screening. Over time, the alterations to the project site as the landscaping and trees mature would soften and further obscure the visibility of the development.

However, there are 21 residences visible from Coyote Creek Trail, Rahway Drive, and Montgomery Hill Park that would protrude above the ridgeline with no landform, topographic, or vegetative backdrop. The Design Guidelines would soften the potential visual contrasts related to development of these residences from the Santa Clara Valley floor; however, the residences protruding about the ridgeline would still be visible in panoramic views of the project site from these locations.

County General Plan policies state that development that creates a major negative visual impact from the valley floor should be avoided or mitigated, particularly for those areas most immediately visible from the valley floor (County General Plan Polices R-GD 31, R-GD 32, and R-RC 102). Further, development should be limited on ridgelines and prominent hillsides that are designated as being of special scenic significance (County General Plan Policy R-RC 96 and R-RC 98). As stated above, the project proposes 21 residences that would be visible from the Santa Clara Valley floor that cannot feasibly be mitigated through implementation of the proposed Design Guidelines; therefore, the proposed project would conflict with General Plan policies adopted for the protection of scenic views of ridgelines and hillside from the valley floor. There are no feasible mitigation measures to reduce impacts on scenic views to a less-than-significant level. Therefore, this impact would be **significant and unavoidable**.

**Impact AES-2: The proposed project could substantially damage scenic resources within a state scenic highway. (Less than Significant)**

There are no State-designated scenic highways within the viewshed of the project site. In the vicinity of the project site, Highway 101, Metcalf Road, Silver Creek Road, and San Felipe Road from Delta Road to Metcalf Road are considered County scenic roads. As shown on Figure 3.1-1, there would be no to low visibility of the project site from Metcalf Road, Silver Creek Road, and San Felipe Road due to intervening topography and vegetation.

Motorists traveling in both the north and south directions on Highway 101 may see the project area over an approximately 3-mile length. Views of the project site from Highway 101 are mostly low to medium visibility with a small area at its intersection with Silver Creek Valley Road in an area of medium-high visibility.

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3 Residences on proposed lots A1, A3, A4, A5, C1, C2, C3, D8, D10, D11, D13, D15, D16, D17, D18, E5, E6, E9, F6, F11, and F12 would protrude above the ridgeline.
There is a point when traveling along Highway 101 where some residences on the higher elevation lots of the project area would protrude above the ridgeline without the benefit of a landform or vegetative backdrop to soften potential visual contrasts related to development. Even with implementation of Design Guidelines, these residences would be noticeable to motorists traveling along Highway 101. However, views of the project site would last approximately 2 minutes at a traveling speed of 65 miles per hour. The sensitivity of motorists along Highway 101 to visual change is low due to the relatively short period of time that the project area is in view and the fact that the project area would not be directly in front of motorists. Therefore, this impact would be less than significant.

Impact AES-3: The proposed project could substantially degrade the existing visual character or quality of the site and its surroundings. (Less than Significant)

Implementing the proposed project would enable development of 79 single-family homes, up to 16 secondary units, a 3,000- to 4,000-square-foot community center, roadways, and paths. Introduction of these new uses would affect scenic resources and modify the visual character of the project site.

The proposed project would affect the views experienced by people in the nearby vicinity, including Highway 101; residential areas to the north and west of the project site; and office parks and industrial areas north of the project site; and the Coyote Creek trail west of the project site. As shown on Figures 3.1-3 through 3.1-8, the views of the project site from these vantage points include existing rural and urban development. Impacts associated with scenic views of the project area are addressed under Impact AES-1 and Impact AES-2.

Potential impacts on the existing visual character were evaluated in part through the use of visual simulations prepared by AECOM based on the methodology described above. Figures 3.1-3 through 3.1-8 present a side-by-side comparison of the existing views from each of the six KOPs (top image in each figure), as well as visual simulations of the residences on the project site from the same six KOPs (bottom image in each figure). The viewpoints show the ridgelines and landform of the project site and reflect views that are visible from various public vantage points and by a number of receptors.

View 1: View from Santa Teresa County Park

View 1 is from the Santa Teresa County Park, looking northeast toward the central portion of the project site. The viewpoint is approximately 3 miles southwest of the project site and represents a distant view seen by park visitors. As shown on Figure 3.1-3, views from the Santa Teresa County Park overlook urban development, mostly consisting of residential uses and office parks. A panoramic view of Coyote Ridge is visible in the distance.

Implementation of the proposed project would introduce new residential development that spans from left to right, along undeveloped hillsides as shown in the bottom image of Figure 3.1-3. The introduction of new residential development would change the visual character of the landscape setting; however, the open undeveloped hillside and ridgeline would continue to be visible from this location and would remain prominent features from this viewpoint. In addition, the proposed project area is visible with other ridgelines and peaks in the distant background, which reduces the overall contrast from the project. The Design Guidelines, discussed below, would
Figure 3.1-2: Location of Key Observation Points in relation to the Project Site

Source: AECOM, 2016.
Figure 3.1-3: Existing and Simulated View from Key Observation Point 1: Santa Teresa County Park

Source: AECOM, 2016.
Figure 3.1-4: Existing and Simulated View from Key Observation Point 2: Santa Teresa Boulevard, near Great Oaks Boulevard
Figure 3.1-5: Existing and Simulated View from Key Observation Point 3: Coyote Creek Trail, near Metcalf Road
Figure 3.1-6: Existing and Simulated View from Key Observation Point 4: Blossom Hill Caltrain Station
Figure 3.1-7: Existing and Simulated View from Key Observation Point 5: Rahway Drive, near Plaza Invierno

Source: AECOM, 2016.
Figure 3.1-8: Existing and Simulated View from Key Observation Point 6: Montgomery Hill Park
reduce the level of visual impact by ensuring the proposed project blends into the surrounding landscape to the extent feasible.

**View 2: View from Santa Teresa Boulevard, near Great Oaks Boulevard**

View 2 is from Santa Teresa Boulevard, looking northeast toward the western portion of the project site. The viewpoint is approximately 2 miles southwest of the project site and represents a distant view seen by motorists or pedestrians on Santa Teresa Boulevard. Views from this location show a large commercial building and mature trees in the middle view. The project site’s hills and ridgelines are visible in the background of the view.

Compared to existing conditions, the introduction of the new residences would noticeably alter the visual character as seen from this Santa Teresa Boulevard location. As shown in the simulation, residences on the western portion of the project site are visible on the right (refer to bottom image of Figure 3.1-4). The open undeveloped hillside and ridgeline would continue to be visible above the tree line, and all of the residences would be viewed with hills in the background, which would reduce overall contrast from the proposed project. The Design Guidelines, discussed below, would reduce the level of visual impact by ensuring the proposed project blends into the surrounding landscape to the extent feasible.

**View 3: View from Coyote Creek Trail, near Metcalf Road**

View 3 is from the Coyote Creek Trail, looking northeast toward the western portion of the project site. The viewpoint is approximately 1.5 miles southwest of the project site and represents a view seen by pedestrians and bicyclists using the Coyote Creek Trail, as well as motorists using Monterey Road. As shown on the bottom image of Figure 3.1-5, the foreground is dominated by grasslands and oak woodlands. Residences are visible in the middle view. The project site’s ridges and hillsides are visible in the background.

From this vantage point, there would be limited views of three residences on the western portion of the project site as seen on the right side of the simulation (see bottom image of Figure 3.1-5). The introduction of new residential development and landscaping would change the visual character of the landscape setting; however, the open undeveloped hillside and ridgeline would continue to be visible from this location and would remain prominent features from this viewpoint. The Design Guidelines, discussed below, would reduce the level of visual impact by ensuring that the proposed project blends into the surrounding landscape to the extent feasible.

**View 4: View from Blossom Hill Caltrain**

View 4 is from the Blossom Hill Caltrain station, looking northeast toward the central portion of the project site. The viewpoint is approximately 2 miles southwest of the project site and represents a view seen by motorists, pedestrians, and commuters. As shown on Figure 3.1-6, the foreground is dominated by the Caltrain parking lot, residences, and mature landscaping and trees. The project site’s hills and ridgelines are visible behind the trees in the center and right background of the view. Patches of oak woodland are visible throughout the hillsides.

Compared to existing conditions (top image of Figure 3.1-6), there would be limited views of the new residences on the western portion of the project site as seen on the right side of the simulation (bottom image of Figure 3.1-6). Changes to the visual setting would mostly be blocked by mature trees. The introduction of new residential development and landscaping would change the visual character of the landscape setting; however, the open,
undeveloped hillside and ridgeline would continue to be visible above the tree line, and all of the residences would be viewed with the project site’s hills in the background, which would reduce overall contrast from the project. The Design Guidelines, discussed below, would reduce the level of visual impact by ensuring the proposed project blends into the surrounding landscape to the extent feasible.

**View 5: View from Rahway Drive, near Plaza Invierno**

View 5 is from Rahway Drive, looking east toward the northern and northwestern portion of the project site. The viewpoint is approximately 2 miles west of the project site and represents a view seen by residents at higher elevations in the Great Oaks community. As shown on Figure 3.1-7, the foreground is dominated by residences. Office parks are visible in the middle view at the base of the project site’s hillsides. The project site’s hills and ridgelines are visible in the left and center background of the view. The City of San Jose’s water tank is located in the center of the project site and is partially blocked by mature trees.

Compared to existing conditions (top image of Figure 3.1-7), the introduction of the new residences would noticeably alter the visual character as seen from Rahway Drive (bottom image of Figure 3.1-7). As shown in the simulation, new residences on the northern and western portion of the project site would be visible (bottom image of Figure 3.1-7). The introduction of new residential development and landscaping would change the visual character of the landscape setting; however, the open, undeveloped hillside and ridgeline would continue to be visible above the tree line, and most of the residences would be viewed with the project site’s hills in the background, which would reduce overall contrast from the project. The Design Guidelines, discussed below, would reduce the level of visual impact by ensuring the proposed project blends into the surrounding landscape to the extent feasible.

**View 6: View from Montgomery Hill Park**

View 6 is from the Montgomery Hill Park, looking south toward the northern and eastern portion of the project site. The viewpoint is approximately 3 miles north of the project site and represents a distant view seen by park visitors. As shown on Figure 3.1-8, views from the Montgomery Hill Park overlook the Ranch on Silver Creek residential development and mature trees as well as rural residences and scattered oak woodlands in the middle and distant views. The project site’s northern and eastern hills and ridges are visible in the distance.

Implementation of the proposed project would introduce new residential development along part of the undeveloped hillside as shown in the bottom image of Figure 3.1-8. New residences on the northern and southeast portion of the project site would be visible from Montgomery Hill Park. The introduction of new residential development would change the visual character of the landscape setting; however, the open, undeveloped hillside and ridgeline, oak woodlands, and open space would continue to be visible from this location and would remain prominent features from this viewpoint. The Design Guidelines, discussed below, would reduce the level of visual impact by ensuring the proposed project blends into the surrounding landscape to the extent feasible.

**Conclusion**

As shown in the simulations, the proposed project would introduce new residential development that would change the visual character of the landscape setting. The proposed project would comply with the County General Plan policies adopted for the protection of the County’s visual character, as presented in Section 3.1.2,
“Regulatory Framework.” These policies are intended to ensure that development in the County is compatible with and sensitive to the natural environment and surrounding resources and that hillsides and ridgelines, which are the most prominent visual resources in the project area, are protected (General Plan Policies R-GD 3 and R-RC 95). The Design Guidelines support General Plan polices that require design standards for landscaping, retaining walls, building height, and color and material choices (General Plan Polices R-GD 19, R-GD 24, R-GD 25, R-GD 32, R-GD 34).

The proposed project would comply with the intent and requirements of the project site’s Design Review combining district (-d1) outlined in Chapter 3.20 of the Santa Clara County Zoning Ordinance through implementation of the project’s Design Guidelines (Appendix C). These Guidelines, discussed further below, would ensure consistency with Santa Clara County Design Guidelines and the design standards for Tier 2 and Tier 3 development as outlined in Chapter 3.20 of the Santa Clara County Zoning Ordinance. Because the Design Guidelines proposed for the project are more stringent than the County design review guidelines that apply to other development projects, the Zoning Ordinance Amendment proposes that the proposed project’s Design Guidelines supersede the County Design Review Guidelines for the proposed project.

The Santa Clara County Design Review Board would review plan submissions to ensure that all structures are sited to step with the topography, blend into the landscape, and minimize grading; building massing, roofs, materials, and other site and architectural County Design Review involves a staff level, public hearing that focuses on the review of visual impacts to ensure that potential adverse visual impacts created by proposed development are minimized. Santa Clara County would conduct a public hearing if residential structures exceed 12,500 SF.

The Design Guidelines for the project emphasize minimizing resource usage and creating appropriately sited buildings that are visually subordinate to the larger landscape. The proposed Design Guidelines provide standards for building heights, building forms and massing, color palette, and building materials so that the new residential development blends into the surrounding hillsides and ridges.

As discussed above in the analysis of changes in visual character for the six viewpoints, it is assumed that the Design Guidelines would reduce the level of visual impact by ensuring the proposed project blends into the surrounding landscape to the extent feasible. The hillside landscaping and trees that are part of the proposed Design Guidelines would soften the appearance of the new residential development and would also serve to reduce the visibility of the development from surrounding areas. Landscape designs would protect important viewsheds and screen buildings and other improvements from off-site views. New plantings would incorporate, rehabilitate, and enhance the existing vegetation and consist of non-invasive, native, or naturalized species. Over time, as landscaping and trees mature, they would soften and obscure the visibility of the development.

Figures 3.1-3 through 3.1-8 show that views from surrounding vantage points include existing rural and urban development, and that implementation of the proposed project would not result in changes of views to an undeveloped landscape. The proposed project would not substantially degrade the visual character of the project site and surrounding areas when compared to existing conditions. Residences and the Community Center would be clustered on approximately 10 percent of the project site and the remaining 90 percent of the project site would remain as open space. Therefore, the residences would occupy only a small area of relatively large parcels and a substantial amount of the open undeveloped ridgelines and hillsides would continue to be visible.
Compliance with the County General Plan policies and Chapter 3.20 of the County Zoning Ordinance and implementation of the Design Guidelines as conditions of project approval would ensure the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. As a result, this impact on the existing visual quality and character would be less than significant.

**Impact AES-4: The proposed project could create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. (Less than Significant)**

Lighting from the project site would come from residences, the Community Center, streetlights, and lighted paths. This lighting is not anticipated to generate substantial light or glare within the project area or on the adjacent environment. Light associated with the proposed project would be similar to light already found in surrounding neighborhoods. As shown on Figure 3.1-9, street lighting would be limited to the intersection with Silver Creek Valley Road and at other key intersections, and the minimum lighting level would be used to provide for public safety. All lighting for the streetscape and directional/identification signs would use full cut-off fixtures; high efficiency sources, such as light emitting diodes; and automatic photocell, motion, or timer controls. Residential light fixtures would be confined to the building envelope and designed to minimize impacts on adjacent lots. At the Community Center, low-level landscape lighting would be employed where nighttime events warrant a lighted path of travel for safety. Community trails would not have lighting. Directional and facility identification signs may integrate low levels of lighting for visibility, and flood lighting would not be permitted.

Potential reflective surfaces include automobiles traveling and parked on streets in the project site, exterior building windows, and surfaces of painted buildings in the project vicinity. Excessive glare not only restricts visibility but increases the ambient heat reflectivity in a given area. The exterior portions of the proposed residences and community facilities would incorporate a variety of non-reflective material that would minimize the transmission of glare from building materials, such as stucco, painted and or stained wood, masonry, non-glazed brick, or cement fiber siding. Large areas of glass would be shaded with projecting roof overhangs, awnings, balconies or porches to minimize glare. Building orientation and massing would be designed to not increase glare.

The proposed project would incorporate lighting guidelines into project designs and comply with Section 3.20.050 of the Santa Clara County Zoning Ordinance and the Santa Clara County Design Guidelines. Because the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, this impact would be less than significant.

**3.1.4 Cumulative Impacts**

This analysis summarizes the potential cumulative impacts related to aesthetic and visual resources that could occur from a combination of the proposed project and other past, present, and reasonably foreseeable projects in the surrounding vicinity. The geographic scope of this analysis is defined as the eastern portion of the unincorporated area of Santa Clara County and the southeastern portion of City of San Jose. Future development in the unincorporated areas of Santa Clara County is shown on the County’s Land Use Plan and is anticipated to occur within the Urban Service Area, such as in the communities of Gilroy, San Martin, and Morgan Hill (County, 2016b). Buildout of the southeastern portion of City of San Jose is shown in the **Envision San Jose 2040**
Figure 3.1-9: Proposed Street Lighting
General Plan (City General Plan) as Open Hillside (City, 2011). In general, most of the present and reasonably foreseeable projects in the vicinity of the project site would be concentrated along major roadways and connectors, such as Highway 101, State Route 85, and Hellyer Avenue, in the urbanized areas of San Jose.

Cumulative projects in both the County and City would be subject to independent environmental review in accordance with CEQA. Project in unincorporated Santa Clara County would be required to comply with Chapter 3.20 of the County Zoning Ordinance for projects located within a Design Review combining district. These projects would be required to comply with applicable General Plan policies related to aesthetics and urban design.

**Impact-C-AES-2: The proposed project could have a cumulatively considerable impact on visual character or light and glare. (Less than Significant)**

As described under Impacts AES-2 and AES-3, development of the proposed project would not degrade the visual quality or character of the site or expose people to substantial light or glare. The proposed project would result in a noticeable change in views from public vantage points around the project site; however, the project site would be developed in accordance with the County General Plan policies and Chapter 3.20 of the County Zoning Ordinance and implement the proposed Design Guidelines. The proposed Design Guidelines provide standards for building heights, building forms and massing, color palette, and building materials so that new residential development would blend into the surrounding hillsides and ridges. In addition, views of the project site include existing rural and urban development and development of the proposed project would not result in changes of views to an undeveloped landscape. Residences and the community center would be clustered on 10 percent of the project site and the remaining 90 percent of the project site would remain as open space. Therefore, the residences would occupy only a small area of relatively large parcels and a substantial amount of the open undeveloped ridgelines and hillsides would continue to be visible. The level of visual impact would decrease as the hillside landscaping and trees that are part of the project’s Design Guidelines mature and provide additional screening. Light associated with the proposed project would be similar to light already found in surrounding neighborhoods. The exterior lighting standards of the proposed Design Guidelines are designed to preserve the rural character and the dark, nighttime sky.

There are no past, present, or reasonably foreseeable cumulative projects in the vicinity of the project site that could combine with the proposed project to result in a cumulatively considerable impact on degradation of visual quality or character of the project site or substantial increases in light and glare. This cumulative impact would be *less than significant.*

### 3.1.5 References


City of San Jose, 2011. Envision San Jose 2040 General Plan.


3.2 AGRICULTURE AND FORESTRY RESOURCES

This section describes the existing physical and regulatory setting related to agricultural and forestry resources and addresses the potential impacts of the proposed project related to such resources.

The following comments relating to agriculture and forestry resources were received during the public scoping period in response to the Notice of Preparation:

- Concern that the proposed project would displace existing ranches located on the project site; and
- Concern about whether cattle grazing, which may be critical to the maintenance of sensitive habitats on the project site, would continue in open space and how close to the proposed homes it would be allowed to occur.

3.2.1 Existing Conditions

Agriculture Resources

Santa Clara County

The agriculture industry is an important part of Santa Clara County’s economy. In 2014, the gross value of agricultural production was $276,272,500 (SCC, 2014). Over the past ten years nursery crops, mushrooms, and bell peppers have been the County’s top three crops in terms of gross value (SCC, 2013). Agricultural lands are not only of great economic importance, but also provide an inexpensive and locally grown supply of food to millions of consumers, scenic value and space for recreation, and a diminished threat to life and property in areas prone to flood hazards (SCCACO, 2015).

In 2014, livestock and poultry brought in a gross value of $4,854,000, down from $4,952,000 in 2013 and $6,074,200 in 2012 (SCC, 2014; 2015). Prolonged drought and limited water resources have greatly impacted ranching operations. As a result, a trend has been to sell off heads of livestock (mainly cattle) and grazing land. Nonetheless, the livestock industry brings considerable economic value to the County by preserving open space and providing wildlife corridors and habitat. Approximately 223,000 acres of rangeland is present within Santa Clara County (SCCACO, 2015).

Project Site

The 2,150-acre project site is an existing ranch along Coyote Ridge in unincorporated Santa Clara County and the City of San Jose. The ranch’s hills are characterized by steep to very steep flanks with broad rolling crests. The project site is dominated by California nonnative annual grasses and native serpentine bunchgrass grasses. Approximately 675 acres of serpentine bunchgrass grassland occurs within the project site, mostly within the City parcels. The serpentine bunchgrass provides habitat for the federally-listed endangered Bay checkerspot butterfly (BCB). See the Biological Resources discussion within Section 3.4 of this EIR for more detail.

The project site includes farmland that is primarily utilized for grazing livestock. According to the United States Department of Agriculture’s (USDA) Natural Resources Conservation Service (NRCS), the project site is not
rated as Prime Farmland (NRCS, 2013). However, the Farmland Mapping and Monitoring Program (FMMP) designates 100 percent of the project site as grazing land (CDC, 2016).

Approximately 5 acres of the 2,150-acre project site are developed with cattle trails, unpaved ranch roads crossing ridge tops and hillsides, and remnants of historic quicksilver and/or magnesite mining in various locations throughout the project site.

Forest Lands and Timberlands

Santa Clara County

The State defines forest land and timberland 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 (California Code of Regulations, Section 12200).

Project Site

The project site does not include any areas identified as forest land, and there are no forestry uses in or around the project site. There are no forest or timber resources present on the project site.

3.2.2 Regulatory Framework

Federal

Federal Farmland Protection Policy Act

As a result of millions of acres of farmland being lost to development each year, the Federal Farmland Protection Act (FFPA) was enacted by Congress in 1981 to discourage federal activities that would cause unnecessary and irreversible conversion of farmland to nonagricultural uses (NRCS, 2016). Federal activities subject to FFPA include: State highway construction projects; airport expansions, railroad construction projects, Federal agency projects that convert farmland and other projects completed with Federal assistance. The FFPA is overseen by the USDA’s NRCS. NRCS uses a land evaluation and site assessment system to establish a farmland conversion impact rating score on proposed sites of federally funded and assisted projects.

Federal Definition of Prime Farmland

Prime Farmland is defined in Title 7 CFR § 657.5(a)(1) as “land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses”. When irrigated and managed, this land provides ideal conditions for economic production of sustained high crop yields.

NRCS has several farmland designations, including Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance, as described further in Table 3.2-1.
The NRCS Web Soil Survey is a public database that provides soil and natural resource data and maps for over 95 percent of the nation’s counties (NRCS, 2013). Types of data includes: soil types, properties and qualities; soil reports; land classifications; land suitabilities and limitations; and other information useful for land-use planning and management. Additionally, Soil Survey maps identify important farmland and land subject to the Williamson Act.

**State**

*California Land Conservation Act*

The California Land Conservation Act of 1965, most often referred to as the Williamson Act, is California’s primary program for preservation of agricultural land and open space. According to the California Government Code Section 51220, the legislature finds that preservation of a maximum amount of agricultural lands was imperative for not only the agricultural economy of the State, but also for providing adequate, healthful, and nutritious food for future residents of the State and Nation.

The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land for agricultural or open space use for a minimum of 10 years. As an incentive, property owners receive reduced property taxes. The State provides counties with partial replacement of forgone local property tax revenues via the Open Space Subvention Act. The California Department of Conservation (CDC) provides guidance and oversight to local governments to make sure they are consistent with the California government code.

As defined in the Williamson Act, Prime Agricultural Land means any of the following:

- All land rated as class I or class II by NRCS Land Capability Classification;
- Land which qualifies for rating 80 through 100 in the Storie Index Rating;
- Land that supports livestock used for the production of food and fiber and has an annual carrying capacity equivalent to at least one animal unit per acre;
- Land planted with cash crops that have a return of no less than $200 per acre; or
- Land which has an annual gross value of no less than $200 per acre for three of the past five years.

*Farmland Mapping and Monitoring Program*

The CDC established the FMMP in 1982 to monitor the status of California farmlands. The FMMP identifies farmland and tracks its conversion for other uses. For environmental review purposes under the California Environmental Quality Act (CEQA), there are several farmland designations, as described in Table 3.2-1, below.
### Table 3.2-1: Definitions of Farmland Designations

<table>
<thead>
<tr>
<th>Designation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime Farmland (P)</td>
<td>Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.</td>
</tr>
<tr>
<td>Unique Farmland (U)</td>
<td>Farmland of lesser quality soils used for the production of the state’s leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.</td>
</tr>
<tr>
<td>Farmland of Statewide Importance (S)</td>
<td>Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.</td>
</tr>
<tr>
<td>Grazing Land</td>
<td>Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.</td>
</tr>
<tr>
<td>Farmland of Local Importance</td>
<td>Land of importance to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee.</td>
</tr>
</tbody>
</table>

Source: CDC, 2016

### Local

**Santa Clara County General Plan**

The policies listed below are from the Santa Clara County General Plan (SCC, 1994), and are relevant to the agricultural and forestry resources of the project.

- **R-RC 57** Agriculture should be encouraged and prime agricultural lands retained for the following:
  - a) Local food production;
  - b) Productive uses of land not intended for urban development; and
  - c) Preservation of diminishing natural resource and prime agricultural soils.

- **R-RC 58** Adequate inventories, mapping and monitoring of agricultural land should be maintained.

- **R-GD 3** Land uses and development permitted under County jurisdiction shall be consistent with the following major County policies:
  - a) Preservation of agriculture; and
  - b) Preventing unwanted or premature development that would exclude future development in areas more suitable.

- **R-RC 59** Sizable remaining agricultural lands shall be preserved in large parcels in order to:
  - a) Stabilize long-term land use patterns;
  - b) Allow for long-term agriculture investments;
  - c) Facilitate entry of individuals into agricultural livelihoods; and
d) Avoid introduction of incompatible development in agriculture areas.

R-RC 61 Allowable land uses in exclusive agriculture zones shall be limited to:

a) Agriculture and ancillary uses;

b) Uses to directly support local agriculture; and

c) Other uses compatible with agriculture that enhance the long-term viability of local agriculture and agricultural lands.

R-RC 65 The long-term economic viability of agricultural activities shall be maintained and enhanced by promoting:

a) Improved markets for locally-grown products;

b) William Act provisions for property tax relief;

c) Use of innovative, more cost-efficient growing techniques;

d) Review of the economic impacts of regulation and other means of enhancing competitiveness; and

e) Adequate agricultural worker housing.

3.2.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts to agricultural and forestry resources. The proposed project would result in a significant impact if it would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (farmland), as designated by the Farmland Mapping and Monitoring Program (FMMP), to non-agricultural use;

- Conflict with existing zoning for agricultural use or with a Williamson Act contract; or

- Involve other changes in the existing environment which, due to their location or nature, would impair the use of agricultural land.

Assessment Methodology

The aforementioned significance criteria were applied to determine impact significance using a qualitative approach. The following evaluation discusses whether the proposed project would result in direct impacts on agricultural resources such as: conversion of farmlands to non-agricultural uses or forest land to non-forest uses; interference with agricultural and forestry operations; disturbance to livestock or damage to crops from noise, and dust or accidental release of hazardous materials. The following evaluation also discusses whether the proposed project would result in indirect impacts on agricultural resources such as: effects from erosion, sedimentation, increased competition of water resources, or introduction of invasive species.
The evaluation focuses on whether the proposed project would result in direct impacts on forestry resources such as: the loss or conversion of forest land or timberland to non-forest uses, or conflict with the existing zoning for forest land. The following evaluation also discusses whether the proposed project would result in indirect impacts on forest land or timberland such as: effects from erosion, sedimentation, or introduction of invasive species. Additionally, indirect impacts on forest land are evaluated such as effects from erosion and introduction of invasive species.

**Impacts and Mitigation**

**Impact AFR-1: The proposed project would not convert farmland classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. (No Impact)**

**Direct and Indirect Impacts**

While the proposed project would convert approximately 91 acres of farmland to non-farming uses, no portion of the project site is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance according to the Farmland Mapping and Monitoring Program and Web Soil Survey (CDC, 2016; NRCS, 2013). Thus, development of the proposed project would result in **no direct or indirect impact** related to conversion of farmland classified Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

**Impact AFR-2: The proposed project would not conflict with existing zoning for agricultural use or with a Williamson Act contract. (No Impact)**

**Direct and Indirect Impacts**

While the proposed project would convert approximately 91 acres of farmland to non-farming uses, no portion of the project site is subject to the Williamson Act (SCC, 2015b). In addition, the project site is zoned for rural residential and hillside development and does not include any areas exclusively zoned for agricultural use.

The County parcels of the project site are zoned as a Hillsides (HS) district, which requires the proposed cluster developments to preserve open space of no less than 90 percent of the project area. Permitted uses include agriculture and grazing, very low density residential use, low density, low intensity recreation, mineral and other resource extraction, and land in its natural state (SCC, 2015c). Clustering of development, particularly residential, is encouraged by the County in order to preserve contiguous open space and achieve efficiency in the provision of access to dwellings (SCC, 2015c). The HS district requires a two-acre minimum parcel size for cluster development (SCC, 2015c). Subdivided lots are subject to zoning provisions and design review. The proposed project would be consistent with these requirements by proposing clustering of development on 2-acre minimum lot sizes, and retaining approximately 91 percent of the total project area for open space and grazing use.

The City parcels of the project site are designated as “Open Hillside,” under the San Jose General Plan, a designation that allows a minimum land area per dwelling unit of between 20 and 160 acres based on the average slope of an existing legal parcel. City zoning for the four City parcels is R-1-1, a single-family residence district that allows no more than one dwelling unit per acre. The proposed project would be consistent with this
designation and zoning, because no development would occur on City parcels except for the emergency access road. The balance of the City parcels would be retained for open space and grazing use.

Thus, development of the proposed project would result in **no direct or indirect impact** related to conflict with zoning for agricultural use in either the County or City or with a Williamson Act contract.

**Impact AFR-3: The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. (No Impact)**

**Direct and Indirect Impacts**

The project site is zoned as Hillsides (County parcels) and Open Hillsides (City parcels). The project site does not include any areas zoned as forest land or timberland, under either the County General Plan or San Jose City General Plan. Thus, development of the proposed project **would result in no direct or indirect impact** related to conflict with zoning for forest land or timberland use in either the County or City.

**Impact AFR-4: The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. (No Impact)**

**Direct and Indirect Impacts**

While the proposed project would develop portions of the project site, no portion of the project site contains forest land or timberland, and there are no forestry uses in or around the project site. Thus, development of the proposed project would **not result in a direct or indirect impact** related to conversion of forest land or timberland.

**Impact AFR-5: The proposed project could cause changes in the existing environment that would impair the use of agricultural land. (Less Than Significant)**

**Direct Impacts**

The proposed project would be constructed on land that is currently being used to graze livestock animals and is categorized within the FMMP as grazing land (CDC, 2016). The development would result in the permanent conversion of approximately 91 acres of the grazing land to rural residential lots and other development types (see Table 3.2-2 below). This would represent conversion of approximately four percent of the current project site land used for grazing. Approximately 2,060 acres of the project site would retain some type of grazing use, including approximately 1,947 acres of land that would be permanently preserved as open space.
### Table 3.2-2: Proposed Land Uses on the Project Site

<table>
<thead>
<tr>
<th>Proposed Land Use</th>
<th>Total Area (Acres)</th>
<th>Area of Grazing Land Impacted by Project (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Lot Areas</td>
<td>171.5</td>
<td>60.4</td>
</tr>
<tr>
<td>Roads</td>
<td>27.9</td>
<td>27.9*</td>
</tr>
<tr>
<td>Community Center</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Open Space</td>
<td>1,946.9</td>
<td>--</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,150.1</strong></td>
<td><strong>91.1</strong></td>
</tr>
</tbody>
</table>

Source: Community Design Guidelines (Appendix C)

Notes: * Although many of the proposed roads align with existing unpaved ranch roads, the entire area of proposed roads is conservatively assumed to be converted from grazing use, as the existing ranch roads are narrow and often overgrown with grasses, whereas the proposed roads would be wider and either paved and/or finished with an all-weather surface that would not allow for grass.

Within each proposed lot, a minimum of one acre would be identified as a “natural area”, where structures or other development would not be allowed. These natural areas would collectively comprise approximately 111 acres. Periodic grazing would be conducted on these acres to clear fire hazards around the lots, under the proposed project’s Resource Management Plan (Appendix D). Therefore, only the proposed “improvement envelope” (consisting of the “private area” and “transitional area”) of each lot was used to calculate the area of the lots that would be permanently converted from grazing uses.

Approximately 1,947-acres would be preserved as open space in perpetuity and managed in support of the sensitive habitats and species that occur there, which would include grazing according to the goals and policies of the Design Guidelines (Appendix C) and the Resource Management Plan prepared for the project site (Appendix D) as well as the goals and policies of the Santa Clara Valley Habitat Plan (Valley Habitat Plan; ICF, 2012).

Since approximately 91 percent of the project site would remain as permanently preserved open space that would continue to be managed as grazing land, development of the proposed project would result in a *less-than-significant* direct impact related to changes that could impair the use of agricultural land.

**Indirect impacts**

Although not expected, indirect impacts to agricultural surrounding the site could occur as a result of the project construction and operation.

Construction of the proposed project would involve grading and earthmoving activities. The maximum soil disturbance from roadway/infrastructure construction would be 26 acres, including the proposed water tank site and roads on the County parcels as well as limited widening and improvements to the emergency access road on the City parcels. The maximum soil disturbance from construction on the 79 residential lots and Community Center would be 25 acres. Erosion from grading and water run-off could occur in areas with steep slopes. Erosion could result in the loss of soil productivity, which is the soil’s ability to effectively grow vegetation, because of the loss of top soil, key soil nutrients, and soil moisture. Loss of soil productivity could impact grazing operations if erosion occurs in areas where steep slopes are present.

However, 91 percent of connected grazing lands would be preserved on the project site, which would minimize impacts of potential erosion on grazing lands. In addition, extensive biological and scenic resource areas for
permanent preservation would be consistent with a Habitat Conservation Plan. The rural nature of the site would be maintained by developing a low-density community, with at least one acre of natural/grazing areas around each site. Specifically, the proposed development would not occur in areas with slopes greater than 30 percent. As part of the development requirements, a stormwater management plan and grading and plan would be completed and approved by the County Planning Department before project construction would begin. These plans would be followed to limit soil erosion and water run-off from the development site by following best management practices. The roadway/infrastructure improvements would also minimize grading and would balance cut and fill to the extent feasible by using existing ranch roads and road designs that closely follow existing topography. Utilities would be installed within the roadways and there would be no off-site export of grading materials. The emergency access road would be widened by approximately 12 feet along the two-mile length of the road, and wider turnouts would be constructed at several locations chosen to minimize impacts on environmental resources.

Loud noises from construction equipment could cause livestock animals to avoid areas adjacent to the noise source, which could result in areas where forage is not being utilized and other areas were forage is being over utilized and grazed. Areas that are overgrazed could lead to soil erosion and, consequently, loss of agricultural productivity in those areas. However, noise impacts would be limited to the construction stage. Construction of road improvements and utility infrastructure would last for approximately 18 months. Residential construction could overlap some of the construction site work. Construction equipment that limits noise would be utilized when possible, and grazing would be managed to avoid areas of active construction.

Lastly, the project could introduce invasive, non-native plant species that could also have a negative impact on adjacent grazing operations. For example, during landscape operations, seeds from invasive plants could unintentionally be transported via wind and other methods to grazing lands. Such potential invasive plant species could straggle-out or overtake valuable plant species used to graze livestock. However, the proposed project Design Guidelines (Appendix C) require that native or naturalized landscaping be incorporated within proposed lots, road rights-of-way, and common areas as needed to buffer views, restore or revegetate previously disturbed areas, and/or blend improvements into the landscape setting. Within private areas, owners would be required to plant native or naturalized plants that are consistent with the approved plant list for Young Ranch (Appendix C). The use of invasive, non-native species would not be permitted.

Thus, development of the project would result in as less-than-significant indirect impact related to changes that could impair the use of agricultural land.

### 3.2.4 Cumulative Impacts

**Impact-C-AFR: The proposed project would have a cumulatively considerable impact on agricultural resources. (Less Than Significant)**

Agriculture is a large contributor to California’s economy and extremely important in providing a stable and healthy food source to the State and the rest of the Nation. The livestock industry alone is among the State’s most valued commodities in 2014, generating $13.8 billion (USDA, 2016). However, limited water resources in California from prolonged drought have contributed to a recent trend of livestock and grazing lands being sold (USDA, 2016). Typically, these lands are sold for development purposes such as the proposed project.
According to the FMMP, 262 acres out of 233,000 acres of grazing land were permanently converted to another use in Santa Clara County from 2010 to 2012 (CDC, 2016). This change results in less land being utilized to produce valuable food sources and the continued loss of forging grounds for livestock. This amortizes to an annual loss of approximately 0.06 percent of existing rangeland within the County.

The proposed project would contribute to an additional 91 acres of permanent loss of agricultural land (grazing land), which represents approximately 0.04 percent of existing rangeland within the County. This impact would occur over the 10- to 15-year buildout of the project, as lots would continue to be used for grazing until they are developed by the owner. The amortized rate of conversion of grazing lands for the project is approximately 9 acres per year (conservatively assuming a 10 year buildout), which represents an increase in the annual conversion rate of approximately 6.5 percent. However, considering the restrictions on development in the HS district and the proposed conversion of only 0.04 percent of the County’s rangeland, the proposed project would constitute a less-than-significant cumulative impact.

3.2.5 References


Natural Resource Conservation Service (NRCS), 2013. Web Soil Survey. Available online at:

______, 2016a. NRCS website “Farmland Protection Policy Act”. Available online at:

Santa Clara County (SCC), 1994. Santa Clara County General Plan. Available online at:


______, 2015a. Santa Clara County 2014 Crop Report. Available online at:

https://www.arcgis.com/home/item.html?id=328429a3701a44485f31982cbbd9c71.


3.3 AIR QUALITY

This section describes the existing physical and regulatory setting related to air quality conditions and addresses the potential air quality impacts attributable to the proposed project.

No public or agency comments related to air quality were received during the public scoping period in response to the Notice of Preparation.

3.3.1 Existing Conditions

The proposed project is located southeast of downtown San Jose along Coyote Ridge, which runs along the eastern side of the Santa Clara Valley within the San Francisco Bay Area Air Basin (SFBAAB).

Topography, Meteorology, and Climate

Regional

The SFBAAB consists of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the western portion of Solano County; and the southern portion of Sonoma County. The SFBAAB is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays.

Atmospheric conditions over long periods, generally at least 30 to 50 years, are referred to as climate. Climate is usually defined as the statistical description in terms of surface variables such as temperature, precipitation, and wind over a period ranging from months to thousands or millions of years.

A semi-permanent, high-pressure area centered over the northeastern Pacific Ocean dominates the summer climate of the West Coast. Because this high-pressure cell is quite persistent, storms rarely affect the California coast during the summer. Thus, the conditions that persist along the coast of California during summer are a northwest airflow and negligible precipitation. A thermal low-pressure area from the Sonoran-Mojave Desert also causes air to flow onshore over the SFBAAB much of the summer.

The steady northwesterly flow around the eastern edge of the Pacific High (a high-pressure cell) exerts stress on the ocean surface along the west coast. This induces upwelling of cold water from below. Upwelling produces a band of cold water off San Francisco that is approximately 80 miles wide. During July, the surface waters off San Francisco are three degrees Fahrenheit (°F) cooler than those off Vancouver, British Columbia, more than 900 miles to the north. Air approaching the California coast, already cool and moisture-laden from its long trajectory over the Pacific, is further cooled as it flows across this cold bank of water near the coast, thus accentuating the temperature contrast across the coastline. This cooling is often sufficient to produce condensation—a high incidence of fog and stratus clouds along the Northern California coast in summer.

In summer, the northwest winds to the west of the Pacific coastline are drawn into the interior through the gap in the western Coast Ranges, known as the Golden Gate, and over the lower portions of the San Francisco Peninsula. Immediately to the south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more nearly from the west as they stream through the Golden Gate. This channeling of the flow through the Golden Gate produces a jet that sweeps eastward but widens downstream, producing southwest winds at Berkeley and
northwest winds at San Jose; a branch curves eastward through the Carquinez Straits and into the Central Valley. Wind speeds may be locally strong in regions where air is channeled through a narrow opening such as the Golden Gate, the Carquinez Strait, or San Bruno Gap. For example, the average wind speed at San Francisco International Airport from 3:00 a.m. to 4:00 p.m. in July is about 20 miles per hour (mph), compared with only about eight mph at San Jose and less than seven mph at the Farallon Islands.

The sea breeze between the coast and the Central Valley commences near the surface along the coast in late morning or early afternoon; it may first be observed only through the Golden Gate. Later in the day, the layer deepens and intensifies while spreading inland. As the breeze intensifies and deepens, it flows over the lower hills farther south along the peninsula. This process frequently can be observed as a bank of stratus clouds “rolling over” the coastal hills on the west side of the San Francisco Bay. The depth of the sea breeze depends in large part upon the height and strength of the inversion. The generally low elevation of this stable layer of air prevents marine air from flowing over the coastal hills. It is unusual for the summer sea breeze to flow over terrain exceeding 2,000 feet in elevation.

In winter, the SFBAAB experiences periods of storminess, moderate-to-strong winds, and periods of stagnation with very light winds. Winter stagnation episodes are characterized by outflow from the Central Valley, nighttime drainage flows in coastal valleys, weak onshore flows in the afternoon, and otherwise light and variable winds.

Local

The proposed project site is located southeast of downtown San Jose along Coyote Ridge within the Santa Clara Valley. The Santa Clara Valley is bounded by the SFBAAB 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 the high 50s during the winter, and mean minimum temperatures range from the high-50s in the summer to the low 40s in the winter. Further inland, where the moderating effect of the SFBAAB 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.

Air Pollutants

The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (USEPA) have identified six federal criteria air pollutants as being of concern both on a nationwide and statewide level, which
include ozone, particulate matter (PM), nitrogen dioxide (NO2), carbon dioxide (CO), sulfur dioxide (SO2), and lead (Pb). Because the air quality standards for these air pollutants are regulated using human health and environmentally based criteria, they are commonly referred to as “criteria air pollutants.” The CARB has identified an additional four air pollutants: visibility-reducing particulates, hydrogen sulfide (H2S), sulfates, and vinyl chloride. Table 3.3-1 presents the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for the air pollutants.

**Ozone.** Ozone, or smog, is not emitted directly into the environment, but is formed in the atmosphere by complex chemical reactions between reactive organic gases (ROG) and nitrogen oxides (NOx) in the presence of sunlight. Ozone formation is greatest on warm, windless, sunny days. The main sources of NOx and ROG, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) the evaporation of solvents, paints, and fuels, and biogenic sources. Automobiles are the single largest source of ozone precursors in the SFBAAB. Tailpipe emissions of ROG are highest during cold starts, hard acceleration, stop-and-go conditions, and slow speeds. They decline as speeds increase up to about 50 mph, then increase again at high speeds and high engine loads. ROG emissions associated with evaporation of unburned fuel depend on vehicle and ambient temperature cycles. NOx emissions exhibit a different curve; emissions decrease as the vehicle approaches 30 mph and then begin to increase with increasing speeds.

Ozone levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. Ozone can also damage plants and trees, and materials such as rubber and fabrics.

**Particulate Matter (PM).** PM refers to a wide range of solid or liquid particles in the atmosphere, including smoke, dust, aerosols, and metallic oxides. Some particulate matter, such as pollen, is naturally occurring. In the SFBAAB most particulate matter is generated by combustion, industrial processes, construction, grading, demolition, agricultural activities, and motor vehicles. Motor vehicles are currently responsible for about half of particulates in the SFBAAB. Wood burning in fireplaces and stoves is another large source of fine particulates.

Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM10. PM10 is of concern because it bypasses the body’s natural filtration system more easily than larger particles, and can lodge deep in the lungs. PM2.5 includes a subgroup of finer particles that have an aerodynamic diameter of 2.5 micrometers or less. PM2.5 poses an increased health risk because the particles can deposit deep in the lungs and contain substances that are particularly harmful to human health. Extended exposure to particulate matter can increase the risk of chronic respiratory disease.

**Nitrogen Dioxide (NO2).** NO2 is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO2. Aside from its contribution to ozone formation, nitrogen dioxide can increase the risk of acute and chronic respiratory disease and reduce visibility. NO2 may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.

**Carbon Monoxide (CO).** CO is an odorless, colorless gas. It is formed by the incomplete combustion of fuels. The single largest source of CO in the SFBAAB is motor vehicles. Emissions are highest during cold starts, hard
acceleration, stop-and-go driving, and when a vehicle is moving at low speeds. New findings indicate that CO emissions per mile are lowest at about 45 mph for the average light-duty motor vehicle and begin to increase again at higher speeds. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease or anemia, as well as fetuses. Even healthy people exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and even death.

**Sulfur Dioxide (SO₂).** SO₂ is a colorless acid gas with a pungent odor. It has potential to damage materials and it can have health effects at high concentrations. It is produced by the combustion of sulfur-containing fuels, such as oil, coal and diesel. SO₂ can irritate lung tissue and increase the risk of acute and chronic respiratory disease.

**Lead (Pb).** Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the USEPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of the USEPA’s regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.

In addition to the criteria pollutants described above, vinyl chloride, H₂S, sulfates, and visibility reducing particles are considered air pollutants that can adversely affect human health. Vinyl chloride is used to make vinyl products, and high exposure can lead to central nervous system effects and increased cancer risk. H₂S is formed during bacterial decomposition of sulfur-containing organic substances, has a very disagreeable odor, and is highly toxic. Sulfates are the fully oxidized ionic form of sulfur, and can cause adverse respiratory effects, degrade visibility, and harm or damage ecosystems and property. Visibility reducing particles consist of suspended PM, which is a complex mixture of dry, solid fragments; solid cores with liquid coatings; and small droplets of liquid. These particles can severely impair visibility and contribute to regional haze.

**Regional**

The air pollution potential of the Santa Clara Valley is high. Pollution sources are plentiful and complex in this sub-region. The Santa Clara Valley has a high concentration of industry at the northern end, in the Silicon Valley. Some of these industries are sources of air toxics as well as criteria air pollutants. In addition, Santa Clara Valley’s large population and many worksite destinations generate the highest mobile source emissions of any sub-region in the SFBAAB.

High summer temperatures, stable air, and mountains surrounding the valley combine to promote ozone formation. In addition to the many local sources of pollution, ozone precursors from San Francisco, San Mateo, and Alameda Counties are carried by prevailing winds to the Santa Clara Valley. The valley tends to channel pollutants to the southeast. In addition, on summer days with low-level inversions, ozone can be recirculated by
southerly drainage flows in the late evening and early morning and by the prevailing northwesterlies in the afternoon. A similar recirculation pattern occurs in the winter, affecting levels of carbon monoxide and particulate matter. This movement of the air up and down the valley increases the impact of the pollutants significantly.

**Project Site**

There are no sources of criteria pollutants on the project site.

**Toxic Air Contaminants**

Concentrations of toxic air contaminants (TACs) are also used as indicators of ambient air quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health impact may pose a threat to public health even at low concentrations. TACs can cause long-term health effects (such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage) or short-term acute affects (such as eye watering, respiratory irritation, runny nose, throat pain, or headaches). The following compounds pose the greatest known ambient risk based on air quality data: acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel PM.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to a particular TAC. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. Cancer risk is typically expressed as excess cancer cases per million exposed individuals, typically over a lifetime exposure or other prolonged duration. For non-carcinogenic substances, there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels may vary depending on the specific pollutant. Acute and chronic exposure to non-carcinogens is expressed as a hazard index (HI), which is the ratio of expected exposure levels to an acceptable reference exposure levels.

**Regional**

The Bay Area Air Quality Management District (BAAQMD) estimated that total TAC emissions from stationary sources in Santa Clara County were 284 tons per year in 2014 (BAAQMD, 2014). Ammonia (NH₃) emissions are approximately 222 tons per year and represent approximately 78 percent of stationary source TAC emissions in the County. Diesel PM emissions from stationary sources are estimated to be 4 tons per year. Additional TAC emissions are generated from area and mobile sources. Detailed estimates of these sources of TAC emissions are not available at the County level, but diesel PM emissions were estimated to be 4,151 tons per year in the SFBAAB, which constitutes approximately 12 percent of the diesel PM emissions in the state (CARB, 2009a).

**Project Site**

There are no sources of TACs on the project site.
Odors

Odors are considered an air quality issue both at the local level (e.g., odor from wastewater treatment) and at the regional level (e.g., smoke from wildfires). Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person’s reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

The ability to detect odors varies considerably among the population and is subjective. Some individuals have the ability to smell minute quantities of specific substances while others may not have the same sensitivity, but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person (e.g., from a fast-food restaurant or bakery) may be perfectly acceptable to another. Unfamiliar odors may be more easily detected and likely to cause complaints than familiar ones.

Several examples of common land use types that generate substantial odors include wastewater treatment plants, landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging plants.

Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, the organic gases that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

Project Site

There are no sources of odors on the project site.

Regional Attainment Status

The determination of whether a region’s air quality is healthful or unhealthful is made by comparing contaminant levels in ambient air samples to the NAAQS and the CAAQS. Ambient air concentrations are monitored throughout the SFBAAB to designate an area’s attainment status with respect to the NAAQS and CAAQS for criteria air pollutants. The purpose of these designations is to identify areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are “nonattainment,” “attainment,” and “unclassified” (the latter is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards). Table 3.3-1 lists recent attainment designations for the SFBAAB. With respect to the NAAQS, the SFBAAB is designated as a marginal nonattainment area for ozone and PM$_{2.5}$, and as an attainment or unclassified area for all other pollutants. With respect to the CAAQS, the SFBAAB is designated as a nonattainment area for ozone, PM$_{10}$, and PM$_{2.5}$, and as an attainment area for all other pollutants.
Reducing Particles

In 2012, the USEPA strengthened the annual PM2.5 National lead standard, rolling 3-month average: Final designations effective December 31, 2011.

To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2011). This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

The existing 0.030 ppm annual and 0.14 ppm 24-hour SO2 NAAQS however must continue to be used until 1 year following the USEPA's initial designations of the new 1-hour SO2 NAAQS.

In June 2002, CARB established new annual standards for PM2.5 and PM10.

Final designations effective July 20, 2012.

### Table 3.3-1: NAAQS, CAAQS, and SFBAAB Attainment Status

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>California Standards1</th>
<th>National Standards2</th>
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<tbody>
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<td></td>
<td></td>
<td>Concentration</td>
<td>Status</td>
</tr>
<tr>
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<td>1 Hour</td>
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</tr>
<tr>
<td></td>
<td>8 Hours</td>
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</tr>
<tr>
<td><strong>Respirable Particulate Matter (PM10)</strong></td>
<td>24 Hours</td>
<td>50 µg/m³</td>
<td>Nonattainment°</td>
</tr>
<tr>
<td></td>
<td>AAM</td>
<td>20 µg/m³</td>
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</tr>
<tr>
<td><strong>Fine Particulate Matter (PM2.5)</strong></td>
<td>24 Hours</td>
<td>—</td>
<td>Nonattainment°</td>
</tr>
<tr>
<td></td>
<td>AAM</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Carbon Monoxide (CO)</strong></td>
<td>8 Hours</td>
<td>9.0 ppm (10 mg/m³)</td>
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</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>20 ppm (25 mg/m³)</td>
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<tr>
<td><strong>Nitrogen Dioxide (NO2)</strong></td>
<td>AAM</td>
<td>0.030 ppm (57 µg/m³)</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>0.18 ppm (339 µg/m³)</td>
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<tr>
<td><strong>Sulfur Dioxide (SO2)</strong></td>
<td>24 Hours</td>
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</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>0.25 ppm (655 µg/m³)</td>
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</tr>
<tr>
<td><strong>Lead (Pb)</strong></td>
<td>30-Day Average</td>
<td>1.5 µg/m³</td>
<td>Attainment</td>
</tr>
<tr>
<td></td>
<td>Rolling 3-Month Average 24 Hours</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Visibility-Reducing Particles (VRP)</strong></td>
<td>8 Hours</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Sulfates</strong></td>
<td>24 Hours</td>
<td>25 µg/m³</td>
<td>Attainment</td>
</tr>
<tr>
<td><strong>Hydrogen Sulfide (H₂S)</strong></td>
<td>1 Hour</td>
<td>0.03 ppm (42 µg/m³)</td>
<td>Un wlcsified</td>
</tr>
<tr>
<td><strong>Vinyl Chloride (C2HCl4)</strong></td>
<td>24 Hours</td>
<td>0.010 ppm (26 µg/m³)</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Source: Bay Area Air Quality Management District (BAAQMD) 2015.

Acronyms: mg/m³ = milligrams per cubic meter; ppb = parts per billion; ppm = parts per million; µg/m³ = micrograms per cubic meter; AAM = Annual Arithmetic Mean; CARB = California Air Resources Board; NAAQS = National Ambient Air Quality Standards; SIP = State Implementation Plan; USEPA = U.S. Environmental Protection Agency; VRP = Visibility Reducing Particles

Notes:
1. California standards for ozone, CO (except Lake Tahoe), SO2 (1-hour and 24-hour), NOx suspended particulate matter - PM10, and visibility reducing particles are values that are not to be exceeded. The standards for lead, H2S and C2HCl4 are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and PM10 annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average.
2. National standards shown are the “primary standards” designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 ppb) or less. The 24-hour PM10 standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour PM2.5 standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 ppb) or less. The 24-hour PM10 standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour PM2.5 standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM10 is met if the 3-year average falls below the standard at every site. The annual PM2.5 standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
3. National air quality standards are set by the USEPA at levels determined to be protective of public health with an adequate margin of safety.
5. The national 1-hour ozone standard was revoked by the USEPA on June 15, 2005.
6. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour CO standard.
8. Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
9. The 8-hour California ozone standard was approved by CARB in 2005 effective May 17, 2006.
10. On January 9, 2013, the USEPA issued a final rule to determine that the Bay Area attains the 24-hour PM2.5 national standard. This USEPA rule suspends key SIP requirements as long as monitoring data continue to show that the Bay Area attains the standard. Despite this USEPA action, the Bay Area would continue to be designated as “non-attainment” for the national 24-hour PM2.5 standard until such time as the Air District submits a “redesignation request” and a “maintenance plan” to the USEPA, and the USEPA approves the proposed redesignation.
11. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).
12. On June 2, 2010, the USEPA established a new 1-hour SO2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO2 NAAQS however must continue to be used until 1 year following the USEPA’s initial designations of the new 1-hour SO2 NAAQS.
13. CARB has identified lead and C2HCl4 as “toxic air contaminants” with no threshold level of exposure below which there are no adverse health effects determined.
15. In 2012, the USEPA strengthened the annual PM2.5 NAAQS from 15.0 to 12.0 µg/m³. In December 2014, the USEPA issued final area designations for the 2012 primary annual PM2.5 NAAQS. Areas designated “unclassifiable/attainment” must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.
The BAAQMD maintains multiple air quality monitoring stations that continually measure the ambient concentrations of major air pollutants throughout the SFBAAB. Local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. The BAAQMD operates many ambient air monitoring stations near the project site. Table 3.3-2, Air Quality Monitoring Summary, summarizes published monitoring data for 2013 through 2015. The nearest monitoring station to the project site is San Jose—Knox, approximately 7.4 miles north of the project site; however, monitoring for criteria pollutants began in September 2014 and data for prior years and annual averages were not available. Thus, air quality data for ozone, PM$_{10}$, and PM$_{2.5}$ was obtained from the San Jose—Jackson monitoring station approximately 10 miles north of the project site. The data shows that during the past few years, the project area has exceeded the ozone, PM$_{10}$, and PM$_{2.5}$ standards.

**Sensitive Receptors**

Some receptors are considered more susceptible to potential health impacts from poor air quality than others. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions source, or duration of exposure to air pollutants. The BAAQMD identifies a sensitive receptor as “facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals and residential areas.” Recreational uses may also be considered sensitive due to the greater exposure to ambient air quality conditions because people engaging in vigorous exercise have higher breathing rates.

**Project Site**

The land surrounding the proposed project site consists of undeveloped grazing lands, recreational uses, and residential and industrial developments. Sensitive receptors include single-family residences in the Silver Creek community to the north (approximately 300 feet north of the northernmost developed lot) and some residences along the southern boundary of the proposed project site (approximately 1,300 feet southwest of the southernmost developed lot).

**3.3.2 Regulatory Framework**

Air quality in the SFBAAB is regulated by the USEPA, CARB, and the BAAQMD. Each of these agencies develops rules, regulations, policies, and/or goals to attain the directives imposed through legislation. Although USEPA regulations may not be superseded, both state and local regulations may be more stringent.

**Federal**

USEPA has been charged with implementing national air quality programs. USEPA’s air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major CAA amendments were made by Congress in 1990.
### Table 3.3-2: Air Quality Monitoring Summary

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Averaging Time</th>
<th>Item</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ozone</strong></td>
<td>1 Hour</td>
<td>Max 1 Hour (ppm)</td>
<td>0.093</td>
<td>0.089</td>
<td>0.094</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days &gt; State Standard (0.09 ppm)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>8 Hour</td>
<td>Max 8 Hour (ppm)</td>
<td>0.079</td>
<td>0.066</td>
<td>0.081</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days &gt; State Standard (0.070 ppm)</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days &gt; National Standard (0.070 ppm)</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Carbon monoxide</strong></td>
<td>8 Hour</td>
<td>Max 8 Hour (ppm)</td>
<td>2.5</td>
<td>1.9</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days &gt; State Standard (9.0 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days &gt; National Standard (9 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Nitrogen dioxide</strong></td>
<td>Annual</td>
<td>Annual Average (ppm)</td>
<td>0.015</td>
<td>0.013</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>Max 1 Hour (ppm)</td>
<td>0.059</td>
<td>0.058</td>
<td>0.049</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days &gt; State Standard (0.18 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Sulfur dioxide</strong></td>
<td>Annual</td>
<td>Annual Average (ppm)</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>24 Hour</td>
<td>Max 24 Hour (ppm)</td>
<td>0.0014</td>
<td>0.0009</td>
<td>0.0011</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days &gt; State Standard (0.04 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Coarse particulate matter</strong></td>
<td>Annual</td>
<td>Annual Average (µg/m³)</td>
<td>22.3</td>
<td>20.0</td>
<td>21.9</td>
</tr>
<tr>
<td></td>
<td>24 hour</td>
<td>24 Hour (µg/m³)</td>
<td>58.1</td>
<td>54.7</td>
<td>58.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Estimated Days &gt; State Standard (50 µg/m³)</td>
<td>15.2</td>
<td>3.1</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days &gt; National Standard (150 µg/m³)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Fine particulate matter</strong></td>
<td>Annual</td>
<td>Annual Average (µg/m³)</td>
<td>12.4</td>
<td>8.4</td>
<td>9.9</td>
</tr>
<tr>
<td></td>
<td>24 Hour</td>
<td>24 Hour (µg/m³)</td>
<td>57.7</td>
<td>60.4</td>
<td>49.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Estimated Days &gt; National Standard (35 µg/m³)</td>
<td>6.0</td>
<td>2.0</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Source: CARB, 2016; BAAQMD, 2016b.

Acronyms and Abbreviations:
- > = exceed
- ppm = parts per million
- µg/m³ = micrograms per cubic meter
- n/a = insufficient data
- State Standard = California Ambient Air Quality Standard
- National Standard = National Ambient Air Quality Standard
Federal Clean Air Act

The CAA required USEPA to establish NAAQS. USEPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, CO, NO2, SO2, PM10, PM2.5, and lead. The primary standards protect public health and the secondary standards protect public welfare. The primary standards are shown in Table 3.3-1, along with current attainment designations for the SFBAAB. The CAA also requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies.

USEPA has responsibility to review all state SIPs to determine conformity to the mandates of the CAA and the amendments thereof and determine if implementation will achieve air quality goals. If USEPA determines an SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area that imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

Federal Hazardous Air Pollutant Programs

USEPA has programs for identifying and regulating Hazardous Air Pollutants (HAPs). Title III of the CAAA directs USEPA to promulgate National Emissions Standards for HAPs (NESHAP). The NESHAP may have different standards for major sources than for area sources of HAPs. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources. The standards require the application of technology-based emissions standards referred to as Maximum Achievable Control Technology (MACT). USEPA completed the emission standards required by Section 112 of the CAA in 2011 (USEPA, 2011). The enforcement of these standards is currently supported by USEPA’s Air Toxics National Enforcement Initiative.

The CAAA also required USEPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions, at a minimum to benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. Also, Section 219 of the CAAA required the use of reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to further reduce mobile-source emissions.

State

A SIP is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The SIP for the State of California is administered by the CARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California’s SIP incorporates individual federal attainment plans for regional air districts – the air district prepares their federal attainment plan, which is sent to the CARB to be approved and incorporated into the California SIP.
Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

**California Clean Air Act**

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA was adopted in 1988; it requires CARB to establish CAAQS (Table 3.3-1). CARB has established CAAQS for sulfates, H₂S, vinyl chloride, visibility reducing particulate matter, and the above-mentioned federal criteria air pollutants. In most cases, the CAAQS are more stringent than the NAAQS.

Other CARB responsibilities include, but are not limited to, overseeing local air district compliance with California and federal laws; approving local air quality plans; submitting SIPs to USEPA; monitoring air quality; determining and updating area designations and maps; and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

**In-Use Off-Road Diesel Vehicle Regulation**

In 2007, CARB adopted a regulation to reduce diesel PM and NOₓ emissions from in-use off-road heavy-duty diesel vehicles in California. The regulation imposes limits on vehicle idling and requires fleets to reduce emissions by retiring, replacing, repowering, or installing exhaust retrofits to older engines. In December 2010, major amendments were made to the regulation, including a delay of the first performance standards compliance date to no earlier than January 1, 2014 (CARB, 2010).

**State Toxic Air Contaminant Programs**

TACs in California are primarily regulated through the Tanner Air Toxics Act (California Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) (Hot Spots Act). To date, CARB has identified over 21 TACs, and adopted USEPA’s list of HAPs as TACs.

CARB has adopted Airborne Toxics Control Measures for sources that emit a particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology (BACT) to minimize emissions.

CARB adopted a Diesel Risk Reduction Plan, which recommends control measures to achieve a diesel PM reduction of 85 percent by 2020 from year 2000 levels. Recent regulations and programs include the low-sulfur diesel fuel requirement and more stringent emission standards for heavy-duty diesel trucks and off-road in-use diesel equipment. As emissions are reduced, it is expected that the risks associated with exposure to the emissions will also be reduced.
Local

**Bay Area Air Quality Management District**

BAAQMD is the primary agency responsible for ensuring that air quality standards (NAAQS and CAAQS) are attained and maintained in the SFBAAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. BAAQMD prepares plans to attain ambient air quality standards in the SFBAAB. BAAQMD prepares ozone attainment plans (OAPs) for the national ozone standard, clean air plans (CAP) for the California standard, and particulate matter plans to fulfill federal air quality planning requirements. BAAQMD also inspects stationary sources of air pollution, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the CAA, CAAA, and the CCAA.

**BAAQMD 2010 Clean Air Plan**

BAAQMD adopted the Bay Area Clean Air Plan (Bay Area CAP) in 2010 to provide a plan to improve Bay Area air quality and meet public health goals. More specifically, the control strategy described in the Bay Area CAP is designed to reduce emissions and decrease ambient concentrations of harmful pollutants, safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and reduce greenhouse gas (GHG) emissions to protect the climate.

The Bay Area CAP addresses four categories of pollutants: (1) ground-level ozone and its key precursors, ROG and NOX; (2) PM, primarily PM2.5, and precursors to secondary PM2.5; (3) air toxics; and (4) GHGs. The control strategy in the Bay Area CAP describes stationary source measures, transportation control measures, mobile source measures, land use and local impact measures, energy and climate measures, and further study measures to reduce air pollutants (BAAQMD, 2010b).

**Plan Bay Area**

On July 18, 2013, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) approved the Plan Bay Area. The Plan Bay Area includes integrated land use and transportation strategies for the region and was developed through OneBayArea, a joint initiative between ABAG, BAAQMD, MTC, and the Bay Conservation and Development Commission (BCDC). The plan’s transportation policies focus on maintaining the extensive existing transportation network and utilizing these systems more efficiently to handle density in Bay Area transportation cores (ABAG, 2013; MTC, 2013).

**Santa Clara County – General Plan 1995–2010**

The Santa Clara County General Plan, 1995–2010, was adopted in December 1994 and contains goals, strategies, and policies in order to achieve managed, balanced growth, livable communities, responsible resource conservation, and social economic well-being (Santa Clara County, 1994). The policies and strategies that pertain to air quality are identified below:
Transportation Chapter

C-TR 11: Santa Clara County shall update and establish the Congestion Management Plan, in order to establish priority for air quality goals and objectives and development of alternatives to automobile travel; and allow additional road capacity to be created only when all feasible automobile travel demand measures have been implemented.

Health Element Chapter

On August 25, 2015, the Health Element chapter was amended to the General Plan, which includes an Air Quality and Climate Change Section with the following strategy and policies for improving air quality, protecting the climate, and protecting public health (Santa Clara County, 2015).

Strategy 1: Strive for air quality improvement through regional and local land use, transportation, and air quality planning.

HE-G.1 Air quality environmental review. Continue to utilize and comply with the Air District’s project- and plan-level thresholds of significance for air pollutants and greenhouse gas emissions.

HE-G.2 Coordination with regional agencies. Coordinate with the Air District to promote and implement stationary and area source emission measures.

HE-G.3 Fleet upgrades. Promote Air District mobile source measures to reduce emissions by accelerating the replacement of older, dirtier vehicles and equipment, and by expanding the use of zero emission and plug-in vehicles.

HE-G.4 Off-road sources. Encourage mobile source emission reduction from off-road equipment such as construction, farming, lawn and garden, and recreational vehicles by retrofitting, retiring and replacing equipment and by using alternate fuel vehicles.

HE-G.6 Regional/local plans. Encourage and support regional and local land use planning that reduces automobile use and promotes active transportation.

HE-G.7 Sensitive receptor uses. Promote measures to protect sensitive receptor uses, such as residential areas, schools, day care centers, recreational playfields and trails, and medical facilities by locating uses away from major roadways and stationary area sources of pollution, where possible, or incorporating feasible, effective mitigation measures.

HE-G.9 Healthy infill development. Promote measures and mitigations for infill development to protect residents from air and noise pollution, such as more stringent building performance standards, proper siting criteria, development and environmental review processes, and enhanced air filtration.

HE-G.10 Conservation. Promote energy conservation and efficiency in homes, businesses, schools, and other infrastructure to reduce energy use and criteria pollutant and greenhouse gas emissions.

HE-G.11 Renewable energy. Encourage renewable energy, such as solar and wind turbines, on commercial, industrial, and residential buildings.
HE-G.12 Energy technologies. Support regional and local initiatives that promote integrated building systems, distributed generation, demand response programs, smart grid infrastructure, energy storage and backup, and electric transportation infrastructure.

City of San Jose General Plan

The City of San Jose adopted Envision San Jose 2040 on November 1, 2011. This General Plan establishes goals, policies, and actions which were created to guide both future and present development within the City’s jurisdiction. Policies and actions within the City of San Jose’s General Plan which relate directly or indirectly to air quality that may apply to the proposed project are listed below:

Policy MS-11.3 Review projects generating significant heavy duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.

Action MS-11.8 For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.

Policy MS-12.1 For new, expanded, or modified facilities that are potential sources of objectionable odors (such as landfills, green waste and resource recovery facilities, wastewater treatment facilities, asphalt batch plants, and food processors), the City requires an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.

Policy MS-13.1 Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

Policy MS-13.2 Construction and/or demolition projects that have the potential to disturb asbestos (from soil or building material) shall comply with all the requirements of the CARB’s air toxics control measures for Construction, Grading, Quarrying, and Surface Mining Operations.

Action MS-13.4 Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.

Action MS-13.5 Prevent silt loading on roadways that generates particulate matter air pollution by prohibiting unpaved or unprotected access to public roadways from construction sites.

Action MS-13.6 Revise the grading ordinance and condition grading permits to require that graded areas be stabilized from the completion of grading to commencement of construction.

3.3.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts related to air quality. The proposed project would result in a significant impact if it would:
• Conflict with or obstruct implementation of the applicable air quality plan;
• Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
• Result in a cumulatively considerable net increase of any nonattainment pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
• Expose sensitive receptors to substantial pollutant concentrations; or
• Create objectionable odors affecting a substantial number of people.

Assessment Methodology

The general procedures to assess potential air quality impacts are described in the California Environmental Quality Act Air Quality Guidelines published by the BAAQMD. In 2010, BAAQMD adopted quantitative thresholds of significance for their CEQA guidelines based on projected regional growth and development; however, following a legal challenge, the agency currently recommends that lead agencies determine appropriate air quality thresholds of significance based on substantial evidence in the record. For this analysis and in the absence of other thresholds adopted by the BAAQMD, the 2010 thresholds were used because they were established based on substantial evidence.

Construction emissions were modeled using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2. CalEEMod includes default assumptions for construction parameters, such as construction equipment, haul trucks, and worker trips, which can used to model the proposed project’s construction-related emissions in the absence of project-specific information. It should be noted that CalEEMod default assumptions are typically conservative to avoid underestimating emissions when project-specific information is unknown. Operational emissions were also calculated using CalEEMod Version 2013.2.2.

Construction of the proposed project is estimated to start in January 2018. Although construction could occur at a later date, emissions were estimated using the earliest calendar year when construction could begin (2018) to generate conservative estimates. In later years, advancements in engine technology, retrofits, and turnover in the equipment fleet will result in lower levels of emissions. Construction of access roads, the water supply system, utility infrastructure, and recreation and trails infrastructure improvements is expected to last a total of 18 months. Construction of the proposed Community Center was also conservatively assumed to be completed during this time.

For the purpose of this analysis, full buildout of all units was conservatively assumed to start in January 2018. However, residences (including single-family homes and secondary units) would likely be constructed based on market demand and be completed in 10 years. Full buildout of the proposed project was assumed to consist of 79

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1 BAAQMD’s adoption of the 2010 thresholds of significance was challenged, resulting in a court ordered ruling issued March 5, 2012, in California Building Industry Association v. BAAQMD, Alameda County Superior Court Case No. RGI0548693. The order required the BAAQMD thresholds to be subject to further environmental review as a “project” under CEQA. As a result, BAAQMD released updated guidelines in 2012 with references to CEQA thresholds removed (BAAQMD 2012a). BAAQMD later appealed the ruling, and the judgment was reversed on August 13, 2013, by the Court of Appeal of the State of California, First Appellate District. The California Supreme Court did not address the Court of Appeal’s decision regarding the consideration of the BAAQMD thresholds as a “project” under CEQA.
single-family homes and 16 secondary units. Although not included in the project, the analysis also evaluated a worst-case scenario that involves construction and operation of a total of 79 single-family homes and 79 secondary units. Emissions associated with construction of the infrastructure (paved roads and unpaved improvements), Community Center, and Residences were estimated using CalEEMod default data for construction equipment lists and activity. These default modeling parameters were based on project acreage, land use type, paved area, and building square footage information consistent with the project description.

A health risk assessment for construction-related emissions was completed to evaluate potential health risks to sensitive receptors ( Appendix F-2). The AERMOD dispersion model (Version 15181) was used to estimate pollutant concentrations at specified receptor locations using five-years of hourly meteorological data from the San Jose International Airport located 10 miles of the proposed project; this AERMOD–ready meteorological data set is provided through CARB for use in the model. In addition, factors such as age-specific breathing rates and sensitivity factors were employed in agreement with the 2015 OEHHA health risk guidance (OEHHA, 2015) and the BAAQMD guidelines.

Receptors were placed on a 20-meter grid to assess health effects at sensitive receptors within 1,000 feet the proposed lot boundaries (i.e., construction area limits); in this case, this included residential areas north of the proposed project site (the Silver Creek community as shown in Figure 3.3-1). While the proposed project’s residential units would be built over approximately 10 years and some lots may be occupied while other lots are under construction, no sensitive receptors within the proposed project limits were evaluated. AERMOD generated concentrations were obtained for PM$_{2.5}$ and also used as input to CARB’s HARP2 software to estimate cancer risk and chronic noncancer hazard due to diesel PM.

Operational emissions following construction of the proposed project would be generated by area, energy, and mobile-sources. Annual operational emissions were conservatively calculated for the complete buildout of the proposed project by 2019. Area sources would include hearth, consumer products, periodic architectural coatings and landscape equipment for residential land uses. Energy sources would include natural gas combustion for space and water heating in residential buildings. Mobile sources would involve vehicle trips associated with residential (e.g., work, shopping, and other trips) activities. Refer to Appendix F-1 of this EIR for a detailed summary of the CalEEMod construction and operational modeling assumptions, inputs, and outputs.

For cumulative impacts, BAAQMD states that if a project would be significant on the project-level (i.e., exceed any of the thresholds listed above), it could also be considered significant on a cumulative level (BAAQMD, 2011). Section 3.3.4 below addresses cumulative impacts in more detail.
Figure 3.3-1: Sensitive Receptor Grid Location

Source: AECOM, 2016.
Impacts and Mitigation

Impact AQ-1: The proposed project could conflict with or obstruct implementation of an applicable air quality plan. (*Less Than Significant*)

Air quality plans describe air pollution control strategies to be implemented by a city, county, or region. The primary purpose of an air quality plan is to bring an area that does not attain federal and State air quality standards into compliance with the requirements of the CAA and CCAA requirements. The BAAQMD guidelines recommend that the analysis consider whether the project supports the primary goals of the air quality plan, which includes attaining the air quality standard. According to BAAQMD, if approval of a project would not result in significant and unavoidable air quality impacts, the project may be considered consistent with the Bay Area CAP, the most recent air quality plan. Therefore, the project’s potential to conflict with the Bay Area CAP can be determined by evaluating the project’s consistency with the BAAQMD CEQA significance thresholds. As shown in the discussion for Impact AQ-2 below, criteria pollutant emissions generated during construction and operation of the proposed project would not exceed applicable BAAQMD CEQA significance thresholds.

Because construction and operational emissions would not exceed BAAQMD CEQA significance thresholds, the proposed project would not have regionally significant impacts impeding the implementation of the control strategies or the attainment of goals set in the BAAQMD’s 2010 Clean Air Plan (BAAQMD, 2010a). Therefore, the impact would be *less than significant*.

Impact AQ-2: The proposed project could violate any air quality standard or contribute substantially to an existing or projected air quality violation. (*Less Than Significant with Mitigation*)

**Construction**

Construction emissions are described as “short-term” or temporary in duration but have the potential to adversely affect air quality. Construction-related activities such as site preparation (e.g., excavation, grading, and clearing), use of off-road equipment, material delivery, and exhaust emissions from construction worker commutes would result in temporary emissions of ROG, NOX, PM10, and PM2.5. Emissions of ROG and NOX are associated primarily with exhaust from construction equipment.

Fugitive dust emissions are associated primarily with site preparation and vary as a function of soil silt content, soil moisture, wind speed, acreage of disturbance, the amount of travel to and from a construction site, and other factors. During typical construction projects, the majority of PM emissions are generated in the form of fugitive dust during ground disturbance activities. Most fugitive dust is generated during the grading phase. PM emissions are also generated by equipment exhaust and re-entrained road dust from vehicle travel on paved and unpaved surfaces. Per the Young Ranch Community Design Guidelines and Standards, proposed earthmoving activities would be minimized, and cut/fill volumes would be balanced on site and would not require off-site export/import.

Total construction criteria pollutant emissions were calculated, and converted from total tons to average pounds per day, using the estimated construction duration of 10 years and 5 days of construction per week. Table 3.3-3 summarizes the modeled emissions of ROG, NOX, exhaust PM10, and exhaust PM2.5 emissions associated with
construction of the proposed project. Table 3.3-4 demonstrates the construction emissions in the event that 79 secondary units would be constructed.

As shown in Table 3.3-3 daily ROG, NO\textsubscript{X}, exhaust PM\textsubscript{10}, and exhaust PM\textsubscript{2.5} emissions associated with construction of the proposed project would not exceed BAAQMD thresholds of significance. As shown in Table 3.3-4, in the event that all 79 proposed lots would be developed with secondary units, the emissions would also not exceed BAAQMD thresholds of significance and would not violate or contribute substantially to an existing or projected air quality violation. Thus, construction of the proposed project would not violate or contribute substantially to an existing or projected air quality violation.

### Table 3.3-3: Proposed Project – Construction Emissions

<table>
<thead>
<tr>
<th>Total Construction Emissions</th>
<th>Total pounds/day</th>
<th>ROG</th>
<th>NO\textsubscript{X}</th>
<th>Exhaust PM\textsubscript{10}</th>
<th>Exhaust PM\textsubscript{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Daily Emissions*</td>
<td></td>
<td>4.48</td>
<td>8.59</td>
<td>2.09</td>
<td>1.23</td>
</tr>
<tr>
<td>Thresholds of Significance</td>
<td></td>
<td>54</td>
<td>54</td>
<td>82</td>
<td>54</td>
</tr>
<tr>
<td>Exceeds Thresholds</td>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: AECOM, 2016. Air Quality Technical Memorandum (see Appendix F-1).

Notes:
*Average Daily Emissions are calculated based on 260 working days per year over a 10 year construction period.

Acronyms:
ROG = reactive organic gases; NO\textsubscript{X} = oxides of nitrogen; PM\textsubscript{10} = particulate matter with aerodynamic diameter less than 10 microns; PM\textsubscript{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns

### Table 3.3-4: Proposed Project (with 79 Secondary Units) – Construction Emissions

<table>
<thead>
<tr>
<th>Total Construction Emissions</th>
<th>Total pounds/day</th>
<th>ROG</th>
<th>NO\textsubscript{X}</th>
<th>Exhaust PM\textsubscript{10}</th>
<th>Exhaust PM\textsubscript{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Daily Emissions*</td>
<td></td>
<td>4.91</td>
<td>10.39</td>
<td>2.51</td>
<td>1.41</td>
</tr>
<tr>
<td>Thresholds of Significance</td>
<td></td>
<td>54</td>
<td>54</td>
<td>82</td>
<td>54</td>
</tr>
<tr>
<td>Exceeds Thresholds</td>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: AECOM, 2016. Air Quality Technical Memorandum (see Appendix F-1).

Notes:
*Average Daily Emissions are calculated based on 260 working days per year over a 10 year construction period.

Acronyms:
ROG = reactive organic gases; NO\textsubscript{X} = oxides of nitrogen; PM\textsubscript{10} = particulate matter with aerodynamic diameter less than 10 microns; PM\textsubscript{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns

The BAAQMD does not have quantitative mass emissions thresholds for fugitive PM\textsubscript{10} and PM\textsubscript{2.5} dust. Instead, the BAAQMD recommends that all projects, regardless of the level of average daily emissions, implement applicable best management practices (BMPs), including those listed as Basic Construction Mitigation Measures in the BAAQMD CEQA Guidelines (BAAQMD, 2011). BAAQMD also requires implementation of the BAAQMD Basic Construction Mitigation Measures. If the BAAQMD Basic Construction Mitigation Measures were not to be implemented as part of the proposed project, the impact would be potentially significant. Therefore, implementation of Mitigation Measure AQ-2 is required.

**Mitigation Measure AQ-2: Implement BAAQMD Basic Construction Mitigation Measures.** The following measures will be implemented by the project applicant during all phases of construction on the project site:
a) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered 2 times per day.

b) All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

c) 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.

d) All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

e) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads will be laid as soon as possible after grading, unless seeding or soil binders are used.

f) Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.

g) All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment will be checked by a certified visible emissions evaluator.

h) A publicly visible sign shall be posted at the project site with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD’s phone number also shall be visibly posted, for compliance with applicable regulations.

With the implementation of Mitigation Measure AQ-2, potential impacts associated with fugitive dust emissions would be reduced to a less-than-significant level. The impact would be less than significant with mitigation incorporated.

**Operation**

Total operational criteria pollutant emissions were calculated and converted from total tons to average pounds per day. Table 3.3-5 presents the proposed project’s average daily operational emissions and maximum annual emissions in tons/year. Table 3.3-6 demonstrates the average daily operational emissions and maximum annual emissions in the event that 79 secondary units would be developed.

As summarized in Table 3.3-5, the long-term operational emissions attributable to the proposed project would generate emissions of ROG, NOX, PM_{10}, and PM_{2.5} that do not exceed the applicable BAAQMD thresholds of significance. As shown in Table 3.3-6, in the event that 79 secondary units would be developed, the long-term operational emissions would also not exceed the applicable BAAQMD thresholds of significance. Because long-term operational emissions of ROG, NOX, PM_{10}, and PM_{2.5} would not exceed BAAQMD thresholds of significance, the proposed project would not violate or contribute substantially to an existing or projected air quality violation. The impact is considered less than significant.
### Table 3.3-5: Proposed Project – Operational Emissions

<table>
<thead>
<tr>
<th>Emissions Sources</th>
<th>Average Daily Emissions (lbs/day)*</th>
<th>Maximum Annual Emissions (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROG</td>
<td>NOx</td>
</tr>
<tr>
<td>Paved Roads</td>
<td>1.79</td>
<td>0.00</td>
</tr>
<tr>
<td>Trails and Utilities**</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Community Center</td>
<td>0.10</td>
<td>0.03</td>
</tr>
<tr>
<td>Single Family Residence</td>
<td>20.67</td>
<td>4.85</td>
</tr>
<tr>
<td>Secondary Units</td>
<td>0.67</td>
<td>0.59</td>
</tr>
<tr>
<td><strong>Total Emissions</strong></td>
<td><strong>23.23</strong></td>
<td><strong>5.46</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sources</th>
<th>Thresholds of Significance</th>
<th>Exceeds Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Source: AECOM, 2016. Air Quality Technical Memorandum (see Appendix F-1).

Notes:
*Average Daily Emissions are calculated based on 365 days per year.
**No operational emissions assumed for trail and utility infrastructure.

Acronyms:
ROG = reactive organic gases; NOX = oxides of nitrogen; PM10 = particulate matter with aerodynamic diameter less than 10 microns; PM2.5 = particulate matter with aerodynamic diameter less than 2.5 microns; lbs/day = pounds per day;

### Table 3.3-6: Proposed Project (with 79 Secondary Units) – Operational Emissions

<table>
<thead>
<tr>
<th>Emissions Sources</th>
<th>Average Daily Emissions (lbs/day)*</th>
<th>Maximum Annual Emissions (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROG</td>
<td>NOx</td>
</tr>
<tr>
<td>Paved Roads</td>
<td>1.79</td>
<td>0.00</td>
</tr>
<tr>
<td>Trails and Utilities**</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Community Center</td>
<td>0.10</td>
<td>0.03</td>
</tr>
<tr>
<td>Single Family Residence</td>
<td>20.67</td>
<td>4.85</td>
</tr>
<tr>
<td>Secondary Units</td>
<td>3.29</td>
<td>2.92</td>
</tr>
<tr>
<td><strong>Total Emissions</strong></td>
<td><strong>25.85</strong></td>
<td><strong>7.79</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sources</th>
<th>Thresholds of Significance</th>
<th>Exceeds Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Source: AECOM, 2016. Air Quality Technical Memorandum (see Appendix F-1).

Notes:
*Average Daily Emissions are calculated based on 365 days per year.
**No operational emissions assumed for trail and utility infrastructure.

Acronyms:
ROG = reactive organic gases; NOX = oxides of nitrogen; PM10 = particulate matter with aerodynamic diameter less than 10 microns; PM2.5 = particulate matter with aerodynamic diameter less than 2.5 microns; lbs/day = pounds per day;

---

**Impact AQ-3: The proposed project could result in a cumulatively considerable net increase of any nonattainment pollutant. (Less Than Significant)**

The SFBAAB is currently designated as a nonattainment area for State and national ozone standards and national particulate matter ambient air quality standards. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project’s individual emissions would be cumulatively considerable. If a project does not exceed the identified significance thresholds, its emissions would not be cumulatively considerable, resulting in less-than-significant air quality impacts on the region’s existing air quality conditions.
Based on the project-level analysis described above in Impact AQ-2, proposed project construction and operational criteria pollutant emissions would not exceed the BAAQMD CEQA significance thresholds. Therefore, emissions associated with the proposed project would not be cumulatively considerable and would represent a less-than-significant cumulative impact.

Impact AQ-4: The proposed project could expose sensitive receptors to substantial pollutant concentrations. (Less Than Significant)

Construction

The greatest potential risk from TAC emissions associated with the proposed project originates from diesel PM emissions associated with heavy equipment operations during construction. Project construction would generate diesel PM emissions from the use of off-road diesel construction equipment required for clearing and grading, materials handling and installation, and other construction activities.

Typically, construction projects generate diesel PM in a single area for a short period of time. The dose of TACs 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 extent of exposure a person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period to a fixed amount of emissions results in a higher exposure level and higher health risks for the maximally exposed individual. As discussed in Impact Assessment Methodology, a health risk assessment for construction-related emissions was completed to evaluate potential health risks to sensitive receptors (refer Appendix F-2).

The following details are presented in Table 3.3-7 for the maximally exposed individual resident (MEIR) receptor: the maximum cancer risk due to construction emissions was estimated to be 2 in a million; the maximum chronic hazard index (HI) was estimated to be 0.001; and the annual average concentration for PM$_{2.5}$ is equal to 0.009 micrograms per cubic meter ($\mu g/m^3$). The maximum cancer risk, the maximum chronic noncancer HI and the annual average PM$_{2.5}$ concentrations are all below respective thresholds; therefore, health effects associated with diesel PM and PM$_{2.5}$ emissions generated during construction would be less than significant. In the event that 79 secondary units would be developed, the length and intensity of construction would not be substantially different than under the proposed project; thus, the health effects associated with diesel PM and PM$_{2.5}$ would still be considered less than significant.

<table>
<thead>
<tr>
<th>Receptor Type</th>
<th>Cancer Risk (in a million)</th>
<th>Chronic HI</th>
<th>Annual Average PM$_{2.5}$ Concentration ($\mu g/m^3$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEIR UTM Coordinate: (608955, 4125427)</td>
<td>2</td>
<td>0.001</td>
<td>0.009</td>
</tr>
<tr>
<td>BAAQMD Significance Threshold</td>
<td>10</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Data Compiled by AECOM in 2016

Acronyms:

$\mu g/m^3$ = micrograms per cubic meter

HI = Hazard Index

MEIR = Maximally exposed individual at an existing residential receptor

PM$_{2.5}$ = Particulate matter with aerodynamic diameter less than 2.5 microns
Appendix F-2 provides further detail on the construction health risk assessment methodology employed and the results.

**Operation**

Due to minimal TAC emissions associated with operation of residential land uses, health risk was not evaluated for operation of the proposed project.

Cumulative health impacts from project construction in combination with other local sources in the vicinity of the MEIR were also evaluated. Based on BAAQMD’s Stationary Source Screening Tool (BAAQMD, 2012b), the MEIR is not located within 1,000 feet of stationary sources. The MEIR is also not located within 1,000 feet of high volume highways, as US-101 is located over 8,000 feet to the west of the MEIR. Therefore, the cumulative health risks from project construction and local sources would not be anticipated to exceed the cumulative thresholds of significance.

The project would also locate new sensitive receptors through the development of residences and secondary units. These receptors have the potential for exposure to existing sources of TAC emissions and associated health risk impacts. Based on BAAQMD’s Stationary Source Screening Tool, the residences would not be located within 1,000 feet of stationary sources. The residences also would not be located within 1,000 feet of high volume highways, as US-101 is located over 4,000 feet south of the nearest residence. Because the sensitive receptors would not be located within 1,000 feet of existing TAC emission sources, health risk impacts to the project sensitive receptors would be **less than significant**.

**Impact AQ-5: The proposed project could create objectionable odors affecting a substantial number of people. (Less Than Significant)**

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and can cause citizens to submit complaints to local governments and regulatory agencies. Projects with the potential to frequently expose individuals to objectionable odors are deemed to have a significant impact. Typical facilities that generate odors include wastewater treatment facilities, sanitary landfills, composting facilities, petroleum refineries, chemical manufacturing plants, and food processing facilities.

The following land use types are widely considered major sources of odors: wastewater treatment and pumping facilities, chemical manufacturing facilities, sanitary landfills, fiberglass manufacturing facilities, transfer stations, painting/coating operations (e.g., auto body shops), composting facilities, food processing facilities, confined animal facilities, asphalt batch plants, rendering plants, metal smelting plants, and coffee roasters. This list is meant not to be entirely inclusive, but to act as general guidance.

**Construction**

Minor sources of odors would be associated with construction. Exhaust odors from diesel engines, as well as ROG emissions associated with asphalt paving and the application of architectural coatings may be considered offensive to some individuals. Odors from these sources would be localized and generally confined to the
immediate area surrounding the development area. Similarly, diesel-fueled vehicles and trucks traveling on local roadways would produce associated diesel exhaust emissions. However, odors associated with diesel fumes, asphalt paving, and architectural coatings would be temporary and would disperse rapidly with distance from the source. Therefore, construction-generated odors would not result in frequent exposure of sensitive receptors to objectionable odor emissions.

Operation

The land uses associated with the proposed project would be residential, which are not typically large generators of odor emissions.

As a result, the proposed project’s construction and operational activities would not create objectionable odors affecting a substantial number of people. The impact would be less than significant.

3.3.4 Cumulative Impacts

Impact-C-AQ: The proposed project could have a cumulatively considerable impact on air quality. (Less Than Significant)

The analysis of air quality is inherently a cumulative impact analysis. As such, there is a potentially significant air quality cumulative impact. However, no additional analysis is required, because as described above, with the implementation of Mitigation Measure AQ-2, it is not anticipated that construction and operation of the proposed project would generate air emissions that would cause a significant impact on the environment thus, the project will not result in a cumulatively considerable net increase of any nonattainment pollutant. Additionally, the proposed project does not present a conflict to the implementation of the applicable air quality plan, does not violate any air quality standard or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people. Therefore, the proposed project would not result in a considerable contribution to such a significant cumulative impact. Thus, the project’s cumulative impact would be less than significant.

3.3.5 References


3.4  BIOLOGICAL RESOURCES

This section describes the existing physical and regulatory setting related to biological resources of the project area, and addresses the potential impacts of the proposed project related to biological resources.

The evaluation of biological impacts is based primarily on the following documents prepared by WRA Environmental Consultants in relation to the project site:

- Young Ranch Resource Management Plan (RMP) (included as Appendix D)
- Young Ranch Natural Resource Avoidance and Impact Assessment (included as Appendix H)
- Biological Resources Assessment Report and update (WRA, 2011; 2014)
- Focused Rare Plant Survey Report and addendum (WRA, 2012; 2013)
- Burrowing Owl Survey Reports (WRA, 2014a)
- Bay Checkerspot Butterfly Habitat Analysis and Surveys (WRA, 2014b)
- Young Ranch Preliminary Section 404 Delineation and addendum (WRA, 2011a; 2014c)
- Young Ranch Plant and Wildlife Linkage Assessment and update (WRA, 2013a; 2014d)
- Young Ranch Golden Eagle Surveys (WRA, 2014e)
- Young Ranch Tree Survey Technical Memorandum (WRA, 2012a)

The above studies were independently peer reviewed and determined to be acceptable for portraying the existing conditions and resources at the project site (AECOM, 2016).

The following comments related to biological resources were received during the public scoping period in response to the Notice of Preparation:

- Request that habitat restoration and management be done in coordination with Caltrans where jurisdiction applies to the project site;
- Concern related to potential impacts to native vegetation from inadvertent introduction of Phytophthora (plant-damaging water molds) to project site;
- Concern that the project would introduce weeds through additional nitrogen to the soil and septic systems, affecting the federally-Threatened Bay checkerspot butterfly;
- Concern that weed management on site would be responsibility of County not residents;
- Concern related to potential impacts on plant species listed on the CNDDB Threat and Threat Lists;
- Concern about sensitive habitat within the proposed development footprint;
- Concern whether active management of special status plant species (i.e., cattle grazing) will continue in open space areas with project approval;
- Concern related to invasive species;
• Concern related to potential impacts to wildlife from pest control;
• Concern related to potential impacts from the project to Tule elk herds;
• Concern related to potential impacts to birds from cats, rodent poison, etc.;
• Concern that the project could introduce Argentine ants and impacts on native ant populations;
• Concern related to potential impacts to Bay checkerspot butterfly from reduction in grazing, if grazing were to continue to be allowed in open space, and how far from the houses; and
• Concern related to potential impacts to natural areas from children and pets.

3.4.1 Existing Conditions

For the purposes of this Biological Resources section, the project site is composed of three discrete areas:

• project footprint, which include approximately 88.9 acres of proposed development and roads associated with the proposed project,
• managed grasslands, which include approximately 8.2 acres of open space and right-of-way areas within the rural homelands that will be managed in a natural state for the benefit of the community, and
• conservation lands, which include approximately 1,947 acres of prime open space that supports a range of sensitive habitats and special-status species.

The Natural Resource Avoidance and Impact Assessment (Appendix H) provides a brief history of the project design and project modifications. Appendix H describes how the applicant has established the project footprint within the greater project site to avoid habitat for special-status species and other protected environmental resources, based on information provided through six years of biological surveys and other natural resource assessments at the project site. The soils and hydrology of the project site are described in Section 3.6, “Geology and Soils”, and Section 3.9, “Hydrology and Water Quality”, respectively.

Vegetation/Biological Communities

Regional

Vegetation in the Santa Clara Valley varies from chaparral to oak savanna and woodlands. The Santa Clara Valley extends southeast from the southern terminus of the San Francisco Bay to Uvas/Llagas watershed past Hollister, CA. In this region, areas of chaparral and scrub occupy well-drained alluvial soils near the foothills, while oak savannas and woodlands are located between foothills, along the edges of ephemeral, seasonal, and perennial water features. Non-native grassland and graze land dominates large portions of the foothills along the eastern Santa Clara Valley.
Project Site

Table 3.4-1 summarizes the area of each biological community type observed in the project site. Biological communities in the project site include non-native annual grassland, serpentine bunchgrass grassland, scrub, mixed oak woodland, wetlands, waters, and riparian. Descriptions for each biological community are contained in the Biological Resources Assessment Report and associated update (WRA, 2011; 2014). The location of each of these habitat types is provided in Figure 3.4-1.

WRA first identified and mapped biological communities in the field during site visits on March 31 and April 1, 2008. These surveys were conducted by WRA biologists who are familiar with plant species and biological communities in the area. The entire project site was traversed on foot. Additional field notes and species lists for each biological community were recorded. Boundaries of each biological community were established based on plant species composition, density, and diversity. Communities were distinguished by homogeneity of species, soils, slope, and other landscape features as much as possible; some communities, such as non-native annual grassland, include mosaics of varying habitat features consistent with this type of grassland. Community boundaries were hand-drawn onto field maps and then digitized using ArcMap GIS technology. All observed plants were identified to the taxonomic level necessary to identify distinct species using The Jepson Manual (Baldwin et al., 2012).

Table 3.4-1: Biological Community Acreages in the Project Site.

<table>
<thead>
<tr>
<th>Biological Community</th>
<th>Acres (rounded)</th>
<th>Percent of Total Project Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Non-Native Annual Grassland</td>
<td>1,273</td>
<td>59</td>
</tr>
<tr>
<td>Serpentine Bunchgrass Grassland</td>
<td>675</td>
<td>31</td>
</tr>
<tr>
<td>Diablan Sage Scrub</td>
<td>98</td>
<td>5</td>
</tr>
<tr>
<td>Mixed Oak Woodland</td>
<td>55</td>
<td>2</td>
</tr>
<tr>
<td>Mixed Riparian Woodland</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>Seasonal Wetlands</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>Coastal and Valley Freshwater Marsh</td>
<td>1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Riverine</td>
<td>2</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Pond</td>
<td>1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Developed</td>
<td>5</td>
<td>&lt;1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,150</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Biological Resources Assessment Report and update (WRA, 2011; 2014)
Figure 3.4-1: Biological Communities on the Proposed Project Site

Source: Young Ranch Draft Resource Management Plan (Appendix D)
WRA further refined the biological communities mapping during several follow up site visits between 2008 and 2011. These efforts included:

- Focused wildlife species surveys: Adult BCB surveys were conducted during the 2008, 2009, 2010, and 2011 flight season (March through April).

- Plant species surveys:
  - Focused rare plant survey: conducted over the entire project site in March, April, and May of 2008 and 2009 and additionally in March, 2010.
  - Fragrant fritillary focused survey: conducted on March 1, 2010 in the serpentine grasslands throughout the project site.
  - Smooth lessingia focused survey: conducted July 14, 2011 in the serpentine grasslands throughout the project site.
  - Artichoke thistle mapping surveys: conducted on July 14, 2011 throughout the project site.
  - Barbed goat grass mapping: conducted in May and June of 2010 over the entire project site and additionally on June 8, 2011 in previously documented areas.

- Arborist Survey: Conducted on June 28 and 29, 2011 on approximately 773 acres of the northern portion of the project site.

- Protocol wetland delineation: 895 acres of the northern portion of the 2,150-acre project site were delineated on April 19 and 26, 2011.

The resulting habitat map is included in this EIR as Figure 3.4-1.

**Wildlife Movement Corridors**

**Regional**

Wildlife movement in the foothills of eastern Santa Clara County is mostly unrestricted by development. Large portions of oak savannah and chaparral provide cover for species moving through the area, while non-native grassland and graze land provide poorer land for terrestrial species to migrate through. The Pacific flyway encompasses the entire west coast of California, and migrating bird species utilize the trees and riparian corridors within the region, especially those associated with riverine features, for foraging and rest.

**Project Site**

For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. On a broader level, corridors also function as avenues along which wide-ranging animals can travel, plants can propagate, genetic interchange can occur, populations can move in response to environmental changes and natural disasters, and threatened species can be replenished from other areas. In extreme cases, environmental corridors provide narrow connectivity past poor or hostile habitat areas between large areas of open space on a local or regional scale.
The Santa Clara Valley Habitat Plan (VHP) establishes a conservation strategy to preserve large blocks of high quality habitat and to maintain linkages between such habitat blocks, while also allowing for development that is consistent with the conservation strategy. WRA prepared a Wildlife Linkage Assessment (and associated update) that modeled pre-project conditions (WRA, 2013a; 2014d). The WRA assessment established a large study area which encompassed approximately 13,867 acres. Of these 13,867 acres, 88 percent is comprised of undeveloped land, including the project site. The study focused primarily on Bay checkerspot butterfly (BCB) and large mammals, as BCB movement and large mammal movement have the greatest potential to be affected by a development project. For BCB, the study found that the project footprint does not provide important corridors between habitat units. Essentially, the study indicated that all of the least cost paths\(^1\) for BCB movement are not located within the project footprint.

In the project region, the vegetation communities along seasonal and perennial streams likely function as wildlife corridors for amphibians and reptiles, such as the California red-legged frog (CRLF), California tiger salamander (CTS), and western pond turtle. Existing dirt roadways within the project site may be used by wildlife, particularly larger mammals, as a movement corridor. Natural habitats on the project site are surrounded by large areas of open natural habitats to the northeast, east, and southeast. As a result, the project site does not provide narrow connectivity between large areas of open space on a local or regional scale, but rather allows broad-scale movement of wildlife through the project site.

**Wetlands and Waters of the U.S. and Waters of the State**

**Regional**

Wetlands and Waters of the U.S. and Waters of the State are more common in the Santa Clara Valley, and become rarer along the foothills. Water features in the eastern Santa Clara County within the foothills are generally limited to stock ponds for cattle, and seasonal and ephemeral features that drain to perennial features within the floor of the Santa Clara Valley.

**Project Site**

On April 19 and 26, 2011, WRA performed a routine delineation of Waters of the U.S., including wetlands that may potentially be subject to jurisdiction of the U.S. Army Corps of Engineers (USACE) (WRA, 2011a). The surveyed area covered approximately 895 acres of the approximately 2,150-acre project site. A number of features in the project site are expected to be considered Waters of the U.S. under the Clean Water Act and Waters of the State under the Porter-Cologne Water Quality Control Act. These features include a total of 7.3 acres of potential jurisdictional Waters of the U.S., including seep wetlands, seasonal wetland swales, freshwater emergent marsh, seasonal and ephemeral streams and perennial stock ponds.

This total includes 6.26 acres of wetlands and 1.04 acres (10,190 linear feet) of perennial to ephemeral other waters. These wetlands and waters are tributary to traditional navigable waters and therefore meet the definition of potential jurisdictional Waters of the U.S. under Section 404 of the CWA. The delineation survey area contains

\(^1\) Least cost path is a distance analysis tool within GIS that uses the path between two locations that costs the least to those travelling along it to determine the most cost-effective route between a source and destination.
a total of 0.29 acre of wetlands and waters that may be considered isolated and non-jurisdictional under Section 404 of the CWA. However, these wetlands may be considered Waters of the State, and jurisdictional under Section 401 of the CWA. The delineation survey area contains a total of 0.75 acre of wetlands that are constructed by man in otherwise dry lands, and therefore non-jurisdictional under Section 404 and 401 of the CWA.

**Special-Status Species**

The designation of a special-status species is determined by local, State, and/or federal regulations. These species are commonly characterized as species that are at potential risk or actual risk to their persistence in a given area or across their native habitat (locally, regionally, or nationally) and are identified by a state and/or federal resource agency as such. These agencies include governmental agencies such as the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS), or private organizations such as California Native Plant Society (CNPS). The degree to which a species is at risk of extinction is the limiting factor on a species status designation. Risk factors to a species’ persistence or population’s persistence include habitat loss, increased mortality factors (take, electrocution, etc.), invasive species, and environmental toxins.

In context of the CEQA environmental review, special-status plant species are considered plant species that are:

- Listed under the Federal Endangered Species Act (FESA) as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under the California Endangered Species Act (CESA) as threatened, endangered, rare, or a candidate species.
- Ranked by the CNPS as rare or endangered in Ranks 1A, 1B, 2A, 2B, 3, or 4.

For purposes of this CEQA environmental review, special-status animals are considered animal species that are:

- Listed under FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under CESA as threatened, endangered, or a candidate threatened or endangered species.
- Designated by the CDFW as a California species of special concern.
- Listed in the California Fish and Game Code as fully protected species (fully protected birds are provided in Section 3511, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515).

**Regional**

The Santa Clara Valley supports numerous special-status plant and animal species. 35 special-status plant species and 44 special-status wildlife species have been documented as inhabiting the foothills of the eastern Santa Clara County; the region that the project is located (WRA, 2011; 2014).
**Project Site**

**Plants**

Thirty-five special-status plant species have been documented in the vicinity of the project site, and WRA studied the potential for each of these 35 special-status plant species to occur in the project site (WRA, 2011; 2014). Of the 35 special-status plant species with potential to occur in the project vicinity, seven are present on site. Table 3.4-2 summarizes the numbers of individuals detected during the surveys and the acreage occupied by special-status plant species observed on the project site. Table 3.4-3 provides information on another seven of the 35 special-status plants that were not observed on site but have moderate potential to occur there. The remaining 21 species are unlikely or have no potential to occur on site (WRA, 2011; 2014).

<table>
<thead>
<tr>
<th>Species</th>
<th>Conservation Status*</th>
<th>Numbers of Individuals</th>
<th>Acreage of Occupied Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragrant fritillary (<em>Fritillaria liliacea</em>)</td>
<td>CNPS 1B.2</td>
<td>956</td>
<td>2.3</td>
</tr>
<tr>
<td>Hall's bush mallow (<em>Malacothamnus hallii</em>)</td>
<td>CNPS 1B.2</td>
<td>2,630</td>
<td>19.2</td>
</tr>
<tr>
<td>Metcalf Canyon jewel flower (<em>Streptanthus glandulosus ssp. albidus</em>)</td>
<td>Federal Endangered CNPS 1B.1</td>
<td>31,711</td>
<td>40.6</td>
</tr>
<tr>
<td>Most beautiful jewel flower (<em>Streptanthus glandulosus ssp. peramoenus</em>)</td>
<td>CNPS 1B.2</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Mt. Hamilton thistle (<em>Cirsium fontinale var. campylon</em>)</td>
<td>CNPS 1B.2</td>
<td>8,826</td>
<td>3.4</td>
</tr>
<tr>
<td>Santa Clara Valley dudleya (<em>Dudleya abramsii ssp. setchellii</em>)</td>
<td>Federal Endangered CNPS 1B.1</td>
<td>18,266</td>
<td>40.9</td>
</tr>
<tr>
<td>Smooth lesingia (<em>Lessingia micradenia var. glabrata</em>)</td>
<td>CNPS 1B.2</td>
<td>23,330</td>
<td>80.2</td>
</tr>
<tr>
<td>Woodland monolopia (<em>Monolopia gracilens</em>)</td>
<td>CNPS 1B.2</td>
<td>2,390</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Source: Focused Rare Plant Survey Report and addendum (WRA, 2012; 2013).

*California Native Plant Species (CNPS) Rankings:

1B.1 = rare, threatened, or endangered in California and elsewhere; ranked as seriously threatened in California

1B.2 = rare, threatened, or endangered in California and elsewhere; ranked as moderately threatened in California
### Table 3.4-3: Special-status Plant Species with Moderate Potential to Occur in the Project Site

<table>
<thead>
<tr>
<th>Species</th>
<th>Conservation Status*</th>
<th>Potential for Occurrence</th>
<th>Habitat</th>
<th>Blooming Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bent-flowered fiddleneck \ (<em>Amsinckia lunaris</em>)</td>
<td>CNPS 1B.2</td>
<td>Moderate</td>
<td>Grassy openings in oak woodlands</td>
<td>March to June</td>
</tr>
<tr>
<td>Round-leaved filaree \ (<em>California macrophylla</em>)</td>
<td>CNPS 1B.1</td>
<td>Moderate</td>
<td>Valley and foothill grassland or open cismontane woodland habitats</td>
<td>March to May</td>
</tr>
<tr>
<td>Loma Prieta hoita \ (<em>Hoita strobilina</em>)</td>
<td>CNPS 1B.1</td>
<td>Moderate</td>
<td>Mesic areas with serpentine features in chaparral, cismontane woodlands, and riparian woodlands</td>
<td>May to October</td>
</tr>
<tr>
<td>Showy golden madia \ (<em>Madia radiata</em>)</td>
<td>CNPS 1B.1</td>
<td>Moderate</td>
<td>Cismontane woodland and valley and foothill grassland</td>
<td>March to May</td>
</tr>
<tr>
<td>Arcuate bush-mallow \ (<em>Malacothamnus arcuatus</em>)</td>
<td>CNPS 1B.2</td>
<td>Moderate</td>
<td>Chaparral and cismontane woodland</td>
<td>April to September</td>
</tr>
<tr>
<td>Mt. Diablo phacelia \ (<em>Phacelia phacelioides</em>)</td>
<td>CNPS 1B.2</td>
<td>Moderate</td>
<td>Rocky areas of chaparral and cismontane woodlands</td>
<td>April through May</td>
</tr>
<tr>
<td>Rock sanicle \ (<em>Sanicula saxitilis</em>)</td>
<td>CNPS 1B.2</td>
<td>Moderate</td>
<td>Rocky soils in broadleaved upland forests, chaparral, and valley and foothill grassland</td>
<td>April to May</td>
</tr>
</tbody>
</table>

* California Native Plant Species (CNPS) Rankings:

*1B.1 = rare, threatened, or endangered in California and elsewhere; ranked as seriously threatened in California

*1B.2 = rare, threatened, or endangered in California and elsewhere; ranked as moderately threatened in California

Source: Focused Rare Plant Survey Report and addendum (WRA, 2012; 2013).

The rare plant surveys conducted at the project site have not been protocol-level for all species with potential to occur within the project site, as the focus of WRA’s surveys were for the federal and CNPS-listed species previously known or observed to occur onsite. Table 3.4-3 summarizes the seven other special-status plant species with moderate potential to occur in the project site, but that were not observed during the surveys. These species are discussed below. Potential for these species remains even though they were not observed, either because the habitat in which they are known to occur was not surveyed, or because surveys were not conducted during the blooming period for that species.

**Wildlife**

Forty-four special-status species of wildlife have been recorded in the vicinity of the project site (WRA, 2011; 2014). Eleven special-status wildlife species were observed in the project site by WRA during several site visits associated with BCB surveys. In addition, five other special-status wildlife species have a high potential to occur in the project site, while 17 species have a moderate potential. A list of the special-status species that were observed, or have a potential to occur on the project site is provided in Table 3.4-4.
### Table 3.4-4: Special-status Wildlife Species Observed or with Moderate to High Potential to occur in the Project Site.

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Potential for Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>California tiger salamander (<em>Ambystoma californiense</em>)</td>
<td>Federal Threatened, State Threatened</td>
<td>Observed</td>
</tr>
<tr>
<td>California red-legged frog (<em>Rana draytonii</em>)</td>
<td>Federal Threatened, CDFW Species of Special Concern</td>
<td>Observed</td>
</tr>
<tr>
<td>Bay checkerspot butterfly (<em>Euphydryas editha bayensis</em>)</td>
<td>Federal Threatened</td>
<td>Observed</td>
</tr>
<tr>
<td>White-tailed kite (<em>Elanus leucurus</em>)</td>
<td>CDFW Fully Protected Species</td>
<td>Observed</td>
</tr>
<tr>
<td>Golden eagle (<em>Aquila chrysaetos</em>)</td>
<td>CDFW Fully Protected Species, USFWS Bird of Conservation Concern</td>
<td>Observed</td>
</tr>
<tr>
<td>Northern harrier (<em>Circus cyaneus</em>)</td>
<td>CDFG Species of Special Concern</td>
<td>Observed</td>
</tr>
<tr>
<td>Burrowing owl (<em>Athene cunicularia</em>)</td>
<td>CDFW Species of Special Concern, USFWS Bird of Conservation Concern</td>
<td>Observed</td>
</tr>
<tr>
<td>Nuttall’s woodpecker (<em>Picoides nuttalli</em>)</td>
<td>USFWS Bird of Conservation Concern</td>
<td>Observed</td>
</tr>
<tr>
<td>Yellow-billed magpie (<em>Pica nuttali</em>)</td>
<td>USFWS Bird of Conservation Concern</td>
<td>Observed</td>
</tr>
<tr>
<td>Oak titmouse (<em>Baeolophus inornatus</em>)</td>
<td>USFWS Bird of Conservation Concern</td>
<td>Observed</td>
</tr>
<tr>
<td>Grasshopper sparrow (<em>Ammotragus savannarum</em>)</td>
<td>CDFG Species of Special Concern</td>
<td>Observed</td>
</tr>
<tr>
<td>San Francisco dusky-footed woodrat (<em>Neotoma fuscipes annotens</em>)</td>
<td>CDFG Species of Special Concern, High</td>
<td>High</td>
</tr>
<tr>
<td>American badger (<em>Taxidea taxus</em>)</td>
<td>CDFG Species of Special Concern, High</td>
<td>High</td>
</tr>
<tr>
<td>Allen’s hummingbird (<em>Selasphorus sasin</em>)</td>
<td>USFWS Bird of Conservation Concern</td>
<td>High</td>
</tr>
<tr>
<td>Prairie falcon (<em>Falco mexicanus</em>)</td>
<td>CDFG Species of Special Concern</td>
<td>High</td>
</tr>
<tr>
<td>Loggerhead shrike (<em>Lanius ludovicianus</em>)</td>
<td>CDFG Species of Special Concern, USFWS Bird of Conservation Concern</td>
<td>High</td>
</tr>
<tr>
<td>Pallid bat (<em>Antrozous pallidus</em>)</td>
<td>CDFG Species of Special Concern, Western Bat Working Group (WBWG) High Priority</td>
<td>Moderate</td>
</tr>
<tr>
<td>Western red bat (<em>Lasius blossevillii</em>)</td>
<td>WBWG High Priority</td>
<td>Moderate</td>
</tr>
<tr>
<td>Hoary bat (<em>Lasius cinereus</em>)</td>
<td>California Species of Special Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Ringtail (<em>Bassariscus astutus</em>)</td>
<td>CDFG Fully Protected Species</td>
<td>Moderate</td>
</tr>
<tr>
<td>Ferruginous hawk (<em>Buteo regalis</em>)</td>
<td>CDFG Species of Special Concern, USFWS Bird of Conservation Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>American peregrine falcon (<em>Falco peregrinus anatum</em>)</td>
<td>CDFG Fully Protected Species</td>
<td>Moderate</td>
</tr>
<tr>
<td>Short-eared owl (<em>Asio flammeus</em>)</td>
<td>CDFG Species of Special Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Long-eared owl (<em>Asio otus</em>)</td>
<td>CDFG Species of Special Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Vaux’s swift (<em>Chaetura vauxi</em>)</td>
<td>CDFG Species of Special Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Rufous hummingbird (<em>Selasphorus rufus</em>)</td>
<td>USFWS Bird of Conservation Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Lewis woodpecker (<em>Melanerpes lewis</em>)</td>
<td>USFWS Bird of Conservation Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Yellow warbler (<em>Dendroica petechial</em>)</td>
<td>CDFG Species of Special Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Saltmarsh common yellowthroat (<em>Geothlypis stellata</em>)</td>
<td>CDFG Species of Special Concern, USFWS Bird of Conservation Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Tricolored blackbird (<em>Agelaius tricolor</em>)</td>
<td>CDFG Species of Special Concern, USFWS Bird of Conservation Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Lawrence’s goldfinch (<em>Carduelis lawrencei</em>)</td>
<td>USFWS Bird of Conservation Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Western pond turtle (<em>Actinemys marmorata</em>)</td>
<td>CDFG Species of Special Concern</td>
<td>Moderate</td>
</tr>
<tr>
<td>Coast horned lizard (<em>Phrynosoma blainvillii</em>)</td>
<td>CDFG Species of Special Concern</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Source: WRA, 2011; 2014
3.4 Biological Resources

3.4.2 Regulatory Framework

The proposed project would be subject to applicable regulations pertaining to special-status species, migratory birds, wetlands, waters, trees and sensitive vegetation communities, as detailed below.

Federal

Federal Endangered Species Act (FESA)

The FESA provides protection for endangered and threatened species and requires conservation of the habitat upon which those species depend. An “endangered” species is a species in danger of extinction throughout all or a significant portion of its range. A “threatened” species is one that is likely to become an endangered species in the foreseeable future throughout all or a significant portion of its range. Other special-status species include “proposed” and “candidate” species. Proposed species are those that have been officially proposed (in the Federal Register) for listing as threatened or endangered. Candidate species are those for which enough information is on file to propose listing as endangered or threatened. A “delisted” species is one whose population has reached its recovery goal and is no longer in jeopardy.

The FESA is administered by the USFWS and the National Marine Fisheries Service (NMFS. In general, NMFS is responsible for protection of FESA-listed marine species and anadromous fishes, while other fish, wildlife and plant species are under USFWS jurisdiction.

FESA Section 9 prohibits the “take” of listed species which is defined by FESA to mean “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Under federal regulations, take is defined further to include habitat modification or degradation where it actually results, or is reasonably expected to result, in death or injury to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Projects that would result in “take” of any federally listed threatened or endangered species are required to obtain authorization from the USFWS or NMFS through either Section 10 (a) (incidental take permit) or Section 7 (Interagency Consultation) of FESA, depending on whether or not the federal government is involved in permitting or funding the project. Under the regulations of the FESA, the USFWS may authorize take when it is incidental to, but not the purpose of, an otherwise lawful act.

Federal Migratory Bird Treaty Act

Migratory birds and their occupied nests are protected by the Migratory Bird Treaty Act (MBTA. This applies to all wild birds except the house sparrow (Passer domesticus), European starling (Sturnus vulgaris), rock dove (Columba livia), and some game species. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs and prohibits the possession of all nests of protected bird species whether they are active or inactive. An active nest is defined as having eggs or young, as described by the Department of the Interior in its April 16, 2003 Migratory Bird Permit Memorandum. Nest starts (nests that are under construction and do not yet contain eggs) are not protected from destruction.
Federal Clean Water Act, Section 404

Under Section 404 of the Clean Water Act, the USACE regulates the discharge of dredged and fill materials into “Waters of the United States.” These jurisdictional waters of the U.S. include, but are not limited to, lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, and wetlands adjacent to any water of the U.S. (33 CFR Section 328). In areas subject to tidal influence, Section 404 jurisdiction extends to the high-tide line. Projects that impact jurisdictional wetlands and non-wetland waters of the U.S. require a Section 404 permit from the USACE. There are two types of permits: individual permits and nationwide permits. Nationwide permits are issued by USACE for specific types of activities that have minimal individual or cumulative adverse environmental impacts. Individual permits are required for more complex projects that exceed the impact threshold for a nationwide permit.

State

California Endangered Species Act (CESA)

The CDFW administers the CESA. Similar to FESA, the CESA authorizes the CDFW to designate, protect, and regulate the taking of special-status species in the State of California. CESA defines “endangered species” as those whose continued existence in California is jeopardized. State-listed “threatened” species are those not currently threatened with extinction, but which may become endangered if their environments change or deteriorate.

Section 2080 of the California Fish and Game Code generally prohibits the taking of state-listed plants and animals. Under Section 86 of the Fish and Game Code, take is defined as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Under California Fish and Game Code Section 2081, CDFW may “authorize, by permit, the take of endangered species, threatened species, and candidate species if...the take is incidental to an otherwise lawful activity” and if certain other requirements are met.

Clean Water Act, Section 401, and Porter-Cologne Act

The Regional Water Quality Control Boards (RWQCBs) protect the beneficial uses of surface water and groundwater in California under the Porter-Cologne Act and Section 401 of the Clean Water Act, with a focus on water quality. According to Section 401 of the CWA, “any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge would comply with the applicable provisions under the Federal Clean Water Act.” The Porter-Cologne Water Quality Act provides the RWQCB with regulating actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the state” (water code § 13260(a)). “Waters of the State” are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (water code § 13050 (e)). Many wetlands fall into RWQCB jurisdiction, including some wetlands and waters that are not subject to USACE jurisdiction. RWQCB jurisdiction of other waters, such as streams and lakes, extends to all areas below the ordinary high water mark.
California Fish and Game Code Sections 1600-1616

The CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes under the authority of the Lake and Streambed Alteration Agreement, Section 1600 of the Fish and Game Code. In riparian areas, CDFW jurisdictional limits are usually delimited by the tops of the stream bank or the outer edge of contiguous riparian vegetation, whichever is wider. A Lake or Streambed Alteration Agreement with the CDFW is necessary when a project would alter the flow, bed, channel, or bank of a stream or lake. CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses, including dry washes, characterized by the presence of hydrophytic vegetation, the location of definable bed and banks, and the presence of existing fish or wildlife resources.

Other California Fish and Game Code Sections

In the 1960s, before CESA was enacted, the California Legislature identified species for specific protection under the California Fish and Game Code. Fully protected species are described in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These fully protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take, except for collecting these species for necessary scientific research, and relocation of the bird species for the protection of livestock. Species designated as fully protected or protected may or may not be listed as endangered or threatened.

Bird nests are protected in California under Section 3503 of the California Fish and Game Code. Section 3503 states that it is “unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFW. CDFW may issue permits authorizing a take. Section 3503.5 of the California Fish and Game Code specifies that “it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.”

CEQA Guidelines Section 15380

As indicated, Section 15380 of the CEQA Guidelines defines “endangered” and “rare” animal and plant species for purposes of CEQA. Species are considered rare or endangered if it can be demonstrated that the species meets the specific criteria established in the CEQA Guidelines Section 15380(b) for a rare or endangered species.

Public Resources Code, Section 21083.4-Oak Woodland Conservation

California Public Resources Code (CPRC, Section 21083.4 requires that, as part of determining whether an environmental impact report, a negative declaration, or a mitigated negative declaration shall be required for any project (Section 21081.1 CPRC), a county determine whether a project within its jurisdiction may result in a conversion of oak woodlands that would have a significant effect on the environment. If a significance finding is made, the County shall require oak woodland mitigation that may include one or more of the following measures: (1) conserve oak woodlands through the use of conservation easements, (2) plant an appropriate number of trees, (3) contribute funds to the Oak Woodlands Conservation Fund, and (4) other measures as approved by the County
that reduce the impact to less than significant. Several types of projects are exempt from these provisions including those undertaken pursuant to an approved Natural Community Conservation Plan, affordable housing projects, conversion of oak woodlands on agricultural land and when the regulatory program of a state agency requires a plan or other written documentation containing environmental information (Section 21080.5 CPRC). For purposes of this section, the term “oak” is defined as a native tree species in the genus *Quercus* with a diameter at breast height of greater than 5 inches and is not a species designated as use for commercial purposes including (A) the cutting or removal of trees that are processed into logs, lumber, or other wood products.

**Local**

**Santa Clara County Zoning Ordinance**

The County parcels are zoned by the County as Hillside (HS. The purpose of the HS zoning district is to preserve mountainous lands unplanned or unsuited for urban development primarily as open spaces uses and to promote those uses that support and enhance a rural character, protect and promote wise use of natural resources, and avoid risks imposed by natural hazards found in these areas. Such mountainous lands are also watersheds that may also provide resources such as mineral resources, forestry resources, animal habitat, rare or locally unique plant and animal communities, historic and archeological resources, scenic resources, agricultural resources (e.g., grazing lands), and recreational areas. Clustering of residential development is also encouraged in order to preserve contiguous open space and achieve efficiency in the provision of access to dwellings.

As discussed further in Section 3.10, Land Use and Planning, the defined development area for proposed clustered subdivisions within the HS zoning district must total less than 10 percent of the parcel, and at least 90 percent of the parcel must consist of permanently preserved open space via dedication of an open space easement that would be owned by the County, per the provisions of § 5.45.050(D) of the Zoning Ordinance.

**Santa Clara Valley Habitat Conservation Plan**

The VHP, a joint Habitat Conservation Plan (HCP/Natural Communities Conservation Plan (NCCP, was pursued by six local partners (the Santa Clara Valley Water District, the County of Santa Clara, the Santa Clara Valley Transportation Authority, and the cities of San Jose, Gilroy, and Morgan Hill) and two resource agencies (CDFW and USFWS). The VHP is “intended to provide an effective framework to protect, enhance, and restore natural resources in specific areas of Santa Clara County, while improving and streamlining the environmental permitting process for impacts on threatened and endangered species” (Santa Clara Valley Habitat Agency, 2014). The final VHP was approved and adopted by the six local partners in 2013.

The VHP includes a variety of requirements and avoidance measures designed to limit the impacts of future developments on the species and habitats that are covered by the VHP. For example, Section 7.2.2 of the VHP requires that baseline conditions be documented and a management plan be implemented. The management plan shall include, but is not limited to:

- Prioritizing implementation of conservation actions to best achieve biological objectives.
- Develop reserve unit management plans (described in VHP Chapter 5, Section 5.2.5 Land Management).
• Confirm species monitoring groups and refine the monitoring schedule.

• Identify biotic and abiotic indicators (see section on indicators for description) for testing during the targeted studies phase.

• Select monitoring protocols and identify sampling design for status and trends and effects monitoring. Test experimental designs during the targeted studies phase, as necessary.

• Develop criteria for measuring success of enhancement, restoration, and creation effects

• Develop criteria to assess effectiveness of conditions on covered activities.

The VHP also requires that development fees be paid, based on the acreage of habitat areas directly impacted. These fees are paid into an endowment fund for post-permit management and monitoring costs, in addition to habitat plan costs during the permit term. Development fees within the VHP include $13,630 per acre for mostly natural lands, $9,450 per acre for mostly agricultural and rural residential lands, and an additional $44,355 per acre for serpentine areas.

Species covered by the VHP include CTS, CRLF, western burrowing owl, western pond turtle, and BCB. Species not covered by the VHP, but still discussed within this EIR, include San Francisco dusky-footed woodrat, Blainville’s horned lizard, American badger, ringtail, special-status bats, and golden eagle.

Santa Clara County Planning Office Guide to Evaluating Oak Woodland Impacts

In accordance with California Public Resources Code 21083.4 (described above), the Santa Clara Planning Office provides guidance for evaluating the significance of impacts to oak woodland. This guidance defines a significant impact to oak woodlands as a land development project that results in 0.5 acre or more decrease in native oak canopy within oak woodland in the project area. If it is determined that the project is mapped within an oak woodland area, a tree removal plan and arborist report are required to be submitted to the County which identifies the species type, diameter, and amount of canopy of oak trees proposed for removal.

If the project would remove 0.5 acre or more of oak woodland canopy, at least two of the following MMs must be implemented to mitigate for oak woodland impacts.

a) Planting replacement oak trees

b) Conservation easement

c) Other options (e.g., in lieu fees paid to an agency)

Santa Clara County Tree Removal Ordinance

Santa Clara County requires that an Administrative Permit or Tree Removal Permit and MMs be obtained for removal of any protected tree on any private or public property in designated areas (Design Review and Historic districts, smaller hillside properties) of the County. A protected tree is defined as any tree having a trunk that measures 37.7 inches or more in circumference (12 inches in diameter) at a height of 4.5 feet above the ground or immediately below the lowest branch, whichever is lower, or in the case of multi-trunk trees, a trunk size of 75.4 inches in circumference or more (24 inches or more in diameter). Mitigation is required in order to preserve and
protect trees in areas that are graded and/or where construction activities are proposed within the canopy of a tree or trees. Trees greater than 24 inches or more in diameter removed as a result of the project would be subject to the tree removal ordinance.

**Santa Clara County General Plan**

The Habitat and Biodiversity Element of the Santa Clara County General Plan outlines a series of strategies and policies aimed at protecting and enhancing vegetation and wildlife. The selected policies listed below are applicable to the proposed project.

C-RC 30 Habitat and other resource areas not suitable or intended for urbanization should be excluded from urbanization, and non-urban development which occurs within resource conservation areas should minimize impacts upon habitat and biodiversity.

C-RC 31 Areas of habitat richest in biodiversity and necessary for preserving threatened or endangered species should be formally designated to receive greatest priority for preservation, including baylands and riparian areas, serpentine areas, and other habitat types of major significance.

C-RC 32 Land uses permitted in resource conservation areas should not be allowed to degrade the integrity of natural habitat.

C-RC 33 Linkages and corridors between habitat areas should be provided to allow for migration and otherwise compensate for the effects of habitat fragmentation.

R-RC 36 In cluster residential developments or other projects where open space dedication is required, the stream, riparian areas, and freshwater marshes should be included within the restricted open space area of the project or protected by other enforceable mechanisms, such as deed restrictions or conservation easements.

R-RC 37 Lands near creeks, streams, and freshwater marshes shall be considered to be in a protected buffer area, consisting of the following:

1. 150 feet from the top bank on both sides where the creek or stream is predominantly in its natural state;
2. 100 feet from the top bank on both sides of the waterway where the creek or stream has had major alterations; and
3. In the case that neither (1) nor (2) are applicable, an area sufficient to protect the stream environment from adverse impacts of adjacent development, including impacts upon habitat, from sedimentation, biochemical, thermal and aesthetic impacts.

R-RC 38 Within the aforementioned buffer areas, the following restrictions and requirements shall apply to public projects, residential subdivisions, and other private non-residential development:

a) No building, structure or parking lots are allowed, exceptions being those minor structures required as part of flood control projects.

b) No despoiling or polluting actions shall be allowed, including grubbing, clearing, unrestricted grazing, tree cutting, grading, or debris or organic waste disposal, except for actions such as
those necessary for fire suppression, maintenance of flood control channels, or removal of
dead or diseased vegetation, so long as it would not adversely impact habitat value.
c) Endangered plant and animal species shall be protected within the area.

R-RC 39 Within areas immediately adjacent to the stream buffer area, new development should minimize
environmental impacts on the protected buffer area, and screening of obtrusive or unsightly
aspects of a project should be considered as a means of preserving the scenic value of riparian
areas.

R-RC 40 Where new roads, clustered residential development, or subdivisions are proposed in proximity of
streams and riparian areas, they should be designed so that:

a) riparian vegetation is retained;
b) creeks and streams remain open and unfenced; and
c) there is adequate separation of new roads and building sites from the stream environment.

3.4.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the
level of impacts to mineral resources. The proposed project would result in a significant impact if it would:

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 CDFW or USFWS;
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in
local or regional plans, policies, regulations or by the CDFW or USFWS;
c) Have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean
Water Act (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; or
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.

Assessment Methodology

The above standards of significance are assessed in this section as the basis for determining the significance of
impacts related to biological resources.
Specifically, the evaluation focuses on whether the proposed project would have an adverse effect on special-status plant and wildlife species, or would result in the loss, modification or degradation of federally protected or state protected wetlands and other waters or sensitive natural plant communities including riparian habitats. The evaluation of impacts takes into account local ordinances that protect biological resources, and the VHP, as well as the measures that have been incorporated into the proposed project to reduce the potential for impacts to biological resources. The evaluation of potential adverse impacts on biological resources includes an analysis of the significance of the impacts and if necessary the significance of the impacts after mitigation measures (MMs are applied).

Impacts and Mitigation

Impact BR-1: The proposed project could 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 CDFW or USFWS. *(Less Than Significant With Mitigation)*

**Special-Status Plants**

*Construction*

The project site contains approximately 187 acres of land that surveys have determined contain special-status plant species, as shown in detail on Table 3.4-2. Table 3.4-5 provides an overview of impacts to natural vegetation communities on the project site as well as acreage that would preserved in open space easements. Most special-status plant species found on the project site occur on serpentine soils that are primarily located in the southern portion of the site, which would be preserved as conservation lands.

The project footprint would mostly avoid direct construction impacts to known populations of special-status plants and their supporting habitat. However, road development would affect approximately 2.4 acres of areas known to contain special-status plant species. Approximately 0.1 acre of impacts to serpentine bunchgrass grassland would be due to the alignment of the entry road from Silver Valley Creek Road. The location of the entry road is constrained by site topography, making these minor impacts unavoidable. Approximately 1.6 acres of impacts would be due to widening of the existing ranch road in the southern portion of the site to accommodate the emergency vehicle access (EVA road. An additional 0.7 acres of impacts would be due to the construction of required emergency turnouts and drainage improvements within the right-of-way for the emergency vehicle access road. While the proposed EVA road would avoid direct impacts to known special-status plant species, the EVA road alignment through the southern portion of the project site is proposed in close proximity to populations of several special-status plant species. Specifically, creation of an all-weather surface in the road bed and improvements within the right-of-way along the EVA road would occur within close proximity to occurrences of Santa Clara Valley Dudleya, Metcalf Canyon jewel flower (*Streptanthus glandulosus* ssp. *albidus* [S. *albidus* ssp. *albidus*], Federal Endangered), fragrant fritillary (*Fritillaria liliacea*; CNPS 1B.2), and smooth lessingia (*Lessingia micradenia* var. *glabrata*, CNPS 1B.2). However, this work would not result in direct construction impacts to these occurrences.
### Table 3.4-5: Impacts to and Preservation of Vegetation Communities and Natural Resources

<table>
<thead>
<tr>
<th>Natural Community</th>
<th>Development (area in acres)</th>
<th>Open Space (area in acres)</th>
<th>Total (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lots</td>
<td>Roads</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not Impacted</td>
<td>Impacted</td>
<td>Preserved</td>
</tr>
<tr>
<td>California Non-Native Annual Grassland</td>
<td>113.6</td>
<td>61.0</td>
<td>0</td>
</tr>
<tr>
<td>Serpentine Bunchgrass Grassland</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diablan Sage Scrub</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mixed Oak Woodland</td>
<td>0.1</td>
<td>0.1</td>
<td>0</td>
</tr>
<tr>
<td>Mixed Riparian Woodland</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Seasonal Wetland</td>
<td>&lt;0.1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Riverine</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pond</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Coastal and Valley Freshwater Marsh</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Developed</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>113.8</td>
<td>61.1</td>
<td>0</td>
</tr>
</tbody>
</table>

2 Approximately 0.1 acre of impacts to serpentine bunchgrass grassland are due to the alignment of the Entry Road. The location of the Entry Road is constrained by site topography, making these minor impacts unavoidable. Approximately 1.6 acres of impacts are due to widening of the existing ranch road in the southern portion of the site to accommodate the EVA road. An additional 0.7 acres of impacts are due to the construction of required emergency turnouts and drainage improvements within the right-of-way for the emergency vehicle access road.

3 Impacts to oak woodland include 0.1 acre corresponding to two oak trees that overlap with the Improvement Envelope of Homesite B18. These trees are not scheduled for removal, and as such, the actual impacts to oak woodland are smaller than the apparent impacts by 0.1 acre (i.e., total actual impacts to oak woodland are 0.3 acre.) were not included in the impact calculation as these trees are not proposed to be removed.

4 Based on existing conditions, the proposed project would result in 0.1 acre of impacts to seasonal wetlands due to the presence of a manmade wetland created from a leaking spring box and water trough located within the road alignment between Homesites B6 and B7. Repairs to the spring box and water trough are planned for early 2015, and it is expected that this manmade wetland would revert to upland habitat (i.e., California non-native annual grassland) after the repairs are completed. As such, it is assumed that no impacts to seasonal wetlands would occur by the time the proposed project is constructed; instead, these impacts are included with the California non-native annual grassland community.

5 The 0.3 acre of impact within managed grasslands includes existing dirt ranch roads, as well as portions of the paved EVA road.

6 Impacted areas within the conservation lands (0.2 acre) are limited to the access road in the northern portion of the site. These are existing developed areas and would not be affected by project development.
The Project would comply with the VHP to mitigate direct and indirect impacts to special-status plant species, as detailed in Impact BR-6, including Condition 20 – Avoid and Minimize Impacts to Covered Plant Occurrences.

The VHP requires that all activities be confined to the minimum area necessary to complete the activity or construction. A setback buffer will be established around covered plant occurrences located on any project site or in an adjacent area that could be affected by construction traffic or activities. The setback buffer will be adequate to prevent or minimize impacts during or after project implementation. The plants and buffer area will be protected from encroachment and damage during construction by installing temporary construction fencing. Fencing will be bright-colored and highly visible. Fencing will be designed to keep construction equipment away from plants and prevent unnecessary damage to or loss of plants on the project site. Fencing will be installed under the supervision of a qualified biologist to ensure proper location and prevent damage to plants during installation. Fencing will be installed before any site preparation or construction work begins and will remain in place for the duration of construction. Construction personnel will be prohibited from entering these areas (the exclusion zone) for the duration of project construction.

Section 6.6.2 of the VHP also introduces Condition 19, which requires plant salvage when impacts are unavoidable, for both perennial and annual plant species. The VHP also includes guidance and requirements for site monitoring, assessment, and management.

As stated previously, the EVA road would be constructed in close proximity to special-status plant populations, and may result in indirect impacts to special-status plant species. These indirect impacts may occur in the form of introducing noxious weeds to the area, which could out-compete special-status species. Construction of the road could result in fugitive dust emissions which could impact plant growth and development. Lastly, development of the road and house sites could change the hydrology of the area, resulting in reduced water flow to existing populations of special-status species. Therefore, indirect impacts to special-status plant species would be potentially significant. VHP measure 6.2-89 requires that speed limits be reduced, which would lessen the potential for construction-related fugitive dust emissions to impact special-status plant species. Mitigation Measure BR-1a requires that project personnel receive environmental awareness training. This training would ensure that project personnel are aware of the applicable conditions of the VHP and applicable mitigation measures as they relate to construction activities.

Mitigation Measure BR-1a: Implement Worker Environmental Awareness Program: An education program for construction personnel shall take place prior to construction, and a qualified biologist shall explain to workers how best to avoid the accidental harm of the California tiger salamander, California red-legged frog, western pond turtle, western burrowing owl, Bay checkerspot butterfly, and other special-status wildlife and plant species that may occur on the site. The biologist shall train workers on species recognition, their potential for occurrence in the impact footprint, measures to avoid harm, and penalties for take of a listed species. The program shall consist of a brief presentation by a qualified biologist to explain endangered species concerns to all personnel involved in the proposed project. The program shall include a description of the special-status species that may occur and their habitat needs, an explanation of their status and its protection under the FESA, and a description of the measures being taken to reduce effects to these species during project implementation. Upon completion of the program, employees shall sign a form stating that they attended the training session and understand all the conservation and protection measures. The program shall be recorded electronically, and all future
construction personnel shall be required to review the presentation prior to their initiation of work in the project site and sign the form. The signed forms shall be kept on file for the duration of construction and provided to the County upon request.

With implementation of restrictions within the VHP and Mitigation Measure BR-1a, the proposed project’s construction-related impact to special-status plants would be reduced to less than significant with mitigation.

Operation

Table 3.4-5 provides an overview of the proposed preservation of natural vegetation communities on the project site as well as acreage that would preserved in open space easements. The applicant has proposed that these preserved areas would be managed in accordance with the RMP for the proposed project (Appendix D), as part of ongoing operation. The RMP includes monitoring and adaptive management strategies with the goal of limiting impacts to special status species and habitats. In particular, the RMP states that to maintain the currently quality of the biological habitats on the project site, invasive weed management would focus on maintaining the existing populations of targeted invasive species at no higher than their current level and controlling new populations of aggressively invasive weeds to prevent their spread. Decisions regarding changes to stocking rates and grazing rotations would incorporate the results of species and/or habitat monitoring for federally-listed species.

Within the proposed lot areas of the project site, the Design Guidelines (Appendix C) encourage the use of native plant materials, and prohibit certain species of plants that are considered to be “weedy, invasive, competitive, and self-planting among native plants in agricultural and/or natural settings.”

In addition to the proposed best management practices of the project’s RMP and Design Guidelines, potential related direct and indirect impacts to special-status plant species would be primarily offset by following the requirements of the VHP (as discussed under Impact BR-6, below). Section 7.2.2 of the VHP requires that baseline conditions be documented and a management plan be implemented.

In addition, to limit the spread of Phytophthora and other harmful pathogens, the VHP requires avoidance and minimization measure 6-2-92, which requires all staff working in aquatic systems (i.e., streams, ponds, and wetlands)—including site monitors, construction crews, and surveyors—adhere to the most current guidance for equipment decontamination provided by the Wildlife Agencies at the time of activity implementation. Guidance may require that all materials that come in contact with water or potentially contaminated sediments, including boot and tire treads, be cleaned of all organic matter and scrubbed with an appropriate cleansing solution, and that disposable gloves be worn and changed between handling equipment or animals. Care should be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat.

With adherence to the provisions of the proposed project’s RMP, as well as implementation of the requirements of the VHP (e.g., Chapter 7 and Measure 6-2-92), the proposed project’s operational impact to special-status plants would be less than significant.
Bay Checkerspot Butterfly

Construction

Potential habitat for BCB is defined as serpentine bunchgrass grassland that contains both the larval host plants and the adult nectar plants necessary for the butterfly to complete its life cycle. WRA documented serpentine bunchgrass grassland at the site that contains both the larval host plants and the adult nectar plants and therefore represents potential BCB habitat, detailed in Appendix F (WRA, 2014b). Impacts to potential BCB habitat are limited to the EVA road in the southern portion of the site. Impacts to potential BCB habitat associated with the EVA road include paving of the existing dirt ranch road, the construction of emergency turnouts, and drainage improvements within the right-of-way. The existing dirt ranch road in this area is regularly graded by PG&E, which maintains an easement along the road to maintain gas and power lines traversing the site. Although the existing ranch road occurs on 1.6 acres of serpentine soil and contains larval host plants for BCB (primarily dotseed plantain, Plantago erecta), the regular disturbance that occurs there and the lack of native bunchgrasses and other native plant species makes this relatively low-quality BCB habitat. By comparison, construction of emergency turnouts and improvements within the right-of-way of the EVA road (± 1.5 foot on each side of the road) would impact approximately 0.7 acres of relatively undisturbed BCB habitat which represents higher quality habitat. Such project impacts would be potentially significant.

Direct impacts to BCB habitat would be offset through the payment of “Land Cover Fees” and “Specialty Fees” through the VHP’s Application for Private Projects, as detailed in the Fees and Conditions Worksheet. To avoid indirect impacts associated with runoff from roadways, low impact development technologies such as bioswales and rock dissipaters have been incorporated into the design of all paved roads within the project footprint. These technologies would serve to improve water quality and reduce runoff from the roads, thereby reducing the potential for indirect impacts to seasonal wetlands and other sensitive habitats and reducing the potential for erosion throughout the site. Best management practices and erosion control methods and measures are included in Section 3.9: Hydrology and Water Quality.

In order to ensure that personnel are properly trained on best management practices and the conditions of the VHP and mitigation measures that apply to construction activities, proposed Mitigation Measure BR-1a (above) requires environmental training for all project personnel. With implementation of the restrictions and measures required by the VHP, and Mitigation Measure BR-1a, as well as the payment of land cover and specialty fees required by the VHP to offset impacts to BCB habitat, construction impacts to BCB would be less than significant with mitigation.

Operation

The introduction of houses to wild areas within BCB habitat, could result in impacts to BCB and BCB habitat. Rodenticide and herbicide commonly used near houses could result in the degradation of BCB habitat and their host plants. Increased vehicle and foot traffic could introduce weeds to BCB habitat, which could out-compete BCB host plants.

Potential operational impacts to BCB would be primarily minimized by adherence to the provisions of the project’s RMP (Appendix D), and by following the requirements of the VHP as discussed under Impact BR-6 below, and in Section 3.4.2, Regulatory Framework above. These requirements include documentation of baseline.
conditions and implementation of a management plan (VHP Section 7.2.2), which will reduce the potential for BCB habitat degradation.

With implementation of the RMP for the proposed project, and the restrictions and measures required by the VHP, operational impacts to BCB would be less than significant.

**California Tiger Salamander (CTS)**

*Construction*

Breeding habitat for CTS is defined by the SCVHP as including seasonal wetlands, ponds, and freshwater marsh. The SCVHP also defines a 1.3-mile (approximately 6,864 feet) upland refugia and dispersal buffer around potential breeding habitat. The proposed project footprint avoids all potential breeding habitat. However, all portions of the project footprint occur within the 6,864-foot buffer around potential breeding habitat and may therefore be considered to impact potential upland dispersal habitat for CTS.

Construction activities could reduce the ability of the CTS to disperse or move across the landscape during construction. Construction activities could also result in the direct injury or mortality (take) of individual CTS as a result of trampling or crushing by personnel or equipment. Individuals found during pre-activity surveys that are relocated outside of the project footprint can be subjected to physiological stress and a greater risk of predation. Relocated individuals can also undergo increased competition with CTS already present in the area to which they are relocated. Substrate vibrations caused by construction activities can potentially cause CTS to move out of refugia, exposing them to a greater risk of predation or desiccation; interfere with predator detection; and result in a decrease in time spent foraging. Increases in human concentration and activity due to construction activity can result in an increase in native and non-native predators that are attracted to trash left in the activity area resulting in injury or mortality or reduced reproductive success of individual CTS. Impacts to 88.9 acres of potential upland dispersal habitat for CTS and potential injury or crushing of CTS would be potentially significant.

Direct impacts to CTS habitat would be offset through the payment of “Land Cover Fees” through the VHP’s Application for Private Projects, as detailed in the Fees and Conditions Worksheet. In addition, VHP measure 6.2-95 prevents the inadvertent entrapment of CTS, VHP measure 6.2-89 enforces speed limits on the project site, and VHP measure 6.2-90 requires cleanup of trash to avoid attracting predators. However, the impacts to CTS of the project would still be considered potentially significant.

Proposed Mitigation Measure BR-1a (above) requires that all project personnel be trained on the conditions of the VHP and mitigation measures as they apply to construction activities. This measure will also ensure that, should a CTS enter the project area, project personnel can identify and avoid them. In addition, Mitigation Measure BR-1b (below) requires the installation of wildlife exclusion fencing around the project boundary to ensure that no CTS enter the project area and are prevented from being injured, disturbed, or harassed by project activities. This measure also requires that, in work areas where exclusion fencing cannot be installed, a qualified biologist shall be present during all construction activities performed in suitable habitat for the CTS. These mitigation measures would significantly reduce opportunities for CTS to come into contact with construction equipment that could injure, kill or harm them.
**Mitigation Measure BR-1b: California Tiger Salamander:** Prior to any ground disturbance, exclusion fencing that allows CTS to leave the project footprint but prevents them from entering this area shall be constructed along the proposed ultimate limits of grading and disturbance. The exclusion fencing shall be at least 3 feet tall and buried at depth of at least 6 inches below the soil surface. The exclusion fencing shall be continuous between project activities and adjacent natural habitats, with openings only as needed for vehicular access; openings would be sealed when not in use. A qualified biologist shall conduct a pre-construction survey of this area for CTS prior to installation of this exclusion fencing. The exclusion fencing shall remain in place for the duration of project construction activities and shall be removed after project construction activities have ceased. After the exclusion fence is installed and immediately prior to construction, the project proponent shall have preconstruction surveys performed by a qualified biologist in construction areas where CTS are most likely to occur.

In work areas where exclusion fencing cannot be installed, a qualified biologist shall be present during all construction activities performed in suitable habitat for the CTS. During the dry season (roughly April 15 to October 15), dedicated construction personnel trained by the qualified biologist can perform this monitoring function after all clearing and grubbing has been performed and the construction site has been surrounded by exclusion fencing. In work areas where exclusion fencing can be installed and the work area can be enclosed by exclusion fencing, a qualified biologist shall be present during all initial ground disturbing activities (e.g., exclusion fence installation, vegetation removal, clearing, grubbing). For monitoring, the biologist shall conduct surveys of the work area during the rainy season (between October 15 and April 15), and following rain events, prior to the initiation of work each day, and shall be present during construction activities to remove any CTS that disperse into the work area. The biologist shall also help to ensure that work is confined to predetermined construction areas through monitoring.

If a CTS (or CRLF) is encountered during project activities, the following protocol shall be implemented:

i. All work that could result in direct injury, disturbance, or harassment of the individual animal shall immediately cease.

ii. A dedicated project contact (e.g., a supervisor) shall be immediately notified.

iii. The dedicated project contact shall immediately notify USFWS.

iv. With approval of the USFWS, a qualified biologist approved by USFWS to handle the individual CRLF or CTS shall move the individual to a safe location nearby and monitor it until it is determined that it is not imperiled by predators or other dangers.

Implementation of Mitigation Measures BR-1a and BR-1b are considered sufficient to reduce the potential construction impacts to CTS to **less than significant with mitigation**.

**Operation**

The introduction of houses to wild areas within CTS upland habitat, and within the vicinity of CTS aquatic habitat could introduce impacts to CTS and CTS habitat. Rodenticide and herbicide commonly used near houses could result in the degradation of nearby CTS aquatic habitat. Increased trash in the area from residents could result in increased presence of predators. In addition, domestic dogs and cats may predate upon CTS.
The RMP for the proposed project outlines an adaptive management approach to limit potential impacts on CRLF and CTS within the preserved areas of the project site (Appendix D). The RMP states that for CRLF and CTS aquatic breeding habitat, adaptive management actions will focus on targeted weed management and levels of disturbance from cattle. If it is determined that use of these habitats by cattle is causing excessive damage, potential adaptive management actions will include alterations to the grazing program such that cattle spend less time in each pasture or are present during periods when aquatic breeding sites are less vulnerable (e.g., during the dry season).

As discussed in the previous section, potential operational impacts to CTS would be primarily offset by following the requirements of the VHP as discussed under Impact BR-6 below, and in Section 3.4.2, Regulatory Framework above. These requirements include documentation of baseline conditions and implementation of a management plan (VHP Section 7.2.2), which will reduce the potential for CTS habitat degradation and predation to occur. In addition, direct impacts to CTS habitat would be offset through the payment of “Land Cover Fees” and “Specialty Fees” through the VHP’s Application for Private Projects, as detailed in the Fees and Conditions Worksheet.

With implementation of the RMP for the proposed project, and the restrictions, measures, and development fees required by the VHP, operational impacts to CTS would be less than significant.

**California Red-Legged Frog (CRLF)**

**Construction**

Potential breeding habitat for CRLF was considered to include all ponds and freshwater marsh, as well as deeper pools within streams. The VHP also defines a 100-foot upland refugia buffer around potential breeding habitat which was used to assess impacts to upland habitat for CRLF. The U.S. Fish and Wildlife Service (USFWS) often requires a 300-foot upland buffer around potential breeding habitat. The proposed project footprint avoids all potential breeding and upland buffer habitat by a minimum of 300 feet. As such, the proposed project is not expected to result in impacts to habitat for CRLF; therefore, there would be no construction impacts to CRLF. In addition, because the habitat requirements for CRLF are similar to those for CTS, implementation of the mitigation measures for CTS would also further reduce the potential for impacts to CRLF during construction. No impacts are anticipated to CRLF from construction.

**Operation**

The introduction of houses and increased access by people to wild areas within the vicinity of CRLF aquatic habitat could introduce impacts to CRLF habitat. Rodenticide and herbicide commonly used near houses could result in the degradation of nearby CRLF aquatic habitat. Increased trash in the area from residents could result in increased presence of predators. In addition, domestic dogs and cats may predate upon CRLF.

Similar to CTS, potential operational impacts to CRLF would be primarily minimized by adherence to the provisions of the project’s RMP (Appendix D), and by following the requirements of the VHP as discussed under Impact BR-6 below, and in Section 3.4.2, Regulatory Framework above. These requirements include documentation of baseline conditions and implementation of a management plan (VHP Section 7.2.2), which will reduce the potential for CRLF habitat degradation and the potential for predation to occur.
With implementation of the RMP for the proposed project, operational impacts to CRLF would be less than significant.

### Western Burrowing Owl

**Construction**

During burrowing owl surveys, no nesting burrowing owls were observed or have been documented in the project site. Surveys conducted by WRA indicate that the project site is unlikely to provide nesting habitat for Western burrowing owl. However, nesting burrowing owl cannot be ruled out; therefore, the proposed project would result in impacts to 192 acres of burrowing owl foraging and overwintering habitat and potential nesting habitat (192 acres includes preserved lands associated with lots). Direct mortality of a burrowing owl could result from an occupied burrow being crushed during grading or other activities that could result in ground disturbance. Burrowing owls may be attracted to staged construction materials, such as pipes, which could result in entrapment of the species and direct mortality or injury of individuals as these materials are used. Construction activities, including vehicle movement, grading, and increased human presence, could disrupt burrowing owl behavior. These impacts would be considered potentially significant.

In order to allow activities to go forward in burrowing owl habitat, Section 6.6.1 of the VHP requires that surveys must be performed and that the avoidance measures described below be employed by the project applicant to ensure that direct take\(^7\) does not occur.

- **Breeding Season:** If evidence of western burrowing owls is found during the breeding season (February 1–August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance will include establishment of a 250-foot non-disturbance buffer zone around nests. Construction may occur outside of the 250-foot non-disturbance buffer zone. Construction may occur inside of the 250-foot non-disturbance buffer during the breeding season if:
  - the nest is not disturbed, and
  - the project proponent develops an avoidance, minimization, and monitoring plan that will be reviewed by the Implementing Entity and the Wildlife Agencies prior to project construction based on the following criteria.
    - The Implementing Entity and the Wildlife Agencies approves of the avoidance and minimization plan provided by the project applicant.
    - A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).

\(^7\) In biological terms, take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect an animal or attempt to engage in any such conduct. Direct take is take that is caused by or that will result from, and occur contemporaneous with, the proposed project.
- The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.

- If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site.

- If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the non-disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from the Wildlife Agencies.

- During the non-breeding season (September 1–January 31): the project proponent will establish a 250-foot non-disturbance buffer around occupied burrows as determined by a qualified biologist. Construction activities outside of this 250-foot buffer are allowed. Construction activities within the non-disturbance buffer are allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites.
  
  o A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).

  o The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.

  o If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer.

  o If the owls are gone for at least one week, the project proponent may request approval from the Implementing Entity that a qualified biologist excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue.

Monitoring must continue as described above for the non-breeding season as long as the burrow remains active. The VHP also provides guidance and restrictions for construction monitoring and passive relocation. In addition, direct impacts to western burrowing owl habitat would be offset through the payment of “Land Cover Fees” and “Specialty Fees” through the VHP’s Application for Private Projects, as detailed in the Fees and Conditions Worksheet. With implementation of the requirements and restrictions in the VHP, construction impacts to western burrowing owl would be less than significant.

Operation

The introduction of houses to wild areas within western burrowing owl habitat could introduce impacts resulting from rodenticide, herbicide, and pets. Rodenticide and herbicide commonly used near houses could result in the degradation of nearby western burrowing owl western burrowing owl habitat and the incidental poisoning of BUOW. Increased trash in the area from residents could result in increased presence of predators. In addition, domestic dogs and cats would likely be introduced to the area, and are known to predate upon BUOW.
Potential operational impacts to BUOW would be primarily offset by following the requirements of the VHP as discussed under Impact BR-6 below, and in Section 3.4.2, Regulatory Framework above. These requirements include documentation of baseline conditions and implementation of a management plan (VHP Section 7.2.2), which will reduce the potential for BUOW habitat degradation, and reduce the potential for predation to occur. With implementation of the restrictions and measures required by the VHP, operational impacts on burrowing owls would be less than significant.

Golden Eagle

Construction

Golden eagle is not a species covered by the VHP. Surveys conducted by WRA indicate that golden eagles are not anticipated to nest in the vicinity of the project footprint. However, in the unlikely event that golden eagles nest in the vicinity of the project footprint, construction of the roadways and associated infrastructure could potentially result in the disturbance of an active golden eagle nest. Nesting golden eagles are susceptible to disturbance, and construction activities resulting in a substantial increase in noise or visible disturbance during their reproductive period would increase the probability of nest abandonment, and the loss of eggs or young. It is possible that the eagles may move to an alternate nest site within the existing territory as a result of the disturbance, or they could potentially abandon their breeding territory. These impacts would be considered potentially significant. In addition, construction of the project will reduce potential foraging habitat for golden eagles.

To minimize the potential for impacting golden eagle, Mitigation Measure BR-1c is proposed which would require a buffer around any eagle nest. Additional mitigation measures relating to all nesting bird species (Mitigation Measure BR-1f) would also be required.

Mitigation Measure BR-1c: Golden Eagle: No construction activities shall occur within a viewshed buffer zone within 0.5 mile of the nest, or within 1,000 feet (regardless of whether the construction is within the viewshed) around any eagle nest during the breeding season (January 15 to August 1, or as determined by a qualified biologist, as the breeding season may be shorter). The viewshed buffer, defined as all project areas that are within 0.5 mile of the nest and that can be seen by an eagle on the nest, shall be mapped by a qualified biologist.

With the implementation of Mitigation Measure BR-1c and the mitigation measures included to protect all nesting bird species (Mitigation Measure BR-1f, below), impacts to golden eagles from construction would be less than significant with mitigation.

Operation

The introduction of houses to wild areas within golden eagle habitat could introduce impacts resulting from rodenticide and herbicide. Rodenticide and herbicide commonly used near houses could result in the degradation of GEOA foraging habitat and the incidental poisoning of golden eagle from predation on poisoned rodents. Increased trash in the area from residents could result in increased presence of predators or species such as ravens that have been documented to harass golden eagle and have been shown to result in nest failure.
Although golden eagle is not a species covered by the VHP, potential operational impacts to golden eagle would still be offset by following the requirements of the VHP for other species. These requirements include documentation of baseline conditions and implementation of a management plan (VHP Section 7.2.2), which will reduce the potential for golden eagle habitat degradation and poisoning. With implementation of a management plan required by the VHP intended to protect covered species, operational impacts on golden eagle would be less than significant.

**Western Pond Turtle**

**Construction**

Western pond turtle has not been observed within Young Ranch, and although portions of Young Ranch supports suitable habitat for this species, this habitat is limited to the larger stock ponds in the southern portion of the project site. Western pond turtle is not anticipated to disperse from suitable aquatic habitat to the project footprint. No impacts to western pond turtle are anticipated. However, in the unlikely event that a western pond turtle occurs within the project footprint, implementation of many of the mitigation measures for CTS would also apply to western pond turtle. Implementation of Mitigation Measures BR-1a and BR-1b in relation to other species would also minimize the opportunity of the western pond turtle to occur in the constructions areas or be harmed by construction equipment for the same reasons that as described above for CTS.

*No impact* is anticipated to western pond turtle from construction.

**Operation**

The introduction of houses to wild areas within the vicinity of western pond turtle aquatic habitat could introduce impacts to western pond turtle habitat. Rodenticide and herbicide commonly used near houses could result in the degradation of nearby western pond turtle aquatic habitat. Increased trash in the area from residents could result in increased presence of predators. In addition, domestic dogs may predate upon western pond turtle.

Impacts to western pond turtle would be primarily offset by following the requirements of the VHP as discussed under Impact BR-6 below, and in Section 3.4.2, Regulatory Framework above. These requirements include documentation of baseline conditions and implementation of a management plan (VHP Section 7.2.2), which will reduce the potential for western pond turtle habitat degradation and the potential for predation to occur.

With implementation of the restrictions and measures required by the VHP, operational impacts to western pond turtle would be less than significant.

**San Francisco dusky-footed woodrat**

**Construction**

San Francisco dusky-footed woodrat is not a species covered under the VHP. No San Francisco dusky-footed woodrats or woodrat middens were observed during surveys of Young Ranch; however, scrub, mixed oak woodland, and riparian communities within the project site provide suitable habitat for San Francisco dusky-footed woodrat. A small portion of oak woodland is located within the project footprint. In the unlikely event that
a woodrat midden exists in the construction areas, this species could be injured or crushed by equipment. In addition, human presence and noise could potentially alter woodrat behavior. These impacts would be potentially significant.

In the unlikely event a woodrat midden is encountered during preconstruction surveys, Mitigation Measure BR-1d would be implemented.

**Mitigation Measure BR-1d: San Francisco Dusky-footed Woodrat:** Prior to any clearing of, or work within, mixed evergreen woodland, redwood forest, chaparral, willow riparian, coyote brush scrub, or coastal oak woodland habitats, a qualified biologist shall conduct a pre-construction survey for San Francisco dusky-footed woodrat nests. If active nests are determined to be present, implement the following measures:

i. Dusky-footed woodrats are year-round residents. Therefore, avoidance mitigation is limited to restricting project activities to avoid direct impacts to woodrats and their active nests to the extent feasible. Ideally, a minimum 10-foot buffer shall be maintained between project activities and each nest to avoid disturbance. In some situations, a smaller buffer may be allowed if in the opinion of a qualified biologist removing the nest would be a greater impact than that anticipated as a result of project activities.

ii. If avoidance of active nests is not feasible, then the woodrats shall be evicted from their nests prior to the removal of the nests and onset of any clearing or ground-disturbing activities to avoid injury or mortality of the woodrats. The nests shall be dismantled and the nesting material moved to a new location outside the project’s impact areas so that it can be used by woodrats to construct new nests. Prior to nest deconstruction, each active nest shall be disturbed by a qualified wildlife biologist to the degree that all woodrats leave the nest and seek refuge out of the impact area. Whether the nest is on the ground or in a tree, the nest shall be nudged to cause the woodrats to flee. For tree nests, a tarp shall be placed below the nest and the nest dismantled using hand tools (either from the ground or from a lift). If feasible, the nest material shall then be piled at the base of a nearby hardwood tree or shrub (preferably an oak with refuge sites among the tree roots or with dense vegetation or other refugia nearby) outside of the impact area. The spacing between relocated nests shall not be less than 100 feet, unless a qualified biologist has determined that the habitat can support higher densities of nests.

Implementation of Mitigation Measures BR-1a and BR-1d would reduce the potential impacts to San Francisco dusky-footed woodrat to less than significant with mitigation.

**Operation**

The introduction of houses to wild areas within the vicinity of San Francisco dusky-footed woodrat habitat could introduce impacts to San Francisco dusky-footed woodrat habitat. Rodenticide commonly used near houses could result in the incidental poisoning of San Francisco dusky-footed woodrats. Increased trash in the area from residents could result in increased presence of predators. In addition, domestic dogs and cats may predate upon San Francisco dusky-footed woodrat.
Although San Francisco dusky-footed woodrat is not covered under the VHP, potential operational impacts to San Francisco dusky-footed woodrat would still be offset by following the requirements of the VHP as discussed under Impact BR-6 below, and in Section 3.4.2, Regulatory Framework above. These requirements include documentation of baseline conditions and implementation of a management plan (VHP Section 7.2.2), which will reduce the potential for the potential for increased predation to occur.

With implementation of the restrictions and measures required by the VHP and intended to protect covered species, operational impacts to San Francisco dusky-footed woodrat would be less than significant.

**Blainville’s Horned Lizard, American Badger, and Ringtail**

**Construction**

Blainville’s horned lizard, American badger, and ringtail are not species covered under the VHP. Construction activities could reduce the ability of Blainville’s horned lizard, American badger, and ringtail to disperse or move across the landscape during construction. Construction activities could also result in the direct injury or mortality of these species as a result of trampling or crushing by personnel or equipment. Although these species are not covered by the VHP, measures of the VHP intended to protect covered species would also provide some protection to Blainville’s horned lizard, American badger, and ringtail. The VHP includes measures to reduce inadvertent entrapment, enforcement of speed limits on the project site, and cleanup of trash to avoid attracting predators. While implementation of the VHP for other covered species analyzed above would somewhat reduce the likelihood of direct impacts on these species, these impacts would still be considered potentially significant.

The implementation of a worker training program (Mitigation Measure BR-1a) and the measures designed to protect CTS, including limitations on ground disturbing activities to occur only during the dry season and installation of exclusion fencing around work areas (Mitigation Measure BR-1b), would reduce the potential for impacts to Blainville’s horned lizard, American badger, and ringtail. With the implementation of Mitigation Measures BR-1a and BR-1b, as well as requirements of the VHP, construction-related impacts to Blainville’s horned lizard, American badger, and ringtail would be less than significant with mitigation.

**Operation**

Although Blainville’s horned lizard, American badger, and ringtail are not covered under the VHP, potential operational impacts to these species would still be offset by following the requirements of the VHP for covered species, as discussed under Impact BR-6 below and in Section 3.4.2, Regulatory Framework above. These requirements include documentation of baseline conditions and implementation of a management plan (VHP Section 7.2.2), which will reduce the potential for the potential for increased predation to occur.

With implementation of the restrictions and measures required by the VHP intended to protect covered species, operational impacts to Blainville’s horned lizard, American badger, and ringtail would be less than significant.
Special-Status Bats

Construction

Special-status bat species are not covered under the VHP. Construction activities would result in the permanent loss of vegetated habitat that either provides foraging habitat, or that supports populations of prey, for bats, potentially including the Pallid bat, Western red bat, and Hoary bat. The removal of trees and disturbance could potentially affect western red bat day roosts, if roosts are present in these areas. However, any western red bat that is roosting in a tree that is to be removed or otherwise disturbed is expected to flush from the tree before injury or mortality could occur.

Young Ranch as a whole does not appear to contain suitable hibernation roosts (cavern-like structures and buildings) for pallid bats. However, the removal of trees could potentially affect bat roosts of cavity or crevice roosting bats (e.g., pallid bats), if roosts are present in these areas. Construction of the proposed project could potentially result in the direct mortality of individual bats in day roosts, and in the loss of bat day roosts and night roosts. If a non-breeding colony of bats is present in cavities to be removed, these bats could be directly killed or injured during tree removal. If a maternity colony of bats is present in these trees, the young bats would be killed when the tree is removed, even if adults were allowed to escape. If an active bat roost occurs near the area of construction such that the colony is disturbed by active work, the bats may abandon the roost. If this is a maternity roost, this could result in the abandonment and mortality of young bats if they are not yet able to fly.

The loss of a population of special-status bats, or the loss of 20 bats or more of any bat species, through direct destruction of a roost supporting multiple individuals or disturbance of a maternity colony, would be considered a significant impact, because the impact could result in a substantial reduction in the regional populations of the affected species. Therefore, these impacts are potentially significant.

Mitigation Measure BR-1e serves to identify and locate potentially affected bat roosts at the project site. If active bat roosts are identified then a construction free buffer area for maternity roosts, potential eviction for day roosts and the installation of an alternative roost structure would provide the bats an undisturbed roosting location to mitigate potential impacts of construction activities on special-status bat species roosting in the project area.

Mitigation Measure BR-1e: Special-status Bats: A survey for roosting bats shall be conducted by a qualified biologist prior to removal of trees, or groundbreaking work. Any trees or buildings within or immediately adjacent to (i.e., within 100 feet of) the work areas shall be assessed to determine whether they provide high potential roost sites. If suitable roost sites are found and a visual survey is not adequate to determine presence or absence of bats (such as in tree cavities), acoustic equipment shall be used to determine occupancy. This survey may be conducted during preconstruction surveys or prior to the breeding season (i.e., April 1) in the year(s) in which removal of trees, demolition of buildings, modification of buildings, and/or ground-breaking disturbance are scheduled to occur so that adequate measures can be implemented under the direction of a qualified bat biologist, if feasible, to evict the bats during the non-breeding season. If no active roosts are found, then no further action is warranted. If bats are found, implement the following measures:

i. If a maternity roost supporting more than 20 individuals of non-special-status bats, or a pallid bat maternity roost of any size, is detected during the pre-construction survey, a qualified bat biologist shall determine the construction-free buffer around the active roost that shall be
maintained. This construction-free buffer shall be maintained from April 1 until the young are flying, typically after August 31.

ii. If a pallid bat day roost or a large day roost of common bat species is found in a tree to be removed, or near planned work areas such that the colony could be disturbed by project activities to the point of abandoning the roost, the bats shall be safely evicted under the direction of a qualified bat biologist. Eviction of bats shall occur at night to decrease the likelihood of predation (compared with eviction during the day). Eviction shall occur between September 1 and March 31, outside the maternity season, but shall not occur during long periods of inclement or cold weather (as determined by the bat biologist) when prey are not available or bats are in torpor. Eviction activities shall be performed under the supervision of a qualified bat biologist, and in consultation with the CDFW if a pallid bat roost is found. Following eviction, bat exclusion devices shall be installed to prevent bats from taking up occupancy of the structure prior to the onset of the proposed activity. In some circumstances, it could be beneficial to allow roosting bats to continue using a roost while construction is occurring on or near the roost site. For example, if a roost is found in a portion of a structure that shall not be heavily disturbed during construction, a qualified bat biologist (in consultation with the CDFW) shall determine whether the bats shall be evicted or whether they shall remain in-place. If it is determined that the risks to bats from eviction (e.g., increased predation or exposure, or competition for roost sites) are greater than the risk of colony abandonment, then the bats shall not be evicted.

iii. If a day roost of pallid bats or of a large colony of non-special-status bats shall be evicted, an alternative bat roost structure shall be provided within the project site. One alternative roost structure shall be provided for each roost that is impacted. The design and placement of this structure shall be determined by a bat biologist, in coordination with CDFW, based on the species of bat to be displaced, the location of the original roost, and the habitat conditions in the vicinity. The roost structure shall be built to specifications as determined by a qualified biologist and CDFW, or it may be purchased from an appropriate vendor. The structure shall be placed outside the potential impact area (at least 100 feet from project impacts), but otherwise as close to the impacted roost site as feasible. This bat structure shall be erected prior to removal of the original roost structure to encourage bats to begin using the new structure.

The implementation of Mitigation Measure BR-1e would reduce the potential construction impacts to special-status bat species to less than significant with mitigation.

Operation

No operational impacts to special-status bat species are anticipated as a result of the project. There would be no impact.

Special-Status Birds

Construction

Seven special-status avian species have been detected within the project site, and 14 additional special-status bird species have potential to occur. Although focused breeding bird surveys have not been performed, nearly every
habitat community within the project site has the potential to provide nesting habitat for various special-status and non-special-status bird species protected by the MBTA. If any of these species do nest on the project site, implementation of the proposed project would result in the loss of nesting habitat and may result in the removal of an active nest. In addition, increased disturbance near active nests could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. These impacts are considered potentially significant.

Typical avoidance of nesting season, pre-construction surveys for nesting birds, establishment of non-disturbance buffers during construction for nesting birds, removal of vegetation outside of the nesting season if necessary (Mitigation Measure BR-1i), and other standard avoidance measures (Mitigation Measure BR-1a) would be implemented to ensure conformance with federal and state laws that protect active nests of protected birds.

**Mitigation Measure BR-1f: Nesting Birds:** To the extent feasible, construction activities shall be scheduled to avoid the nesting season. The nesting season for most birds, including most raptors, in Santa Clara County extends from February 1 through August 31 (with the exception of golden eagle nesting). If construction must occur during the nesting season, the following measures shall be implemented:

i. Pre-construction surveys for nesting birds shall be conducted by a qualified biologist prior to construction and demolition activities between. These surveys shall be conducted no more than 7 days prior to the initiation of construction and demolition activities. During this survey, the qualified biologist shall inspect all potential nesting habitats (e.g., trees, shrubs, grasslands, and buildings) within 300 feet of impact areas for raptor nests and within 100 feet of impact areas for nests of non-raptors. If an active nest (i.e., a nest with eggs or young, or any completed raptor nest attended by adults) is found sufficiently close to work areas to be disturbed by these activities, the qualified biologist shall determine the extent of a disturbance-free buffer zone to be established around the nest (typically 250 feet for raptors and 50–100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code shall be disturbed during project implementation.

ii. If construction activities are not initiated until after the start of the nesting season, potential nesting substrate (e.g., bushes, trees, grasses, and other vegetation) that is scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1) to reduce the potential for initiation of nests.

With the implementation of Mitigation Measure BR-1a and BR-1f, construction impacts to special-status bird species would be **less than significant with mitigation.**

**Operation**

Introducing residential structures to open space areas has the potential to increase bird collisions. However, this potential is generally associated with large reflective glass buildings, and buildings constructed along migratory bird corridors or flyways. None of the building associated with the project are large reflective glass buildings, and (with the exception of the Pacific Flyway which encompasses all of California), the project is not located along a specific migratory corridor for birds. The potential exists that birds could collide with windows of buildings constructed as part of the project; however, the species that tend to collide with windows of residential structures are those that are adapted or habituated to development and human presence, which are not generally special
status bird species. Once constructed, the proposed development at Young Ranch is unlikely to impact special-status bird species, as the birds would likely avoid the developed areas of the project site for foraging and roosting. Operational impacts on these species would be less than significant.

Impact BR-2: The proposed project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. (No Impact)

Construction

The project footprint has been sited to avoid direct impacts to riparian habitat. No riparian habitat is located within the proposed project footprint. Therefore, no direct impact to riparian habitat is anticipated as a result of construction of the proposed project. The nearest riparian habitat is approximately 500 feet from the project footprint, therefore the proposed project is consistent with SCC General Plan Policy R-RC 37 (SCC, 1994), which requires that a protective buffer be established along streams, creeks, and freshwater marshes so that these resources are not indirectly impacted by development. The General Plan policy is to offset development from creeks by:

1) 150 feet on both sides if stream is largely in natural state,
2) 100 feet on both sides if creek has had major alterations, or
3) an area sufficient to protect stream from impacts where 1 and 2 are not applicable.

As these required buffers would be adhered to, no indirect impacts are expected to occur to riparian communities as a result of the project. In addition, as discussed in Section 3.9: Hydrology and Water Quality, as part of the NPDES permit for the project a SWPPP would be developed and implemented during project construction. The SWPPP would detail the construction-phase erosion and sediment control Best Management Practices (BMPs and the good housekeeping measures for control of contaminants other than sediment, as well as post-construction treatment BMPs to be implemented for control of pollutants. The applicant would also submit Erosion Control Plans with improvement plans as required by the County Grading Ordinance. Implementation of construction site BMPs and SWPPP monitoring and reporting requirements, as well as the County-required Erosion Control Plan, would minimize erosion, sedimentation, and pollutants in runoff at the construction site to the “maximum extent practicable.”

No indirect impact is anticipated to water quality in riparian habitats during construction of the proposed project.

Operation

Operation of the proposed project is not anticipated to have a substantial adverse effect on any riparian habitat. The proposed residential lots are not directly adjacent to riparian habitats. It is noted that operation of the project site would be governed by the RMP for the project, and by adherence to the requirements of the VHP. Therefore, no impact is anticipated to riparian habitats during project operation.
Impact BR-3: The proposed project could have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. *(No Impact)*

**Construction**

The Young Ranch project footprint avoids waters of the U.S., including streams, ponds, and freshwater marsh at the site. The project would directly impact 0.1 acre of non-jurisdictional seasonal wetland that is located within the road alignment between two lots. This seasonal wetland feature is not considered a water of the U.S. (not 404 jurisdictional) given that it is a human-made “irrigated” wetland that resulted from an overflowing water trough within the road alignment between proposed home sites B6 and B7. Furthermore, in 2015 the trough was relocated farther downhill and the spring water piped to it to prevent the uncontrolled flow of water. Because the leak is no longer supplying the seasonal wetland, the seasonal wetland is in the process of reverting to upland habitat (i.e., California non-native annual grassland). As such, it is assumed that no impacts to seasonal wetlands would occur by the time the proposed project is constructed. Instead, these impacts of 0.1 acre are included within the California non-native annual grassland community. As stated in Impact BR-2, the SCC General Plan Policy R-RC 37 (SCC, 1994) requires that a protective buffer be established along streams, creeks, and freshwater marshes so that these resources are not indirectly impacted by development. As such, no indirect impacts are anticipated to occur to waters of the U.S.

In addition, as discussed in Section 3.9: Hydrology and Water Quality, as part of the NPDES permit for the project, a SWPPP would be developed and implemented during project construction. The SWPPP would detail the construction-phase erosion and sediment control BMPs and the good housekeeping measures for control of contaminants other than sediment, as well as post-construction treatment BMPs to be implemented for control of pollutants. The applicant would also submit Erosion Control Plans with improvement plans as required by the County Grading Ordinance. Implementation of construction site BMPs, SWPPP monitoring and reporting requirements, and the County-required Erosion Control Plan, would minimize erosion, sedimentation, and pollutants in runoff at the construction site.

There would be *no impact* to protected wetlands from construction of the proposed project.

**Operation**

As stated in Impact BR-2, the SCC General Plan Policy R-RC 37 (SCC, 1994) requires that a protective buffer be established along streams, creeks, and freshwater marshes so that these resources are not indirectly impacted by development. Maintaining these buffers following construction would also prevent operational impacts to water quality in waters of the U.S. as a result of the project. Therefore, there will be *no impact.*
3.4 Biological Resources

Impact BR-4: The proposed project could 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)*

**Construction**

The construction of the home sites and associated roads would result in a temporary reduction in wildlife migration within the construction areas.

Construction activities would have a greater impediment on smaller wildlife species, such as salamanders, snakes, and small mammals, as these species generally travel more slowly than large mammals and butterflies. However, impediments to wildlife movement would not result in a substantial adverse effect to wildlife connectivity and populations in the region, due to the limited extent of construction activities and the ability of most species to move around construction areas, as well as use the remaining natural areas of the project site during construction of the project. Therefore, the project would not substantially affect the ability of animals to disperse through the project site so the impact on wildlife movement resulting from construction of the project would be *less than significant*.

**Operation**

The proposed project would retain opportunities for BCB movement between core habitat areas on the Ridge post development. The Young Ranch Plant and Wildlife Linkage Assessment and update (WRA, 2013a; 2014d) provides a detailed analysis of pre- and post-project conditions as they relate to wildlife movement, and potential impacts of the project on BCB and large mammal movement. The results of this study are summarized below.

The proposed project would not impact BCB corridor suitability between the Pigeon Point and San Felipe BCB habitat units. The model predicts that the proposed project would have a minimal impact to BCB corridor suitability between the San Felipe and Silver Creek Hills North BCB habitat units. Such impacts would be almost imperceptible in nature and would not be likely to impact long-term trends in BCB movement between these habitat units. The proposed project includes several design features which would serve to limit impacts to BCB dispersal. These design elements include the use of natural buffers around home sites that would remain as grassland and wide spacing of home sites, creating a sieve-like effect which would permit butterfly passage. In addition, the proposed project would result in the preservation of nearly all serpentine habitats at Young Ranch (the project will impact 2.4 acres and preserve 673 acres.) Preservation, combined with targeted management of serpentine areas to promote native bunchgrasses and both adult nectar and larval host plants for BCB, would significantly help ensure that populations of this species present at Young Ranch would remain a viable part of the larger gene pool for this species on Coyote Ridge. A peer review of the Wildlife Linkage Assessment was conducted by Weiss (Weiss, 2014). The methodologies and specifics of this review were different than those used in the Wildlife Linkage Assessment for BCB; however, this report also found that “…movement within the actual BCB habitat on the Young Ranch will not be impeded by the proposed development.”

The proposed development at Young Ranch is unlikely to prevent large mammals, such as deer, mountain lion, or tule elk, from using the property as a movement corridor. Large mammals would be able to find their way through or around the development area or to avoid it entirely while still using Coyote Ridge as a corridor. The proposed
community offers opportunities for large mammals to move through and around residential home clusters and across access roads. The proposed development would be built on non-native grassland, and would therefore be unlikely to affect the movement of species that prefer to inhabit and move through more covered habitats.

Therefore, the project, once constructed, would not substantially affect the ability of animals to disperse through the project site so the impact on wildlife movement resulting from the project would be \textbf{less than significant}.

\textbf{Impact BR-5: The proposed project could conflict with local policies or ordinances protecting biological resources. (Less than Significant)}

\textbf{Construction}

Construction of the proposed project would impact 0.4 acre of oak woodland habitat, which is protected under the Oak Woodlands Conservation Law (Public Resource Code §21083.4). Impacts to mixed oak woodland would occur primarily along the entry road, where four Oregon white oak (\textit{Quercus garryana}) trees occupying approximately 0.3 acre would be removed to accommodate the road (Appendix H, WRA, 2012a). In addition, two coast live oak (\textit{Quercus agrifolia}) trees occupying 0.1 acre overlap with the Improvement Envelope of Homesite B18. These trees are not scheduled for removal and development within this lot would not impact these trees. As such, the actual impacts to oak woodland (0.3 acre) are less than the apparent impacts (0.4 acre) to this community. This impact does not exceed 0.50 acre (the threshold for a significant impact according to County guidance) therefore, this impact would be less than significant.

The removal of the four Oregon white oak trees would be subject to the provisions of the Santa Clara County Tree Preservation and Removal Ordinance. The project would comply with this ordinance, including any requirements for mitigation and other conditions. As the proposed project would comply with the Oak Woodlands Conservation Law and Santa Clara County Tree Preservation and Removal Ordinance, the potential construction impacts of the project with respect to conflicts with local ordinances would be \textbf{less than significant}.

\textbf{Operation}

Following construction, no additional tree removal would be required. In the event that tree removal is necessary within the project site in the future, it is anticipated that removal of any trees would comply with the provisions of the Santa Clara County Tree Preservation and Removal Ordinance, including requirements for mitigation and other conditions. Therefore, it is not anticipated that operation of the project would conflict with local policies or ordinances protecting biological resources. There would be \textbf{no impact}.

\textbf{Impact BR-6: The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or State habitat conservation plan. (Less Than Significant)}

\textbf{Construction}

The project has been designed to conform to the provisions of the VHP, which is a joint HCP/NCCP that was approved by six local partners (the Santa Clara Valley Water District, the County of Santa Clara, the Santa Clara Valley Transportation Authority, and the cities of San Jose, Gilroy, and Morgan Hill) and two resource agencies
(CDFW and USFWS). The project was designed initially to be consistent with the conservation strategies detailed in the VHP, such as preserving large blocks of high quality habitat and maintaining linkages between such habitat blocks. As detailed in Impact BR-1 through BR-5 and Appendix H: Young Ranch Natural Resource Avoidance and Impact Assessment, the project design has been further refined as additional biological studies have been conducted to avoid impacts to biological resources which could potentially conflict with the VHP. In addition, the project includes preservation of open space on County parcels via dedication of an open space easement that would be owned by the County, per the provisions of § 5.45.050(D) of the Zoning Ordinance.

Construction of the project would conform to all policies and provisions protecting biological resources within the VHP. Therefore, impacts would be less than significant.

**Operation**

As stated previously, the project has been designed to conform to the provisions of the VHP, and operation of the project site would be governed by the RMP for the project, and by adherence to the requirements of the VHP. Therefore, impacts would be less than significant.

3.4.4 Cumulative Impacts

**Impact-C-BR: The proposed project would have a cumulatively considerable impact on biological resources. (Less Than Significant)**

Cumulative impacts related to biological resources occur when the proposed project and other cumulative project(s) cause a substantial aggregation of impacts to sensitive species and/or habitat, wetlands, established wildlife corridors, or biological policies. The primary method by which the project would ensure that it does not contribute to a significant cumulative impact in the project area is the VHP (HCP/NCCP for Santa Clara Valley). The VHP defines measures which offset future cumulative impacts to biological resources in the region. Other development projects in the project vicinity must also conform to these measures, thereby decreasing the potential for significant biological resources cumulative impacts.

With regard to wildlife corridors, the Young Ranch Plant and Wildlife Linkage Assessment indicates that impacts to BCB movement as a result of the project would be almost imperceptible in nature and would not be likely to impact long-term trends in BCB movement between habitat units. The proposed development at Young Ranch is also unlikely to prevent large mammals from using the property as a movement corridor. In addition, the project is unlikely to have any impact on the maintenance of genetic connectivity for rare serpentine plants. Cumulative impacts to wildlife movement as a result of the proposed project in conjunction with other projects are not anticipated.

Santa Clara County General Plan Zoning Ordinance 5.45.050(D) requires the permanent preservation and management of the conservation lands.

Lastly, projects that are expected to add to cumulative impacts to sensitive biological resources in the vicinity of the proposed project are expected to implement mitigation for substantial impacts to biological resources similar to the mitigation that is being required of the proposed project. With implementation of the preservation required by Santa Clara County General Plan Zoning Ordinance 5.45.050(D), the proposed project would not contribute to
significant cumulative impacts to biological resources. The VHP provides for the long-term conservation of both common and rare species and habitats throughout much of Santa Clara County, including the project vicinity. Cumulative impacts on biological resources would be less than significant.

3.4.5 References


ICF, 2012. Final Santa Clara Valley Habitat Plan. Report prepared for the City of Gilroy, City of Morgan Hill, City of San Jose, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District.


3.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section describes the existing cultural and paleontological resources setting of the project area, and evaluates whether the development of the proposed project would result in impacts to significant cultural or paleontological resources.

No public or agency comments related to cultural or paleontological resources were received during the public scoping period in response to the Notice of Preparation.

3.5.1 Existing Conditions

Physiographic Context

Project Site

The CEQA-Area of Potential Effects (C-APE), comprised of the Direct and Indirect C-APEs, is located along Coyote Ridge, the westernmost ridge of the Mt. Hamilton Range. The C-APEs, along with recorded historic-period resources, are depicted on Figure 3.5-1.

The project site is composed primarily of grazed ranching lands dominated by California nonnative annual grassland and serpentine bunchgrass grasslands that cover 90 percent of the Site (about 1,948 acres). Upper Silver Creek runs southeast to northwest through the eastern portion of the project site. The project site is drained by Silver Creek to the northeast and unnamed tributaries to Coyote Creek to the south and west.

In general, the project site hills are characterized by steep to very steep flanks with broad rolling crests. The C-APE is mainly underlain by Franciscan Formation bedrock units, primarily chert, greenstone, diabase, serpentine, and silica-carbonate rocks—hydrothermally altered serpentine (ESA, 1983, cited in Holman & Associates, 2011). Abundant hard rock outcrops occur throughout the C-APE. The chert unit, which is generally restricted to the main ridge system bisecting the property from north to south, forms bold outcrops. Soils are thin and rocky along the hilltops and hillsides and deepen towards the base of the hills, especially in the alluvial and colluvial deposits along the narrow banks of Silver Creek which runs northwest of the C-APE. Silver Creek is fed by numerous springs and seeps.

While the vast majority of the C-APE is undeveloped, there are limited areas that have been improved in the past. The upper hills and slopes are crossed by cattle trails, and unpaved dirt and gravel ranch roads cross the ridge tops and hillsides. Evidence of historic quicksilver mining is present throughout the C-APE. Approximately 5 acres of the 2,150-acre Site are currently developed, including a gravel access road to a City of San Jose water tank site near the western corner of the C-APE.

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1 The Direct CEQA-Area of Potential Effects (C-APE) includes the footprints of all areas that would be subject to ground disturbance by the proposed project. The Indirect C-APE is defined as a 100-foot buffer around the Direct C-APE that would account for indirect impacts to resources—such as visual effects to the setting of built environment resources—that would not be physically impacted by the project.
Figure 3.5-1: Historic Period Resources and the CEQA-Area of Potential Effect (C-APE)
Paleontological Context

The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources (SVP, 2010). The SVP guidelines outline criteria for screening the paleontological potential of rock units and established assessment and mitigation procedures tailored to such potential.

Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource.

- High Potential: Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources.
- Undetermined Potential: Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential.
- Low Potential: Rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e.g., basalt flows or recent colluvium.
- No Potential: Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection or impact mitigation measures relative to paleontological resources.

The fossil-yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks.

Regional

Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. These include mineralized, partially mineralized, or unmineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains.

Project Site

The C-APE is underlain by Eocene, Paleocene, and/or Late Cretaceous-age Franciscan complex mélange (serpentinite) and Jurassic-age Franciscan complex volcanics (USGS, 2006). Overlying this bedrock is colluvium derived from the bedrock in hollows and swales and residuum soils.

Vertebrate fossils are rarely found in highly metamorphosed serpentinite bedrock of the Franciscan Formation due to its long history of shearing and deformation from tectonic processes. Any fossils originally present have generally been destroyed because they have been altered under high heat and pressures, chaotically mixed, or severely fractured. The Franciscan Formation also includes less altered sedimentary rock, but it does not appear
this occurs in the C-APE. The only other type of bedrock found within the C-APE is Franciscan volcanics, a rock type unlikely to contain fossils. Thus, the bedrock within the C-APE has a low to no potential to yield paleontological resources.

**Prehistoric Cultural Context**

**Bay Area**

The first regional chronology for the Bay Area was established by R.K. Beardsley in 1948 (Beardsley, 1948; 1954a; 1954b). This scheme was originally devised to chronologically organize sites from Central California, the Delta, and the northern San Joaquin Valley (Lillard et al, 1939). Beardsley (1954a) refined this scheme, which became known as the Central California Taxonomic System (Moratto, 1984). The system relies on identifying certain characteristics such as burial patterns, shell bead types, stone tools, and where various site types tend to occur on the landscape. These traits and characteristics, in conjunction with chronometric dating techniques, are used to place a site in a specific time period and cultural pattern. The system, with some modification, is still widely used by archaeologists, and organizes the archaeology of the region roughly as shown in Table 3.5-1.

<table>
<thead>
<tr>
<th>Cultural Pattern</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paleoindian</td>
<td>Earlier than 8,000 years B.P.</td>
</tr>
<tr>
<td>Early Horizon</td>
<td>8,000 to 2,500 B.P.</td>
</tr>
<tr>
<td>Middle Horizon</td>
<td>2,500 to 1,000 B.P.</td>
</tr>
<tr>
<td>Late Horizon</td>
<td>1,000 to 200 B.P.</td>
</tr>
<tr>
<td>Historic</td>
<td>200 B.P. to modern times</td>
</tr>
</tbody>
</table>

Source: Moratto, 1984

It has been suggested that the latter part of the Early Horizon (4,500 to 2,500 B.P.), now referred to as the Windmiller Pattern, is associated with an influx of peoples from outside of California who brought with them an adaptation to river-wetland environments (Moratto, 1984). Typical Windmiller sites are situated in riverine, marshland, and valley floor settings that offer a variety of plant and animal resources. These sites often contain burials that are extended ventrally and oriented to the west. Burial artifacts include a variety of fishing paraphernalia (net weights, spear points, and bone hooks) and large projectile points, as well as large and small mammal remains.

The subsequent Middle Horizon is characterized by the Berkeley Pattern, which covers a period from 2,500 to 1,000 B.P. in the Bay Area. This pattern overlaps somewhat with the Windmiller and Early Bay pattern attributes at the beginning, and with Augustine Pattern artifacts at the end. Berkeley Pattern sites are much more common and well documented; therefore, they are better understood than the Windmiller sites. The sites are distributed in more diverse environmental settings, although a riverine focus is common. Sites from this period include deeply stratified midden deposits containing large assemblages of milling and grinding stones for the processing of vegetal resources as well as a reduction in the number of projectile points, suggesting a higher emphasis on foraged (plants and shellfish) rather than hunted resources (Allan et al, 1997). The Late Horizon, which ranges from 1,000 to 200 B.P., has been defined as the Augustine Pattern (Fredrickson, 1973). The pattern is
characterized by intensive hunting, fishing, and gathering; a focus on acorn processing; large population increases; intensified trade and exchange networks; more complex ceremonial and social attributes; and the practice of cremation in addition to flexed burials. Certain artifacts also typify the pattern: bone awls for use in basketry manufacture, small notched and serrated projectile points, the introduction of the bow and arrow, occasional pottery, clay effigies, bone whistles, and stone pipes (Allan et al, 1997). The Augustine Pattern and the late prehistoric period can be characterized as the apex of Native American cultural development in this part of California, prior to the cultural destruction of the Spanish, Mexican, and American periods.

**South Bay**

The South Bay experienced rapid population growth after World War II and the resulting urban sprawl damaged or destroyed many of the area’s archaeological sites. Much of what is known about the region’s archaeology came from underfunded salvage excavations (Moratto, 1984). King and Hickman (1973) suggest that Late Horizon settlement in the southern Santa Clara Valley used valley-edge logistical centers, with specialized task centers located at higher elevations and around marsh edges (Bergthold, 1982). However, in northern Santa Clara Valley large residential villages were typically found in the center of the valley floor adjacent to perennial streams (Milliken et al, 2007).

Early foraging patterns transitioned into semi-sedentary collector patterns by the outset of the Middle Horizon (Hylkema, 2002). These patterns transitioned into more complex social organization toward the end of the Middle Horizon. During the upper Middle Horizon, the delta and marshlands of the lower Guadalupe and Coyote Creek were intensively occupied (Hylkema, 2007).

A potentially unique cultural pattern has been identified during the Middle Period along the southeast margin of the bay, between the tidal marshes of the Santa Clara Valley and more northerly Berkeley Pattern cultures of the east bay. The Meganos tradition, identified with SCL-478 and SCL-327 in San Jose, appears to represent a temporary migration of people or cultural traits from the Stockton and San Joaquin River area, through the interior east bay valleys, to the bay shore (Hughes, 1994). This migration may be related to the same Middle Period population pressures discussed above. It appears that Meganos and Berkeley Pattern cultures existed side-by-side along the southeast bay margin, both giving way to the ubiquitous Augustine Pattern during the Middle/Late Transition. This transition ultimately led to the South Bay’s artifact-rich Late Horizon midden sites (Milliken et al., 2007).

**Project Site**

The C-APE is formerly the territory of the Ohlone language groups, and is within the ethnographic boundary of the Tamyen subgroup. The Tamyen dialect was spoken around the south end of the San Francisco Bay and in the lower Santa Clara Valley (Levy, 1978).

**Ethnographic**

The basic Ohlone social unit was the family household, which was extended patrilineal (Harrington, 1942). A household was made up of about 15 individuals (Broadbent, 1972). Households grouped together to form villages,
which in turn combined to form tribelets, “an aggregate of villages in the largest of which lived the tribelet chief” (Heizer and Elsasser, 1980). There were approximately 40 Ohlone tribelets. Tribelets exchanged trade goods such as obsidian, shell beads, and baskets; participated in ceremonial and religious activities together; intermarried; and could have extensive reciprocal obligations to one another involving resource collection (Levy, 1978).

For the Ohlone, like many other native Californians, the acorn was a dietary staple. Acorns were knocked from trees with poles, leached to remove bitter tannins, and eaten as mush or bread. Archaeologist Peter Schulz states, “It is largely to [acorn] exploitation that the high population densities and complex social and economic organizations of [central California] are attributed” (Schulz, 1981). The Ohlone used a range of other plant resources as food, medicine, soap, tools, and building materials; including buckeye, California laurel, elderberries, strawberries, manzanita berries, goose berries, toyon berries, wild grapes, wild onion, cattail, soap root, wild carrots, clover, and an herb called chuchupate. The Bay Area's flora and fauna provided the Ohlone with raw materials. For example, the Ohlone built dome-shaped shelters which they thatched with ferns, tule, grass, and reeds. The thatch was tied to the structure's frame with willow withes. The Ohlone also built small sweat houses, accommodating six to eight persons, which were dug into creek banks and roofed with brush; and circular dance areas, which were enclosed by fences woven from brush or laurel branches (Levy, 1978). Plants, particularly sedge, were also woven into baskets. Basket making was generally done by women, who crafted cooking and storage containers, fish traps, and trays for leaching acorns. Tightly woven baskets, decorated with feathers or shell, were valued exchange items (Margolin, 1978).

By the late eighteenth century, Spanish settlers moved into Northern California, established the mission system, and dramatically transformed Ohlone culture. Many Ohlone were baptized by the Franciscan missionaries and made to work on mission farms. Following the secularization of the missions in 1834, many of the surviving Ohlone worked as manual laborers on ranchos (Levy, 1978:486).

**Historic-period Context**

**South Bay**

Early Spanish expeditions explored the Santa Clara Valley as early as 1769 when Gaspar de Portolà traveled the area with noted-diarist Father Juan Crespi and an army of solados cuera (leather-armored soldiers) (Beck and Haase, 1974). The explorations in the valley were central in finding strategic locations for Catholic missions and pueblos in the new Spanish territory of Alta California. Mission Santa Clara de Asis was originally established northwest of the Pueblo San Jose in 1777, near the present-day intersection of Market Street and San Pedro Avenue in downtown San Jose. After independence from Spain in 1820, the Mexican government began to disintegrate the mission land, parting it out as land grants to both the native populace as well as Mexican citizens.

In 1849, gold was found in the Sierra Nevada Mountains near Coloma. The discovery caused the state’s population to increase by hundreds of thousands of people. Although no gold was found in the Santa Clara Valley, cinnabar, which was refined into mercury (also known as quicksilver), was mined in the southern part of the valley, including the C-APE. Mercury was an important commodity during the nineteenth and early twentieth century as it was used during the amalgamation process of refining precious metals, including gold. The largest and oldest mercury mine in the region was the New Almaden Quicksilver Mine, located west of the project site on Capitancillas Ridge. The Ohlone were the first to process cinnabar from this location. The rock was crushed into a
powder that was used for paint or traded extensively in raw form (Boulland and Boudreault, 2006). During the Mexican period, the location was identified as a source for mercury, and mining claims were filed during the 1840s. The early development of this mine made it well-positioned to profit in the decades following the discovery of gold in California.

Other mines were located in the southern part of the valley, including the C-APE (see Project Site History below). The North Almaden Quicksilver Mine, owned by John Treadwell and Hector R. Bradford and identified by Holman & Associates in 2011, appears to be outside the C-APE and project site, along Silver Creek.

As the Santa Clara Valley prospered, townships and businesses were established. Stagecoach roads were built as early as 1858. The Santa Clara Valley’s fertile soils proved ideal for orchards and vineyards. Viticulturists settled in the valley and built wineries such as Saratoga’s Paul Masson Mountain Winery, founded in 1901 (Butler, 1975). The C-APE was within Silver Creek Township, a sparsely populated area that was used more for ranching and mining than cultivation (Thompson and West, 1876).

As early as 1861, a railroad connected San Francisco to San Jose. The railroad was purchased in 1870 by Southern Pacific and became part of a larger rail system that extended over the entire state. This rail system streamlined transportation, replaced the early stage routes, and connected Santa Clara Valley and its produce with the rest of the nation (Chapman, 2013).

The Santa Clara Valley continued to slowly grow and develop as a primarily agricultural area well into the twentieth century. Early indications of the valley’s technological future came in the early 1930s when Moffett Field was built at the edge of San Francisco Bay between Mountain View and Sunnyvale as a home base for the Navy. In the mid-twentieth century, businesses like Hewlett-Packard and IBM advanced the valley into the computer industry, resulting in the nickname Silicon Valley (silicon is a natural material used in the semiconductor of computers). Since then, other firms such as eBay, Apple computers, Google, and Intel have made Silicon Valley into a technological mecca.

Project Site

The vicinity of the project site is within Rancho Yerba Buena or Rancho Socayre, a 24,332 acre grant given in 1833 by Mexican governor José Figueroa to Antonio Chaboya (also spelled Chabolla). Chaboya’s lands were bounded by Coyote Creek on the west, Metcalf Road on the south, the ridge of the hills on the east, and Tully Road on the north (Cortese, 2004). Following the cession of California to the United States, Chaboya filed a claim for the rancho under the Land Act of 1851; the grant was patented in 1859 (Cortese, 2004). Shortly thereafter, Chaboya sold off portions of the rancho, including the subject property to John C. Piercy in 1859 (SCC, date unknown). In 1860, Piercy successfully sued José Bernal to assert his claim to the property (SCSC, date unknown).

In 1868, John C. Piercy again sued in the Santa Clara courts to affirm his ownership of the property. Piercy sued 25 individuals he claimed were squatters on the property. One of the defendants, John Brodie, stated that Chaboya had conveyed the mining resources to him and seven other individuals in 1848. The court found in favor of Piercy and the Piercy family owned the property for another 50 years.
By the 1870s, the property was firmly in the hands of John C. Piercy who leased the land for ranching purposes. In 1871 Piercy took his lessee, James Hines, to court to recover delinquent rent (SCDC, date unknown). Hines claimed he was withholding rent as repayment for a number of improvements on the property, including fencing, stump removal, and improvements to the house. The court again found in favor of Piercy.

It appears Piercy and the Piercy family continued to be absentee landlords through the end of the nineteenth century, leasing their land for ranching while living in San Francisco or San Jose. The 1875 San Francisco City Directory lists the family living at 940 Howard Street, in the city’s South of Market neighborhood (Langley, 1875), while a Santa Clara county map from 1876 shows J.C. Piercy owning the Young Ranch parcel (Thompson and West, 1876). The 1876 map did not show any improvements on the property, except for the North Almaden Mining Company mine along Silver Creek, outside the C-APE. It is unclear where the improvements mentioned in the Hines court case were made.

In 1885, John C. Piercy died and in 1887, Piercy’s son Edward M. sold rights and title of the property to Edward’s mother, Mary. It appears that after John C. died, the original parcel of land was partitioned. In 1895, the Citizens Water Company took a portion of the real estate on Lot I of the Piercy subdivision for the construction of Evergreen Canal (Santa Clara County Recorder, date unknown). This parcel was owned by another son, Andrew J., and the portion of the parcel deeded to the water company is outside the C-APE.

In 1900, Mary leased a tract of land that belonged to another son, David J., for “pasture purposes” (Lease, on file at History San Jose). The lessee, Joe A. Silva, rented 850 acres and was required to keep all fences, springs, and streams in good repair and was not allowed to herd sheep or goats. If a mining company was interested in the property, the lease stated that the company would have the right to mine with no reduction in Silva’s rent for the loss of the property. In the lease, the Piercys agreed to fund the construction of a house and barn on the premises, but the Silvas were required to complete the work.

At about the same time as the Silvas leased the property, it was reported that the Piercy family was exploring a mine within the C-APE as a source of sandstone and jasper (Aubury, 1903). It does not appear this mining was extensive, but based on the language of the lease, it appears the Piercys were hopeful the mine would be productive.

David J. Piercy, the owner the Silva parcel, died in an asylum in 1901 and his mother Mary died in 1903. These deaths led to a long legal battle between brothers Edward M. and Andrew J. Piercy over ownership of the property (Sacramento Union, 1912). Eventually Andrew became the administrator of the property, but Edward continued to claim ownership even after the decision by the court.

A 1914 ownership map of the area depicted the Piercy Partition with Lot I (the lot containing the New North Almaden Mine) owned by America Bonetti and Lots II and III owned by the National Security Company, possibly a bank (Map on file at the California Room, San Jose Public Library). Lot II contains the ranching resources within the C-APE, Lot III is outside the C-APE. Although Bonetti was shown as the owner on the map, a court case decided in 1916 described him as the lessee, while Andrew Piercy was the owner (SCSC, date unknown). By 1917, dairyman Pierre (Peter) Labrucherie had applied for water rights on a portion of the Piercy subdivision (Southwest Builder and Contractor, 1917).
By the 1920s, the Santa Clara Valley Quicksilver Mining Company (SCVQMC), possibly operated by an individual named Murphy, was mining on the Piercy property. The company installed a smelter on the property and actively worked the ground for three or four years before the claim was abandoned (Young, no date).

In the 1930s, attorney William Biaggi opened a mine at the location of Piercy’s original efforts. Biaggi claimed to locate a valuable outcropping of cinnabar ore “within six feet of a previous prospecting venture that saw thousands of dollars poured into a hole in the ground” (Young, no date). Biaggi made a number of improvements on the property, including building a new plant with a processing furnace at the location of the SCVQMC’s abandoned smelter and installing a natural gas pipeline to the furnace where the cinnabar was roasted and condensed (Young, no date). Biaggi excavated an open surface drift, apparently at the top of the hill, and intended to sink a vertical shaft to follow the ore. It does not appear that this mine was productive and Biaggi moved on to other mining and farming pursuits (San Jose Mercury Herald, 1950). The mine was again open between 1953 and 1980, as shown on USGS topographic quadrangles of the project vicinity as the New North Almaden Mine (Western Mining History, 2015).

During these periods of intermittent mining, ranching was ongoing. The Labrucherie family owned a dairy outside the C-APE, but ran their cows on the northern portion of the C-APE when they were not actively milking. The Fields family owned the southern half of the C-APE and also used the land to run cattle. The Fields lived on Metcalf Road, while the Labrucheries may have lived in Coyote. Both families bought the land from the Piercys in the 1910s and held the land until it was sold in the 1960s (Fields, pers. comm., 2016). The 1948 aerial photograph depicts a building at the location of the Fontanoso Avenue turn around (NETR Online, 1948), shown on the 1953 topographic map as a dwelling (USGS, 1953). The aerial also shows a barn and pen to the east, in the location of the extant corral and pens, and ranching roads throughout the parcel. These aerials do not appear to show any mining-related buildings, but scars from mining are apparent at the location of the New North Almaden Mine, as well as at the end of the ranch road where it intersects with Metcalf Road.

**Cultural Resources Identification Effort**

**Archival Research**

In 2011, Holman & Associates conducted a records search of the project area at the Northwest Information Center of the California Historical Resources Information System (CHRIS) at Sonoma State University, Rohnert Park (File No. 11-0395). Site records and studies were accessed for the current C-APE subject to ground disturbance (i.e., residential parcels, utility routes, roads, and staging areas) for the Young Ranch Cluster Development Permit Application for Santa Clara County (see Figure 3.5-1). The Holman & Associates (2011) records search indicated that the Project footprint has been included in five previous studies. These studies are listed in Table 3.5-2 below. Holman & Associates (2011) also reviewed the following references:

- California Inventory of Historical Resources (California Department of Parks and Recreation, 1998)
- California points of Historical Interest (CA-OHP 1998)
- Historic Property Data File for Santa Clara County (OHP 2011)
Table 3.5-2: Studies Previously Conducted within the C-APE

<table>
<thead>
<tr>
<th>Author</th>
<th>Citation</th>
<th>Survey Year</th>
<th>Resources Identified?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archaeological Consulting and Research Services</td>
<td>Report of the Archaeological Reconnaissance of the Proposed Richmond Ranch Solid Waste Disposal Site, Santa Clara County, California.</td>
<td>1974</td>
<td>Yes</td>
</tr>
<tr>
<td>Archaeological Resource Service</td>
<td>Results of a Preliminary Prehistoric Archaeological Reconnaissance of a 2,300 Acre Parcel in San Jose, California.</td>
<td>1983</td>
<td>Yes</td>
</tr>
<tr>
<td>Randy Wiberg</td>
<td>Archaeological Reconnaissance of the proposed Cerro Plata Gold Course, San Jose, California.</td>
<td>1990</td>
<td>Yes</td>
</tr>
<tr>
<td>Randy Wiberg and Dave Bieling</td>
<td>Prehistoric Cultural Resources Evaluation for the Silver Creek Valley Country Club, San Jose, California.</td>
<td>1990</td>
<td>Yes</td>
</tr>
<tr>
<td>Holman &amp; Associates</td>
<td>Phase I Archaeological Reconnaissance of the Richmond/Young Ranch Planned Residential Community Project Area, San Jose, Santa Clara County, California. Preped for Mindigo &amp; Associates, San Jose, California.</td>
<td>1998</td>
<td>Yes</td>
</tr>
</tbody>
</table>


Based upon the Holman & Associates (2011) review of previous studies, nine archaeological resources had been previously identified within the C-APE. However, only one resource, CA-SCL-651, had been formally documented and submitted to the NWIC. CA-SCL-651 is a prehistoric Franciscan chert quarry with 3 distinct outcrops and an associated lithic deposit composed of primary and secondary flakes (Wiberg, 1987). Table 3.5-3 lists the previously recorded archaeological resources within the C-APE, by their current and previous designations. A description of these archaeological resources can be found in Table 3.5-4 below.

Table 3.5-3: Previously Identified Archaeological Resources within the C-APE and Associated Designations

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>YR-12</td>
<td>H&amp;A-2</td>
<td>CA-SCL-651</td>
</tr>
<tr>
<td>YR-13a-c</td>
<td>H&amp;A-2</td>
<td>CA-SCL-651</td>
</tr>
<tr>
<td>YR-15</td>
<td>H&amp;A-5</td>
<td>N/A</td>
</tr>
<tr>
<td>YR-16</td>
<td>H&amp;A-6</td>
<td>ARS 15 or ARS 16</td>
</tr>
<tr>
<td>YR-17</td>
<td>H&amp;A-7</td>
<td>ARS 15 or ARS 16</td>
</tr>
<tr>
<td>YR-18</td>
<td>H&amp;A-8</td>
<td>N/A</td>
</tr>
<tr>
<td>YR-19</td>
<td>H&amp;A-9</td>
<td>N/A</td>
</tr>
<tr>
<td>YR-20</td>
<td>H&amp;A-10</td>
<td>N/A</td>
</tr>
<tr>
<td>YR-21</td>
<td>H&amp;A-11</td>
<td>N/A</td>
</tr>
<tr>
<td>YR-22a-b</td>
<td>H&amp;A-12</td>
<td>N/A</td>
</tr>
</tbody>
</table>


Additional Archival Research

AECOM conducted archival research on August 18, 2016 at the California Room at the San Jose Public Library and on August 31, 2016 at History San Jose, to provide context and assist in refining temporal and functional
interpretations of the historic-era features located within the project area. Historic maps and contexts were reviewed at the library and deeds, leases, and maps were examined at History San Jose.

**Field Survey and Recordation**

Holman & Associates (2011) conducted an intensive pedestrian survey of the majority of the current project footprint for the Young Ranch Cluster Development Permit Application for Santa Clara County (see Figure 3.5-1). The Holman & Associates (2011) field survey identified 13 prehistoric resources (10 of which had been previously recorded) and five historic-period resources within the current Direct and Indirect C-APEs (see Table 3.5-4). The prehistoric resources consist of quarries, chert outcrop assays, and lithic deposits. However, seven of the 13 identified prehistoric resources are described as either being “possible” resources or including “possible” cultural components (Holman & Associates, 2011). In addition, the resources identified as YR-12 and YR-13a-c

<table>
<thead>
<tr>
<th>Resource Field Recording Number</th>
<th>Resource Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>YR-1</td>
<td>A high density prehistoric lithic scatter consisting of primary, secondary and tertiary flakes.</td>
</tr>
<tr>
<td>YR-2</td>
<td>An assayed Franciscan chert outcrop.</td>
</tr>
<tr>
<td>YR-3</td>
<td>An assayed Franciscan chert outcrop.</td>
</tr>
<tr>
<td>YR-4</td>
<td>A historic-period mining prospect pit.</td>
</tr>
<tr>
<td>YR-5</td>
<td>A historic-period mining prospect pit.</td>
</tr>
<tr>
<td>YR-6</td>
<td>A historic-period mining prospect pit.</td>
</tr>
<tr>
<td>YR-7a-h</td>
<td>Structural remains of a small, historic-period ranch complex. A sparse, prehistoric, lithic component was identified within the ranch complex.</td>
</tr>
<tr>
<td>YR-9a-d</td>
<td>Remains of the historic-period New North Almaden Mine</td>
</tr>
<tr>
<td>YR-10</td>
<td>A Franciscan chert outcrop that may have been assayed prehistorically.</td>
</tr>
<tr>
<td>YR-12</td>
<td>A prehistoric Franciscan chert quarry with an associated lithic deposit composed of primary and secondary flakes. Part of the previously recorded resource, CA-SCL-651.</td>
</tr>
<tr>
<td>YR-13a-c</td>
<td>A prehistoric Franciscan chert quarry with 3 distinct outcrops and an associated lithic deposit composed of primary and secondary flakes. Part of the previously recorded resource, CA-SCL-651.</td>
</tr>
<tr>
<td>YR-15</td>
<td>A possible prehistoric Franciscan chert quarry.</td>
</tr>
<tr>
<td>YR-16</td>
<td>A prehistoric Franciscan chert quarry with an associated lithic deposit.</td>
</tr>
<tr>
<td>YR-17</td>
<td>A possible prehistoric Franciscan chert quarry and several associated lithic artifacts.</td>
</tr>
<tr>
<td>YR-18</td>
<td>A possible prehistoric Franciscan chert quarry with associated lithics.</td>
</tr>
<tr>
<td>YR-19</td>
<td>A relatively extensive prehistoric lithic deposit characterized by primary, secondary, and tertiary flakes.</td>
</tr>
<tr>
<td>YR-20</td>
<td>A possible prehistoric Franciscan chert quarry with associated lithics.</td>
</tr>
<tr>
<td>YR-21</td>
<td>A small prehistoric Franciscan chert quarry with an associated possible lithic deposit.</td>
</tr>
<tr>
<td>YR-22a-b</td>
<td>A possible prehistoric Franciscan chert quarry with an associated possible lithic deposit.</td>
</tr>
</tbody>
</table>

2016 Survey Effort

Site specific surveys of the prehistoric and historic-period resources identified by Holman & Associates (2011) occurred on August 17–18, 2016, August 31, 2016, and on September 9, 2016. Each possible prehistoric resource location and historic-period resource was re-located. The 19 resources previously identified within the current Direct and Indirect C-APeEs (Holman & Associates, 2011), were re-located and formally documented using DPR 523 series forms as part of the formal evaluation of these resources.

In addition to the site-specific visits, on August 18, 2016, AECOM archaeologists conducted a reconnaissance-level pedestrian survey of the 1.5-mile unpaved ranch road segment that was outside of the previous (Holman & Associates, 2011) survey area. The eastern terminus of the road segment is located at the base of the ridge, where it joins Metcalf Road. The survey area includes the 1.5 mile segment of road west of that junction. The survey included a 100 ft. (30 m) buffer on either side of the unpaved ranch road. Transects approximately 35 ft. (10 m) to 50 ft. (15 m) were walked on either side of the road.

The vegetation throughout the study area consisted primarily of tall and dense invasive grasses and thistle. Rodent back dirt piles and road cuts and paths were examined closely for evidence of cultural material. Vegetation was periodically scraped away, using trowels, boots, or hoes, to increase surface visibility, as part of the effort to identify cultural constituents.

Field efforts at the prehistoric resource locations also included closely examining rock outcrops for signs of battering and evidence of quarrying. Vegetation adjacent to the outcrops was cleared away as part of this effort. Parallel transects, approximately five to ten meters apart, were systematically walked across the resource locations. Vegetation was cleared away approximately five to ten meters, along each transect line.

Similarly, field efforts for the historic-period resources consisted of re-locating the specific features identified by Holman & Associates (2011) and pedestrian survey across each resource location in an effort to re-locate the resource and to identify any previously unidentified features or artifacts. Efforts were also made to obtain measurements of the historic-period features, as these were not a part of Holman & Associates (2011) original field identification. The resources were also examined for the potential to harbor associated buried archaeological deposits (such as privies or refuse pits).

The reconnaissance-level pedestrian survey resulted in the identification and recordation of one new, historic-period resource: YR-26. YR-26 is a mining prospect pit, similar to the ones previously identified within the current project area.

All five of the historic-period resources identified by Holman & Associates (2011) were re-located during the 2016 survey efforts. YR-4, 5, and 6 are exploratory pits that were excavated to assess the mineral resources in these locations. YR-7 is comprised of eight related ranching features: a barn foundation (YR-7a), a corral (YR-7b), two pens (YR-7c-d), two troughs (YR-7e, YR-7g), a water tank (YR-7f), and a wood and metal trailer (YR-7h). Two of the features – the water tank and one of the troughs (YR-7g) – had been removed since the 2011 survey and the tank had been replaced. The three Franciscan chert flakes Holman & Associates (2011) identified were not relocated as a result of the survey. However, one possible pestle was located approximately 20 m (65 ft.) east of the corral fence (YR-7b). YR-9 is comprised of five related mining features associated with the New North...
Almaden Mine: the remains of a processing plant (YR-9a), three adits (YR-9b, YR-9c, and YR-9e), and a small firebrick furnace (YR-9d).

While all 13 of the possible prehistoric resource locations were visited, only YR-2, portions of YR-12 and YR-13a-c, YR-19, and YR-22a-b exhibited surficial manifestations of cultural material. It appears that the field recording conducted by Holman & Associates (2011) was done for expediency and without proper analysis of potential cultural constituents. Almost all of the previously recorded resources, with the exception of YR-2, portions of YR-12 and YR-13a-c, YR-19, and YR-22a-b, consist of naturally occurring chert outcrops with fragmentary chert concentrations surrounding them. With the exception of YR-2, YR-12 and YR-13a-c, YR-19, and YR-22a-b, very few definitively cultural flakes and/or cores are present within these concentrations, at the surface.

A full evaluation of the eligibility of these resources to the CRHR is provided in Appendix H.

**Subsurface Archaeological Testing**

The historic-period resources were examined for the potential to contain buried archaeological components. Taking into consideration the historic-period resource types, mining and ranching, and the results of the survey efforts, it was determined that there was a low potential for associated buried archaeological deposits (e.g., privies or refuse pits) and no archaeological testing was conducted at these resources.

Archaeological testing occurred between August 29 and September 15, 2016. Based on the resource descriptions provided by Holman & Associates, it was anticipated that the prehistoric archaeological resources would qualify for evaluation and treatment using the methods prescribed by the California Archaeological Resource Identification and Data Acquisition Program: Sparse Lithic Scatters (CARIDAP) (OHP, 1988). The benefit of the CARIDAP program is that it provides for a standard treatment of this common resource type, and was developed and approved by the Office of Historic Preservation. However, survey efforts revealed that only three of the 13 possible prehistoric archaeological resources, CA-SCL-651 (YR-12 and YR-13a-c), YR-19, and YR-22a-b, contain a surficial lithic deposit and/or had rock outcrops that exhibited discernable evidence of cultural modifications (e.g., evidence of quarrying). Therefore, YR-1, YR-2, YR-3, YR-10, YR-15, YR-16, YR-17, YR-18, and YR-20 did not qualify for treatment under CARIDAP. Furthermore, based upon the density of lithic artifacts recovered during testing at portions of CA-SCL-651 (YR-12 and YR-13a-c) and YR-19, these resources are not sparse lithic scatters and also do not qualify for CARIDAP. YR-21 and YR-22a-b was not tested as it does not fall within the Direct C-APE and potential project impacts can be avoided through the use of avoidance measures (see Section 3.5.3, Impact Discussion below).

While none of the resources ultimately qualified as sparse lithic scatters, the principles of CARIDAP were still employed as it provided useful guidelines based on the anticipated resource type. The methods and results of the archaeological testing are presented in Appendix H.
3.5.2 Regulatory Framework

Federal

There are no federal regulations of relevance to cultural and paleontological resources.

State

California Register of Historical Resources

Public Resources Code Section 5024.1 establishes the CRHR. The register lists all California properties considered to be significant historical resources. The CRHR also includes all properties listed or determined eligible for listing in the National Register of Historic Places, the federal equivalent of the CRHR, established under Section 106 of the National Historic Preservation Act.

The CRHR regulations govern the nomination of resources to the CRHR (14 CCR Section 4850). The regulations set forth the criteria for eligibility, as well as guidelines for assessing historical integrity and resources that have special considerations.

California Environmental Quality Act

According to the CEQA Guidelines (Section 15064.5[a][3]), generally a resource shall be considered historically significant if the resource meets the criteria for listing on the CRHR (Public Resources Code Section 5024.1 Title CCR, Section 4852). When a project would impact a cultural resource, it needs to be determined whether the resource constitutes an “historical resource” which is defined as any resource that:

a) Is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and

b) Meets any of the following criteria:

   i. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;

   ii. Is associated with the lives of persons important in our past;

   iii. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

   iv. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, a resource included in a local register of historical resources, as defined by Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of Section 5024.1 (g) of the Public Resources Code, shall be presumed to be historically or culturally significant.

CEQA also requires lead agencies to consider whether a project will impact “unique archaeological resources.” Public Resources Code section 21083.2, subdivision (g), defines a unique archaeological resource as “an
archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

a) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

b) Has a special and particular quality such as being the oldest of its type or the best available example of its type.

c) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

**Assembly Bill 52**

AB 52 (effective July 1, 2015) adds sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to CEQA, relating to consultation with California Native American tribes, consideration of “tribal cultural resources,” and confidentiality. AB 52 provides procedural and substantive requirements for lead agency consultation with California Native American tribes and consideration of effects on tribal cultural resources, as well as examples of mitigation measures to avoid or minimize impacts to tribal cultural resources. AB 52 establishes that if a project may cause a substantial adverse change in the significance of a tribal cultural resource, that project may have a significant effect on the environment. Lead agencies must avoid damaging effects to tribal cultural resources, when feasible, and shall keep information submitted by tribes confidential.

AB 52 requires a lead agency to consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation.

For the purposes of this project, the County Planning Department did not initiate AB 52 consultation, because the Department determined that they did not receive any requests from tribes that were culturally or traditionally affiliated with the project site. This also indicates that no tribal cultural resources were identified.

The CEQA lead agency having jurisdiction over a project is responsible for ensuring that paleontological resources are protected in compliance with CEQA and other applicable statutes. California Public Resources Code Section 21081.6, entitled Mitigation Monitoring Compliance and Reporting, requires that the CEQA lead agency demonstrate project compliance with mitigation measures developed during the environmental impact review process.

**Local**

**Santa Clara County**

The Santa Clara County General Plan (SCC, 1994) includes Resource Conservation chapters in its General Plan (Book A) and Rural Unincorporated Areas & Issues Policies (Book B) components. These chapters outline strategies, policies, and implementation mechanisms for identifying, protecting, and preserving cultural resources. Protecting cultural resources under the County General Plan consists of three general strategies:
Inventory and evaluation of cultural resources

Prevention or minimization of adverse impacts to cultural resources

Restoration, enhancement, and commemoration of cultural resources

In addition, Santa Clara County has adopted a Historic Preservation Ordinance for the “preservation, protection, enhancement, and perpetuation of resources of architectural, historical, and cultural merit within Santa Clara County and to benefit the social and cultural enrichment, and general welfare of the people.” The primary guidance provided in the ordinance is to identify, protect, preserve, and enhance historic resources representing distinctive elements of the cultural, social, economic, political, and architectural history of Santa Clara County. According to the Historic Preservation Ordinance, an historical resource means any evaluated building, structure, object, or site that potentially meets the designation criteria outlined in Article II of the Historic Preservation Ordinance, Chapter 3.50 of the Zoning Ordinance or Division C16 of the County Code, or that is listed in a federal or state register. The criteria for evaluation of historic resources as provided in the Historic Preservation Ordinance mirror those used to evaluate cultural resources provided in CEQA, as listed above, with emphasis on local history and importance.

City of San Jose

The City of San Jose also has a Historic Preservation Provision in its Code of Ordinances (Chapter 13.48). This provision outlines landmark designation criteria for properties within the city boundaries. The city defines “historical, architectural, cultural, aesthetic, or engineering interest or value of an historical nature” is a quality derived from, is based upon, or is related to any of the following factors:

1. Identification or association with persons, eras or events that have contributed to local, regional, state or national history, heritage or culture in a distinctive, significant or important way;

2. Identification as, or association with, a distinctive, significant or important work or vestige:
   a. Of an architectural style, design or method of construction;
   b. Of a master architect, builder, artist or craftsman;
   c. Of high artistic merit;

3. The totality of which comprises a distinctive, significant or important work or vestige whose component parts may lack the same attributes;

4. That has yielded or is substantially likely to yield information of value about history, architecture, engineering, culture or aesthetics, or that provides for existing and future generations an example of the physical surroundings in which past generations lived or worked; or

5. That the construction materials or engineering methods used in the proposed landmark are unusual or significant or uniquely effective.

6. The factor of age alone does not necessarily confer a special historical, architectural, cultural, aesthetic or engineering significance, value or interest upon a structure or site, but it may have such effect if a more distinctive, significant or important example thereof no longer exists.
3.5.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts to cultural resources. The proposed project would result in a significant impact if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines, or the County’s Historic Preservation Ordinance (Section 17 of County Ordinance Code);
- Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5 of the CEQA Guidelines;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

Impact Assessment Methodology

The CEQA Guidelines define a “substantial adverse change” to a historical resource as: “physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” The significance of an historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or in registers meeting the definitions in PRC Section 5020.1[k] or 5024.1[g] (CEQA Guidelines, Section 15064.5[b]). Where a subsurface historical resource is determined to be eligible for listing on the CRHR under Criterion 4 (i.e., because the site has yielded, or may be likely to yield, information important in prehistory or history), the significance of the resource would not be materially impaired if a data recovery program can make available to experts any information that could be important to an improved understanding of the prehistory or history of the affected area and region.

The following section was developed primarily from the results of a prior cultural resource investigation (Holman & Associates, 2011), as well as additional field and documentary studies conducted in support of this EIR and included as Appendix H. The description of the existing setting and evaluation of impacts is based on both field examination and literature reviews from the Holman & Associates (2011) report, as well as information from additional relevant references as necessary.

Impacts and Analysis

All cultural and paleontological resources impacts related to this project are classified as direct (or construction-related) impacts. Indirect (operational) impacts are therefore not addressed in the impact discussions below.
Impact CR-1: The proposed project could cause substantial adverse change in the significance of a historical resource or unique archaeological resource. *(Less Than Significant with Mitigation)*

**Historic-Period Resources**

The proposed project includes ground disturbing activities such as road grading, building construction, staging, and utility trenching that could impact archaeological resources. Background research and field surveys (documented in Appendix H) indicate that none of the historic-period resources with the Direct or Indirect C-APE (YR-4, YR-5, YR-6, YR-9, YR-7a-h, and YR-26; refer Figure 3.5-1) have sufficient historical association or data potential, and/or retain enough integrity, to be determined eligible for the CRHR under Criteria 1—4 or a unique archaeological resource as defined by CEQA. All of the ranching resources date to the twentieth century and do not appear to be associated with any significant events or individuals important in the history of San Jose or California. In addition to lacking historic significance, the ranching complex as a whole has diminished integrity through the deterioration and alteration of the agricultural complex.

Similarly, the mining resources consist of collapsed adits, waste rock, and remnant foundations that do not appear to contain enough data to contribute to research themes in a meaningful way or convey a sense of the mine’s operation. The mines at this location were short-lived and unproductive and were not associated with any significant events or individuals important in the history of San Jose or California.

**Prehistoric Resources**

Project ground-disturbing activities including road construction, utility installation, and residential development have the potential to result in a significant impact on archaeological deposits that qualify as historical resources. Prehistoric archaeological resources are typically evaluated under Criterion 4, unless they are remarkable sites that may be considered eligible under one of the other criteria and/or are unique archaeological resources. Resources eligible under Criterion 4 have yielded or have the potential to yield information important to the prehistory or history.

Background research, archaeological field surveys, and subsurface testing conducted within the project area indicates that YR-1, YR-2, YR-3, YR-10, YR-15, YR-16, YR-17, YR-18, and YR-20 do not contain sufficient data potential, and/or retain enough integrity, to be determined eligible for the CRHR under Criterion 4 or a unique archaeological resource as defined by CEQA (see Figure 3.5-1). Except for YR-2 (which contained a single isolate chert flake), these resources consist entirely of natural chert outcrops with no indication of cultural modification or use.

Two resources, YR-21 and YR-22a-b were surveyed and recorded on DPR 523 series forms. No subsurface testing was conducted at these locations to determine eligibility for the CRHR, as it is possible to avoid potential project impacts to these resources through avoidance.

Archaeological survey and testing revealed that YR-19, and portions of YR-12 and YR-13a-c (CA-SCL-651) likely retain integrity and contain sufficient data potential to be eligible for the CRHR under Criterion 4. The proposed project includes road construction, utility installation, and residential development within the vicinity of these resources and this would represent a potentially significant impact to YR-19 and CA-SCL-651. A full
eligibility determination of these resources is provided in Appendix H. However, mitigation of this potential is addressed through implementation of Mitigation Measures CR-1a and 1b.

**Mitigation Measure CR-1a: Data Recovery.** To mitigate potential project impacts to the historical resources YR-19 and CA-SCL-651 (YR-12 and YR-13-a-c), an archaeological data recovery plan shall be developed and carried out by a qualified archaeologist, prior to project construction. Archaeological data recovery, guided by a comprehensive plan that identifies research questions and data needs, would provide a better definition of site boundaries and identification of cultural constituents within the sites. This would yield a greater understanding of these resources that would potentially lead to a better understanding of chert quarrying/assay sites within the Santa Clara Valley.

Subsurface archaeological testing efforts, detailed in Appendix H, indicate that cultural materials are present only in discreet portions of these two previously recorded sites. Data recovery excavations shall focus on better defining the cultural constituents present at these two sites, within the areas of direct project ground disturbance, as well as better definition of the site boundaries (e.g., through a program of subsurface auger transects). The data recovery plan shall be submitted to the County for approval, prior to implementation, as well as the final archaeological resources report documenting the results of the data recovery program and any special studies (e.g., lithic analysis, etc.).

**Mitigation Measure CR-1b: Environmentally Sensitive Areas.** Two of the identified prehistoric archaeological resources, YR-21 and YR-22a-b are within the Indirect C-APE and have not been formally evaluated under the CRHR. However, potential project impacts to these resources can be avoided through the establishment of Environmentally Sensitive Area (ESA) around the resource boundaries. Similarly, although four historic period ranching resources (YR-7a-7d) were determined to not constitute historical resources under CEQA, the potential for previously unidentified prehistoric or historic period resources in these areas cannot be discounted. These resources are in the indirect C-APE and it is recommended that ESA fencing also be installed to avoid unnecessary impacts to these resources. Portions of the historical resources YR-19 and CA-SCL-651 (Yr-12 and YR-13a-c) (discussed in MM CR-1a) that are not within the areas of direct projects impacts and ground disturbance shall also be protected by ESA, in order to avoid unnecessary or unanticipated effects to those resources.

ESAs shall be designated on all project plans with a notation that no grading, construction personnel, or equipment are allowed within the ESA. The ESA shall be delineated on the ground using orange construction fencing or other suitable materials, and maintained through the duration of the project, in order to ensure that inadvertent damage from construction equipment and personnel will not occur. These ESA shall be established and maintained by a qualified archaeologist.

Implementation of Mitigation Measures CR-1a and CR-1b would reduce potential impacts related to changes in significance of a historical resource or unique archaeological resource to *less than significant with mitigation.*
Impact CR-2: The proposed project could cause a substantial adverse change in the significance of an as-yet undiscovered/unrecorded historical resource or unique archaeological resource. *(Less Than Significant with Mitigation)*

Although the majority of the previously recorded prehistoric archaeological resources within the C-APE were determined through field testing to not qualify as historical resources or unique archaeological resources under CEQA, the possibility cannot be ruled out that subsurface components of these resources may exist that were not discovered during subsurface testing and surface surveys. This potential is heightened by the fact that, due to the seasonal shrink-swell nature of the clay soils along the ridge top in this area, there is a high degree of movement of lithic materials from the surface downward in the soil column. This was also evidenced during subsurface testing, where a much greater density of subsurface chert debitage was observed in numerous test units, compared to the surface. Mitigation of this potential is addressed through implementation of an archaeological monitoring plan in the vicinity of previously recorded chert outcrops and site boundaries, under Mitigation Measure CR-2a.

Although the erosional or non-depositional nature of the project’s ridgeline geomorphic setting makes it unlikely that any buried archaeological resources would be present with no surface manifestation, the potential can never be completely ruled out, and this would represent a potentially significant impact. However, mitigation of this potential is addressed through implementation of Mitigation Measure CR-2b.

**Mitigation Measure CR-2a: Monitoring Plan.** In addition to the data recovery plan implemented for the two historical resources, a monitoring plan shall be developed and implemented. This plan could be a standalone document or a component of the data recovery plan specified under MM CR-1a. This document shall have sufficient background and analysis of research questions and data needs, to allow treatment of any unanticipated discoveries that may occur during archaeological monitoring. All earth disturbances including scarification, grading, etc. within 50 meters of any previously recorded archaeological resources (regardless of findings of significance) shall be monitored by a qualified archaeologist. If unanticipated discoveries are made during monitoring, protocol outlined in the monitoring plan and in Mitigation Measure CR-2b will be followed.

**Mitigation Measure CR-2b: Contractor Training.** Prior to construction, the construction contractor and subcontractors shall be informed of the legal and regulatory consequences of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other significant cultural materials from the site. Significant cultural materials include but are not limited to aboriginal human remains; chipped stone; groundstone; shell and bone artifacts (both human and animal); concentrations of fire-cracked rock; bottle glass; ceramics; ash and charcoal; and historic features such as privies or building foundations/remains.

If cultural resources are uncovered during ground disturbing activities associated with the project, work will stop within 50 ft. of the initial find and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per the CRHR and develop appropriate mitigation. The Applicant shall comply with the mitigation requirements identified by the archaeologist and approved by the County.
Implementation of Mitigation Measures CR-2a and CR-2b would reduce potential impacts related to as-yet undiscovered/unrecorded historical resources or unique archaeological resources to less than significant with mitigation.

**Impact CR-3: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less Than Significant with Mitigation)**

No paleontological resources or paleontologically sensitive rock formations are known to exist within the C-APE and, given the geologic setting of the C-APE, the presence of significant paleontological resources is very unlikely. Nonetheless, the possibility cannot be completely discounted, and this would represent a potentially significant impact. However, mitigation of this potential is addressed through implementation of Mitigation Measure CR-3.

**Mitigation Measure CR-3: Paleontological Resources.** If a paleontological resource is encountered during implementation of the project, the Applicant shall notify the County and all activity within the vicinity of the find shall halt until it can be evaluated by a qualified paleontologist as defined by the SVP (SVP, 2010). The paleontologist shall evaluate the resource and determine its significance. If significant, the paleontologist shall notify the County and the Applicant, in consultation with the County and the paleontologist, shall prepare a treatment plan such that the resource would be recovered and scientific information preserved. The paleontologist shall implement the treatment plan in consultation with the County and Applicant prior to allowing work in the vicinity to resume.

Implementation of Mitigation Measure CR-3 would reduce potential impacts to paleontological resources to less than significant with mitigation.

**Impact CR-4: The proposed project could result in a substantial adverse change in the significance of an as-yet undiscovered human remains. (Less Than Significant with Mitigation)**

No cemeteries or human remains are known to exist within the C-APE and, given the types of archaeological sites present within the C-APE, human remains are very unlikely. Nonetheless, the possibility cannot be completely discounted, and this would represent a potentially significant impact. However, mitigation of this potential is addressed through implementation of Mitigation Measure CR-4.

**Mitigation Measure CR-4: Human Remains.** If human remains are uncovered during construction, the construction contractors shall stop potentially damaging work, assess the significance of the find, and pursue appropriate management. California law recognizes the need to protect interred human remains, particularly Native American burials and associated items of patrimony, from vandalism and inadvertent destruction. The procedures for the treatment of discovered human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097.

In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all such activities in the vicinity of the find shall be halted immediately and the County’s designated representative shall be notified. The County shall immediately notify the Santa Clara County coroner and a qualified professional archaeologist. The coroner is required to examine all
discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code, Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]). The responsibilities of the County for acting upon notification of a discovery of Native American human remains are identified in detail in California Public Resources Code Section 5097.9, as well as Santa Clara County Ordinance Division B6. Upon a determination by the County Coroner that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission, pursuant to Health and Safety Code § 7050.5(c), and the County Coordinator of Indian Affairs. No further disturbance of the site may be made except as authorized by the County Coordinator of Indian Affairs in accordance with the provisions of state law and County Ordinance. Within 24 hours following receipt of information that a Native American burial site has been discovered or unearthed, the County Coordinator of Indian Affairs shall conduct inspection of the site in accordance with the provisions set forth in Public Resources Code § 5097.98. Any agreement reached in accordance with Public Resources Code § 5097.98 shall be presented to the County Engineer. The County Engineer shall issue a permit setting forth the conditions of the agreement to be met by the owner of the property pursuant to County Ordinance Division B6.

Implementation of Mitigation Measure CR-4 would reduce potential impacts related to human remains to less than significant with mitigation.

3.5.4 Cumulative Impacts

Impact-C-CR: The proposed project could have a cumulatively considerable impact on cultural resources. (Less Than Significant)

Historic and Archaeological Resources

Cumulative impacts would occur when a series of actions lead to a substantial loss of a type of site, building, or archaeological resource. For example, although the loss of a single historic building may not be significant to the character of a neighborhood or streetscape, continued loss of such resources on a project-by-project basis could constitute a significant cumulative effect. While no historic structures exist on the cumulative project sites, it is unknown whether archaeological resources or human remains exist on the cumulative project sites. This would represent a potentially significant cumulative impact.

However, as the proposed project’s footprint and construction disturbance areas would avoid identified historic resources and prehistoric archeological resources on the project site (particularly with implementation of Mitigation Measures CR-1a and CR-1b), the proposed project would not contribute to potential cumulative impacts related to cultural resources. Additionally, the existing federal, State, and local regulations and policies described throughout this section would serve to protect any as-yet-undiscovered cultural resources. Cultural resource impacts generally are localized and site specific. Continued compliance with these regulations and implementation of existing policies would reduce the likelihood of impacts on historic and archaeological resources and human remains to the maximum extent practicable. As such, the proposed project’s cumulative impact related to cultural resources would be less than significant.


**Paleontological Resources**

The proposed project is located within the Santa Clara Valley and the surrounding foothills. Fossil discoveries resulting from excavation and earth-moving activities associated with development and the construction of infrastructure are occurring with increasing frequency throughout California. The value or importance of different fossil groups varies depending on the age and depositional environment of the rock unit that contains the fossils; their rarity; the extent to which they have already been identified and documented; and the ability to recover similar materials under more controlled conditions, such as part of a research project. Unique, scientifically important fossil discoveries are relatively rare, and the likelihood of encountering them is specific to each site and is based on the type of specific geologic rock formations that are present. These geologic formations vary from location to location. It is unknown whether paleontological resources exist on the cumulative project sites. This would represent a potentially significant cumulative impact.

However, as the proposed project is underlain by the Franciscan formation and, thus, has low potential to encounter unique paleontological resources during construction-related earthmoving activities at the project site and would avoid paleontological resources (particularly with implementation of Mitigation Measures CR-3), the proposed project would not contribute to potential cumulative impacts related to paleontological resources. Additionally, the existing federal, State, and local regulations and policies described throughout this section would serve to protect any as-yet-undiscovered paleontological resources. Paleontological resource impacts generally are localized and site specific. Continued compliance with these regulations and implementation of existing policies would reduce the likelihood of impacts on paleontological resources to the maximum extent practicable. As such, the proposed project’s cumulative impact related to paleontological resources would be *less than significant*.

### 3.5.5 References


Hylkema, Mark G., 2007. Santa Clara Valley Prehistory: Archaeological Investigations at CA-SCL-690, the Tamien Station Site, San Jose, California. Center for Archaeological Research at Davis, Department of Anthropology, University of California, Davis.


Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottsfield, Donna Gillette, Viviana Bellifemine, Eric Strother,


Sacramento Union, 1912. “Sues Brother to Break His Mother’s Will.” Sacramento Union 25 January 1912.


Santa Clara County Recorder, date unknown. Santa Clara County Recorder grant, on file at History San Jose.

Santa Clara Third District Court (SCDC), date unknown. Santa Clara Third District Court Case #3284, on file at History San Jose.

Santa Clara Superior Court (SCSC), date unknown. Santa Clara Superior Court Case #1236, on file at History San Jose.


Southwest Builder and Contractor, 1917. [Article about water rights applications.] Southwest Builder and Contractor vol. 59(1), Iles-Ayars Publishing Company, Los Angeles, California.

Thompson & West, 1876. Historical atlas map of Santa Clara County, California. Thompson & West, San Francisco, California. On file at the San Jose Public Library, California Room.


3.6 GEOLOGY AND SOILS

This section describes the existing physical and regulatory setting related to geology and addresses the potential impacts of the proposed project related to geology and soils.

The following comments relating to geology and soils were received during the public scoping period in response to the Notice of Preparation:

- Concern whether on-site serpentine soils, which are very porous, could adequately support septic systems without compromising groundwater quality; and
- Asked whether the County knew of any studies of septic systems in similar soils.

3.6.1 Existing Conditions

It is noted that site-specific geological studies prepared for this study (T&R, 2008; 2011; 2013; 2014a, 2014b) focused on Parcels A, B, and C of the project site, as all of the proposed development for the Young Ranch Residential Project is proposed within Parcels A and B (the County parcels), with the exception of the emergency access road which crosses Parcels C, D, E, and F (the City parcels). The description of existing conditions and analysis of environmental impacts in this section also focuses on the County parcels, and the route of the proposed emergency access road across the City parcels.

Geology

Regional

The San Francisco Bay Area region of northern California is dominated by the southeast-trending southern Santa Clara Valley and the Diablo Range and is within the Coast Range geomorphic region of California. The Coast Range is intensely folded, with ridgelines trending parallel to faults. The Santa Clara Valley is characterized by its northwest-southeast fabric, resulting from active and potentially active strike-slip faults binding the valley.

The upper plate of the Coast Range thrust consists of Great Valley sequence with Coast Range ophiolite at the base, cut by the San Andreas Fault. The upper portion of the Coast Range thrust forms a broad blanket over the Franciscan rocks, but there are several “windows” where Franciscan rocks of the lower plate are exposed. The serpentine encountered on the site is most likely metamorphosed harzburgite of the Coast Range ophiolite sequence. The Coast Range thrust fault is truncated by several northeast trending faults; locally by the San Jose, Calaveras, and Silver Creek Faults.

The Coast Ranges have two different basement rocks, Franciscan and Salinian, which are in contact with each other along the San Andreas Fault that is located approximately 12 miles west of the project site.

Project Site

Areas northeast of the San Andreas fault (including the project site) are underlain by Franciscan complex, which consists of greywacke, volcanic sills and dikes, chert, and serpentine. Stratified marine and nonmarine
sedimentary rocks overlay the Franciscan rocks (T&R, 2008). The project site is specifically underlain by Franciscan complex rocks of Cretaceous (65–145 million years) to Jurassic (145–213 million years) age, including shale, greenstone, chert, and serpentine. Several landslides have been identified on the site, mostly along small perennial stream drainages, where undermining of the landslide toe activates landslides during seasons of high runoff. There are also several areas on the project site where creep is evident (T&R, 2008).

Groundwater is very deep (up to several hundred feet) below the ground surface of the site.

As shown in Figure 3.6-1, Parcel A is dominated by a ridge trending northwest composed of Franciscan formation serpentine, chert, schist, and silica-carbonate rock geological units. Parcel B is dominated by Franciscan shale, chert, serpentine, and greenstone geological units.

**Topography**

**Regional**

The Southern Inner California Coast Ranges within northern and central California include many mountain ranges. These include, among others, the Diablo Range, which extends approximately 100 miles in length from the Sacramento River in Contra Costa County southward toward the Pacheco Pass near the San Luis Reservoir in Modesto County. The Diablo Range rises above the Santa Clara Valley, east of the cities of Gilroy, Morgan Hill, San Jose, and Milpitas.

**Project Site**

The project site is located in the Yerba Buena Hills, which are foothills of the Diablo Range. The County parcels of the project site vary in elevation from approximately 325 feet above mean sea level (MSL) to 925 feet above MSL. Topography is dominated by the northwest trending Coyote Ridge—the westernmost ridge of the Mt. Hamilton Range, with land steeply sloping from the western boundaries of Parcels A and B near Hellyer Road, up to the ridge crest. East of the crest, the land flattens slightly with hills generally characterized by steep to very steep flanks and broad rolling crests.

The City parcels of the project site are also characterized by hills with steep to very steep flanks and broad rolling crests. Elevations within these parcels range from approximately 400 above MSL to 900 above MSL. Areas of greater than 30-percent slopes are indicated with black and white hatching on Figure 2-3 in Chapter 2.0, “Project Description.”

**Soils**

**Regional**

The Santa Clara Valley is made up of deep, rich, alluvial soils. Along the edges of the Valley and within the foothills of the eastern Valley are clayey soils and occasionally poorly drained soils.
Source: T&R, 2008. (Note that only Parcels A, B, and C are mapped)

Figure 3.6-1: Project Site Geology
Project Site

Soils at the project site are primarily undisturbed native soils, including many areas underlain and influenced by serpentine parent material. The project site contains the following soil types as mapped by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) (see Table 3.6-1).

Table 3.6-1: Dominant Soil Types and Characteristics

<table>
<thead>
<tr>
<th>Map Unit Name</th>
<th>Approx. Area (acres)</th>
<th>Liquid Limit (%)</th>
<th>Infiltration Rate</th>
<th>Erosion Hazard (off trail)</th>
<th>Shrink-Swell Potential</th>
<th>Risk of Corrosion (concrete)</th>
<th>Risk of Corrosion (steel)</th>
<th>Septic Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montara Rock Outcrop complex, 30–50% slopes</td>
<td>530</td>
<td>24–33</td>
<td>Very Slow</td>
<td>Severe</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Very limited</td>
</tr>
<tr>
<td>Montara-Santerhill complex, 30–50% slopes</td>
<td>13</td>
<td>23–66</td>
<td>Slow–Very Slow</td>
<td>Moderate</td>
<td>Low–Very High</td>
<td>Low</td>
<td>Low–High</td>
<td>Very limited</td>
</tr>
<tr>
<td>Alo-Altamont complex, 15–30% slopes</td>
<td>145</td>
<td>43–98</td>
<td>Slow–Very Slow</td>
<td>Moderate</td>
<td>High–Very High</td>
<td>Low–Mod</td>
<td>High</td>
<td>Very limited</td>
</tr>
<tr>
<td>Gilroy clay loam, 30–50% slopes</td>
<td>12</td>
<td>30–40</td>
<td>Slow</td>
<td>Severe</td>
<td>Mod</td>
<td>Mod</td>
<td>Mod</td>
<td>Very limited</td>
</tr>
<tr>
<td>Maxwell clay, 0–5% slopes</td>
<td>1</td>
<td>30–70</td>
<td>Slow</td>
<td>Slight</td>
<td>Mod–High</td>
<td>Low</td>
<td>High</td>
<td>Very limited</td>
</tr>
<tr>
<td>Valllecitos rocky loam, 15–30% slopes, eroded</td>
<td>&lt;1</td>
<td>27–62</td>
<td>Very Slow</td>
<td>Moderate</td>
<td>Low–High</td>
<td>Mod</td>
<td>Mod</td>
<td>Very limited</td>
</tr>
<tr>
<td>Urbanland-Altamont Alo complex, 9–15% slopes</td>
<td>&lt;1</td>
<td>43–98</td>
<td>Slow–Very Slow</td>
<td>Not rated</td>
<td>High–Very High</td>
<td>Low–Mod</td>
<td>High</td>
<td>Very limited</td>
</tr>
<tr>
<td>Rock land</td>
<td>&lt;1</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

Source: USDA-NRCS, 2016

Table 3.6-1 also presents the engineering characteristics of the dominant soils, which tend to have slow to very slow infiltration rates, low to moderate plasticity, low to very high shrink-swell potential, low to high risk of corrosion to uncoated steel pipe, and low to moderate risk of corrosion to concrete (USDA-NRCS, 2016).

Geological Hazards

Fault Rupture and Seismic Shaking

Dynamic movements of tectonic plates cause strain in the earth’s crust. When the strain overcomes the inherent strength of the earth’s crust, the strain is released, causing the rock to rupture along a planar surface, known as a fault. The rupture causes seismic waves to propagate through the earth’s crust, producing the ground shaking effects of an earthquake. The rupture can also cause variable amounts of horizontal or vertical displacement along the fault, which may or may not be visible at the earth’s surface.

Geologists examine the magnitude and frequency of recorded earthquakes and evidence of past displacements along a particular fault to evaluate the likelihood that the fault will produce an earthquake in the future. An active
fault is defined by the State of California as a fault that has had surface displacement within the Holocene period (the past 11,000 years). A potentially active fault is one which has had surface displacement during the Quaternary period (the last 1.6 million years).

Earthquakes are caused by release of accumulated strain by sudden slippage along faults, or cracks, in the Earth's crust. Where the fault intersects the ground surface, this slippage causes displacement of the ground surface that can damage or destroy structures placed astride the fault. The magnitude, sense, and nature of fault rupture can vary for different faults or even along different strands of the same fault. Historically, ground surface ruptures closely follow the traces of geologically young faults.

The size of an earthquake can be determined by measuring the energy released during the event. The amplitude and frequency of the seismic waves generated by the earthquake are measured by a network of seismographs. While the Richter magnitude was historically the primary measure of an earthquake’s size, seismologists now use Moment Magnitude (Mw) as the preferred measurement for earthquakes with magnitudes greater than 3.5. The Mw scale is related to the physical characteristics of the fault, including the rigidity of the earth, the size of the fault rupture, and the style of displacement across the fault. The Mw scale was developed in the 1970s to succeed the 1930s-era Richter scale, as it can more reliably measure the size of larger earthquakes, and can do so from a greater distance. Although the formulae are different, the Mw scale retains the familiar continuum of magnitude values defined by the older Richter scale.

**Regional**

The San Francisco Bay Area of northern California is located within the Coast Ranges geomorphic province. This province is characterized by northwest-southeast trending folds and faults that resulted from the collision of the Pacific and North American geotechnical plates, and subsequent strike-slip faulting along the San Andreas Fault System.

The San Francisco Bay Area is one of the most seismically active regions in the United States, and is designated as Seismic Zone 4 under the California Building Code’s seismic provisions. The three major faults that pass through the Bay Area in a northwest direction (San Andreas, Hayward, and Calaveras fault zones). It is estimated that the San Francisco Bay region as a whole has a 72 percent probability of experiencing an earthquake of Mw 6.7 or greater by 2043 (Aagaard et al, 2016).

The major active faults in the project area are the Calaveras, Monte Vista-Shannon, San Andreas, Hayward-Rodgers Creek, Greenville, and San Gregorio faults. For each of the active faults, the distance and direction from the site, estimated mean characteristic Mw, mean slip rate, and probability that they will generate a major earthquake (Aagaard et al, 2016; Cao et al, 2003) are summarized in Table 3.6-2.

**Project Site**

There are no Alquist-Priolo Fault Zones identified on the project site – the nearest such fault zone is approximately 2 miles north of the project site (CDMG, 1982a). The southwestern margins of parcels A and B are within the Santa Clara County Fault Rupture Hazard Zone associated with the potentially active San Jose Fault, which runs parallel to Piercy Road. A County Fault Rupture Zone associated with the Silver Creek Fault crosses
the northeast portion of parcels B and C, and skims the eastern margins of parcels A, D, E, and F. There are no fault rupture hazard zones within the portions of the project site that are proposed for development (SCC, 2012).

The geotechnical reports prepared for the project (T&R, 2008) found that the project site will experience strong to very strong ground shaking similar to other areas of the seismically active San Francisco Bay Region. The intensity of the earthquake ground motion at the site will depend on the characteristics of the generating fault, distance to the earthquake epicenter, magnitude and duration of the earthquake, and specific site geologic conditions.

### Table 3.6-2: Regional Faults and Seismicity

<table>
<thead>
<tr>
<th>Fault Segment</th>
<th>Approx. Distance (km)</th>
<th>Direction from Project Site</th>
<th>Mean Characteristic Moment Magnitude (Mw)</th>
<th>Mean Slip Rate (mm/yr)</th>
<th>30-Year Probability* (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hayward – South East Extension</td>
<td>5.0</td>
<td>East</td>
<td>6.40</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Monte Vista-Shannon</td>
<td>8.2</td>
<td>Southwest</td>
<td>6.80</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Total Calaveras</td>
<td>8.9</td>
<td>East</td>
<td>6.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sargent</td>
<td>19</td>
<td>Southwest</td>
<td>6.80</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>San Andreas (1906 rupture)</td>
<td>21</td>
<td>Southwest</td>
<td>7.90</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>San Andreas – Santa Cruz Mtns</td>
<td>21</td>
<td>Southwest</td>
<td>7.03</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>South Hayward</td>
<td>22</td>
<td>North</td>
<td>6.67</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total Hayward</td>
<td>22</td>
<td>North</td>
<td>6.91</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total Hayward-Rodgers Creek</td>
<td>22</td>
<td>North</td>
<td>7.26</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>San Andreas – Peninsula</td>
<td>23</td>
<td>West</td>
<td>7.15</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Zayante-Vergeles</td>
<td>26</td>
<td>Southwest</td>
<td>6.80</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Greenville</td>
<td>33</td>
<td>Northeast</td>
<td>6.94</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Ortigalita</td>
<td>44</td>
<td>East</td>
<td>6.90</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Monterey Bay-Tularcitos</td>
<td>49</td>
<td>Southwest</td>
<td>7.10</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>N. San Gregorio</td>
<td>49</td>
<td>West</td>
<td>7.23</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Total San Gregorio</td>
<td>49</td>
<td>West</td>
<td>7.44</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

*Probability of one or more earthquakes of magnitude 6.7 or greater from 2014 to 2043 provided by Aagaard et al, 2016. Sources: Aagaard et al, 2016; Cao et al, 2003.

**Landslides**

**Regional**

Landslides are the rapid downward or outward movement of rock, earth, or artificial fill on a slope by sliding, flowing, or falling under the influence of gravity. Factors that can contribute to the occurrence of landslides include low rock strength, the disadvantageous orientation of rock structure such as layering or fractures in the slope, erosion, weathering, high rainfall, steepness of slopes, and human activities such as the removal of vegetation or inappropriate grading.
Much of the east foothills of the Diablo Range are subject to slope instability. Landslide potential is one of the most significant types of land instability that affects development in the rural areas of the County, especially in steeper areas (SCC, 1994).

**Project Site**

Treadwell & Rollo (2008) investigated and mapped the landslides on parcels A, B, and C of the project site. A very large active landslide was identified on the eastern margin of parcels B and C, on the northeastern bank of Upper Silver Creek. A much smaller active landslide was identified in the central eastern portion of parcel A. Several small to moderate sized recent landslides were identified throughout parcel A, typically along small perennial stream drainages. Landslide prone areas are shown in pink (heavy landslide prone) and blue (landslide prone) in Figure 2-3 in Chapter 2.0, “Project Description”. Treadwell & Rollo (2008) also identified several “queried landslides” throughout parcels A, B, and C, which they determined may be areas of soil creep or erosion rather than landslides.

The State Seismic Hazard Zone maps for this area (CGS, 2001, 2004, 2012) identify areas of potential earthquake-induced landslide movement over much of the project site, including the valley in parcel A where the entry road to Silver Creek Valley Road is proposed, and eastern portions of parcels A and B.

Treadwell and Rollo (2008) further classified parcels A, B, and C of the project site and identified four classifications for evaluating the potential for landslides on the site, as shown on Figure 3.6-2:

1) **PS** – Potentially unstable, unconsolidated material, commonly more than 10 feet in thickness, on gentle to moderately steep slopes subject to shallow landsliding, slumping, settlement, and soil creep.

2) **PD** – Potentially unstable, unconsolidated material, commonly more than 10 feet in thickness, on moderate to steep slopes, subject to deep landsliding.

3) **MS** – Areas currently experiencing active or seasonally active, moving shallow landslides to depths shallower than 10 feet below ground surface.

4) **MD** – Areas currently experiencing active or seasonally active, moving deep landslides to depths greater than 10 feet below ground surface.

Rockfall hazards are present on portions of the site, particularly from the bedrock palisade on parcel A, in the valley between the existing main ranch road and Silver Creek Valley Road (where the new entry road is proposed). A rockfall hazard study has been completed for this palisade, including visual observations, categorization of the condition of the palisade, and recommended protection measures for different sections of the palisade (C2 Earth, Inc., 2014).
Figure 3.6-2: Project Site Ground Movement Potential Map

Source: T&R, 2008. (Note that only Parcels A, B, and C are mapped.)
Liquefaction, Lateral Spreading, and Cyclic Densification

Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength. This phenomenon results from the buildup of excess pore water pressure, during earthquake-induced cyclic loading. Soils susceptible to liquefaction include loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits, particularly in areas with a high groundwater table.

Cyclic densification is a phenomenon in which non-saturated, cohesionless soil is densified by earthquake vibrations, causing settlement. Lateral spreading is a phenomenon that involves lateral displacement of large, intact blocks of soil down gentle slopes or toward a steep free face such as a stream bank. Lateral spreading occurs as a result of liquefaction of a shallow underlying deposit during an earthquake. It typically occurs on slopes of 0.3 to 5.0 percent underlain by loose sands and a shallow water table. Conditions conducive to lateral spreading include gentle surface slope, a shallow water table, and liquefiable cohesionless soil. These conditions commonly are found along streams banks, canals, or cut slopes in recent alluvial or deltaic deposits. Soils located at the head of the slide may be pulled apart and those at the toe of the slide may buckle or compress.

Regional

Large areas of Santa Clara County are potentially subject to liquefaction during a major earthquake (SCC, 2012). Soft, fine-grained alluvial and water saturated soils tend to spread and liquefy during earthquakes, such as the natural soils near creeks and streams, as well as many areas composed of earth fill around the edge of the San Francisco Bay (SCC, 1994).

Project Site

The majority of the County Parcels are not within an area of “historic occurrence of liquefaction” as defined on the State’s Seismic Hazard Zones Maps. A small area along the northwest margin of parcel A is shown within the zone of liquefaction, as is a small area along the upper reaches of Upper Silver Creek in easternmost Parcel C.

The Treadwell and Rollo report (2008) and subsequent studies (2011, 2013, 2014a, 2014b) did not investigate the potential for lateral spreading in detail, but noted that it could be present in the areas of potential liquefaction identified. Similarly, detailed investigation of the potential for cyclic densification has not been undertaken for the project site, although Treadwell and Rollo note that where bedrock is shallow or exposed at the surface, the potential for cyclic densification is low.

Expansive Soil

Regional

Expansive soil shrinks and swells with changes in moisture content. The clay content, mineralogy, and porosity of the soil also influence the change in volume. The shrinking and swelling caused by expansive clay-rich soil often results in damage to overlying structures.
**Project Site**

Several soil units within the project site have high or very high shrink-swell potential (see Table 3.6-1, above). Treadwell and Rollo (2008) identified several areas within Parcels A, B, and C that may contain expansive soils (parcels D, E, and F were not investigated).

**Erosion/Accelerated Erosion**

**Regional**

Erosion is a natural process whereby soil and highly weathered rock materials are worn away and transported to another area, most commonly by water but also by wind. Natural rates of erosion can vary depending on slope, soil type, and vegetative cover (regional erosion rates are also dependent on tectonics and changes in relative sea level). Soils containing high amounts of silt and/or clay are typically easily eroded from moderate to steep slopes, while coarse-grained (sand and gravel) soils are generally less susceptible to erosion unless water flow velocities are high.

Soil erosion can become problematic when human disturbance creates steeper slopes and causes rapid soil loss and the development of erosional features (such as incised channels, rills and gullies) that undermine roads, buildings or utilities (accelerated erosion). Vegetation clearing and earth-moving reduces soil structure and cohesion, resulting in abnormally high rates of erosion, referred to as accelerated erosion. Rills, gullies, and excessive sediment transport can eventually damage building foundations and roadways, as well as clog or fill surface drainage facilities (siltation ponds, catchments and culverts).

**Project Site**

The project site contains areas of steep slopes and slight to severe erosion potential (see Table 3.6-1). Soils with severe erosion potential are mostly found on the steep slopes in the western portion of the County parcels, between the western boundary of the site and the ridgetop.

3.6.2 **Regulatory Framework**

The proposed project would be subject to applicable regulations pertaining to geological and seismic hazards, building code requirements, and grading/excavation, as detailed below.

**Federal**

**Uniform Building Code**

The International Conference of Building Officials, published by the Uniform Building Code (UBC), forms the basis of about half of the state building codes in the United States, including California. The UBC has been adopted by the California Legislature, together with modifications to address the specific building conditions and structural requirements of California.
The UBC defines various regions of the United States and rates them according to their seismic hazard potential. The four regions include Seismic Zones 1 through 4, with Zone 1 representing the least seismic potential, and Zone 4 representing the highest seismic potential. The UBC also provides guidance on foundation design and structural engineering for various soil types.

**State**

*California Building Code*

Title 24 of the California Code of Regulations, known as the California Building Code (CBC), sets forth minimum requirements for building design and construction in public buildings and a large percentage of private buildings. In the context of earthquake hazards, the CBC design standards have a primary objective of ensuring public safety; and a secondary goal of minimizing property damage and maintaining function during and following a seismic event. The CBC prescribes seismic design criteria for different types of structures, and provides methods to obtain ground-motion inputs. The CBC does not, however, specifically address every component or site condition anticipated on the proposed project. Therefore, during the design phase, site-specific design criteria would need to be developed for the major project components. The CBC also requires analysis of liquefaction potential, slope instability, differential settlement, and surface displacement due to faulting or lateral spreading for various categories of construction. Recognizing that the risk of severe seismic ground motion varies from place to place, the CBC seismic code provisions vary depending on location (Seismic Zones 0, 1, 2, 3, and 4—with 0 the least stringent and 4 the most stringent).

*Alquist-Priolo State Special Studies Zones Act*

The Alquist-Priolo State Special Studies Zones Act was passed by the State of California in 1972 to mitigate the hazard of surface fault rupture to structures for human occupancy. The Act was renamed as the Alquist-Priolo Earthquake Faulting Zone Act in 1994. The purpose of the Act is to prevent the construction of buildings to be used for human occupancy over the surface traces of active faults. The Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults, by issuing appropriate maps. Local agencies must regulate most development projects within the zones. Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault, and must be set back from the fault (generally 50 feet), although local agencies can be more restrictive than state law requires.

*Seismic Hazards Mapping Act*

The Seismic Hazards Mapping Act (SHMA) was passed by the State of California in 1994 to address non-surface fault rupture earthquake hazards—including strong ground shaking, liquefaction, and seismically induced landslides—in order to mitigate seismic hazards, thereby protecting public health and safety. In accordance with the SHMA, the State Department of Conservation provides local governments with seismic hazard zone maps that identify areas susceptible to various seismic hazards; for example, amplified shaking, liquefaction, and earthquake-induced landslides or other ground failures. Site-specific geotechnical hazard investigations are required by SHMA when construction projects fall within these areas.
Local

_Santa Clara County Geologic Ordinance_

The County’s policies and standards pertaining to geologic hazards and associated investigation and mitigation standards are contained in Title C, Division C12, Chapter IV of the County of Santa Clara Ordinance Code (Ord. No. NS-1203.111, §1, 3-19-02). The geologic ordinance establishes minimum requirements for the geologic evaluation of land based on proposed land uses. It further establishes procedures to enforce these requirements, including rules and regulations for the development of land which is on or adjacent to known potentially hazardous areas, or which has the potential to create or increase the risk of geologic hazard. The provisions of the ordinance are also intended to ensure that the County fulfills its duties under state law regarding geologic hazards, including the Alquist-Priolo Earthquake Fault Zoning Act (surface fault rupture) and the Seismic Hazards Mapping Act (earthquake-induced landslides and liquefaction ground failure).

Portions of the project site are mapped by Santa Clara County as hazard zones for landslides and liquefaction (SCC, 2012). As such, site-specific geotechnical studies were required to be undertaken for the proposed project, and these reports (T&R, 2008; 2011; 2013; 2014a; 2014b) were submitted to the County Geologist for review. Further coordination with the County Geologist may be necessary to comply with the ordinance. The review process stipulated in the ordinance is detailed below.

_Part 1 – General_

The County Planning Office and/or the County Geologist reviews land development applications, building permit applications and land use proposals using maps showing the official County Geologic Hazard Zones, other maps and pertinent data, including, but not limited to previous investigations of the subject and neighboring property, to determine if a geologic investigation is required.

_Part 2 – Reports_

An in-depth geologic, feasibility geologic, or geologic letter report may be required to comply with the following minimum requirements stipulated under Part 3 and 4 below, upon submission to the County Geologist.

_Part 3 – Requirements for In-Depth and Feasibility Geologic Report_

The following are the minimal requirements for the in-depth and feasibility geologic reports:

- Original signature and certification number: The original signature and certification number of the consulting engineering geologist who authored the report shall be affixed to the geologic reports.

- Index map: The site location and the regional setting of the proposed development shall appear on the index map. A map showing the County geologic hazard zones in the vicinity of the site is recommended.

- Area geologic map: A geologic map of the site vicinity at a scale of one inch equals 2,000 feet with the parcel outlines and the source(s) of the geologic data. An explanation defining the geologic features mapped at and near the site shall also be included.
• Site geologic map: A geologic map of the site at a scale of one inch equals 100 feet or larger showing geologic contacts, faults, landslides, borings, trenches, and any other field data points, parcel boundaries, proposed locations of improvements, limits of setbacks from hazardous areas, and recommended building envelopes. If geologic structure sections are included in the report, the lines of each section shall be indicated on the site geologic map.

• Geologic structure sections: Actual or probable subsurface relations shall be shown without vertical exaggeration. Relations that are conjectural shall be clearly labeled as such.

• Statement of conclusions and recommendations: A statement of conclusions and recommendations describing the geologic suitability of the site for the proposed development with recommendations for further work, if warranted, shall be included.

• List of references of geologic literature: A list of references used in evaluation of the site shall be submitted, including any aerial photographs used as a basis for recommendations and conclusions. A statement regarding methods of study and the approximate field time spent on the subject site is also required. A statement regarding the interrelated effects of existing or potential geologic hazards upon the proposed development and of the proposed development on geologic hazards and off-site properties shall be given. No geologic report shall be considered complete unless it considers appropriate locations for access roads, driveways, graded areas (cut or fill) and leach fields (unless the property is to be sewered).

• Additional information: Any additional information determined by the County Geologist to be necessary to evaluate the effects of the proposed land use may be required.

**Part 4 – Geologic Letter Report**

A geologic letter report shall include, but not be limited to, the items listed above. Furthermore, a geologic sketch map and/or geologic structure section may be required as needed.

**Part 5 – Time for Submittal, Review and Fees**

**Sec. C12-616 (Subdivision)**

As stipulated in Sec. C12-616 (Subdivision), where a geologic investigation is required for a proposed subdivision, a report shall be prepared and submitted for review by the County Geologist. The County Geologist approval of the report must be obtained as follows:

- Prior to final approval of the tentative map; or
- Prior to final approval and recordation of the final map, if the Board of Supervisors finds, based on the recommendation of the County Geologist, that existing geologic information justifies delay of the report beyond the tentative map stage.

The decision of the County Geologist shall provide a basis for approval, or disapproval, of the application by the Board of Supervisors and for a determination of the number of usable lots, lot design, circulation systems, and other conditions and mitigations.
Sec. C12-617 (Grading)

Where a geologic investigation is required for proposed grading, a report shall be prepared and submitted for review by the County Geologist. The County Geologist’s approval of the report must be obtained prior to issuance of a grading permit.

The decision of the County Geologist shall provide a basis for approval, or disapproval, of the grading permit application and for guidance as to the design and control of the proposed grading and its effect on adjoining property. The County Geologist may require a plan review letter to be submitted prior to approval of the grading permit and/or a construction observation letter to be submitted prior to final inspection of the grading.

Sec. C12-620 (Review and approval of geologic reports)

Geologic reports submitted as required by this ordinance shall be reviewed by the County Geologist for completeness and adequacy in accordance with the standard of care used in the profession of engineering geology as practiced in the State of California. Guidelines issued by the California Division of Mines and Geology shall be considered in the review. In order for the County Geologist to find that geologic reports are complete and adequate, the reports must meet the minimum standards in this ordinance and present sufficient data to support conclusions regarding the extent and magnitude of the geologic hazards and the potential risks related to the proposed development.

If the geologic report is incomplete or inadequate, the applicant shall be required to submit additional information prepared by the consulting engineering geologist to address identified inadequacies. When the geologic report and any other supplemental information are found to be complete and adequate, the County Geologist shall approve the report and recommend specific conditions and requirements to be incorporated into any permits or other development approvals.

Santa Clara County Grading and Erosion Control Ordinances

The County’s policies and standards pertaining to grading and erosion control are contained in Title C, Division C12, Chapter III of the County of Santa Clara Ordinance Code. The consulting geologist shall provide verification to the County Geologist that all of the recommendations presented in the geologic investigation reports have been incorporated into the plans prior to approval of final improvement plans. The required grading would be carried out in accordance with the requirements set forth by the County Land Development Engineering Office and the County Grading Ordinance. At the time of construction, all graded areas shall be reseeded in conformance with the County Grading Ordinance to ensure that the proposed project would minimize the potential for erosion on the site. All other land use and engineering aspects of the proposed project would be conditioned by the recommendations set forth by the County Land Development Engineering Office.

Santa Clara County On-site Wastewater Treatment Ordinance

Santa Clara County passed an on-site wastewater treatment ordinance on December 26, 2013 (Ord. NO. NS-517.85, § 2, 11-26-13, codified in Sections B11-60 through B11-96 of the County Code). The ordinance was created to set standards for the approval, installation, and operation of on-site wastewater treatment systems (OWTS) within Santa Clara County, consistent with the appropriate California Regional Water Quality Control
Board OWTS Ordinance standards and basin plans. The standards are adopted to prevent the creation of health hazards and nuisance conditions and to protect surface and groundwater quality. New divisions of land utilizing OWTS are limited to a minimum parcel size of one acre, or to a minimum parcel size of two and one-half acres if within a reservoir watershed. For any subdivision of land, the subdivider is required to demonstrate that proposed OWTS design and siting is consistent with Section B11-67 of the County Code. Section B11-67 (g) states that for new divisions of land, soil profiles, percolation tests, and groundwater determinations are required on every parcel unless the Director of Environmental Health determines, on a case-by-case basis, that such testing is not necessary due to the availability of sufficient information to demonstrate conformance with applicable siting criteria for proposed OWTS locations.

In response to the OWTS ordinance, the County of Santa Clara Department of Environmental Health has created the Onsite Systems Manual, providing policy, procedural and technical details for implementation of the provisions of the ordinance. The manual is intended to provide technical guidance for homeowners, designers, and installers of onsite wastewater treatment and dispersal systems, and specifies the process for obtaining a Septic/OWTS Permit. This process includes:

1. Determination of Septic/OWTS Feasibility, which requires:
   a. Site assessment
   b. Soil analysis
   c. Percolation testing (completed by REHS, Professional Civil Engineer, or Professional Geologist)
   d. Approved water supply

2. Review and approval of proposed Septic/OWTS design by the Department of Environmental Health.

Santa Clara County General Plan

The Safety and Noise chapters of the Santa Clara County General Plan (SCC, 1994) put forward several strategies and associated policies with the goal of addressing natural geologic and seismic hazards for the general public. The General Plan policies related to natural hazards focus on reducing the threat of natural hazards for the general public and therefore are focused primarily on controlling the location and type of land uses permitted in hazardous areas and ensuring proposals adequately consider the presence of geologic and seismic hazards. Specific policies are provided below.

County-Wide Policies:

C-HS 28: Countywide strategies for reducing the threat of natural hazards to life and property should include:
   a) Inventory hazards and monitor changing conditions.
   b) Minimize the resident population within high hazard areas.
   c) Design, locate and regulate development to avoid or withstand hazards.
   d) Reduce the magnitude of the hazard, if feasible.
e) Provide public information regarding natural hazards.

C-HS 30: Local jurisdictions’ urban development and land use policies should minimize the resident population within areas subject to high natural hazards in order to reduce:

a) the overall risk to life and property; and
b) the cost to the general public of providing urban services and infrastructure to urban development.

C-HS 31: Cities should not expand Urban Service Areas into undeveloped areas of significant hazards.

C-HS 32: Areas of significant natural hazards shall be designated in the County’s General Plan as Resource Conservation Areas with low development densities in order to minimize public exposure to avoidable risks.

C-HS 33: Development in areas of natural hazards should be designed, located, and otherwise regulated to reduce associated risks, by regulating the type, density, and placement of development where it will not:

a) be directly jeopardized by hazards;
b) increase hazard potential; and
c) increase risks to neighboring properties.

**Rural Area Policies:**

R-HS 9: Development in rural unincorporated areas affected by natural hazards should be designed, located, and otherwise regulated to avoid or reduce associated risks to an acceptable level:

a) In areas of highest potential hazard, such as floodways, active landslides, fault traces, and airport safety zones, no new habitable structures shall be allowed.
b) In other areas of lesser hazards, there shall be no major structures for involuntary occupancy, such as schools, hospitals, correctional facilities or convalescent centers.

R-HS 10: In all hazard areas, projects shall be designed and conditioned to avoid placement of structures and improvements where they would:

a) be directly jeopardized by hazards;
b) increase the hazard potential; and/or,
c) increase risks to neighboring properties.

R-HS 11: Proposals for General Plan amendments, zone changes, use permits, variances, building site approvals, and all land development applications subject to environmental assessment shall be reviewed for the presence of hazardous conditions, utilizing the best, most up-to-date information available. If a development proposal would require a major investment or addition to public infrastructure in areas subject to high hazards, objective estimates of the probable public costs of maintaining and repairing the infrastructure should be provided to decision-makers.
R-HS 12: Proposals shall be conditioned as necessary to conform with County General Plan policies on public safety. Projects which cannot be conditioned to avoid hazards shall be conditioned to reduce the risks associated with natural hazards to an acceptable level or shall be denied.

R-HS 13: Where needed to adequately assess the hazards of a proposal, the County shall require on-site investigations and analysis by certified professionals.

R-HS 16: No new building site shall be approved on a hazardous fault trace, active landslide, or other geologic or seismic hazard area that poses a significant risk.

R-HS 19: In areas of high potential for activation of landslides, there shall be no avoidable alteration of the land or hydrology which is likely to increase the hazard potential, including:

a) saturation due to drainage or septic systems;

b) removal of vegetative cover; and

c) steepening of slopes or undercutting the base of a slope.

R-HS 20: Lands where soils are in a continually saturated condition should not be used for structural purposes or filled with heavy earth fills due to their inherently weak and unstable nature. Uses requiring septic systems in such areas should not be allowed.

R-HS 21: Proposals involving potential geologic or seismic hazards shall be referred to the County Geologist for review and recommendations.

R-HS 42: All new septic systems shall be located only in areas where:

a) there is reasonable assurance that they will function effectively over a long period;

b) they can be designed to have a minimum negative impact on the environment; and

c) they will not contaminate wells, or surface and groundwater supplies.

R-HS 43: Septic systems shall not be allowed where site characteristics impede their operation, including:

a) high groundwater conditions;

b) soils with waste water percolation rates less than one minute per inch or greater than 120 minutes per inch;

c) limited depth to bedrock; or

d) gradients in excess of 20% without appropriate studies.

R-RC 12: Excessive concentrations of septic systems shall be avoided, especially in areas vulnerable to groundwater contamination or in which normal functioning may be impaired by hydrologic constraints.

R-RC 13: Sedimentation and erosion shall be minimized through controls over development, including grading, quarrying, vegetation removal, road and bridge construction, and other uses which pose such a threat to water quality.

R-RC 42: County government shall through its regulations and the design of public projects, achieve soil conservation and minimize erosion.
3.6.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts relating to geology and soils. The proposed project would result in a significant impact related to geology and soils if the project would:

- Expose people or structures to 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
  
  ii. Strong seismic ground shaking
  
  iii. Seismic-related ground failure, including liquefaction
  
  iv. Landslides

- Result in substantial soil erosion or the loss of topsoil;

- 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;

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

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water.

Assessment Methodology

The aforementioned significance criteria were applied to determine impact significance using qualitative approach. The project geotechnical investigations and related research for the project described in Section 3.6.1 above are the basis for the impact analysis and conclusions. When necessary, mitigation measures are proposed to reduce significant impacts to less than significant. The evaluation focuses on whether the proposed project would result in or be subject to adverse effects related to geotechnical hazards (e.g., fault rupture, seismic shaking) geologic hazards (e.g., slope failure, landslides), or soil hazards (e.g., expansion, liquefaction, erosion, loss of topsoil, inability to support septic systems).
Impacts and Mitigation

Impact GS-1: The proposed project could expose people or structures to 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. (Less than Significant)

Construction and Operation

No Alquist-Priolo Fault Zones are identified on the project site; the nearest such fault zone is approximately 2 miles north of the project site (CDMG, 1982a). The southwestern margins of parcels A and B are within the Santa Clara County Fault Rupture Hazard Zone associated with the potentially active San Jose Fault, which runs parallel to Piercey Road. A County Fault Rupture Zone associated with the Silver Creek Fault crosses the northeast portion of parcels B and C, and skims the eastern margins of parcels A, D, E, and F (SCC, 2012).

However, no known active or potentially active faults underlie the portions of the project site that are proposed for development, including areas proposed for roads or infrastructure. Therefore, impacts from fault rupture during construction of site improvements or from future inhabitance of residential units would be less than significant.

(ii) Strong seismic ground shaking. (Less than Significant)

Construction and Operation

Several regional active faults are capable of generating earthquakes that could cause very strong seismic shaking in the project area. The intensity of the earthquake ground motion at the site will depend on the characteristics of the generating fault, distance to the earthquake epicenter, magnitude, and duration of the earthquake, and specific site geologic conditions.

Proposed structures and infrastructure would be built to the standards of the CBC and/or Uniform Building Code; however, there is potential that ground motions from an earthquake could exceed normal building code standards.

As discussed above under “Regulatory Framework,” the County’s Geologic Ordinance requires that the County Planning Office and/or the County Geologist review the proposed project utilizing maps showing the official County Geologic Hazard Zones and other maps and pertinent data, including, but not limited to previous investigations of the project site and neighboring property, to determine if a geologic investigation is required. The site geologic map would include known fault lines to assess the probability of strong seismic ground shaking. An in-depth geologic, feasibility geologic, or geologic letter report may be required. The decision of the County Geologist would provide a basis for approval or disapproval of the application by the Board of Supervisors and for a determination of the number of usable lots, lot design, circulation systems, and other conditions and mitigations. Through compliance with this ordinance, construction and operational impacts related to strong seismic ground shaking would be less than significant.
(iii) and (iv) Seismic-related ground failure, including liquefaction; or Landslides (*Less than Significant*)

**Construction**

The proposed area of development for this project is not within an identified liquefaction zone. The potential for liquefaction, lateral spreading, or cyclic densification at the project site is considered low.

As discussed in Section 3.6.1 above, large areas of the project site, including areas proposed for development, have been identified as potentially subject to earthquake-induced landsliding, on the State Seismic Hazard maps, and/or the County Geological Hazard Zones. Treadwell and Rollo (2008) further classified Parcels A, B, and C of the project site into four designations relating to potential for future landsliding (see Figure 3.6-3). Project improvements such as roadways, utility trenches, and construction of dwellings and other structures in these areas could expose people or structures to potential substantial adverse effects from landslides, if not adequately designed. This represents a potentially significant impact related to landslides.

Treadwell and Rollo (2008) concluded that the areas designated as shallow (PS or MS) should be developable, but may require minor grading, site retaining walls, or rigid or pier and grade beam foundations. Areas designated as a deep (PD or MD) would be difficult to develop without extensive grading, construction of large buttress fills or large engineered stitch-pier or other structures. The report concluded that future project-specific design level geotechnical investigations should include detailed subsurface investigations when development is located in or near one of these four zones to address stability issues. In addition, where development is within a state or county earthquake-induced zones, evaluations in accordance with State Publication SP117 should be performed.

As discussed above under “Regulatory Framework,” the County’s Geologic Ordinance requires that the County Planning Office and/or the County Geologist review the proposed project utilizing maps showing the official County Geologic Hazard Zones and other maps and pertinent data, including, but not limited to previous investigations of the project site and neighboring property, to determine if a geologic investigation is required. The site geologic map would include the susceptibility of the project site to seismic-related ground failure, liquefaction and landslides. An in-depth geologic, feasibility geologic, or geologic letter report may be required. The decision of the County Geologist would provide a basis for approval or disapproval of the application by the Board of Supervisors and for a determination of the number of usable lots, lot design, circulation systems, and other conditions and mitigations. Through compliance with this ordinance, construction impacts related to strong seismic-related ground failure, liquefaction, and landslides would be *less than significant*.

**Operation**

Once constructed, the future residences and community center could be exposed to seismic-related ground failure such as earthquake-induced landslides. Through compliance with the County’s Geologic Ordinance discussed above, operational impacts related to strong seismic-related ground failure, liquefaction, and landslides would be *less than significant*. 
Impact GS-2: The proposed project could result in substantial soil erosion or the loss of topsoil. (Less than Significant)

Construction

Construction activities associated with the project include grading and earthmoving activities. Construction of the project would require grading and leveling several areas of the site, excavating and cutting slopes to allow space to install new structures, construction of the foundations for new structures, grading new roads and installing a road drainage system, widening and re-grading the existing emergency access road, and excavating below grade for new underground facilities such as vaults, electrical conduits, and pipes. Roadway construction would disturb approximately 26 acres of land and construction of the residential lots and Community Center would disturb an additional 25 acres of land.

The project has been designed to avoid areas with slopes greater than 30 percent, and the roadway/infrastructure improvements would be designed to minimize grading and would balance cut and fill to the extent feasible by using existing ranch roads and road designs that closely follow existing topography.

Nevertheless, if not properly controlled, construction activities such as grading, vegetation removal, excavation, trenching, and backfilling, could result in disturbed soils being temporarily exposed to the erosive forces of wind, rain, and stormwater runoff, particularly if construction occurs during periods of prolonged heavy rainfall.

However, the construction plans and specifications will require the contractor(s) to develop and implement a SWPPP and BMPs to minimize wind- and water-related soil erosion and associated stormwater pollution at the construction site. The SWPPP would include the following measures of relevance to erosion:

- **Minimize Vegetation Removal.** The number of access routes, size of staging areas, and the size of the active construction activity will be limited to the minimum necessary to achieve project objectives. Staging, storage, equipment laydown, access routes, and parking areas will be established on previously disturbed areas, to the extent feasible. No clearing or grubbing will be permitted beyond designated work areas.

- **Implement Erosion Control.** Standard construction site erosion control measures will be used where sediment from exposed slopes could runoff and enter waterways. Disturbed soils within the project site will be stabilized to reduce erosion potential, both during and following construction. Areas of disturbed soils that slope toward drainages (including access and staging areas) will be stabilized to reduce erosion potential. Materials used for the erosion control measures and sediment barriers will be weed-free.

Because the project contractor will develop and implement a SWPPP, will minimize ground-disturbing activities to the extent practicable, and implement erosion control at the site, construction related impacts related to soil erosion would be avoided or minimized. Thus, construction-related impacts to soil and top soil would be less than significant.
**Operation**

By introducing new impervious surfaces in the watershed, residential development could increase erosion in hillside drainages and stream channels by increasing the volume or flow of stormwater runoff from uphill areas. As discussed in more fully in Section 3.9, “Hydrology and Water Quality”, the project is required to comply with San Francisco Bay RWQCB’s Municipal Regional Permit (San Francisco Bay RWQCB, 2015b) and the SCVURPPP C.3 Stormwater Handbook (SCVURPPP, 2012), and would maintain predevelopment runoff conditions. Impacts of the proposed subdivision improvements on long term soil erosion would therefore be less than significant.

Long term management of the preservation lands would be undertaken under the guidance of the Resource Management Plan (RMP) prepared for the project (Appendix D). The stated purpose of the RMP is to actively promote the site’s native biological diversity and integral ecosystems, by requiring all development and ranching practices to be consistently driven by resource-orientated principles and standards. The RMP requires appropriate grazing techniques, including stocking rates and rotation schedules guided by the results of ongoing monitoring of residual dry matter. Minimum residual dry matter levels necessary for protecting soil health and maintaining good forage production have been developed for a variety of rangeland types in California and are a measure of the minimum amount of vegetation that should be left on the ground at the end of the growing season to prevent erosion and other detrimental effects. Therefore, impacts of the proposed management of preservation lands related to long-term soil erosion would be *less than significant*.

**Impact GS-3:** The proposed project could be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project, and could result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. *(Less than Significant)*

**Construction**

Construction of the project would place residential homes on a geologic unit that is potentially unstable. Landslide hazard areas are identified on Figure 3.6-3. Excavation required for residence construction could potentially cause landslides. Locating residences within an area of unstable soils or geology represents a potentially significant impact. As discussed above under “Regulatory Framework,” the County’s Geologic Ordinance requires that the County Planning Office and/or the County Geologist review the proposed project using maps showing the official County Geologic Hazard Zones and other maps and pertinent data, including, but not limited to previous investigations of the subject and neighboring property, to determine if a geologic investigation is required. The site geologic map would include the susceptibility of the project site to unstable geologic and soil units. An in-depth geologic, feasibility geologic, or geologic letter report may be required. The decision of the County Geologist shall provide a basis for approval, or disapproval, of the application by the Board of Supervisors and for a determination of the number of usable lots, lot design, circulation systems, and other conditions and mitigations. Through compliance with this ordinance, construction impacts related to unstable geologic or soil units would be *less than significant*. 
Operation

Once constructed, the future residences and community center could be located on potentially unstable soils or geological units. The proposed new entry road that would connect the improved main ranch road to Silver Creek Valley Road may be subject to rockfalls from the bedrock palisade on the slope above. The palisade extends approximately 1,700 feet along the slope to the southwest of the proposed road (C2 Earth, Inc., 2014). The rockfall hazard study recommends active control systems such as scaling, draping, rock bolting, and/or grouting for certain sections of the palisade, as outlined in that report (C2 Earth, Inc., 2014). The study also included a quantitative analysis for a passive catchment system, and found that a rock fence constructed at the top of the proposed cut slope above the roadway with a design height of 5 feet would allow for a Factor of Safety of 2.0. However, the study authors did not recommend a passive catchment system due to the ongoing maintenance that would be required. Locating the entry road in a rockfall hazard area would represent a potentially significant impact. Through compliance with the County’s Geologic Ordinance discussed above, operational impacts related to unstable geologic and soil units would be less than significant.

Impact GS-4: The proposed project could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. (Less than Significant)

Construction

Construction of the project could place residential homes on expansive soils. The project footprint is predominantly located on Montara-Rock outcrop complex (30 to 50 percent slopes) and Montara-Santerhill complex (15 to 30 percent slopes). Both of these soil complexes are categorized by 0 to 4 inches of sandy loam, above 4 to 11 inches of gravelly sandy loam, above 11 to 18 inches of cobbly sandy loam, and bedrock, and have low to very high shrink-swell potential (see Table 3.6-1).

Locating residences within an area of expansive soils would represent a potentially significant impact. As discussed above under “Regulatory Framework,” the County’s Geologic Ordinance requires that the County Planning Office and/or the County Geologist review the proposed project utilizing maps showing the official County Geologic Hazard Zones and other maps and pertinent data, including, but not limited to previous investigations of the project site and neighboring property, to determine if a geologic investigation is required. The site geologic map would include the susceptibility of the project site to expansive soils. An in-depth geologic, feasibility geologic, or geologic letter report may be required. The decision of the County Geologist would provide a basis for approval or disapproval of the application by the Board of Supervisors and for a determination of the number of usable lots, lot design, circulation systems, and other conditions and mitigations. Through compliance with this ordinance, construction impacts related to expansive soils would be less than significant.

Operation

Once constructed, the future residences and community center could be exposed to soil hazards related to unstable soils or geological units. This represents a potentially significant impact. Through compliance with the County’s Geologic Ordinance discussed above, operational impacts related to expansive soils would be less than significant.
Impact GS-5: The proposed project site has soils that could be incapable of adequately supporting the use of septic systems. *(Less than Significant)*

**Construction**

No septic systems would be used during construction. Therefore, no construction-related impact would occur.

**Operation**

Each primary residence and secondary unit would include its own septic system and associated leach field. The leach fields would be restricted to areas within the mapped leach field for each home site.

Indicative percolation testing was performed at five of the proposed home sites in 2012 (SHEH, 2012). The five home sites that were tested had average percolation rates that are fast, but within the range that the County deems acceptable for leachfield construction. However, percolation test results were extremely variable within each lot, and the report concluded that soil in the project site is not uniform, but that it does generally produce percolation rates that meet County requirements and that septic systems could be an appropriate means of sewage disposal for some lots on the project site. The report noted that lots which exceed percolation rates of 5 minutes per inch (e.g., Home Site F4) would require further investigation to determine that groundwater is not present at depths that could be contaminated by effluent.

Preliminary observations undertaken as part of the Geotechnical Report (T&R, 2014), including consideration of the 2012 percolation results discussed above, concluded that leach fields on the proposed home sites are feasible from a geologic and geotechnical engineering perspective, and should not have a significant impact on the stability of the slopes, degrade local groundwater quality, or result in hazard or nuisance from untreated effluent surfacing downslope, but noted that site-specific percolation testing would be required for each lot.

Site specific percolation testing has not been undertaken for each proposed home site at the time of preparation of this EIR. This would represent a potentially significant impact relating to inability of site soils to support the use of septic tanks. However, the proposed project would be required to comply with the Santa Clara County Onsite Wastewater Treatment Ordinance, as described under “Regulatory Setting.” The standards in the ordinance are adopted to prevent the creation of health hazards and nuisance conditions and to protect surface and groundwater quality. As part of compliance with this ordinance, each home site would require percolation testing to confirm the groundwater separation requirement to determine the size of the dispersal field. If soil profile observations indicate the presence of expansive soils with high shrink-swell characteristics, percolation testing during the normal wet weather season would be required. All percolations testing would be conducted concurrent with the Santa Clara Department of Public Health’s oversight. Any home sites that fail the percolation test would not be approved on the preliminary subdivision map. Through compliance with this ordinance, operational impacts related to on-site wastewater treatment systems would be *less than significant.*
3.6.4 Cumulative Impacts

Impact-C-GS: The proposed project would not have a cumulatively considerable impact related to geology and soils (No Impact)

Since geology and soils impacts are site specific, cumulative impacts related to geology and soils would only occur if cumulative projects were laterally or vertically adjacent to each other. However, no other cumulative projects are located adjacent to the project site. In addition, structures proposed under the various cumulative projects would be constructed in accordance with building code requirements. As a result, there would be no cumulative impact related to geology and soils.

3.6.5 References


3.7 GREENHOUSE GAS EMISSIONS

This section describes the existing physical and regulatory setting related to greenhouse gas (GHG) emissions and addresses the potential impacts of the proposed project related to GHG emissions.

No public or agency comments related to GHG emissions were received during the public scoping period in response to the Notice of Preparation.

3.7.1 Existing Conditions

Greenhouse Gases, Sources, and Global Warming Potential

Global

Certain gases in the earth’s atmosphere, classified as GHGs, play a critical role in determining the earth’s surface temperature. A portion of the solar radiation that enters the earth’s atmosphere is absorbed by the earth’s surface, and a smaller portion of this radiation is reflected back toward space. Infrared radiation is absorbed by GHGs; as a result, infrared radiation released from the earth 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. GHGs are present in the atmosphere naturally, are released by natural and anthropogenic sources, or are formed from secondary reactions taking place in the atmosphere. GHG emissions have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change.

Because climate change issues are global in nature, this section will provide a discussion of global, national, and Statewide GHG emission sources and inventories to provide context on a larger scale.

State

GHGs defined by California Assembly Bill (AB) 32 (refer to Section 3.7.3, Regulatory Framework) include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. These GHGs are described below (IPCC 2014):

Carbon dioxide. Carbon dioxide is an odorless, colorless, natural GHG. The concentration of carbon dioxide in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960. Natural sources include decomposition of dead organic matter, respiration of bacteria, plants, animals, and fungus, evaporation from oceans, and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.

Methane. Methane is a flammable gas and is the main component of natural gas. Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.

Nitrous oxide. Nitrous oxide, commonly known as laughing gas, is a colorless GHG. Sources of nitrous oxide include microbial processes in soil and water, fuel combustion, and industrial processes.
**Hydrofluorocarbons.** Hydrofluorocarbons are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.

**Perfluorocarbons.** Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 37 miles above the earth’s surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.

**Sulfur hexafluoride.** Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. A tracer gas is a gas which is used to detect the presence of a leak.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to CO₂. The GWP of a GHG is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time (i.e., lifetime) that the gas remains in the atmosphere (“atmospheric lifetime”). The reference gas for GWP is CO₂; therefore, CO₂ has a GWP of 1. The other main GHGs that have been attributed to human activity include CH₄, which has a GWP of 28, and N₂O, which has a GWP of 265 (IPCC, 2013). For example, 1 ton of CH₄ has the same contribution to the greenhouse effect as approximately 28 tons of CO₂. GHGs with lower emissions rates than CO₂ may still contribute to climate change, because they are more effective at absorbing outgoing infrared radiation than CO₂ (i.e., high GWP). The concept of CO₂-equivalents (CO₂e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation. GHG emissions are typically measured in terms of pounds or tons of CO₂e, and are often expressed in metric tons of CO₂ equivalents (MTCO₂e).

**Project Site**

The project site is composed primarily of grazing lands. Agricultural GHG emissions can include enteric fermentation (by animals), manure management, energy use (including fuel combustion), and soil management practices (fertilizer and manure applications). California Air Resources Board (CARB) estimates that agricultural emissions were approximately 8 percent of the total statewide GHG emissions in 2012 (CARB, 2014).

**GHG Emission Inventories**

**Global**

Total worldwide GHG emissions worldwide were approximately 49 billion MTCO₂e in 2004 (IPCC, 2007b).

**State**

The CARB prepares an annual GHG inventory for emissions produced in the State. GHGs are typically analyzed by “sector” or type of activity that results in GHG emissions. Land use developments are not their own GHG emissions sectors, because these developments involve multiple activities that directly result in GHG emissions. California emitted 441.5 million MTCO₂e in 2014 (CARB, 2016b). As shown in Figure 3.7-1, GHG Emission
Trends by Sector in California, combustion of fossil fuel in the transportation sector was the single largest source of California’s GHG emissions, accounting for 37 percent of the total GHG emissions in the state. The transportation category was followed by the industrial category, which accounts for 24 percent of the state’s total GHG emissions, and the electric power category (including in-state and out-of-state sources), which accounts for 20 percent of total GHG emissions in California (CARB, 2016b).

Figure 3.7-1: GHG Emission Trends by Sector in California

Bay Area

The Bay Area Air Quality Management District (BAAQMD) GHG Inventory estimates direct and indirect emissions from sources within the BAAQMD’s jurisdiction\(^1\) for the GHGs consistent with those considered for AB 32, including CO\(_2\), CH\(_4\), N\(_2\)O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (BAAQMD, 2015).

The emissions inventory estimates GHG emissions produced by the San Francisco Bay Area in 2011. This inventory updates the BAAQMD’s previous GHG emissions inventory for base year 2007 (BAAQMD, 2015). All activity data has been updated to reflect current industrial activity, motor vehicle travel, and economic and population growth.

Overall, the Bay Area’s GHG emissions in 2011 were approximately 86.6 million MTCO\(_2\)e (BAAQMD, 2015). The transportation sector contributed approximately 39.7 percent of GHG emissions in the Bay Area. The industrial and commercial sector was the second largest contributor with 35.7 percent of total GHG emissions.

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\(^1\) The BAAQMD regulates stationary sources of air pollution in Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties.
Santa Clara County

Santa Clara County’s emissions in 2011 represented approximately 18.5 percent of the total GHG emissions in the Bay Area. The County’s GHG emissions in 2007 were approximately 16 million MTCO\textsubscript{2}e (BAAQMD, 2015).

City of San Jose

The City of San Jose prepared an emissions inventory with a 2008 baseline year to support their GHG Emissions Reduction Strategy, a component of the City’s General Plan. The City of San Jose’s General Plan is further discussed in Section 3.7.2, Regulatory Framework. The GHG emissions baseline for 2008 was 7.61 million MTCO\textsubscript{2}e and 46.3 percent of those emissions are attributable to transportation. The City is currently in the process of updating their emissions inventory for the year 2014.

Project Site

The vast majority of the project site is undeveloped and used for grazing, and there are only limited areas that have been improved. Approximately 5 acres of the 2,150-acre project site are developed, including a gravel access road to a City of San Jose water tank site near the western corner of the project site. A GHG inventory for the project site is not available, and the analysis did not estimate GHG emissions associated with existing conditions.

3.7.2 Regulatory Framework

Federal

U.S. Supreme Court Ruling of CO\textsubscript{2} as a Pollutant and Identification of GHGs

The USEPA is the federal agency responsible for implementing national programs related to GHG emissions and climate change under the federal Clean Air Act (CAA) and Clean Air Act Amendments (CAAA). The Supreme Court of the United States ruled on April 2, 2007, that CO\textsubscript{2} is an air pollutant as defined under the CAA, and that USEPA has the authority to regulate emissions of GHGs. In December 2009, the USEPA Administrator signed a final action under Section 202(a) of the Clean Air Act, which identifies six GHGs that constitute a threat to public health and welfare. In light of this, USEPA developed standards and regulations to limit the emissions of GHGs from new motor vehicles and for specific stationary sources, as well as a renewable fuel standard program.

U.S. Environmental Protection Agency “Endangerment” and “Cause or Contribute” Findings

On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA which applies to the federal government’s ability to regulate GHG emissions:

- **Endangerment Finding:** The current and projected concentrations of the six key GHGs—CO\textsubscript{2}, methane, nitrous oxide, HFCs, PFCs, and sulfur hexafluoride (SF\textsubscript{6})—in the atmosphere threaten the public health and welfare of current and future generations.

- **Cause or Contribute Finding:** The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.
USEPA Mandatory GHG Reporting Rule

On September 22, 2009, the USEPA issued the Mandatory GHG Reporting Rule, which requires reporting of GHG data and other relevant information from fossil fuel and industrial GHG suppliers, vehicle and engine manufacturers, and all facilities that would emit 25,000 MT CO$_2$e or more per year. Facility owners are required to submit an annual report with detailed calculations of facility GHG emissions on March 31 for emissions from the previous calendar year. The Reporting Rule also mandates recordkeeping and administrative requirements to enable USEPA to verify the annual GHG emissions reports.

USEPA Stationary Source Regulations

On May 13, 2010, Clean Air Act permitting programs were tailored to cover the nation’s largest GHG emitters: power plants, refineries, and cement production facilities. On March 27, 2012, the USEPA proposed a Carbon Pollution Standard for new power plants that would, for the first time, set limits on the amount of carbon pollution emitted by power plants (USEPA, 2012b). On September 20, 2013, this proposal was withdrawn, and a new proposal was issued with a revised approach that would set separate standards for natural-gas-fired turbines and coal-fired units.

USEPA and NHTSA Mobile Source Regulations

On August 9, 2011, USEPA and the National Highway Traffic Safety Administration (NHTSA) announced standards to reduce GHG emissions and improve fuel efficiency for heavy-duty trucks and buses. On October 15, 2012, USEPA and NHTSA established a program to reduce GHG emissions and improve fuel economy standards for new cars and light trucks through 2025 (USEPA, 2012a).

Council on Environmental Quality Guidance

On December 18, 2014, the Council on Environmental Quality (CEQ) released revised draft guidance that supersedes the draft GHG and climate change guidance released by CEQ in February 2010. The revised draft guidance applies to all proposed Federal agency actions, including land and resource management actions. This guidance explains that agencies should consider both the potential effects of a proposed action on climate change, as indicated by its estimated GHG emissions, and the implications of climate change for the environmental effects of a proposed action (CEQ, 2014). The guidance encourages agencies to draw from their experience and expertise to determine the appropriate level (broad, programmatic or project- or site-specific) and type (quantitative or qualitative) of analysis required to comply with NEPA. The guidance recommends that agencies consider 25,000 MTCO$_2$e on an annual basis as a reference point below which a quantitative analysis of GHG emissions is not recommended unless it is easily accomplished based on available tools and data (CEQ, 2014).

State

California Air Resources Board (CARB)

California has launched major initiatives for reducing GHG emissions. CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CAA). The legal framework for GHG emission reductions has come about through
Executive Orders, legislation, regulations, and court decisions. Some of the major components of California’s climate change initiative are highlighted below.

**California Assembly Bill 1493**

With the passage of AB 1493 in 2002, California launched an innovative and proactive approach for dealing with GHG emissions and climate change at the state level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks beginning with the 2009 model year. Although litigation was filed challenging these regulations and USEPA initially denied California’s related request for a waiver, a waiver has since been granted (CARB, 2013a).

**California Executive Order S-03-05**

In June 2005, Governor Schwarzenegger issued Executive Order S-03-05, calling for statewide GHG reductions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. Executive Order S-03-05 also called for a coordinated interagency effort to report on progress made toward meeting the GHG emissions targets and on the impacts of global warming on California. These reports are required biannually,² with the latest summary report published in July 2012 (CEC, 2012).

**California Global Warming Solutions Act (AB 32)**

In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. Under AB 32, CARB is responsible for monitoring and reducing GHG emissions in the State and for establishing a statewide GHG emissions cap for 2020 that is based on 1990 emissions levels. CARB (2009) has adopted the AB 32 Climate Change Scoping Plan (Scoping Plan), which contains the main strategies for California to implement to reduce CO₂e emissions by 169 million metric tons (MMT) from the State’s projected 2020 emissions level of 596 MMTCO₂e under a business-as-usual scenario. The Scoping Plan breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the State’s GHG inventory, but does not directly discuss GHG emissions generated by construction activities. Key elements of the Scoping Plan include the following recommendations:

1. Expanding and strengthening existing energy-efficiency programs and building and appliance standards;
2. Achieving a statewide renewables energy mix of 33 percent;
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
4. Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;

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² Although the language in the EO requiring these reports states that they should be issued “biannually,” the language in these reports refers to “biennial” reports, and the reports have been issued as such (every 2 years) (http://resources.ca.gov/climate/fourth/).
5. Adopting and implementing measures pursuant to existing state laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and

6. Creating targeted fees, including a public goods charge on water use, fees on high-GWP gases, and a fee to fund the administrative costs of the state’s long-term commitment to AB 32 implementation.

CARB has not yet determined what amount of GHG reductions it recommends from local government operations; however, the Scoping Plan does state that land use planning and urban growth decisions will play an important role in the state’s GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors.

CARB published the First Update to the AB 32 Scoping Plan on May 16, 2014. The update identifies opportunities to leverage existing and new funds to further drive GHG emissions reductions through strategic planning and targeted low-carbon investments. The update defines CARB’s climate change priorities for the next 5 years and sets the groundwork to reach long-term goals set forth in California Executive Orders S-03-05 and B-16-2012.

**California Executive Order S-01-07**

In January 2007, Governor Schwarzenegger set a low carbon fuel standard for California, and directed the carbon intensity of California’s transportation fuels to be reduced by at least 10 percent by 2020. The Low Carbon Fuel Standard was approved by CARB in 2009 and became effective on April 15, 2010. The regulation establishes annual performance standards for fuel producers and importers and applies to all fuels used for transportation in California (CARB, 2011).

**California Senate Bill 97**

In August 2007, the California Legislature adopted SB 97, requiring OPR to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Resources Agency by July 1, 2009. OPR submitted its proposed guidelines to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency undertook the formal rulemaking process to certify and adopt the amendments as part of the state regulations implementing CEQA and adopted the CEQA Guidelines Amendments on December 30, 2009. The amendments became effective on March 18, 2010. In the CEQA Guidelines Amendments, thresholds of significance for GHG emissions was not specified; nor are assessment methodologies or specific mitigation measures prescribed. Instead, the amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but rely on the lead agencies to make their own determinations based on substantial evidence. The CEQA amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.
California Senate Bill 375

SB 375, the Sustainable Communities and Climate Protection Act of 2008 enhances California’s ability to reach its AB 32 goals by promoting good land use and transportation planning, with the goal of more sustainable communities. Sustainable communities require CARB to develop regional GHG emissions reduction targets for 2020 and 2035 for each region covered by one of the state’s 18 metropolitan planning organizations (MPOs). The adopted targets for the San Francisco Bay Area MPO, the Metropolitan Transportation Commission (MTC), are 7 percent below 2005 per capita levels by 2020 and 15 percent below 2005 per capita levels by 2035, as set by Executive Order G-11-024.

California Climate Adaptation Strategy

The State of California published the 2009 California Climate Adaptation Strategy, which summarizes climate change impacts and provides recommendations on strategies to adapt to its effects. The strategies cover seven sectors which include public health, biodiversity and habitat, oceans and coastal resources, water, agriculture, forestry, and transportation and energy. In 2014, the California Natural Resources Agency published an update to this plan called Safeguarding California: Reducing Climate Risk. This document provides policy guidance on the preparation, prevention, and response to the effects of climate change within California.

California Executive Order B-30-15

In April 2015, Governor Brown signed Executive Order B-30-2015, which established a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It additionally directed all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve GHG emissions reductions to meet the 2030 and 2050 targets.

California Senate Bill 350

The 2015 Clean Energy and Pollution Reduction Act was signed into law on October 10, 2015, and requires that the amount of electricity generated and sold to retail customers from renewable energy resources be increased to 50 percent by December 31, 2030. A doubling of statewide energy efficiency savings in electricity and natural gas by retail customers must also be achieved by January 1, 2030.

Local

CARB also acknowledges that local governments have broad influence and, in some cases, exclusive jurisdiction over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations.

2010 Bay Area Clean Air Plan

The latest Clean Air Plan was adopted in September 2010 (BAAQMD, 2010b). The 2010 Clean Air Plan includes a comprehensive strategy to reduce ozone, particulate matter, air toxics, and GHGs from stationary, mobile, and transportation sources. The Clean Air Plan’s performance objectives are to reduce GHG emissions to 1990 levels...
by 2020 and to 40 percent below 1990 levels by 2035 and are consistent with CARB’s GHG reduction goals. The plan includes control measures that will directly reduce GHG emissions and many other measures that will reduce GHGs as a co-benefit. Applicable measures include offering retrofit incentives and encouraging alternative fuel use for off-road equipment (MSM C-1) and on-road heavy duty vehicles (MSM B-1 and MSM B-2).

**Plan Bay Area**

On July 18, 2013, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) approved the Plan Bay Area, which includes the 2040 Regional Transportation Plan (RTP) and the Sustainable Communities Strategy (SCS) for the Bay Area, in accordance with SB 375. The plan includes integrated land use and transportation strategies for the region. The plan was developed through OneBayArea, a joint initiative between ABAG, BAAQMD, MTC, and the Bay Conservation and Development Commission (BCDC). The plan’s transportation policies focus on maintaining the existing transportation network and utilizing these systems more efficiently to handle density in Bay Area transportation cores (ABAG, 2013; MTC, 2013).

**Santa Clara County – U.S. Cool Counties Climate Stabilization Declaration**

In 2007, the Santa Clara County Board of Supervisors signed the U.S. Cool Counties Climate Stabilization Declaration and established a set of aggressive goals for GHG emissions reductions that would reduce the County’s GHG emissions by 80 percent before 2050. By adopting the Declaration, the County agrees to take inventory of County government operations and countywide community GHG emissions as well as reduce County government GHGs by 80 percent below current levels by 2050 through a 10 percent reduction every five years (SCC, 2007).

**Santa Clara County – Climate Action Plan**

In 2009, Santa Clara County prepared a Climate Action Plan (CAP) for Operations and Facilities in order to meet the goals established in the Cool Counties Climate Stabilization Declaration. The CAP focused primarily on steps needed to reach the 10 percent emission reduction goal by 2015, but also identified policies and actions that are needed to set the stage for reductions past 2015, such as the goal of decreasing emissions by 10 percent every 5 years from 2010 through 2050. The CAP represents a set of strategic changes in County operations, facilities and employee behaviors which will facilitate emissions reductions associated with water conservation, and decreases in fuel consumption and solid waste volume (Climate Action Plan, 2009).

**Silicon Valley 2.0**

Silicon Valley 2.0 (SV 2.0), funded through a grant from the Strategic Growth Council and designed and managed by the Santa Clara County Office of Sustainability, is a regional effort to minimize the anticipated impacts of climate change within the boundary of Santa Clara County. In May 2015, the County released the Climate Adaptation Guidebook. The guidebook was designed to provide a recommended set of strategies that can be taken on by individual agencies, cities or regional partnerships to identify potential pathways, technologies, strategies, and policy mechanisms needed to both reduce emissions and increase resiliency in Santa Clara County.
Santa Clara County General Plan

On August 25, 2015, the Health Element chapter was amended to the Santa Clara General Plan, 1995–2010, which includes an Air Quality and Climate Change Section with the following strategy and policies for protecting improving air quality, protecting the climate, and protecting public health (SCC, 2015).

**Strategy #1:** Strive for air quality improvement through regional and local land use, transportation, and air quality planning.

- HE-G.5 GHG reduction. Support efforts to reduce GHG emissions from mobile sources, such as reducing vehicle trips, vehicle use, vehicle miles traveled (VMT), vehicle idling, and traffic congestion. These efforts may include improved transit service, better roadway system efficiency, state-of-the-art signal timing and Intelligent Transportation Systems (ITS), transportation demand management, parking and roadway pricing strategies, and growth management measures.

**Strategy #2:** Reduce health impacts from and increase resiliency to extreme heat events and rising temperatures.

- HE-G.16 Heat island mitigation. Support urban greening and the use of green infrastructure to minimize the urban heat island effect.
- HE-G.18 Energy and resiliency in homes. Promote energy retrofits and increase extreme heat resiliency for housing, particularly for lower income and vulnerable populations.

City of San Jose—Green Vision

In 2007, the City of San Jose adopted the “Green Vision,” a 15-year plan for economic growth and environmental sustainability. The plan outlines 10 goals to achieve by 2022 including, adopting a general plan with measurable standards for sustainable development, reducing per capita energy use by 50 percent, and receiving 100 percent of the City’s energy load from renewable power. The ten goals are as follows:

- **Goal 1:** Create 25,000 Clean Tech Jobs as the World Center of Clean Innovation
- **Goal 2:** Reduce Per Capita Energy Use by 50 Percent
- **Goal 3:** Receive 100 Percent of our Electrical Power from Clean, Renewable Sources
- **Goal 4:** Build or Retrofit 50 Million Square Feet of Green Buildings
- **Goal 5:** Divert 100 Percent of Waste from Landfill and Convert Waste to Energy
- **Goal 6:** Recycle or Beneficially Reuse 100 Percent of our Wastewater
- **Goal 7:** Adopt a General Plan with Measurable Standards for Sustainable Development
- **Goal 8:** Ensure that 100 percent of Public Fleet Vehicles Run on Alternative Fuels
- **Goal 9:** Plant 100,000 New Trees and Replace 100 Percent of our Streetlights with Smart, Zero Emissions Lighting
- **Goal 10:** Create 100 Miles of Trails Connecting with 400 Miles of On-street Bikeways
City of San Jose—Envision 2040 General Plan

Envision 2040, the City of San Jose’s General Plan, was adopted in November 2011. The plan includes sustainable development goals and recommendations for both mitigation and adaptation mentioned as a part of the City’s Green Vision plan.

City of San Jose—GHG Reduction Strategy

In 2011, the City of San Jose adopted a GHG Reduction Strategy in conjunction with the Envision 2040 General Plan. The purposes of the GHG Reduction Strategy are to capture and consolidate GHG reduction efforts, distill policy direction on GHG reduction from the General Plan, quantify GHG reductions that should result from land use changes, create a framework for ongoing monitoring and revision of the reduction strategy, and achieve General Plan-level clearance for future development activities. Table 3.7-1 shows GHG reduction strategies adopted by the City which are applicable to the Project.

Table 3.7-1: City of San Jose Applicable GHG Reduction Measures

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Title</th>
<th>Reduction Measure</th>
<th>Policy Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEE-1</td>
<td>Install Energy Efficient Appliances</td>
<td>Over the 25 year life of the General Plan, nearly all refrigerators in the City of San Jose will be replaced (average service life = 17 years).</td>
<td>Built Environment and Energy</td>
</tr>
<tr>
<td>BEE-2</td>
<td>Green Building Ordinance</td>
<td>The City has adopted Green Building Ordinances for public and private development.</td>
<td>Built Environment and Energy</td>
</tr>
<tr>
<td>LUT-1</td>
<td>Increase Density of Development</td>
<td>The existing development was 310,000 dwelling units (DU) in 2008. Under the Envision 2040 General Plan Land Use Diagram, a reduction of 159,000 metric tons CO₂e would be achieved by increasing density by an additional 120,000 DU.</td>
<td>Land Use and Transportation</td>
</tr>
<tr>
<td>LUT-6</td>
<td>Provide 100 miles of interconnected trails</td>
<td>As stated in the Green Vision Goal #10 and the Bicycle Master Plan, provide 100 miles of interconnected trails.</td>
<td>Land Use and Transportation</td>
</tr>
<tr>
<td>RWR-1</td>
<td>Use Reclaimed Water</td>
<td>Beneficially re-use 100 percent of the City’s wastewater (100 MGD).</td>
<td>Recycling and Waste Reduction</td>
</tr>
</tbody>
</table>

Source: City, 2011.

CO₂e = carbon dioxide-equivalents
GHG = greenhouse gas
DU = dwelling units
mgd = millions of gallons per day

3.7.3 Environmental Impacts

This section contains the evaluation of potential environmental impacts associated with the proposed project related to GHG emissions. The section identifies the standards of significance used in evaluating the impacts, the methods used in conducting the analysis, and a detailed evaluation of impacts for the proposed project.

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts related to GHG emissions. The proposed project would result in a significant impact if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

As stated in Appendix G, the significance criteria established by the applicable air quality management district may be relied on to make the above determinations. In 2010, BAAQMD adopted air quality guidance that included quantitative thresholds of significance and recommended Best Management Practices (BMPs) and mitigation measures for GHG emissions (BAAQMD, 2010a).

Since no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, the global warming impacts of a project are considered on a cumulative basis. The BAAQMD thresholds were developed using a “gap-based” threshold, to cover the perceived shortfall between the GHG reductions achieved with the AB 32 Scoping Plan measures and the AB 32 GHG emissions targets. The thresholds were developed based on BAAQMD’s expertise and the best-available GHG emissions data and incorporated conservative assumptions for the amount of emissions reductions from legislation to cover the gap (BAAQMD, 2009).

BAAQMD recommends that lead agencies determine appropriate GHG thresholds of significance based on substantial evidence in the record. For this GHG analysis and in the absence of other thresholds adopted by the BAAQMD, the 2010 thresholds were used because they were established based on substantial evidence. Those thresholds for GHG emissions were developed by relying on reasonable, environmentally conservative assumptions on growth in the land use sector, predicted emissions reductions from statewide regulatory measures and the resulting emissions inventories, and the efficacy of GHG mitigation measures.

The issues identified in the BAAQMD CEQA Air Quality Guidelines’ court case are not considered relevant to the scientific soundness of the BAAQMD’s analysis of the level at which GHG emissions would potentially have a significant impact. Therefore, the usage of these 2010 thresholds is consistent with the BAAQMD’s direction that thresholds should be based on substantial evidence.

The BAAQMD CEQA guidelines did not adopt any significance thresholds for construction-related GHG emissions. Rather, BAAQMD recommended lead agencies to quantify and disclose GHG emissions that would occur during construction and to make a determination on the significance of those emission impacts in relation to meeting the AB 32 GHG reduction goals. BAAQMD also encouraged lead agencies to incorporate BMPs to reduce GHG emissions during construction, as applicable.

For operational activities associated with development projects, BAAQMD has adopted GHG significance thresholds of 1,100 MTCO2e per year or 4.6 MTCO2e per year per service population (BAAQMD, 2011). Service population is the sum of residential population and employment. When dividing total GHG emissions by service population, a lead agency is able to evaluate its overall growth and conservation plans and consider whether emissions will decrease on a per-unit basis in a way that is consistent with the State’s emissions goals.

**Assessment Methodology**

The construction and operational emissions from the proposed project were modeled using the same methods and assumptions as those described in Section 3.3, “Air Quality.” The California Emissions Estimator Model (CalEEMod) Version 2013.2.2 was used to calculate GHG emissions.
The emissions associated with existing or baseline conditions were not quantified. Consistent with the definition of baseline conditions pursuant to CEQA, the existing emissions levels could be estimated for the current land uses, including grazing activities. The emissions associated with these land uses could then be subtracted from the total project emissions to estimate the net increase. However, the emissions associated with existing or baseline conditions were not analyzed, and the total emissions associated with the project were compared to the thresholds of significance. This represents a more conservative approach to the GHG emissions analysis.

The proposed project includes 79 primary dwellings, and 16 secondary units. Although not included in the project, the analysis also evaluated a more conservative scenario where all 79 proposed lots would be developed with secondary units.

**Impacts and Mitigation**

**Impact GG-1: The proposed project would generate GHG emissions that could have a significant impact on the environment. (Less Than Significant)**

**Construction and Operation**

Off-road equipment, materials transport, and worker commutes during construction of the proposed project would generate GHG emissions. Refer to Appendix G-1 for a detailed summary of the CalEEMod modeling assumptions, inputs, and outputs for the proposed project.

Construction activities are short term, and direct comparison of construction GHG emissions with long-term thresholds would not be appropriate, because generation of these emissions cease upon completion of construction. Since BAAQMD does not recommend a quantitative threshold for construction emissions, this analysis uses methodology consistent with other districts (e.g., South Coast Air Quality Management District; San Luis Obispo County Air Pollution Control District) recommend that GHG emissions from construction activities (and other short-term sources) be evaluated as part of the total project GHG emissions by amortizing total emissions during construction over a project’s operational lifetime for comparison with long-term GHG emissions significance thresholds.

For this analysis, the amortization method was applied over the proposed project’s projected operational lifetime (30 years). Total construction GHG emissions were calculated using methods and assumptions described above for criteria pollutants, amortized over 30 years, and compared to the BAAQMD operational threshold. As shown in Table 3.7-2, the total construction-related emissions would be approximately 1,210 MTCO2e. Amortized over the proposed project’s anticipated 30-year operational lifetime, construction would result in amortized annual emissions of 40 MTCO2e per year. As shown in Table 3.7-3, in the event that 79 secondary units would be developed, the total construction-related emissions would be approximately 1,518 MTCO2e. Amortized over the proposed project’s anticipated lifetime, construction of the proposed project with 79 secondary units would be 51 MTCO2e per year.

Building operation, energy use, and mobile sources associated with the proposed residential land uses would generate GHG emissions. Annual operational emissions were conservatively calculated for the complete buildout of the proposed project by 2019. However, the proposed project is anticipated to be completely built out over 10
years. By 2027, operational emissions are expected to decrease due to technological advancements in energy efficiency, building codes, and vehicle standards. Therefore, using the earliest year of operations for the analysis provides the most conservative estimate of emissions. A service population of 261 residents was used to calculate the service population for the proposed project. In the event that 79 secondary units were to be developed, the service population would be 387 residents. No employees would be associated with project operation.

Table 3.7-4 shows the operational GHG emissions for the proposed project. Total annual GHG emissions, including amortized construction emissions, would be 1,162 MTCO₂e, and the service population metric for the project would be 4.45 MTCO₂e per year per service population. As shown in Table 3.7-5, in the event that 79 secondary units would be developed upon full build-out, the total annual GHG emissions would be 1,637 MTCO₂e per year, and the service population metric would be 4.23 MTCO₂e per year per service population. Additional modeling assumptions and details are provided in Appendix G-1. As shown in Tables 3.7-4 and 3.7-5, the project service population metrics would not exceed the BAAQMD threshold of 4.60 MT CO₂e. Therefore, the proposed project would not generate GHG emissions that would have a significant impact on the environment. Thus, construction and operational GHG emissions impacts would be less than significant.

### Table 3.7-2: Proposed Project Construction-related GHG Emissions

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Proposed Project (MTCO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved Roads</td>
<td>128</td>
</tr>
<tr>
<td>Trails and Utilities</td>
<td>107</td>
</tr>
<tr>
<td>Community Center</td>
<td>59</td>
</tr>
<tr>
<td>Single Family Residences (79)</td>
<td>651</td>
</tr>
<tr>
<td>Secondary Units (16)</td>
<td>264</td>
</tr>
<tr>
<td><strong>Total Construction Emissions</strong></td>
<td><strong>1,210</strong></td>
</tr>
</tbody>
</table>

Amortized Construction Emissions** 40

Source: AECOM, 2016

Notes:
* Totals may not add correctly due to rounding.
** Construction emissions were amortized over the lifetime of the project (assumed to be 30 years) for comparison with thresholds.

Acronyms: MTCO₂e = metric tons of carbon dioxide equivalent

### Table 3.7-3: Proposed Project (with 79 Secondary Units) Construction-related GHG Emissions

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Proposed Project (MTCO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved Roads</td>
<td>128</td>
</tr>
<tr>
<td>Trails and Utilities</td>
<td>107</td>
</tr>
<tr>
<td>Community Center</td>
<td>59</td>
</tr>
<tr>
<td>Single Family Residences (79)</td>
<td>651</td>
</tr>
<tr>
<td>Secondary Units (79)</td>
<td>574</td>
</tr>
<tr>
<td><strong>Total Construction Emissions</strong></td>
<td><strong>1,518</strong></td>
</tr>
</tbody>
</table>

Amortized Construction Emissions** 51

Source: AECOM, 2016

Notes:
* Totals may not add correctly due to rounding.
** Construction emissions were amortized over the lifetime of the project (assumed to be 30 years) for comparison with thresholds.

Acronyms: MTCO₂e = metric tons of carbon dioxide equivalent
Table 3.7-4: Proposed Project – Operational GHG Emissions

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Proposed Project (MTCO$_2$e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved Roads</td>
<td>N/A</td>
</tr>
<tr>
<td>Trails and Utilities</td>
<td>N/A</td>
</tr>
<tr>
<td>Community Center</td>
<td>26</td>
</tr>
<tr>
<td>Single Family Residences (79)</td>
<td>978</td>
</tr>
<tr>
<td>Secondary Units (16)</td>
<td>118</td>
</tr>
<tr>
<td><strong>Total Annual Operational Emissions</strong></td>
<td><strong>1,122</strong></td>
</tr>
<tr>
<td>Amortized Construction Emissions</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total Annual Project GHG Emissions</strong></td>
<td><strong>1,162</strong></td>
</tr>
<tr>
<td>Service Population (SP)</td>
<td>261</td>
</tr>
<tr>
<td>Project GHG efficiency-based metric (MTCO$_2$e/year/SP)**</td>
<td>4.45</td>
</tr>
<tr>
<td>BAAQMD Service Population Threshold</td>
<td>4.60</td>
</tr>
</tbody>
</table>

Source: AECOM, 2016

Notes:
* Totals may not add correctly due to rounding.
** Total project GHG emissions include annual operational emissions and amortized construction emissions.
*** GHG efficiency-based metric is calculated as the annual GHG emissions divided by the project service population, defined as the sum of residents. The project service population is assumed to be 261.

Acronyms: MTCO$_2$e = metric tons of carbon dioxide equivalent

Table 3.7-5: Proposed Project (with Additional Secondary Units) – Operational GHG Emissions

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Proposed Project (MTCO$_2$e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved Roads</td>
<td>N/A</td>
</tr>
<tr>
<td>Trails and Utilities</td>
<td>N/A</td>
</tr>
<tr>
<td>Community Center</td>
<td>26</td>
</tr>
<tr>
<td>Single Family Residences (79)</td>
<td>978</td>
</tr>
<tr>
<td>Secondary Units (79)</td>
<td>582</td>
</tr>
<tr>
<td><strong>Total Annual Operational Emissions</strong></td>
<td><strong>1,586</strong></td>
</tr>
<tr>
<td>Amortized Construction Emissions</td>
<td>51</td>
</tr>
<tr>
<td><strong>Total Annual Project GHG Emissions</strong></td>
<td><strong>1,637</strong></td>
</tr>
<tr>
<td>Service Population (SP)</td>
<td>387</td>
</tr>
<tr>
<td>Project GHG efficiency-based metric (MTCO$_2$e/year/SP)**</td>
<td>4.23</td>
</tr>
<tr>
<td>BAAQMD Service Population Threshold</td>
<td>4.60</td>
</tr>
</tbody>
</table>

Source: AECOM, 2016

Notes:
* Totals may not add correctly due to rounding.
** Total project GHG emissions include annual operational emissions and amortized construction emissions.
*** GHG efficiency-based metric is calculated as the annual GHG emissions divided by the project service population, defined as the sum of residents. The service population is assumed to be 387.

Acronyms: MTCO$_2$e = metric tons of carbon dioxide equivalent

Impact GG-2: The proposed project could conflict with any applicable plan, policy or regulation. (Less Than Significant)

Construction and Operation

As discussed earlier, AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. The 2014 Scoping Plan update
includes a status of the 2008 Scoping Plan measures and other federal, State, and local efforts to reduce GHG emissions in California, and potential actions to further reduce GHG emissions by 2020. None of the measures listed in the 2014 Scoping Plan Update directly relate to construction activity. While the Scoping Plan does include some measures that would indirectly address GHG emissions levels associated with construction activity, including the phasing in of cleaner technology for diesel engine fleets (including construction equipment) and the development of a Low Carbon Fuel Standard, successful implementation of these measures will predominantly depend on the development of future laws and policies at the state level. The proposed project would comply with any mandate or standards set forth by the Scoping Plan update.

The proposed project would be consistent with the overarching strategies for land use (i.e., mixed-use, infill, and transit oriented development) stated in the AB 32 Scoping Plan update, MTC RTP/SCS, Santa Clara County General Plan, and the City of San Jose General Plan. In addition, the proposed project construction and operational emissions would not exceed the recommended thresholds of significance for GHG emissions. Therefore, the proposed project would not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions. Thus, the impact would be less than significant.

3.7.4 Cumulative Impacts

Impact-C-GG: The proposed project could have a cumulatively considerable impact related to GHG emissions. (Less Than Significant)

The analysis of GHG emissions is inherently a cumulative impact analysis. As such, there is a potentially significant GHG emissions cumulative impacts. However, no additional analysis is required, because as described above under Impact GG-1, it is not anticipated that construction and operation of the proposed project would generate GHG emissions that would cause a significant impact on the environment. Therefore, the proposed project would not result in a considerable contribution to such a significant cumulative impact. Thus, the project’s cumulative impact would be less than significant.

3.7.5 References


3.7 Greenhouse Gas Emissions


______, 2009b. County of Santa Clara Climate Action Plan for Operations and Facilities. Available online at:

______, 2010a. Policies of Sustainability. Available online at:

______, 2010b. Code of Ordinances, Title C – Construction, Development and Land Use, Chapter III, Green


______, 2015. General Plan, Health Element. Available online at:

______, 2016. Silicon Valley 2.0: Climate Adaptation and Resiliency. County of Santa Clara Office of
Sustainability. Published April 28, 2016. Available online at:

United States Environmental Protection Agency (USEPA), 2016. Climate Change. Available online at:

Wilson, C., and Rich Walters, 2012. Emerging Topics (Chapter 10 in the Association of Environmental
Professionals (AEP) Forecasting Community-Wide Greenhouse Gas Emissions and Setting Reduction
August 12, 2016.
3.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes the existing physical and regulatory setting related to hazards and hazardous materials and addresses the potential impacts of the proposed project related to hazards and hazardous materials.

No public or agency comments related to hazards or hazardous materials were received during the public scoping period in response to the Notice of Preparation.

3.8.1 Existing Conditions

Hazardous Materials

Hazardous materials are chemical and non-chemical substances and hazardous wastes that can pose a threat to the environment or human health if released or misused. Hazardous materials occur in various forms and can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. Hazardous materials are used in industry, agriculture, medicine, research, and consumer goods. Many products containing hazardous chemicals are routinely used and stored in homes. Hazardous materials come in the form of explosives, flammable and combustible substances, poisons, radioactive materials, pesticides, and petroleum products. These substances are most often released as a result of motor vehicle or equipment accidents or because of chemical accidents during industrial use. These substances have the potential to leach into soils, surface water, and groundwater during spills if not properly contained.

The “Cortese List” is a list of hazardous materials or hazardous waste facilities meeting one or more of the provisions of Government Code Section 659062.5, including:

- List of Hazardous Waste and Substances sites from California Department of Toxic Substances Control (CDTSC) EnviroStor database (CDTSC, 2016)
- List of Leaking Underground Storage Tank (LUST) Sites by County and Fiscal Year from SWRCB’s GeoTracker database (SWRCB, 2016a)
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit (CEPA, 2016a)
- List of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from SWRCB (CEPA, 2016b)
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by CDTSC (CEPA, 2016c).

Santa Clara County

Approximately 51 hazardous waste facilities within unincorporated Santa Clara County are on the “Cortese List” (CDTSC, 2016; SWRCB, 2016; CEPA, 2016a; CEPA, 2016b; CEPA, 2016c).
The National Priority List (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. There are 2 NPL listings (a.k.a. Superfund sites) within unincorporated Santa Clara County (USEPA, 2016a).

**Project Site**

The project site is not listed as a “Cortese List” facility. The nearest facility listed on the Cortese List is the United Technologies Corporation facility at 600 Metcalf Road, which is more than two miles east of the easternmost corner of the project site. There are no Hazardous Waste and Substances sites listed on Envirostor within a mile of the project site. There are no LUST sites listed on Geotracker within 1 mile of the project site, although there is an open Cleanup Program site within 1 mile of the site. The PG&E Metcalf Substation (T10000004708) is an open Cleanup Program site (SWRCB, 2016b) due to a release of 52,000 gallons of PCB-containing transformer oil in 2013. The PG&E site is approximately half a mile south of the project site, but is at a lower elevation.

The closest NPL “Superfund” site to the project site is the Fairchild Semiconductor Corporation (South San Jose Plant) at 101 Bernal Road, approximately 1.3 miles south of the project site (USEPA, 2016a). The Fairchild site is at a lower elevation than the project site.

**Naturally-Occurring Asbestos**

**Santa Clara County**

Chrysotile and amphibole asbestos (such as tremolite) occur naturally in certain geologic settings in California, most commonly in association with ultramafic rocks and along associated faults. Asbestos is a known carcinogen and inhalation of asbestos may result in the development of lung cancer or mesothelioma.

Santa Clara County contains several large outcrops of serpentine rocks, which contain naturally-occurring asbestos, particularly within the central area of the County (USGS, 2011). These are mostly associated with the Franciscan complex.

**Project Site**

The project site contains large areas of serpentine rocks, which contain chrysotile asbestos (AEI Consultants, 2014a; 2014b). Most of the serpentine rocks are within the City parcels, although there are small areas of serpentine rock on the County parcels, particularly in the very western and eastern areas of these parcels (refer Figure 3.6-1, Local Geology in Section 3.6, “Geology and Soils”).

**Historic Mining Operations**

**Santa Clara County**

Several mineral resource deposits are located in Santa Clara County and include construction aggregate deposits (such as sand, gravel and crushed stone), chromite, copper, limestone, magnesite, quicksilver, and salt from evaporation ponds in the San Francisco Bay (SCC 1994; CGS, 1954). Past mining operations within the County include the following facilities: Azevedo (Raisch), Curtner (De Silva), Lexington (West Coast Aggregates);
Permanente (Kaiser Cement); Polak (Granite Rock); Serpra (Raisch); Stevens Creek; Swenson; and the North Almaden Mine (SCC, 1994; AEI Consultants, 2014a).

**Project Site**

The subject property and surrounding areas were historically utilized as a mine known as the New North Almaden Mine. The New North Almaden Mine began operations in 1893 and was intermittently worked through the 1960s (AEI Consultants, 2014a).

The Phase I Environmental Site Assessments for the City parcels (AEI Consultants, 2014b) identified a possible magnesite mine and tailings pile approximately 100 feet above (east of) Silver Creek, on the City parcels. A spring associated with trees, grass, algal growth, as well as a natural pond, was located on the hillside adjacent (north, cross-gradient) of the mine and tailings. The possible magnesite mine is characterized by a concrete slab with iron supports for what appears to be ore processing equipment. The mine tailings have been discarded downhill below the processor.

The Phase I Environmental Site Assessments for the County parcels (AEI Consultants, 2014a) did not directly observe any tailings or other physical evidence of mining activities, but found historic sources clearly indicating that such activities were conducted on the site.

According to a Mercury Mine Inventory Report from the San Francisco Bay RWQCB, the New North Almaden (or Silver Creek) Mines were of low threat to water quality due to mining wastes located far from waters and no visual evidence of erosion. The Silver Creek Mine is noted to have had a small amount of tailings and was mostly vegetated. Mercury sampling of a mine tailing pile located near the top of the Silver Creek bank in 2009 indicated that concentrations in mine waste samples are elevated and above regulatory limits compared to downstream, however the RWQCB recommended no further action for this site (AEI Consultants, 2014a).

**Herbicide/Pesticide**

**Santa Clara County**

Santa Clara County’s land use was historically dominated by agricultural uses, such as orchards. Herbicide/pesticide use was likely prevalent throughout the Santa Clara Valley during the height of its agricultural production during the mid-1900s. As the County population has grown, the amount of agricultural lands has substantially shrunk, giving way to urban development. As present, the use of pesticides/herbicides are used widely in the County for agricultural purposes, non-producing agricultural and within the urban setting (i.e., gardens) (SCC, 2016).

**Project Site**

The site is currently used for cattle grazing. Herbicides have historically been used on the site – most recently on artichokes in 2014 (Fields, 2016).
Geologic and Natural Hazards

A complete discussion of regional and project site geologic and natural hazards is included in Section 3.6, “Geology and Soils”. The section contains discussions on seismic, soil, subsidence, and landslide hazards. Flood hazards are discussed in Section 3.9, “Hydrology and Water Quality”.

Fire Hazards

Santa Clara County

Wildfires are a public safety concern within Santa Clara County. The California Department of Forestry and Fire Protection (CAL FIRE) has identified moderate, high, and very high fire hazard areas and fire threatened communities at the wildland-urban interface (SCC, 2012).

Project Site

The County parcels of the project site are located within the Wildland Urban Interface area, the area where houses intermingle with undeveloped wildland vegetation (SCC, 2009). Areas outside of unincorporated County jurisdiction (i.e., the City parcels) are not classified in the County’s Wildland Urban Interface Fire Area maps.

The County parcels of the project site are located in a CAL FIRE State Responsibility Area (SRA). CAL FIRE rates the County parcels as “High” for fire hazard severity (CAL FIRE, 2007). The project site City parcels are located in a Local Responsibility Area (LRA) and are rated as a Non-Very High Fire Hazard Severity Zone (CAL FIRE, 2008).

3.8.2 Regulatory Framework

Federal

U.S. Environmental Protection Agency (USEPA)

The USEPA is responsible for implementation and enforcement of federal laws and regulations pertaining to hazardous materials. The primary legislation includes the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) and the Emergency Planning and Community Right-to-Know (SARA Title III). These laws and associated regulations include specific requirements for the generation, use, storage, treatment, transportation, and/or disposal of hazardous materials.

U.S. Department of Transportation (USDOT)

Under the Hazardous Materials Transportation Act of 1976, the USDOT Office of Hazardous Materials Safety regulates the transportation of hazardous materials and enforces guidelines created to protect human health and the environment and reduce potential impacts to less than significant through the creation of hazardous material packaging and transportation requirements. The USDOT provides hazardous materials safety training programs.
and supervises hazardous materials activities. The USDOT also develops and recommends regulations governing the multimodal transportation of hazardous materials.

**Occupational Safety and Health Administration (OSHA)**

OSHA regulations contained in Title 29 CFR and Cal/OSHA regulations codified in Title 8 contain employee safety provisions that are designed to minimize the hazards for employees in the workplace.

**Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)**

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), amended in 1996, authorizes the USEPA to register or license pesticides (including herbicides) for use in the United States. Pesticides must be registered both with the USEPA and the state before distribution. Pesticides used in the project area must comply with applicable federal requirements.

Under the FIFRA, the California Department of Pesticide Regulation (CDPR) is vested with primary responsibility to enforce pesticide laws and regulations in California. Pesticide rules are found in different sections of California codes and regulations, including: the Food and Agriculture Code, Business and Professions Code, Health and Safety Code, and the Labor Code.

In general, the CDPR regulates pesticide sales and use statewide, while local use is enforced through the County Agricultural Commissioners. Many agricultural pesticides require a permit from the County Agricultural Commissioner before they may be purchased or used. The Agricultural Commissioner also enforces regulations to protect both ground and surface water from pesticide contamination. In the County, the Integrated Pest Management Division monitors pesticide applications to ensure they are performed in a safe and effective manner and that worker safety requirements are followed; inspects application equipment, pesticide storage sites, employee training documents, and business pesticide use records; and investigates complaints and pesticide-related illnesses.

On May 17, 2010, the U.S. District Court for the Northern District of California issued an Order and Stipulated Injunction that, among other things, established interim protective measures for 11 federally listed threatened or endangered species until such time as EPA has completed its review and any necessary consultation with the United States Fish and Wildlife Service, regarding the potential effects of a pesticide active ingredient to the subject species. The injunction applies to various portions of the project site, due to the presence of California tiger salamander and/or Bay checkerspot butterfly (USEPA, 2016b).

**State**

In Santa Clara County, remediation of contaminated sites is generally performed under the oversight of SCCDEH. The San Francisco Bay RWQCB would also be involved in remediation if groundwater is affected, as it was charged by the Porter-Cologne Water Quality Control Act, codified in Division 7 of the California Water Code, to implement programs to control pollution into state waters. The CEPA CDTSC would typically be involved if the primary medium impacted was soil. Cleanup criteria are typically set for a contaminated site following a review of site data, and with contributions from the relevant agency, the responsible party, their engineering consultants,
and with input from the public and community. Cleanup standards vary based on-site characteristics; however, at the current time, the most applicable cleanup criteria are generally the San Francisco Bay RWQCB Environmental Screening Levels (ESLs) and CDTSC California Human Health Screening Levels (CHHSLs).

**California Water Code (CWC)**

The CWC includes provisions of the federal CWA and water quality programs specific to California. The CWC requires reporting, investigation, and cleanup of hazardous materials releases that could affect waters of the State, including stormwater.

**California Air Resources Board**

The California Air Resources Board (CARB) maintains regulations regarding the release of airborne asbestos. These regulations are designed to control and minimize exposure to airborne asbestos. Section 93105 of the CARB regulations specifically addresses airborne asbestos produced through grading and construction activities. The Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations was approved by CARB in July 2001 and is applicable to construction and grading activities within areas where naturally occurring asbestos is likely to be found. For construction and grading projects that will disturb one acre or less, the regulation requires several specific actions to minimize emissions of dust such as vehicle speed limitations, application of water prior to and during the ground disturbance, keeping storage piles wet or covered, and track-out prevention and removal. Construction projects that will disturb more than one acre must prepare and obtain approval from the relevant Air Quality Management District for an asbestos dust mitigation plan. The plan must specify how the operation will minimize emissions and must address specific emission sources. Regardless of the size of the disturbance, activities must not result in emissions that are visible crossing the property line.

**California Public Resources Code**

The California Public Resources Code includes fire safety regulations that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors\(^1\) on construction equipment that use an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire suppression equipment that must be provided onsite for various types of work in fire-prone areas. These regulations include the following:

- Earthmoving and portable equipment with internal combustion engines would be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code § 4442);
- Appropriate fire suppression equipment would be maintained during the highest fire danger period – from April 1 to December 1 (Public Resources Code §4428);

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\(^1\) A spark arrestor is a device that prohibits exhaust gases from an internal combustion engine from passing through the impeller blades where they could cause a spark. A carbon trap is commonly used to retain carbon particles from the exhaust.
On days when a burning permit is required, flammable materials would be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor would maintain the appropriate fire suppression equipment (Public Resources Code §4427); and

On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines would not be used within 25 feet of any flammable materials (Public Resources Code §4431).

Local

Santa Clara County Weed Abatement Program

The County of Santa Clara maintains a Weed Abatement Program that is intended to protect lives, property, and the environment by providing hazard abatement and minimum fire safety standards. These standards include managing vegetation in the vicinity of roads, structures, and property lines to reduce the risk of wildfire hazards.

Santa Clara County Vector Control

The Santa Clara County Vector Control District is a County public health program that controls and monitors disease carrying insects such as mosquito and ticks, and other harmful pests such as rats and yellow jackets.

Santa Clara County General Plan

The Santa Clara County General Plan (SCC, 1994) Resource Conservation and Health and Safety policies relevant to hazards and hazardous materials analysis for the proposed project are listed below.

Resource Conservation

R-RC 103 Development in rural areas should be landscaped with fire resistant and/or native plants which are ecologically compatible with the area.

Health and Safety

R-HS 7 Areas of significant natural hazards, especially high or extreme fire hazard, shall be designated in the County’s General Plan as Resource Conservation Areas, with generally low development densities in order to minimize public exposure to risks associated with natural hazards and limit unplanned public costs to maintain and repair public infrastructure.

R-HS 10 In all hazard areas, projects shall be designed and conditioned to avoid placement of structures and improvements where they would:

(a) be directly jeopardized by hazards;
(b) increase the hazard potential; and/or
(c) increase risks to neighboring properties.

R-HS 22 Adequate access and water supplies for fire safety shall be required for all new development, including building sites, subdivisions, and clustered development.
R-HS 23 Areas for which inadequate access is a general concern, either due to lack of secondary access, dead-end roads of excessive length, and substandard road design or conditions, should be examined to determine if there are means by which to remedy the inadequacies. Such means may include:

(a) specific local area circulation plans to establish alternative access;

(b) specific roadway improvements to remedy hazardous situations, financed by those most benefited by the improvements; and

(c) traffic routing and controls to discourage the use of such roads by non-residents.

R-HS 24 Dead-end roads shall not be extended unless in the judgment of the Fire Authority, such extensions will serve to reduce the risks from fire hazards in the affected area.

R-HS 26 For communities in areas of high or extreme fire hazard that have developed under development densities greater than generally allowed under current General Plan policies, water systems with hydrants should be provided wherever feasible.

R-HS 27 The County should encourage the use of fire retardant building materials and landscaping not already required by County development and building codes when new development and rebuilding are proposed in areas of high or extreme fire hazard.

R-HS 28 Development projects shall be reviewed by the County Fire Marshall’s Office for safety code compliance and should also be referred if necessary to the appropriate fire protection authority or district for further review and recommendations.

R-HS 33 For areas where it may be appropriate, fire protection agencies and districts should utilize controlled burns and other forms of vegetation management to reduce the build up of vegetative matter and the potential fire hazard within an area.

Some impacts related to hazards and health and safety are addressed in other sections of this EIR, including geological and seismic hazards in Section 3.6: Geology and Soils, and flood hazards in Section 3.9: Hydrology and Water Quality.

3.8.3 Environmental Impacts

This section contains the evaluation of potential environmental impacts associated with the proposed project related to hazards and hazardous materials. This section identifies the standards of significance used in evaluating the impacts, the methods used in conducting the analysis, and a detailed evaluation of impacts for the proposed project.

Significance Criteria

The proposed project would result in a significant impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school
- Be located on a site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment
- For a project located within 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, result in a safety hazard for people residing or working in the project area
- For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

**Assessment Criteria**

This evaluation focuses on whether the proposed project would result in or be subject to adverse effects related to the use, transportation, disposal, accidental release, or emission of hazardous materials; or whether the proposed project would be located on a site of known contamination, within proximity to an airport or airstrip. The evaluation also includes a determination on whether the proposed project would impair or interfere with emergency response plans or expose people or structures to wildland fire hazards.

**Impacts and Mitigation**

**Impact HH-1:** The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. *(Less Than Significant)*

**Construction**

Construction of the proposed project would likely involve the routine use, transport, storage, and disposal of hazardous materials such as small quantities of gasoline, diesel, oil, grease, and paint. These short-term activities would be subject to federal, state, and local health and safety requirements. All unused hazardous materials would be removed from the project site and disposed of pursuant to applicable federal, state, and local regulations. Health hazards from construction activities would be less than significant because the construction activities would be required to comply with the applicable regulations and laws pertaining to the transport, storage, use, and disposal of potentially hazardous materials associated with the project. Accidental spills of such materials could result in a potentially significant impact.

However, since the project is subject to the NPDES Construction General Permit (see Section 3.9, “Hydrology and Water Quality” for more details), the project construction plans and specifications will require the contractor to develop and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would include at least the following measures to prevent hazardous material spills:
• **Hazardous Spill Prevention.** Vehicles and equipment will be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. Service/maintenance vehicles will carry materials to absorb leaks or spills. Hazardous spills will be cleaned up immediately and the contaminated soil properly disposed of at a licensed facility. Servicing, refueling, and staging of construction equipment will take place only at designated areas offset from riparian or aquatic habitat and not in a location where a spill would drain directly toward aquatic habitat. Equipment washing will occur only in designated locations where water cannot flow into drainage channels.

Because the project contractor will develop a SWPPP and implement hazardous spill prevention and good-housekeeping activities, potential construction-related impacts from accidental spill of hazardous materials would be avoided or minimized. Therefore, construction-related impacts to hazardous materials would be *less than significant* with implementation of these control measures.

The proposed project includes construction within areas of serpentine rock, as described in Section 3.6, “Geology and Soils,” which may contain chrysotile asbestos. The release of airborne asbestos from construction operations represents a potentially significant impact related to exposure hazard to construction workers and the public. As discussed in the regulatory framework section above, CARB’s Asbestos Airborne Toxic Control Measure requires BAAQMD approval of an asbestos dust mitigation plan for any project disturbing more than one acre of land in areas where naturally occurring asbestos is likely to be found. The plan would require that the following sources of dust emissions be addressed:

- Track-out onto paved public roads must be removed using wet sweeping or HEPA filter-equipped vacuum device at least once per day, plus at least one other track-out prevention measures;
- Active storage piles must be kept adequately wet or covered;
- Inactive disturbed surface areas and storage piles must be controlled via one or more methods specified in the plan;
- Traffic on unpaved on-site roads must be limited to 15 miles per hour or less, and one or more additional control measures specified in the plan must be implemented;
- Earthmoving activities must be controlled via one or more methods specified in the plan;
- Off-site transport of materials must have loads that are adequately wet and protected against spills; and
- Post-project stabilization of disturbed soil surfaces via one or more methods specified in the plan.

Construction impacts related to release of airborne asbestos would be *less than significant* through compliance with the Asbestos Airborne Toxic Control Measure and implementation of a project-specific BAAQMD-approved dust mitigation plan.

**Operation**

The post-construction phase of the proposed project would not result in the routine transport, use, storage, or disposal of hazardous materials except those involved in normal household activities, and for herbicide treatment
of invasive species within the preservation lands. The Resource Management Plan for the project (Appendix D) notes that invasive weed management will primarily be managed through grazing and adaptive management, but that limited application of herbicides may be necessary. Use, transport, storage, and disposal of herbicides would be subject to federal and State regulations, including prohibition of certain chemical formulations within the portions of the site that are subject to a pesticide injunction by the USEPA, due to presence of non-critical habitat areas for California red-legged frog. Thus, operational impacts would be less than significant.

Overall, impacts associated with hazardous materials would be less than significant.

Impact HH-2: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (No impact)

Construction and Operation

There are no existing or proposed schools within 0.25 mile of the proposed project. The nearest school to the project site is Starlight High School located approximately 0.5 mile north of the project site. Project construction would not have the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school and, as a result, there would be no impact from construction or operation.

Impact HH-3: The proposed project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. (No impact)

Construction and Operation

The proposed project area is not located on a hazardous materials site list compiled pursuant to Government Code Section 65962.5. There would be no impact from construction or operation.

Impact HH-4: The proposed project would not be located within an airport land use plan or within 2 miles of a public airport or public use airport, and would therefore not have the potential to result in a safety hazard for people residing or working in the project area. (No impact)

Construction and Operation

There are no public or public use airports or airstrips within a 2-mile radius of the proposed project. The nearest airport to the project area is the Reid-Hillview Airport located approximately 5 miles northwest of the project area. The project area would also not be located within any airport land use plan area. There would be no impact from construction or operation of the project related to safety hazards from public airports or airport land use plans.
Impact HH-5: The proposed project would not be located within the vicinity of a private airstrip, and therefore would not have the potential to result in a safety hazard for people residing or working in the project area. *(No impact)*

**Construction and Operation**

There are no private airstrips within a 2-mile radius of the proposed project. There would be no impact from construction or operation of the project related to safety hazards from private airstrips.

Impact HH-6: The proposed project could significantly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. *(Less Than Significant)*

**Construction**

Construction activity associated with the project would include the use of Silver Creek Valley Road by construction vehicles and equipment to access the project site. Some minor road improvements to Silver Creek Valley Road would be implemented to provide access to the project site for future residents. The City parcels would be covered by the City of San Jose Wildland/Urban Interface Fires Plan, adopted August 17, 2004 (San Jose, 2006). During construction activity, construction personnel would not block roadway access on Silver Creek Valley Road, or restrict the use of the existing dirt road traversing the project site, prohibiting the City from implementing wildfire protection measures stipulated in its Wildlife/Urban Interface Fires Plan, as necessary. No adopted emergency response plan or emergency evacuation plan exists for the County portion of the project site. Construction vehicles and equipment would not prohibit residents located up road from the proposed turn-off into the project site via Silver Creek Valley Road from evacuating, in case of an emergency. As a result, the proposed project would not impair or interfere with any adopted emergency response plan or emergency evacuation plan. This construction impact would be less than significant.

**Operation**

The project would include improvement of the existing unpaved road through the County parcels, and construction of a new connection from this existing road to Silver Creek Valley Road. Several secondary roadways within the County parcels would also be improved and/or constructed to serve the proposed home sites and associated residences. The project would also include improvement of the existing unpaved road across the City parcels, to provide an alternative emergency access road, and would include several turn-outs along its length that could accommodate emergency vehicles. The emergency access road would not allow for regular through traffic, but would provide emergency vehicle access and emergency ingress and egress for residents of the proposed Young Ranch subdivision, in the event that the new access road from Silver Creek Valley Road is closed in a fire, earthquake, or other event. An emergency access breakaway gate would prevent regular traffic from accessing the emergency access road. As a result, the proposed project once constructed would not impair or interfere with any adopted emergency response plan or emergency evacuation plan. This operational impact would be less than significant.
Impact HH-7: The proposed project could have the potential to expose individuals or structures to a significant risk of loss, injury, or death involving wildland fires. *(Less Than Significant with Mitigation)*

**Construction**

Construction of the proposed project could require the use of tools or equipment, such as soldering equipment or blowtorches, that would present a fire threat if the work is performed near dry grass or other natural fuels. Construction workers could also cause wildfires by dropping cigarettes into dry vegetation or smoking near combustible materials. This represents a potentially significant impact related to risk exposure associated with wildland fires. However, this construction-related impact would be reduced to a less-than-significant level with implementation of Mitigation Measure HH-7.

**Mitigation Measure HH-7: Fire Prevention Measures.** The following measures will be implemented by the project applicant and contractors during all phases of construction on the project site:

a) Smoking during project construction shall be prohibited except in designated areas, shall be at least 20 feet away from any combustible chemicals or materials, and shall not occur on dry vegetation.

b) All heavy equipment and construction vehicles shall be equipped with fire extinguishers. All construction vehicles shall be equipped with appropriate firefighting equipment, such as shovels, axes, or pulaskis, to aid in the prevention or spread of fires. All construction equipment shall be equipped with the appropriate spark arrestors and functioning mufflers.

c) Soldering or welding shall not be performed within 15 feet of dry grass or other natural fuels. A fire extinguisher shall be available at the project site at all times when welding or performing other activities that can generate sparks.

Construction impacts relating to wild fires would be *less than significant* with the implementation of Mitigation Measure HH-7.

**Operation**

The proposed project’s associated fire hydrants, water storage requirements, and compliance with the County Weed Abatement Program and applicable building code and fire code regulations would ensure that wildfire impacts from operation of the proposed project would be *less than significant.*

**3.8.4 Cumulative Impacts**

**Impact-C-HH: The proposed project could have a cumulatively considerable impact related to hazards and hazardous materials. *(Less Than Significant)***

Cumulative impacts related to hazards and hazardous materials could occur through the transport, use, disposal, or accidental spill of hazardous materials, or through the unearthing of contaminated soils at the proposed project and cumulative project(s) sites. This would be considered a significant cumulative impact related to hazards and...
hazardous materials. However, the proposed project would have a less than significant impact on hazards or hazardous materials through implementation of best management practices required by the project SWPPP to prevent and contain a potential accidental spill of potentially hazardous materials, through compliance with the Asbestos Airborne Toxic Control Measure to minimize exposure to naturally-occurring asbestos, and through implementation of Mitigation Measure HH-7 to prevent wildfires. There is no known plume of hazardous materials that would be unearthed by the proposed project and other cumulative projects. Therefore, the proposed project would not have a cumulatively considerable contribution to cumulative impacts to hazards and hazardous materials. Thus, the proposed project’s cumulative hazards and hazardous materials impact would be less than significant.

### 3.8.5 References


3.9 HYDROLOGY AND WATER QUALITY

This section describes the existing physical and regulatory setting related to hydrology and water quality setting of the project area, and addresses the potential impacts of the proposed project related to hydrology and water quality.

The following comments relating to hydrology and water quality were received during the public scoping period in response to the Notice of Preparation:

- Concern whether the serpentine soils on the project site, being very porous, could adequately support septic systems without compromising groundwater quality;
- Concern that ponding occurs “at the juncture of San Felipe Road;”
- Request that the proposed project include mitigation, as necessary, to reduce the runoff to pre-development levels and that the EIR include a hydrological study to determine runoff to Highway 101 and into Coyote Creek;
- Concern regarding impacts to groundwater quality from septic systems;
- Concern regarding potential impacts to waters of the State and associated beneficial uses; and
- Concern regarding water supply impacts to a natural spring along Piercy Road.

3.9.1 Existing Conditions

Surface Hydrology

Regional

The Coyote Creek watershed covers about 322 square miles, from the urbanized valley floor to its headwaters in the Diablo Range. Coyote Creek drains most of the west-facing slope of the Diablo Range. Anderson Reservoir, located south of the project site and above the Santa Clara Valley floor, captures the majority of the runoff in the watershed. Additional tributaries join Coyote Creek on the alluvial plain that forms the valley floor, including Upper Penetencia, Upper Silver, Lower Silver, and Fisher creeks. Coyote Creek flows through unincorporated, predominately agricultural land between Morgan Hill and San Jose. It then flows through the urbanized areas of San Jose and the lower edge of Milpitas to reach South San Francisco Bay (the South Bay).

Upper Silver Creek, which flows through the eastern edge of the project site, drains approximately 6 square miles of open space and residential area towards Coyote Creek. The lowest reach of Upper Silver Creek (the last mile before its confluence with Coyote Creek) is conveyed through engineered channels, underground culverts, and stormdrains.

Santa Clara County has a Mediterranean climate, characterized by extended periods of precipitation during winter months, and virtually none from spring through autumn. Annual average rainfall amounts vary significantly due to topography. Portions of the Santa Clara County receive 40 to 60 inches of rain per year, while the central Santa Clara Valley receives on average 13 to 14 inches in the vicinity of downtown San Jose (SCC, 1994).
Coyote Creek floods its banks during large storm events along much of its length on the Santa Clara Valley floor, as shown by the special flood hazard areas mapped adjacent to the creek (FEMA, 2009). The lower reaches of Coyote Creek have been partially modified for flood protection. Setback levees and high-flow bypass channels have been constructed in lower Coyote Creek.

**Local**

The project site is located along Coyote Ridge, which runs along the eastern side of the Santa Clara Valley. Coyote Creek is west of the project site and Upper Silver Creek is to the east. Metcalfe Creek and Coyote Canal are located south and west of the site, respectively. Metcalfe Creek flows towards Coyote Creek and the Coyote Percolation Pond. Coyote Canal runs parallel to Coyote Creek.

**Project Site**

Intermittent drainages at the project site break either west towards Coyote Creek or east towards Upper Silver Creek. Upper Silver Creek crosses a portion of site on the east. Tributaries to Coyote Creek drain a portion of the site to the west. Low to moderate slopes (5 to 15 percent) are generally located along the ridgeline, while steeper slopes (30 percent or greater) are more prevalent along the eastern and western sides of the project site. The project site is not within a floodplain, although mapped floodplains are nearby.

**Water Quality**

**Regional**

Countywide, there are many major sources of water pollution. Pollution that originates from a specific, discrete location, referred to as a “point” source, includes:

- effluent from municipal wastewater treatment plants;
- chemicals used in industrial and commercial activities and processes;
- regulated industrial wastewater discharges;
- hazardous wastes and materials from spills, mishandling, and industrial accidents;
- effluent from inadequately functioning septic systems; and,
- illegal dumping activities.

There are also pollutants contained in urban stormwater runoff, referred to as “non-point” source pollution, due to the diffuse origins of such pollutants. These include metals, organic wastes, pesticides, and a variety of other pollutants, such as those that result from disinfection of drinking water and the intrusion of salt water from the Bay into nearby groundwater aquifers (SCC, 1994).

**Local**

Coyote Creek is listed as an impaired waterbody on the Section 303(d) list for diazinon, a pesticide found in urban runoff, and for trash (SWRCB, 2015). Pesticides, including diazinon, enter urban creeks through urban storm water runoff and dry weather discharges from storm drains, with a much smaller contribution from direct
discharges (e.g., dumping or riparian weed control). The lower portion of the Coyote Creek watershed is influenced by urban runoff. Adverse water quality conditions include elevated water temperatures, low oxygen concentrations, high pathogen concentrations, and pesticides and herbicides contamination.

**Project Site**

There is evidence of historic quicksilver and/or magnesite mining in various locations at the project site. The New North Almaden mine, a prior mercury mine, is located in the western portion of the project site and a prior magnesite (magnesium) mine is located near Upper Silver Creek in unimproved areas.

**Groundwater**

**Regional**

Although very little water is found in the hard bedrock formations that underlie the mountainous and foothill areas, groundwater is abundant in the Santa Clara Valley. The Santa Clara subbasin (i.e., the Santa Clara Plain) underlies the Santa Clara Valley floor. Groundwater in this subbasin is pumped for municipal and industrial uses, with minor amounts used for agriculture and domestic purposes. In addition to the deep percolation of rainfall, natural seepage from creeks, and subsurface inflow from surrounding hills, managed recharge areas provide groundwater infiltration to the subbasin.

**Local**

Areas along Coyote Ridge are outside of the Santa Clara groundwater subbasin and substantial groundwater deposits are unlikely to be found in the rocky mountain and foothill area. Water that infiltrates into the hillsides travels to the valley floor through subsurface flow. Natural springs and creeks near hillside areas receive a portion of this subsurface flow, and the remainder recharges the valley’s aquifer system.

There are numerous groundwater recharge areas (percolation ponds) downstream of Anderson Reservoir. Near the project site, surface water from Coyote Creek is diverted into a 6-mile canal that parallels the stream channel and directs water to Metcalf Pond (a percolation pond). The Coyote Percolation Pond also provides groundwater recharge locally.

**Project Site**

There are no groundwater wells at the project site, and the lot areas are not located above a groundwater basin. Shallow subsurface flow from the project site encounters rock, which redirects downgradient flows towards valley areas. The project site has slow to very slow infiltration rates based on the dominate soil types in the area. Soil profiles, percolation tests, and other exploratory tests have yet to be performed for the entirety of the project site to characterize the physical properties of the soil, the hydraulic gradient, and water storage capacities. Test pits were excavated to a depth of 15 feet below ground surface (bgs) at five locations within the project site in 2012. Groundwater was not encountered within these test pits (T&R, 2013).

In 2012, a geophysical study was performed at the locations of prior grading/mining remnants on the project site (NORCAL, 2012). The study included performing two electrical resistivity profiles in the areas of specific
depressions adjacent to tailings piles. The survey plots yielded no evidence of open mines or voids either filled with air or groundwater beneath these areas to depths of up to about 60 feet bgs.

3.9.2 Regulatory Framework

Federal

*Clean Water Act*

The Clean Water Act (CWA) (33 USC 1251 et seq.) is the primary federal law that protects the quality of the nation’s surface waters including lakes, rivers, and coastal wetlands. The primary principle is that any discharge of pollutants into the nation’s waters is prohibited unless specifically authorized by a permit. CWA Section 404 establishes the permit program that regulates discharge of dredged or fill material into waters of the United States. CWA Section 402 establishes a permitting system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. National Pollutant Discharge Elimination System (NPDES) permits are issued by the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs.)

*National Flood Insurance Act*

The National Flood Insurance Act (42 USC 4001 et seq.) requires Federal Emergency Management Agency (FEMA) to identify flood prone areas and also requires project proponents to purchase flood insurance for buildings constructed in special flood hazard areas. Therefore, project proponents are required by county agencies to avoid construction in, or to develop a design to be consistent with building in, FEMA-designated special flood hazard areas.

State

*Porter-Cologne Water Quality Act*

The Porter-Cologne Water Quality Act (California Water Code Section 13000 et seq.) is the primary State law that protects surface waters and groundwaters in California. The act requires projects that are discharging or proposing to discharge waste that could affect water quality, to file a report of waste discharge with the appropriate RWQCB. The act also provides for the development and periodic reviews of Water Quality Control Plans or “Basin Plans.”

Regional and Local

*Water Quality Control Plan for the San Francisco Bay Region*

The Basin Plan for the San Francisco Bay region (SFBRWQCB, 2015a) designates beneficial uses for surface water and groundwater resources, establishes water quality objectives to protect those uses, and sets forth policies to guide implementation programs to attain those objectives. Table 3.9-1 lists the beneficial uses identified in the Basin Plan for the surface waterbodies near the project site. Basin Plan policies are primarily implemented through the NPDES permitting system.
### Table 3.9-1: Beneficial Uses

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<tr>
<th>Receiving Waterbody</th>
<th>Existing Beneficial Uses</th>
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</thead>
<tbody>
<tr>
<td>Upper Silver Creek</td>
<td>Preservation of rare and endangered species (RARE), warm freshwater habitat (WARM), wildlife habitat (WILD), water contact recreation (REC-1), and noncontact water recreation (REC2).</td>
</tr>
<tr>
<td>Coyote Creek (nontidal)</td>
<td>Groundwater recharge (GWR), commercial and sport fishing (COMM), cold freshwater habitat (COLD), fish migration (MIGR), preservation of rare and endangered species (RARE), fish spawning (SPWN), warm freshwater habitat (WARM), wildlife habitat (WILD), water contact recreation (REC-1), and noncontact water recreation (REC2).</td>
</tr>
</tbody>
</table>

Source: SFBRWQCB, 2015a

Water quality criteria are established by both federal and State agencies. The Basin Plan specifies numeric water quality objectives for ten priority toxic pollutants, as well as narrative water quality objectives, to protect beneficial uses. The California Toxic Rule specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to all inland surface waters, enclosed bays, and estuaries of the San Francisco Bay region (although numeric water quality objectives in the Basin Plan can supersede California Toxic Rule criteria.) National Toxic Rule criteria apply to about 40 priority pollutants. Water quality criteria are applied with consideration of the beneficial use of the waterbody.

**Clean Water Act Section 303**

CWA Section 303(d) requires each state to provide a list of impaired waters that do not meet or are expected not to meet state water quality standards. It also requires the state to develop total maximum daily loads (TMDLs) for the pollution sources that impair these waterbodies. The Diazinon and Pesticide-Related Toxicity in Urban Creeks TMDL (SFBRWQCB, 2005) was developed to address issues associated with aquatic toxicity found in many Bay Area creeks and measures from the TMDL have been adopted in the Basin Plan.

**Section 401 – Water Quality Certification**

CWA Section 401 requires that an applicant for a federal license or permit allowing activities that would result in a discharge to waters of the United States to obtain a state certification that the discharge complies with other provisions of the CWA. The SWRCB and RWQCBs administer this certification program.

**Section 402 – NPDES Permits**

The SWRCB administers the statewide NPDES program. Stormwater discharges associated with construction and land disturbance activities are regulated under the Construction General Permit (Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended.) This permit applies to projects that have one or more acres of soil disturbance. The permit requires that a project develop and implement a construction site stormwater pollution prevention plan (SWPPP) that specifies management activities, including stormwater best management practices (BMP), erosion and sedimentation controls, run-on and runoff controls, and dewatering procedures (nuisance-water removal). The project will seek coverage under the Construction General Permit by filing complete permit registration documents with the SWRCB, paying an annual fee to the SWRCB, and developing and implementing a SWPPP. Compliance with the Construction General Permit is overseen and enforced by the San Francisco Bay RWQCB.
The San Francisco Bay RWQCB regulates stormwater discharges from municipalities and local agencies in Alameda, Contra Costa, San Mateo, and Santa Clara counties, and the cities of Fairfield, Suisun City, and Vallejo under a single Municipal Regional Stormwater NPDES Permit (Order No. R2-2015-0049, NPDES Permit No. CAS612008) (Municipal Regional Permit; SFBRWQCB, 2015b). This permit includes provisions for new development and redevelopment and for rural road construction and maintenance. Provision C.3 requires source control, site design, and stormwater treatment measures to address stormwater pollutants and to prevent increases in flow rates from development areas. Projects are required to evaluate opportunities for incorporating low impact development (LID) strategies, such as self-treating/self-retaining landscape areas, stormwater re-use, on-site infiltration, and evapotranspiration. If these methods are not compatible due to specific site constraints, the permit allows for the use of natural, landscape-based stormwater treatment measures as alternative means of providing stormwater management. Treatment measures must be hydraulically sized to treat the runoff and are required to be regularly maintained. Provision C.2e provides requirements for road design, construction, maintenance, and repairs in rural areas. Erosion and sediment control BMPs are required to be implemented during and after construction for maintenance activities on rural roads, particularly in or adjacent to stream channels or wetlands. When regrading unpaved rural roads, it is also required that the road slope outward where consistent with road engineering safety standards.

Local agencies also establish regulations to protect surface waters and groundwaters. An association of thirteen cities and towns in Santa Clara Valley, Santa Clara County, and the Santa Clara Valley Water District joined together under the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) to implement NPDES permit requirements for stormwater discharges to South San Francisco Bay. SCVURPPP’s Urban Runoff Management Plan consists of an area-wide plan and individual agency plans describing measures to reduce pollution in urban runoff. SCVURPPP’s Hydromodification Management Plan delineates areas where increases in runoff are most likely to affect the health and water quality of stream channels and provides management options for maintaining pre-project runoff patterns. The SCVURPPP C.3 Handbook requires projects that replace more than 50 percent of the existing impervious area must treat all runoff from the site, with the exception of areas that can be considered “self-treating.”

**Santa Clara County On-site Wastewater Treatment Systems Ordinance**

Santa Clara County’s On-site Wastewater Treatment Systems (Septic) Ordinance (County Code of Ordinances, Sections B11-60 through B11-95) includes measures to protect groundwater quality in unincorporated areas of Santa Clara County. The process for obtaining a Septic/OWTS Permit is detailed in Section 3.6, Geology and Soils. In summary, where on-site wastewater treatment systems are proposed, soil profiles, percolation tests, and other exploratory tests are required to be performed to verify adequate depth and permeability of soil and separation between trench bottom and groundwater for each on-site wastewater treatment system in the subdivision. Average soil percolation rates are required to be between 1 and 120 minutes per inch in the dispersal fields where clay content in the soil is less than 60 percent, and the vertical distance between groundwater and the leach field must meet the requirements as per Table 3.9-2 below. Maximum ground slope in septic areas cannot exceed 30 percent and at least 5 feet of permeable soils would be required in the dispersal fields. In addition, septic tanks and/or dispersal fields must be setback a minimum of 100 feet from the top of bank of watercourses, 25 to 100 feet from steep slopes and embankments, 50 feet from drainage swales, and 10 feet from property lines.
On-site wastewater treatment systems may also be subject to requirements and approval by the San Francisco Bay RWQCB.

<table>
<thead>
<tr>
<th>Percolation Rate (minutes per inch)</th>
<th>Vertical Distance (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1</td>
<td>Not permitted</td>
</tr>
<tr>
<td>2–5</td>
<td>20</td>
</tr>
<tr>
<td>6–30</td>
<td>8</td>
</tr>
<tr>
<td>31–120</td>
<td>5</td>
</tr>
<tr>
<td>More than 120</td>
<td>Not permitted</td>
</tr>
</tbody>
</table>


Prior to approving septic permits for residential developments, Santa Clara County requires a cumulative impact assessment to address nitrogen loading from on-site wastewater treatment systems in subdivisions where the lot sizes are less than 2.5 acres. The guidelines for this cumulative impact assessment are found in Attachment E of the On-site System Manual (SCC, 2014).

**Santa Clara County General Plan**

The Santa Clara County General Plan (SCC, 1994) provides strategies, policies, and implementation measures to protect water supply resources and water quality. Policies and implementation measures in the plan include the following:

- **C-RC 11** Domestic conservation should be encouraged throughout Santa Clara County by a variety of means, including reduced flow devices, drought-resistant landscaping, and elimination of wasteful practices.

- **C-RC 20** Adequate safeguards for water resources and habitats should be developed and enforced to avoid or minimize water pollution of various kinds, including: (a) erosion and sedimentation; (b) organic matter and wastes; (c) pesticides and herbicides; (d) effluent from inadequately functioning septic systems; (e) effluent from municipal wastewater treatment plants; (f) chemicals used in industrial and commercial activities and processes; (g) industrial wastewater discharges; (h) hazardous wastes; and (i) non-point source pollution.

- **C-HS 34** Flood control measures should be considered part of an overall community improvement program.

**3.9.3 Environmental Impacts**

**Significance Criteria**

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts to hydrology and water quality. The proposed project would result in a significant impact if it would:
• Violate any water quality standards or waste discharge requirements?

• Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

• Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

• Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

• 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?

• Otherwise substantially degrade water quality?

• Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

• Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

• Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

• Result in inundation by seiche, tsunami, or mudflow?

**Assessment Methodology**

The aforementioned significance criteria were applied to determine impact significance using a qualitative approach. The following evaluation discusses whether the proposed project would result in direct and indirect impacts on hydrology and water quality. The evaluation of potential project impacts to hydrology and water quality is based on the comparison of existing conditions to the project’s built condition. Specifically, the impact evaluation focuses on effects to surface water quality, stormwater drainage, groundwater quality, groundwater recharge, and flooding. Water quality conditions are compared to water quality standards and waste discharge requirements.
Impacts and Mitigation

Impact HW-1: The proposed project would not violate any water quality standards or waste discharge requirements, substantially alter the existing drainage patterns in a manner which would result in substantial erosion or siltation, create or contribute runoff that would exceed the capacity of stormwater drainage systems or provide substantial sources of polluted runoff, or otherwise substantially degrade water quality. *(Less Than Significant)*

**Construction**

*Surface Water and Groundwater*

Construction activities would include grading and earthmoving activities. Construction of the project would require grading and leveling several areas of the site, excavating and cutting slopes to allow space to install new structures, construction of the foundations for new structures, grading new roads and installing a road drainage system, widening and re-grading the existing emergency access road, and excavating below grade for new underground facilities such as vaults, electrical conduits, septic tanks, and pipes. Roadway construction would disturb approximately 26 acres of land, and construction of the residential lots and Community Center would disturb an additional 25 acres of land. Ground disturbance could occur up to 20 feet below the existing ground surface.

The project would also extend a water transmission line from Tennant Avenue, located southwest of the project site, to a proposed new 480,000-gallon water tank within the residential community. Due to the elevation gain, the water distribution system also includes two pump stations along the Tennant Avenue service road and ranch road. Proposed new distribution pipes would convey domestic water via gravity from the tank to individual lots, generally following the new roadways.

Construction activities, such as grading, vegetation removal, excavation, trenching, and backfilling, have the potential to affect surface water quality. Construction activities could result in disturbed soils being temporarily exposed to the erosive forces of wind, rain, and stormwater runoff, causing the release of sediment into nearby drainage ditches and creeks. In addition to the release of sediment, contamination of stormwater runoff with typical chemicals used during construction (such as fuels, oils, and solvents) could occur through the daily use, transportation, and storage of these materials. Construction activities also have the potential to impact groundwater quality, if groundwater is directly exposed to construction contaminates because of a hazardous material spill.

However, since the project would result in more than one acre of soil disturbance during construction and in order to comply with the applicable Construction General Permit, the project construction plans and specifications would require the contractor to develop and implement a SWPPP and BMPs to minimize wind- and water-related soil and sediment discharges at the construction site, to minimize potential contamination of stormwater and nonstormwater discharges, and to prevent hazardous material spills. These construction-site BMPs would be implemented to minimize soil erosion, downstream sedimentation, and the potential for groundwater to be exposed to construction-related chemicals. The SWPPP would be developed in compliance with the Construction General Permit by a Qualified SWPPP Developer. The SWPPP would include at least the following measures:
• Minimize Vegetation Removal. The number of access routes, size of staging areas, and the size of the active construction activity will be limited to the minimum necessary to achieve project objectives. Staging, storage, equipment laydown, access routes, and parking areas will be established on previously disturbed areas, to the extent feasible. No clearing or grubbing will be permitted beyond designated work areas.

• Implement Erosion Control. Standard construction site erosion control measures will be used where sediment from exposed slopes could runoff and enter waterways. Disturbed soils within the project site will be stabilized to reduce erosion potential, both during and following construction. Areas of disturbed soils that slope toward drainages (including access and staging areas) will be stabilized to reduce erosion potential. Materials used for the erosion control measures and sediment barriers will be weed-free.

• Hazardous Spill Prevention. Vehicles and equipment will be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. Service/maintenance vehicles will carry materials to absorb leaks or spills. Hazardous spills will be cleaned up immediately and the contaminated soil properly disposed of at a licensed facility. Servicing, refueling, and staging of construction equipment will take place only at designated areas offset from riparian or aquatic habitat and not in a location where a spill would drain directly toward aquatic habitat. Equipment washing will occur only in designated locations where water cannot flow into drainage channels.

• Implement Trash Control. Food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers (trash cans) and will be removed from the construction site on a regular basis.

Because the project contractor would develop and implement a SWPPP, will minimize ground-disturbing activities to the extent practicable, implement erosion control at the site, and implement hazardous spill prevention and good-housekeeping activities, potential construction-related impacts to surface water and groundwater quality would be avoided or minimized. Therefore, with implementation of these control measures, construction-related impacts to water quality would be less than significant.

Operation

Surface Water

By introducing new impervious surfaces within the watershed, residential development could increase erosion in hillside drainages and stream channels and degrade downstream water quality through increasing the volume or peak flow of stormwater runoff from uphill areas. Hydromodification, which refers to the change in timing, peak discharge, and volume of runoff caused by land development, can contribute to faster flow rates and greater runoff volumes from the watershed. Because the project would add more than 10,000 square feet of impervious surfaces to the project site, the project is required to comply with San Francisco Bay RWQCB’s Municipal Regional Permit (SFBRWQCB, 2015b) and the SCVURPPP C.3 Stormwater Handbook (SCVURPPP, 2012).

Consistent with the Municipal Regional Permit’s C.3 requirements, the proposed storm drainage system is designed to mimic existing drainage patterns and to largely avoid traditional pipe drainage systems by using LID measures to infiltrate, treat, and manage stormwater. Stormwater treatment along roads and in community areas
would be addressed by landscape dispersion, grassy swales, bio-retention planter areas, and/or permeable pavement. Runoff from roadways would be directed into grass-lined swales and bio-retention planters to encourage infiltration. Bio-retention areas are designed to allow runoff to infiltrate into the underlying drainage layer and to provide stormwater treatment through filtering particulates into the soil. In areas with steep slopes (such as the entry road between Silver Creek Valley Road and the first lot), a concrete curb and gutter system would be used to reduce potential erosion that could otherwise result from the higher velocities in the drainage. Storm drain inlets would be located at low points and periodically along the swale or concrete gutter system to direct stormwater to outlet structures. The outlet structures would have detention pipes or vaults to temporarily store stormwater and orifices to slowly meter out the stormwater at pre-development rates to a downstream energy dissipater. The energy dissipaters would spread out the discharge through a perforated pipe and into a section of drain rock to enhance local infiltration and sheet flow in existing drainage areas.

After construction of initial infrastructure, individual residential lots would be sold to homeowners or custom homebuilders who would be required to construct and operate all residences in accordance with the project Design Guidelines (Appendix C). Per these Design guidelines, individual home builders are required to design and adhere to BMPs appropriate for the given terrain and proposed improvements to allow for a distributed stormwater management system. Individual lots are expected to use a network of infiltration and containment techniques including pervious paving when feasible, rain gardens, vegetated swales, rainwater storage, vegetated roofs, and other LID practices. Consistent with the Municipal Regional Permit’s C.3 requirements, stormwater would be collected and percolated back into the ground or held during storm events and then slowly metered out as sheet flow into existing drainage paths. Stormwater reports are also required with applicable calculations demonstrating that building and site improvements would not increase off-site flows.

The emergency access road that currently connects the development area to Metcalf Road generally runs along the ridgeline through the four southern parcels of the site. With the exception of a few short segments, this ranch road would be widened from the existing 10 to 12-foot-wide dirt road to a uniform 12-foot-wide road with 1.5-foot-wide shoulders on each side and finished with an all-weather surface (compacted aggregate base). Turnouts would also be provided at intervals. These turnouts would generally be 8 feet wide by 40 feet long. Consistent with the Municipal Regional Permit’s C.2e requirements for maintenance of rural roads, erosion and sediment control BMPs would be implemented after construction, particularly in or adjacent to stream channels or wetlands. The operational stormwater drainage approach for the emergency access road would be to allow sheet flow from the roadway to runoff to adjacent landscape areas. No additional stormwater drainage improvements are proposed, because changes to the physical dimensions of the road and its impervious nature would be minimal and because the road is located along the ridgeline and generally setback from creeks and riparian habitat in unimproved areas.

An increase in stormwater runoff from the development area could mobilize additional sediments potentially affected by the historic quicksilver (mercury) and/or magnesite (magnesium) mining activities. However, as discussed above, the stormwater drainage system for the residential development area is designed to encourage local infiltration and to maintain predevelopment runoff conditions. Thus, increased erosion at historic mine sites due to the site development is not expected.

Implementation of the C.3 guidelines in the drainage design for the residential development and the operational use of LID measures to infiltrate, treat, and manage stormwater would allow the site to maintain predevelopment runoff conditions. Given these project design features, adverse effects related to stormwater and degradation of
water quality would be minimized. Therefore, operational impacts to surface water quality would be *less than significant*.

*Groundwater*

Individual septic systems and leach fields would serve each lot and the Community Center. Additional stand-alone septic systems and leach fields may also serve the detached secondary units. Each two-acre lot has an area identified by the applicant as able to accommodate these systems, as noted on the lot diagrams in the project’s Design Guidelines (Appendix C). Septic systems can fail and degrade groundwater quality when septic tanks are not maintained or when soil percolation rates in the leach field are reduced.

As discussed in Section 3.6, “Geology and Soils”, indicative percolation testing was undertaken at five locations within the project site in 2012. The tests found that percolation rates at the project site are extremely variable, but generally within County recommendations. Two of the percolation tests on the project site had slow but acceptable percolation rates of 49 to 84 minutes per inch (T&R, 2013). With this range of percolation rates, the minimum required vertical separation distance between the trench bottom and groundwater is 5 feet, per the requirements of the OWTS Ordinance, as summarized in Table 3.9-2. Other tested areas on the project site had relatively fast percolation rates of about 5.5 to 31 minutes per inch (T&R, 2013), which would require 8 feet, or possibly 20 feet, of vertical separation. The geotechnical studies and test-pits previously undertaken to date at the project site indicate that depth to groundwater likely exceeds the 20 feet minimum separation required for the fastest allowable percolation rate of 2 to 5 minutes per inch. However, because site-specific percolation testing and depth to groundwater measurements have not yet been undertaken for each of the proposed lots, it is unknown if all proposed lots would meet the requirements of the OWTS Ordinance. If subsequent percolation testing indicates that other lots would not fall within the permitted range or that the required vertical separation distances could not be attained, such lots would not be approved on the preliminary subdivision map.

As site-specific percolation testing has not yet been undertaken for each of the proposed lots, impacts to groundwater from the on-site wastewater treatment systems could be considerable. However, as discussed in Section 3.6, “Geology and Soils”, the proposed project would comply with the Santa Clara County On-site Wastewater Treatment Ordinance, which is designed to be protective of groundwater quality from septic systems. Percollation testing would be required at each lot to confirm the groundwater separation at each location and to determine the size of the leachfield prior to detailed design of the septic system. All percolation testing would be conducted with oversight by the Santa Clara Department of Public Health. Any lot that fails the percolation test would not be approved on the preliminary subdivision map.

Prior to approving septic permits, Santa Clara County also requires a cumulative impact assessment\(^1\) to address nitrogen loading from on-site wastewater treatment systems in subdivisions where the lot sizes are less than 2.5 acres. The guidelines for the cumulative impact assessment are found in Attachment E of the County’s On-site System Manual (SCC, 2014) and the total nitrate loading from proposed on-site wastewater treatment systems at a

\(^1\) Note that a “cumulative impact assessment” as required by the OTWS Ordinance refers to the additional technical studies that are required for the proposed project under the County’s On-site System Manual (SCC, 2014). The assessment of “cumulative impacts” under CEQA is a separate matter relating to the combined impacts of the proposed project and other projects or foreseeable development, as discussed in Section 3.9.4 below with respect to cumulative impacts relating to hydrology and water quality.
new subdivision is not to result in an average groundwater nitrate-nitrogen concentration over the geographical extent of the subdivision that exceeds 10 milligrams per liter nitrogen. Similarly, any lot failing the cumulative impact assessment would not be approved on the preliminary subdivision map.

As discussed above, site-specific percolation testing would occur at each lot to confirm the groundwater separation at each location and to determine the size of the leachfields, as per the Santa Clara County On-site Wastewater Treatment Ordinance. Any lot that fails the percolation test or the cumulative nitrate loading assessment would not be approved on the preliminary subdivision map. Because the site-specific on-site wastewater treatment systems would be designed and built in compliance with the County ordinance and because these design measures would minimize potential adverse effects and substantially avoid degradation of groundwater quality, operational impacts from the on-site wastewater treatment systems would be less than significant.

**Impact HW-2: The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. (Less Than Significant)**

*Construction and Operation*

The project would not increase groundwater pumping locally during construction or operation, and thus direct effects on groundwater elevations would be minimal. Provision of new, impervious areas on the project site could result in a decrease in the amount of groundwater recharge to surface aquifers. However, as discussed above, the drainage system that would be installed as part of the project in the development area would use vegetated swales and a series of check dams to reduce the velocity of the stormwater runoff as well as bio-retention systems to infiltrate stormwater runoff, in order to maintain pre-development runoff conditions. Detention structures such as pipes or vaults would also be incorporated at proposed outlet structures to further restrict flow. Because the proposed stormwater drainage system would provide for local infiltration and maintain pre-development runoff conditions, project-related construction and operational impacts related to groundwater recharge would be less than significant.

**Impact HW-3: The proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding, place housing within a 100-year flood hazard area, place within a 100-year flood hazard area structures that would impede or redirect flood flows, expose people or structures to a significant risk of loss, injury, or death involving flooding or inundation by seiche, tsunami, or mudflow. (Less Than Significant)**

*Construction and Operation*

Coyote Creek is approximately 0.5 miles from the proposed residential development, at the base of the foothills. Coyote Creek is expected to flood its banks during the 1-percent-annual-chance flood event and has a 100-year floodplain near the channel that has been determined by detailed flood evaluation methods (Zone AE). However, due to its location along Coyote Ridge, the project site is not within the FEMA-designated 100-year floodplain (FEMA, 2009), nor the inundation area mapped for Anderson Dam and Reservoir failure (SCVWD, 2009). Therefore, the residential development would not place housing in the flood hazard area or expose people or
structures to a significant risk of loss, injury, or death involving flooding or inundation during construction or operation.

As discussed above, the drainage system that would be installed in the development area is designed to maintain pre-development runoff conditions through the use of vegetated swales, bio-retention systems, detention pipes and energy dissipaters for the road network and by pervious paving, rain gardens, vegetated swales, rainwater storage, vegetated roofs, and/or other LID practices on the individual residential lots. (Water quality regulations do not require the project to reduce the amount of runoff below the amount that occurs under existing conditions, nor do they require the project to address downgradient areas that currently have inadequate local drainage, such as ponding areas on local roads.) Because of the proposed drainage and LID design features, the proposed project would prevent a substantial increase in the volume of the runoff and the intensity of the peak flow. As such, potential increases to downstream flooding conditions would be minimized. Therefore construction and operational impacts related to flooding, inundation, and downstream flooding would be less than significant.

3.9.4 Cumulative Impacts

Impact-C-HW: The proposed project could have a cumulatively considerable impact on hydrology and water quality. (Less Than Significant)

Cumulative impacts related to hydrology and water quality could occur through contamination of stormwater runoff with typical chemicals used at construction sites (such as fuels, oils, and solvents), through the use, transportation, and storage of these materials, if not properly controlled, through increasing stream channel erosion through hydromodification, or through improper installation or maintenance of septic systems at the proposed project and at cumulative project sites. However, no other projects are adjacent to the proposed project that could combine to result in a cumulative hydrology and water quality impact. It is noted that adjacent existing residential development areas (e.g., Silver Creek Country Club and the Ranch on Silver Creek) are on municipal sewer systems and, therefore, do not contribute as septic sources. Thus, there would be a less-than-significant cumulative hydrology and water quality impact.

Specifically, the proposed project would have a less than significant impact on hydrology and water quality during the construction phase through implementation of standard control measures to minimize wind- and water-related soil and sediment discharges at the construction site, to minimize potential contamination of stormwater and nonstormwater discharges, and to prevent hazardous material spills during construction. The project would also have a less than significant impact on hydrology and water quality after construction is complete through implementation of LID measures at the site and through compliance with the on-site wastewater treatment systems (OTWS) Ordinance, which would require implementation of vertical separation from groundwater, horizontal setbacks, and other protective measures for on-site wastewater treatment systems. The project would, therefore, have a less than cumulatively considerable impact related to water quality.

3.9.5 References

NORCAL Geophysical Consultants, Inc. (NORCAL), 2012. Geophysical Investigation, Young Ranch, Santa Clara County California. 10 September 2012.


3.10 LAND USE AND PLANNING

This section describes the existing physical and regulatory setting related to land use and planning and addresses the potential impacts of the proposed project for these topics.

The following comments related to land use and planning were received during the public scoping period in response to the Notice of Preparation:

- Questions logic of project including open space area;
- Concern regarding management of the open space, including City lands, and whether homeowner fees will help the process;
- Contends that the zoning amendment would undermine the overall integrity of planning as guided by the County and City General Plans and Zoning Codes;
- Contends project not consistent with Urban Growth Boundary and City General Plan policies; and
- Requests information about the maximum density for County parcels.

3.10.1 Existing Conditions

Santa Clara County

Santa Clara County encompasses 1,300 square miles and is located at the southern end of San Francisco Bay. The major topographical features of the County include the Santa Clara Valley, the Diablo Range to the east, and Santa Cruz Mountains to the west. The Santa Clara Valley is surrounded by rolling hills and runs the entire length of the County from north to south. The Diablo Range covers the entire eastern half of the County. The project site is located in the foothills of the Diablo Range, east of Santa Clara Valley.

The northern Santa Clara Valley is extensively urbanized, housing approximately 90 percent of the County’s residents. Thirteen of the County’s fifteen cities are located in the North Valley, while the remaining two cities, Gilroy and Morgan Hill, are located in the southern portion of the Santa Clara Valley. The southern portion of the valley is predominantly rural, with the exception of Gilroy, Morgan Hill, and the small unincorporated community of San Martin. Low-density residential developments are scattered through the valleys and foothill areas.

Adjacent Areas

The Silver Creek Country Club residential community is adjacent to and north of the project site, and the Ranch on Silver Creek residential community is slightly further north, at the northern end of Coyote Ridge (see Figure 2-3). Both communities consist of single-family residences and include private golf courses and country clubs.

Office parks and research and industrial uses lie to the northwest and west of the project site. South of these land uses and west of the project site are single-family residences, the Ledesma Elementary School, Basking Ridge Park, and Coyote Creek Park. Coyote Creek Trail parallels U.S. Highway 101 west of the project site.
Lands east and southeast of the project site are undeveloped and are generally used as grazing land. Similar to the project site, these areas are dominated by California nonnative annual grassland and native serpentine bunchgrass grasslands.

The 460-acre Santa Clara County Motorcycle Sports Park is south of the project site, just across Metcalf Road. The motorcycle park includes a motocross competition track; a mini-motocross track; 12 miles of main trails for beginners and intermediate-level riders; eight miles of single track expert tails; a hill climb area; obstacle courses; picnic areas, restrooms, and a visitor center.

**Project Site**

The 2,150-acre project site is southeast of downtown San Jose along Coyote Ridge, which runs along the eastern side of the Santa Clara Valley (see Figure 1 in Chapter 2, “Project Description”). The project site consists of six parcels: the two northernmost parcels are in unincorporated Santa Clara County (County parcels) and total approximately 906 acres and the remaining four parcels are in the City of San Jose (City parcels) and total approximately 1,244 acres (see Figure 2-2 in Chapter 2, “Project Description”). All four of the City parcels are located outside of the City’s Urban Growth Boundary (UGB) and Urban Services Area (USA).  

A detailed description of Santa Clara County and the City of San Jose land use designations and zoning for the project site is provided in Section 3.10.2, “Regulatory Framework.”

The vast majority of the project site is undeveloped, although there are limited areas that have been improved in the past. The project site is dominated by California nonnative annual grassland and native serpentine bunchgrass grasslands that cover 90 percent of the project site (about 1,948 acres). Upper Silver Creek runs southeast to northwest through the eastern portion of the project site. A number of aquatic features also occur on the project site, including ephemeral and perennial streams with seasonal wetlands, seep wetlands, freshwater marshes, and stock ponds.

The upper hills and slopes are crossed by cattle trails and unpaved dirt ranch roads cross the ridge tops and hillsides. Approximately five acres of the project site are developed, including a gravel access road to a City of San Jose water tank site near the western corner of the project site.

Evidence of historic quicksilver and/or magnesite mining is present in various locations throughout the project site. The New North Almaden mine, a prior mercury mine, is located in the western portion of the project area and a prior magnesite (magnesium) mine is located near Upper Silver Creek in unimproved areas.

An active high-pressure gas pipeline crosses the project site from northwest to southeast, within a 50-foot easement held by Pacific Gas & Electric Company. Electrical transmission lines and towers run in a north-south direction across the eastern portion of the project site. Additional overhead electrical transmission lines and towers run northwest to southeast from Silver Creek Valley Road along the northwestern boundary of the project.

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1 The Urban Growth Boundary defines the ultimate perimeter of urbanization in the City and an intent of the UGB is to define the limit of the encroachment of development and semi-urban land uses into the hillsides that border the valley floor. The Urban Service Area boundary defines the areas where services and facilities provided by the City and other public agencies are generally available, and where urban development requiring such services should be located.
site. Other miscellaneous easements exist on the project site for access and for electrical, gas pipeline, telephone, storm drain/canal, and water utilities (see Figure 2-3).

3.10.2 Regulatory Framework

Federal

There are no federal plans, policies, regulations, or laws related to land use and planning that are applicable to the proposed project.

State

Under state law, the project applicant is eligible for a density bonus or other incentives to produce and maintain housing affordable to low and very low income households pursuant to the provisions and requirements of California Government Code Sections 65915 through 65918. The project applicant has applied for a density bonus pursuant to these provisions of state law and County Zoning Ordinance Section 4.20.030.

Local

Santa Clara County General Plan

The two County parcels that comprise the northern portion of the project site are located in unincorporated Santa Clara County. Project activities proposed in unincorporated Santa Clara County are governed by the Santa Clara County General Plan, 1995–2010 (County General Plan; SCC, 1994). The County General Plan was adopted by the County Board of Supervisors on December 20, 1994. The County General Plan addresses the overarching themes of managed, balanced growth; livable communities; responsible resource conservation; and social and economic well-being.

The County’s General Plan identifies issues and policies for each of four different geographic areas: countywide, urban unincorporated area, rural unincorporated area, and the South County Joint Area Plan. The County General Plan’s countywide policies address land issues, particularly future growth and development, common to the County and the fifteen cities within the County. The unincorporated urban issues and policies focus on the management and development within urban unincorporated areas of Santa Clara County. The rural unincorporated area issues and policies place an emphasis on the conservation of natural resources and maintaining the rural character of land outside of cities’ USAs.

Santa Clara County General Plan Rural Unincorporated Area Strategies and Policies

The project site is partially located within the County’s rural unincorporated area. In keeping with the countywide urban development policies and growth management strategies adopted by the County, the County General Plan provides strategies or policy directions for land management in the rural unincorporated area. Two of the County’s primary goals in governing growth and development in rural unincorporated areas are to preserve natural resources and to preserve the rural character of lands not suitable or intended for urban development. To those ends, General Plan strategies encompass policies that allow only non-urban, low density uses outside of cities’ USAs; maintain strict controls over the use of special districts serving rural unincorporated development;
and make limited provision for highly specialized uses. In allowing only non-urban uses and densities outside USAs, the County simultaneously:

- maintains the integrity of the USA concept;
- conserves valuable natural resources;
- avoids natural hazards and constraints which could pose a threat to public health, safety, and welfare, such as landslides and earthquake faults;
- minimizes demand for public services and the costs to the general public of providing and maintaining roads and services;
- helps preserve scenic qualities of the rural landscape; and
- prevents unwanted or premature development that would preclude efficient conversion to urban uses and densities in areas suitable and intended for future annexation.

The following rural unincorporated area strategy and policies of the County General Plan are applicable to the proposed project.

*Growth and Development Chapter*

**Strategy 1: Preserve the Resources and Rural Character of the Land**

R-GD 1: Strategies and policies for managing land use and development in the rural unincorporated areas include the following:

1. Preserve the resources and rural character of lands outside Urban Service Areas (USAs).
2. Develop special area plans for areas that require or would benefit from more detailed planning and policies.

R-GD 2: For lands outside cities’ Urban Service Areas (USAs) under the County’s land use jurisdiction, only non-urban, low density uses shall be allowed.

R-GD 3: Land uses and development permitted under County jurisdiction shall be consistent with the following major County policies:

a) conservation of natural resources;

b) avoidance of natural hazards and the prevention of pollution which could pose a threat to public health, safety, and welfare;

c) minimizing demand for public services and costs to the general public of providing and maintaining services;

d) preservation of rural character, rural lifestyle opportunities, and scenic resources;

e) preservation of agriculture; and

f) preventing unwanted or premature development that would preclude efficient conversion to urban uses and densities in areas suitable and intended for future annexation.
R-GD 4: The rural character of land use and development within rural unincorporated areas shall be maintained and enhanced through application of land use controls and by special area development guidelines, where appropriate.

R-GD 5: Very limited provision should be made for highly specialized or unique land uses which otherwise would not be considered in conformance with General Plan policies, so long as the use:

a) is entirely dependent on rural or remote settings;

b) is compatible with surrounding land uses;

c) will not have serious environmental impacts;

d) will not reduce existing service levels or overburden planned service capacities; and

e) is unique or without precedent-setting potential which could be used to undermine the integrity of the General Plan or zoning district applicable to the area in which it is proposed to be located.

R-GD 6: Urban types and levels of services shall not be available outside of cities’ Urban Service Areas from either public or private service providers.

Strategy 3: Ensure Environmentally-Safe and Aesthetic Hillside Development

R-GD 32: For subdivision proposals, land should be subdivided in such a way that building sites are not located on ridgelines, if possible, taking into consideration other development constraints and issues. Where ridgeline locations are proposed, alternatives shall be evaluated to determine relative development suitability. If ridgeline or hilltop locations prove to be more suitable and less visually obtrusive than alternatives, reasonable mitigations for significant, adverse visual impacts may include, but are not limited to:

a) careful locations of building sites;

b) tree and vegetation retention, and use of additional landscaping, as appropriate;

c) building height, façade length, and similar dimensional limitations; and,

d) use of natural materials, colors, and design features that blend with the natural surroundings and reduce apparent bulk.

Resource Conservation Chapter

Strategy 1: Maintain Rural Densities That Help Conserve Scenic Resources

R-RC 96: The general approach to scenic resource preservation for the rural unincorporated areas consists of the following strategies:

a) Minimize scenic impacts in rural areas through control of allowable development densities.

b) Limit development impacts on highly significant scenic resources, such as ridgelines, prominent hillsides, streams, transportation corridors and county entranceways.
R-RC 97: Scenic qualities of the rural areas of Santa Clara County shall be maintained and enhanced through existing land use and development policies. Development compatible with scenic resource conservation should be encouraged.

R-RC 102: Structures on ridgelines must be located, constructed or landscaped so that they do not create a major negative visual impact from the Valley floor. Land should be divided in such a way that building sites, if possible, are not located on ridgelines.

**Land Use Chapter**

R-LU 3: The general intent of each ‘Resource Conservation Area’ designation is to encourage land uses and densities appropriate to the rural unincorporated areas that also:

a) help preserve rural character;

b) conserve natural, scenic, and cultural resources;

c) protect public health and safety from natural and man-made hazards;

d) preserve agriculture and prime agricultural soils;

e) protect watersheds and water quality;

f) enhance air quality; and

g) minimize the demand for and cost of public services and facilities.

R-LU 16: Hillsides: Mountainous lands and foothills unsuitable and/or unplanned for annexation and urban development. Lands so designated shall be preserved largely in natural resource related and open space uses in order to:

a) support and enhance rural character;

b) protect and promote wise management of natural resources;

c) avoid risks associated with the natural hazards characteristic of those areas; and

d) protect the quality of reservoir watersheds critical to the region’s water supply.

R-LU 17: These lands also contain such important resources as grazing lands, mineral deposits, forests, wildlife habitat, rare or locally unique plant and animal communities, historic and archeological sites, and recreational and scenic areas of regional importance, which serve to define the setting for the urbanized portions of Santa Clara County. Given the importance of these lands to the county’s overall quality of life, allowable uses shall be consistent with the conservation and wise use of these resources and levels of development shall be limited to avoid increased demand for public services and facilities.

R-LU 18: All allowable uses must be consistent with the basic intent of the ‘Hillside’ designation. The range of allowable uses shall be limited to:

a) agriculture and grazing;

b) mineral extraction;

c) parks and low-density recreational uses and facilities;
3.10 Land Use and Planning

**R-LU 19:** The standard allowable density of residential development shall be that of one dwelling unit per 160 acres, unless the development is proposed as a “cluster development.” If development is proposed as a residential cluster, the allowable density shall be as determined by the “20–160 acre variable slope-density formula.” Residential development proposals must be designed as a cluster in order to utilize the 20–160 acre variable slope-density formula.

a) If the average slope of the parcel is 10% or less, the average area per dwelling unit shall be 20 acres.

b) If the average slope of the parcel is 50% or above, the average area per dwelling unit shall be 160 acres.

**R-LU 20:** Proposed cluster residential developments shall adhere to the following:

1. **Developed Area:** The building envelopes for all residences and the locations of all other permitted uses proposed as accessory structures shall be specified in the design, the combined area of which shall not exceed 10 percent of the gross acreage of the site:

   a) If the property is under Land Conservation (Williamson Act) contract, the contract must be canceled or modified to exclude the portion of the site that is to be developed.

   b) No individual parcel created for residential development shall be less than 2 acres in size.

2. **Open Space:** It is mandatory that no less than 90 percent of the land area shall be preserved permanently as open space through dedication of an open space or conservation easement precluding any future development:

   a) those portions of the land permanently preserved as open space shall be configured as large, contiguous and usable areas;

   b) the open space may be dedicated through easements over portions of individually-owned parcels or may be configured as separate parcels owned in common or individually;

   c) the open space area shall be privately controlled and not accessible to the public unless the area is deeded to a public agency or entity willing to undertake responsibilities of ownership, maintenance, and public access [designated trail corridors may traverse such areas if proposed as part of the Regional Parks, Trails, and Scenic Highways Plan]; and
d) Land uses allowed within the area dedicated as permanent open space shall be limited to agricultural or other limited resource-related uses, and to non-commercial recreational facilities of an ancillary nature to the cluster residential development and for use by residents only.

R-LU 21: Design of the cluster development shall incorporate the following basic principles:

1. Site layout shall demonstrate efficiency in the location and length of roadways, driveways, and other basic infrastructure improvements or extensions.

2. Roads shall be of adequate design, capacity, and construction to accommodate traffic associated with the development safely, efficiently, and with minimal long term maintenance needs.

3. The locations of roads, building sites, septic system leach fields, or other major features of development must be accurately identified on the proposed subdivision map, and they shall:
   a) Avoid areas of natural hazards and avoid adverse impacts upon natural and heritage resources.
   b) Be required to mitigate or reduce potentially significant adverse environmental impacts to an insignificant level, particularly regarding water quality, through such means as adequate setbacks from water resources, avoidance of areas with high percolation rates and/or high ground water tables.

4. Building sites and access roads should be located such that areas of the site which pose a significant hazard, such as landslides, very steep slopes, fault traces, or floodways, are placed within the portion of the site that is dedicated as permanent open space.

5. Roads, building sites, and other facilities shall not be allowed to create major, lasting visible scars on the landscape.

6. Structures on or near ridgelines shall be located, constructed, and/or landscaped so that they do not create a significant adverse visual impact as seen from the Valley floor.

R-LU 24: New development, whether through subdivision or on existing, legal parcels (“single-site development”) shall not be allowed on building sites in excess of 30% average slope unless:

a) The proposed site is a more feasible, suitable location for development than alternative locations on the parcel proposed for development; and

b) Technical feasibility and environmental impact have been assessed and demonstrated through required studies, tests, and analyses of site conditions and characteristics.

Santa Clara County General Plan Land Use Designation

The two County parcels are designated by the County General Plan as Hillsides. The intent of the Hillsides land use designation is to preserve open space uses in order to support and enhance rural character, protect and promote wise management of natural resources, avoid risks associated with the natural hazards characteristic of those areas, and protect the quality of reservoir watersheds critical to the region’s water supply. These lands also
contain important resources such as grazing lands, mineral deposits, forests, wildlife habitat, rare or locally unique plant and animal communities, historic and archeological sites, and recreational and scenic areas of regional importance. Allowable land uses under the Hillsides designation include agriculture and grazing; mineral extraction; parks and low-density recreational uses and facilities; land in its natural state; wildlife refuges; very low density residential development; commercial, industrial, or institutional uses, which by their nature require remote, rural settings; or which support the recreational or productive use, study or appreciation of the natural environment.

The Hillsides land use designation allows development of one dwelling unit per 160 acres unless the development is proposed as a “cluster development,” in which case the allowable density is between 20 and 160 acres per unit, as determined by the “20–160 acre variable slope-density” formula. In general, this formula defines the allowable density (number of dwelling units per acre of land) based on the steepness of the terrain on a site: the steeper the topography (or slope), the lower the allowable density.²

**Santa Clara County Zoning Ordinance**

The County parcels are zoned by the County as Hillside-Design Review combining district /Santa Clara Valley Viewshed (HS-d1). The following discussion describes the intent, permitted land uses, and supplemental development standards for the HS zoning district and the -d1 combining district.

**Chapter 2.20 (Rural Base Districts)**

The purpose of the HS zoning district is to preserve mountainous lands unplanned or unsuited for urban development primarily as open spaces uses, and to promote those uses which support and enhance a rural character, protect and promote the wise use of natural resources, and avoid the risks imposed by natural hazards found in these areas. These lands are watersheds and may also provide such important resources as minerals, forests, animal habitat, rare or locally unique plant and animal communities, historic and archeological sites, scenic beauty, grazing lands, and recreational areas. As such, the HS zoning district serves to implement the Hillside land use designation of the General Plan. Permitted uses in the HS zoning district include agriculture and grazing, very low-density residential use, low-density and low-intensity recreational use, mineral and other resource extraction, and land in its natural state. Clustering of development, particularly residential, is encouraged in order to preserve contiguous open space and achieve efficiency in the provision of access to dwellings. This district is meant to apply to all parcels designated Hillside in the General Plan.

Consistent with the Hillside General Plan designation, the HS zoning district allows development of one dwelling unit per 160 acres unless the development is proposed as a “cluster development,” in which case the allowable density is between 20 and 160 acres per unit, as determined by the “20–160 acre variable slope-density” formula. Table 2.20-4 in Chapter 2.20 of the Zoning Ordinance describes the required land area per dwelling unit (density), as well as the minimum lot sizes with application of slope-density requirements.

² An illustration showing the number of dwelling units per acre using the 20-160 slope-density formula is provided on page Q-4 of the County General Plan.
In addition, supplemental development standards for HS zoning districts require the minimum parcel size for any lot created as part of a cluster be no less than two acres, the defined development area must total less than 10 percent of the parcel, and at least 90 percent of the parcel must consist of permanently preserved open space through dedication of development rights which prevents future subdivision of such lands (Section 2.20.070 of Chapter 2.20).

**Chapter 3.20 (Design Review Combining Districts)**

The overall purpose of the Design Review (–d) combining district is to designate certain visually and environmentally sensitive areas as requiring design review, with the intention of mitigating adverse visual impacts of development and encouraging quality design. The –d1 combining district is intended to conserve the scenic attributes of those hillside lands most immediately visible from the Santa Clara Valley floor. The district is intended to minimize the visual impacts of structures and grading on the natural topography and landscape as seen from the Santa Clara Valley floor, using a combination of supplemental development standards, design guidelines, design review, and process incentives for smaller and less visible projects. The district also has specific regulations regarding the light reflectivity value of exterior surfaces, building massing, and retaining walls, as well as a requirement that the ridgeline protection policies of the General Plan Growth and Development chapter be applied to any project situated on or adjacent to a ridgeline. The –d1 combining district uses a tiered regulatory structure based primarily on building size. (See Section 3.1, Aesthetics,” for further discussion of the –d1 combining district design guidelines, regulations, and design review process.)

**City of San Jose General Plan**

The *Envision San Jose 2040 General Plan* (City General Plan) (City, 2011) identifies the four City parcels of the proposed project as outside the City’s UGB and USA. The UGB, also referred to as the “Greenline,” defines the ultimate perimeter of urbanization in San Jose. Areas outside of this boundary are intended to remain permanently rural in character and to contribute to the establishment of a permanent green belt along the City's eastern and southern edges. The UGB also develops a clearer identity for the City by defining where urbanization begins and ends and by preserving valuable open space and habitat resources. An intent of the UGB is to define the limit of the encroachment of development and semi-urban land uses into the hillsides that border the valley floor. In addition, the UGB protects public health and safety by preventing urban development in areas subject to natural hazards such as wildfires and landslides.

**City of San Jose General Plan Goals and Policies**

The following goal and policies of the City General Plan are applicable to the proposed project.

**Goal LU-19 – Urban Growth Boundary (Open Hillside / Agriculture Lands):** Respect the Greenline Urban Growth Boundary to preserve the beauty and natural resources of the rural and hillside areas, to maintain the fiscal health of the City, to direct private and public investment within identified growth areas, and to preclude development in areas subject to natural hazards.

**LU-19.1:** Maintain the Greenline Urban Growth Boundary to delineate the extent of existing and future urban activity and to reinforce fundamental policies concerning the appropriate location of urban development.
LU-19.4: Reserve areas outside the Greenline/Urban Growth Boundary (UGB) for rural, agricultural, open space, habitat, or other very low-intensity uses. Prohibit new urban development outside of the Greenline/UGB. Appropriate land use designations for areas outside of the UGB include Agriculture; Open Hillside; Open Space, Parklands and Habitat; Urban Reserve; and the Open Hillside Golf Course Site Overlay. Other designations may not be applied to lands outside of the UGB.

LU-19.5: Maintain consistency between City and County land use and development policies for the lands outside of the Urban Growth Boundary. Limit them to uses that maintain the rural, agricultural, habitat, or other low-intensity character of these areas and continue the referral process for development proposals or policy proposals affecting these lands.

LU-19.6: Use the Urban Service Area (USA) boundary as a tool to preserve the non-urban character of development on lands outside of the Urban Growth Boundary. To this end, limit all new development on lands outside of the USA as follows.

1. Do not provide urban services to new development outside of the USA.

2. Require that new development projects cause no significant increase in public services or infrastructure and are non-urban in terms of
   a) Waste water generation rates.
   b) Traffic generation rates.
   c) Extent of grading, vegetation removal, drainage modifications or other alteration of the natural environment.
   d) Noise or other nuisance potential.
   e) Growth inducing potential.
   f) Water consumption, excluding the environmentally beneficial use of recycled water.

3. Distinguish between urban and non-urban uses in terms of water usage by limiting water consumption for new development to use of non-urban sources, including on-site well water, and rainfall catchment. Use of recycled water may be allowed. Irrigation of Open Hillside areas with these water sources may be allowed provided that their use would not result in a substantial direct or indirect environmental impact upon sensitive habitat areas, special status species, geologic hazard avoidance or the visual environment.

LU-19.10: Preserve the non-urban character of lands outside of the Urban Growth Boundary through implementation of the following land use development policies:

1. Prohibit subdivisions except at rural or agricultural densities (minimum one hundred sixty acre parcels with exceptions potentially allowing smaller parcels, but in no case less than twenty acre parcels as described in the Chapter 5 description for the Open Hillside designation), and consistent with other policies in this plan.
2. Prohibit residential development that exceeds one dwelling unit per 20 acres, except when development of a single dwelling unit on an existing legal lot of record would result in development at a higher density.

3. Allow low-intensity non-residential development for commercial and institutional uses provided that such development meets the following:

   a) The use is on a large site commensurate with the level of development and in no case less than 250 acres in area.

   b) At least 90% of the total site area will be preserved as open space to provide for protection of the watershed, natural habitat areas and the open aesthetic character of the hillsides. For this policy, open space is defined as area not developed with buildings, parking, roadways or other impervious surfaces.

4. Locate and, if possible, cluster new development within the minimum area necessary to accommodate it, in order to avoid or reduce the need for improvements and minimize any potential environmental impacts.

5. For non-agricultural land uses, disturb no more than 50% of the total site area through grading, changes to vegetation or other development activity.

City of San Jose General Plan Land Use Designation

The four City parcels are designated by the City General Plan as Open Hillside (City, 2011). The Open Hillside land use designation is applied to areas that are located outside of the UGB with the intent of preserving a permanent greenbelt of open space and natural habitat along the City’s eastern and southern edges. Because lands outside the UGB are proposed to remain rural in character, they are not intended to be annexed to the City, and public services and utilities would not be extended by the City to serve development of these lands. Privately-owned lands within the Open Hillside designation allow a limited amount of development, including single-family dwellings; private recreation on large sites; and low-intensity institutional or commercial uses with the majority of the site preserved as open space; very-low intensity agricultural uses such as grazing or tree farming; or privately owned open space/habitat preserves. Consistent with Santa Clara County General Plan policies, as part of the development of Open Hillside lands, at least 90 percent of a site may be required to be preserved permanently as open space or conservation easement precluding future development.

Open Hillside Residential Uses

Residential development of a very low-density rural character is a prevalent use of privately-owned Open Hillside lands. Such development is to be well integrated into the natural setting and/or combined with low-impact agricultural use of the property. The standard allowable density of residential development is one dwelling unit per 160 acres, with the maximum residential density on property with an Open Hillside designation determined by the Open Hillside Slope Density Formula. This formula defines minimum lot sizes between 20 and 160 acres based on average slope of an existing legal parcel.3

3 The formula for calculating the number of dwelling units per acre using the 20-160 slope-density formula is provided in Chapter 5 on page 17 of the City General Plan.
3.10 Land Use and Planning

3.10.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts to land use and planning. The proposed project would result in a significant impact if it would:

- physically divide an established community, or
- conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Assessment Methodology

The significance criteria are assessed in this section as the basis for determining the significance of impacts related to land use. The following analysis assumes development of 79 single-family homes with potentially 16 additional attached or detached secondary units, a 4,000-square-foot community center, roadways, and 1,940-acres of the 2,150-acre project site within unincorporated Santa Clara County and the City of San Jose preserved to meet the open space requirement of the County’s Cluster Subdivision provision.

Regarding physical division of an established community, the analysis below considers whether implementation of the proposed project would physically or visually introduce a barrier or otherwise hamper the cohesiveness or interaction among residents or businesses within a defined community. The earlier description of existing conditions (see Section 3.10.1, “Existing Conditions,”) identifies the Silver Creek Country Club and the Ranch on Silver Creek residential communities to the north and the business area of office parks and research and industrial uses to the northwest and west as identifiable communities. Accordingly, the extent to which the physical layout of the developed areas, the siting of the lots, or the proposed access roads or utility connections may interfere with these communities informs the determination of a potential impact. Discussion of whether the proposed project might conflict with an applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP) is discussed in Section 3.4, “Biological Resources.”

Regarding plan or policy consistency, the proposed project is evaluated in terms of whether its site plan, design features, and/or development at this location would substantially impede or thwart implementation of an adopted plan or policy. Evaluation of the potential impacts of the proposed project on land use and planning was based on a review of the Santa Clara County General Plan, 1995–2010 (Santa Clara County 1994), County Zoning Ordinance, and the Envision San Jose 2040 General Plan (City 2011).

CEQA requires that an EIR consider whether a proposed project may conflict with any applicable land use plan, policy, or regulation (including, but not limited to the general plan, specific plan, or zoning ordinance) that was adopted for the purpose of avoiding or mitigating an environmental effect (see Appendix G to the CEQA Guidelines). This environmental determination differs from the larger policy determination of whether a proposed project is consistent with a jurisdiction’s General Plan. The broader General Plan consistency determination takes into account all evidence in the record concerning the project characteristics, its desirability, as well as its economic, social, and other non-environmental effects. As such, the Santa Clara County Board of Supervisors, the
final decision-maker for the proposed Zoning Ordinance Amendment, may determine that the proposed project is (or is not) consistent with the County’s General Plan despite any conclusion reached by the EIR that the proposed project may (or may not) conflict with policies adopted for the purpose of avoiding or mitigating an environmental impact.

Impacts and Mitigation

Impact LU-1: The proposed project would not physically divide an established community. (No Impact)

Construction

Construction activities associated with the proposed project would not physically divide an established community. There would be no long-term impact from construction that physically or visually disrupts the Silver Creek Country Club or the Ranch on Silver Creek residential communities to the north or the business area of office parks and research and industrial uses to the northwest and west as identifiable communities. No impact would occur.

Operation

The majority of the project site is undeveloped and is primarily composed of grazed ranch land. The proposed project would develop 79 single-family homes, 16 secondary units, and a Community Center on the County parcels, and the majority of the project site would be preserved. The closest residential areas are the Silver Creek Country Club residential community, adjacent to and north of the project site, and the Ranch on Silver Creek residential community, slightly further north at the northern end of Coyote Ridge (see Figure 2-2 in Chapter 2, “Project Description”). Additional single-family homes are located west of the project site and north of Basking Valley Road. The project site is topographically separated from these communities. In addition, because the proposed project would not physically or visually encroach into these areas but, instead, lies south of these residential areas, it would not divide these residential areas or substantially impede interaction among land uses within these communities. For the same reasons, the proposed project would not affect the integrated office parks and research and industrial uses that lie to the northwest and west of the project site.

Primary access to the project site would be via a new entry road intersecting Silver Creek Valley Road, north of the office parks and research and industrial uses (see Figure 4 in Chapter 2, “Project Description”). The new entry road would join the existing main ranch road, which would serve as the primary access route to the lots and Community Center. The project does not propose to modify or close existing publicly accessible roads that provide access to the office parks and research and industrial uses or that provide connectivity among the existing residences in the area. Therefore, implementing the proposed project would not physically divide an established community. No impact would occur.
Impact LU-2: The proposed project would conflict with general plan policies that have been adopted to mitigate significant environmental effects. *(Significant and Unavoidable)*

**Construction and Operation**

The two County parcels that comprise the northern portion of the project site are located in unincorporated Santa Clara County. Development of the proposed project would include 79 single-family homes, 16 secondary units, a Community Center, and roadways on the County parcels. Project activities proposed in unincorporated Santa Clara County would be under the jurisdiction of the County and governed by the County General Plan.

As discussed below, the proposed Zoning Ordinance Amendment would conflict with the County General Plan’s land use designation for the project site, would be inconsistent with the County’s General Plan policies related to preserving the rural character of the unincorporated portions of the County, and would conflict with County General Plan policies adopted to mitigate significant environmental effects on scenic resources. These policies are briefly discussed below. Appendix I provides a more detailed analysis of the proposed project’s consistency with policies.

**County General Plan Policies and Regulations:** In keeping with the countywide urban development policies and growth management strategies adopted by the County, the County General Plan provides strategies and policy directions for preserving natural resources and maintaining the rural character of unincorporated areas through application of land use controls. Specifically, the County is tasked with allowing only low density uses in unincorporated rural areas outside cities’ urban service areas. The County General Plan does not identify any provisions or policies to allow for transfer of density from areas within cities into unincorporated rural areas of the County. Also, the County has no jurisdiction over the four existing parcels which are part of the project site and are located within the City. Therefore, when considering the proposed project, the County can only apply its regulatory framework to the parcels within unincorporated County.

The two County parcels within the project site are designated by the County General Plan as Hillsides, and County General Plan policies associated with the Hillsides land use designation define allowable land uses to protect natural resources and open space uses, and support and enhance rural character (County General Plan Policies R-LU 16, R-LU 17, and R-LU 18). The Hillsides land use designation, through use of the slope-density formula, described under *Regulatory Framework* above, defines an appropriate density to avoid and mitigate impacts to the hillside areas from a development intensity which could impact the character of the area and affect natural resources. The County slope-density formula is a regulatory vehicle for protecting scenic resources and the rural/open character of hillsides, as well as avoiding and minimizing risks related to slope failure and other geotechnical hazards. There are no provisions under the Hillsides land use designation to develop land in the rural unincorporated area at higher densities than allowable under the slope-density formula through density transfers or any other means other than density bonus for affordable housing per state law.

The Hillside land use designation allows development of one dwelling unit per 160 acres, unless the development is proposed as a “cluster development,” in which case the allowable density is between 20 and 160 acres per unit, as determined by the “20–160 acre variable slope-density” formula (County General Plan Policy R-LU 19). The average slope of the County parcels is approximately 25 percent, and based on the 20-160 slope-density formula provided on page Q-4 of the County General Plan, the number of allowable lots on the County parcels would be...
30 (BFK Engineers, 2014). In the absence of a General Plan and a Zoning Ordinance Amendment, development of the 79 new residences would result in 1 dwelling unit per 11 acres,\(^4\) which exceeds the allowed density based on the slope-density formula.

While the proposed project includes a zoning ordinance amendment to Table 2.20-4, “Slope Density Provisions in Rural Base District,” in Section 2.20.040 of the County Zoning Ordinance to allow for a greater density of dwelling units through a density transfer from the City to the County (see Appendix B), there is no General Plan Amendment proposed to allow such an increase in density through transfer from City parcels to County unincorporated areas.

In addition, if only the County parcels are considered, the proposed cluster subdivision would be developed on 172.5 acres (19 percent) of the 906-acre County parcels and approximately 733 acres (81 percent) of the County parcels would be preserved as open space. However, the County requires that the defined development area shall include no more than 10 percent of the total land area subject to the land division (which is the County parcels) with at least 90 percent of the remaining land area preserved as permanent open space. For the entirety of the site, including all six parcels, the proposed clustered development would occupy 203 acres (9.4 percent) of the 2,150-acre project site, preserving as open space the remainder of the project site (90.6 percent). If only the County parcels are considered for this calculation, the proposed project would conflict with the County’s General Plan and Zoning Ordinance requirements related to the percentage of lands that can be developed using the cluster subdivision tools.

The proposed project would therefore be inconsistent with County General Plan slope-density requirements for hillside areas, and which require a 10/90 percentage split between development and preserved open space areas respectively (County General Plan Policy R-LU 20).

The County also has several General Plan policies that connect rural land use densities and subdivision design to protection of scenic resources including in the Resource Conservation Element as well as the Land Use Element (County General Plan Polices R-GD 32, R-RC 96, R-RC 97, and R-RC 102). The proposed density transfer through the zoning ordinance amendment would result in densities higher than those allowed by the County’s General Plan for the purposes of protecting the County’s scenic resources. The resulting environmental impact of this increased density is evident in the Aesthetics section of this EIR which identifies that 21 of the proposed 79 lots would be visible from Coyote Creek Trail, Rahway Drive, and Montgomery Hill Park and would protrude above the ridgeline with no landform, topographic, or vegetative backdrop resulting in a significant unavoidable aesthetic impact (Impact AES-1). Hence, the proposed project would conflict with General Plan policies adopted to limit density and preserve hillside areas for protection of scenic views of ridgelines and hillside from the valley floor.

City General Plan Policies and Regulations: The County parcels are located within the City of San Jose’s sphere of influence (SOI). Santa Clara County and City of San Jose entered into an Amended and Restated Agreement of Redevelopment in 2001 (Agreement). Section VII (I)(5)(a) of the Agreement requires written approval of the City before any modification of the County’s policies or the County zoning ordinances, pertaining

\[^4\] The residential density was calculated by adding the number of new residences (79 units) divided by the total acreage of the County’s Parcels (906 acres).
to development within the City’s SOI, which would substantially affect consistency between the County’s land use policies and the City development standards. Therefore, the proposed Zoning Ordinance Amendment is subject to review by the City.

The City has reviewed the proposed project and determined, in a letter to the County dated June 20, 2016, that the proposed Zoning Ordinance Amendment would conflict with the City General Plan policies to maintain lands outside of the UGB for open space, habitat, parkland, and agricultural activities and the Open Hillside land use designation for the project site (City, 2016), as discussed further below. A copy of the letter can be obtained from the Santa Clara County Department of Planning and Development.

As explained in the City’s letter, the City considers the proposed Zoning Code Amendment inconsistent with the City General Plan land use policies related to the non-urban areas and the UGB. The City General Plan’s Policies LU-19.1, LU-19.4, and LU-19.5 state that existing and future development should only be located within the City’s UGB and USA boundaries and that all areas outside of these boundaries are to remain primarily rural in character. The project site is outside the UGB and USA, and the City considers that development of the proposed 79 residences and 16 secondary units inconsistent with the rural character of the project site (City, 2016). The City has stated in its June 2016 letter to the County that while a portion of the project site is proposed to be preserved for open space, the remaining areas contain denser development than currently permitted under the City General Plan. City General Plan Policy LU-19.10 states that residential development shall not exceed one dwelling unit per 20 acres. Because the proposed project would provide one dwelling unit on 2-acre to 2.5 acre minimum lots, the City considers the density of development inconsistent with City General Plan Policy LU-19.10. The City has also determined that the project site is located in geologic hazard and archaeologically sensitive areas. City General Plan Policy LU-19.6 states that urban services should not be provided to new development outside of the USA; therefore, the proposed project would not be permitted to have access to any services provided by the City of San Jose (City, 2016). This policy also requires that non-urban water use for uses outside the City’s USA boundary be limited to non-urban water sources such as on-site well water and rainfall catchment. The proposed project includes the extension of water services from a private water provider, Great Oaks Water Company.

The project site is designated by the City General Plan as Open Hillside. The Open Hillside land use designation is applied to areas that are located outside the UGB with the intent of preserving a permanent greenbelt of open space and natural habitat along the City’s eastern and southern edges. The Open Hillside land use designation also correlates with unique environment and archaeological sensitive areas as well as areas associated with geologic hazards. In addition, the maximum allowable density of residential development under the Open Hillside land use designation is one dwelling unit per 20 acres as determined by the 20-160 slope density formula. The proposed project would result in development of residential densities that exceeds one dwelling unit per 20 acres.

**Conclusions:** Consistency issues between implementation of the proposed project and the County General Plan are related to land use regulations and can be considered to result in physical environmental impacts, particularly when the regulations specify locational and siting standards that help avoid and mitigate disturbance and encroachment onto lands with sensitive and/or protected biological, cultural, and scenic resources. Specific impacts and project consistency issues associated with a particular resource and issue area are addressed in each technical section of this EIR, as appropriate, and assume the highest project density based on the proposed zoning ordinance amendment. These technical sections provide a detailed analysis of other relevant physical
environmental effects that could result from implementation of the proposed project and identify mitigation measures. Impacts of the proposed project associated with biological resources, cultural resources, and geotechnical hazards would be less than significant or less than significant with mitigation, as discussed in the relevant sections of this EIR. No feasible mitigation measures are available to reduce significant impacts on scenic views of the project site from the Santa Clara Valley floor as a result of the protrusion of homes above the ridgeline to a less-than-significant level.

The proposed project would conflict with adopted County General Plan policies that have been adopted to mitigate significant environmental effects, including on scenic resources through avoiding ridgeline development and controlling for densities in the hillside areas. The project proposes densities in conflict with those allowed by the County general plan policies, through density transfer from City parcels to County parcels. Since the project would conflict with General Plan policies intended for protection of environmental resources through establishment of density provisions, these impacts would be significant and unavoidable.

3.10.4 Cumulative Impacts

Impact-C-LU: The proposed project would not have a cumulatively considerable impact related to land use and planning. (No Impact)

Impacts involving adopted land use plans or policies and zoning generally would not combine to result in cumulative impacts. The determination of significance for impacts related to these issues, as described by Appendix G of the State CEQA Guidelines, is whether a project would conflict with any applicable land use plan or policy adopted for the purpose of avoiding or mitigating environmental impacts. Such a conflict is site-specific; it is addressed on a project-by-project basis. In addition, any land use inconsistencies of future projects, by themselves, are not considered a significant cumulative effect because land use inconsistencies are a land use regulation, not an environmental impact. Because land use impacts would occur on a project-specific basis rather than a cumulative basis, no cumulative impact would occur.

3.10.5 References


3.11 MINERAL RESOURCES

This section describes the existing physical and regulatory setting related to mineral resources and addresses the potential impacts of the proposed project related to such resources.

No public or agency comments related to mineral resources were received during the public scoping period in response to the Notice of Preparation.

3.11.1 Existing Conditions

Mineral Resources

Santa Clara County

Mineral resources of significance in Santa Clara County are predominately construction aggregates deposits of lime stone, and to a lesser extent salts, evaporated from the San Francisco Bay (SCC, 1994). Construction aggregates, such as sand, gravel, and crushed stone are used for road and building construction. Considering Santa Clara County’s major growth in population, these resources are a fundamental part of the County’s economy. Nearly all of Bay Area’s sand and gravel deposits have been depleted, putting an importance on preserving this limited resource (SCC, 1994).

The County has identified a number of locations in which mineral resource deposits are present and of State-wide significance. Eight are currently in operation on unincorporated lands in Santa Clara County; however none are in the vicinity of the project site. Azevedo quarry is located on 55 Hillsdale Avenue in San Jose approximately five miles from the project site.

Santa Clara County is required to incorporate mapped mineral resources into its General Plan. This information is obtained from the California Geological Survey (CGS), established in 1860 by the State’s legislature to provide scientific information and products regarding the State’s geology, seismology and mineral resources. In accordance with California Surface Mining and Reclamation Act, the CGS has delineated areas by the presence and significance of mineral deposits (CDC, 2004).

These areas are referred to as Mineral Resource Zones (MRZs) and are described below:

- MRZ-1: Areas that do not likely contain any significant mineral deposits according to adequate geologic information
- MRZ-2a: Areas underline by mineral deposits where geologic data has shown that there are significant measured or indicated resources.
- MRZ-2b: Areas underlain by mineral deposits where geologic data indicates that there are significant inferred resources.
- MRZ-3a: Areas contain known mineral deposits that may qualify as mineral resources. Further exploration could result in these areas being classified as MRZ-2a or MRZ-2b.
• MRZ-3b: Areas containing inferred mineral deposits that may qualify as mineral resources. These areas have favorable environments for the occurrence of mineral deposits.

• MRZ-4: In these areas, there is a lack of knowledge about mineral occurrence. Information is inadequate for any other MRZ designation.

Project Site

The project site is located in mainly MRZ-1 with some MRZ-3a and MRZ-4 designations (CDC, 1999). No active or proposed mines are present within the project site. Remnants of historic quicksilver and/or magnesite mining sites are present in various locations throughout the site, but have since been abandoned.

3.11.2 Regulatory Framework

Federal

There are no federal laws or regulations pertaining to mineral resources.

State

California Surface Mining and Reclamation Act of 1975

California Surface Mining and Reclamation Act (SMARA) is the primary State law that regulates surface mining operations to assure that adverse impacts to the environment are minimized and that mined lands are reclaimed to a usable condition. SMARA encourages the production, conservation and protection of the State’s mineral resources (CDC, 2016). The Act requires CGS to designate mineral resource zones and that all jurisdictions incorporate mapped mineral resources into their general plans (CDC, 2016).

State Mining & Geology Board

Under Public Resources Code Section 2207, the State Mining & Geology Board (SMGB) has regulatory authority over the State’s mining activities, geologic and seismologic hazards and conservation of mineral resources. The SMGB contains nine Governor appointed members for a term of four years. SMGB operates within the California Department of Conservation (CDC). SMARA requires the Board to adopt State policy for the reclamation of mined lands and conservation of mineral resources (CDC, 2016).

The Office of Mine Reclamation

Jointly charged with SMGB, the Office of Mine Reclamation (OAR), also part of CDC, is responsible for ensuring proper administration of SMARA policies. OAR is responsible for compliance-related matters; provides technical assistance for lead agencies and operators; and maintains a database of mine locations.
Santa Clara County General Plan

Santa Clara County’s primary goals relating to mineral resources are to preserve construction aggregates, limit environmental impact of extraction activities, and reclaim quarry sites and similar operations through the following policies:

C-RC 44 The County recognizes mineral resources value to local, regional and state economy. Countywide strategies for preserving and, managing mineral resources include:
   a. Ensuring continued availability of mineral resources to meet long-term demand;
   b. Mitigating environmental impacts of extraction and transportation; and
   c. Reclaiming sites for appropriate land-uses.

C-RC 45 County will manage mineral resource supply, particularly construction aggregates, to ensure availability for current and future demands by:
   a. Inventorying existing sites to identify and properly designate potential new sites for protection measures
   b. Preserving deposits and access routes;
   c. Increased use of recycling material; and
   d. Proper development of new quarry sites

C-RC 47 Adverse impacts from extraction and mining should be minimalized to the great extent by limiting:
   a. Nuisances such as dust, noise, debris, and odor
   b. Disturbances and damage to natural features, such as ground cover, topography and groundwater
   c. Increase traffic values and road damage.

3.11.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts to mineral resources. The Project would result in a significant impact if it would:

- Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the state; or
- Result in the loss of availability of a locally important mineral resource recovery site as delineated on a local general plan, specific plan, or other land use plan.
Assessment Methodology

The aforementioned significance criteria were applied to determine impact significance using a qualitative approach. The following evaluation discusses whether the proposed project would result in direct impacts on mineral resources such as: construction aggregates deposits of lime stone, and evaporated salts. The following evaluation also discusses whether the proposed project would result in indirect impacts on mineral resources such as blocking access to minerals. Specifically, the evaluation focuses on whether the proposed project would result in the loss of mineral resources of significance in Santa Clara County.

Impacts and Mitigation

Impact MR-1: The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. (No Impact)

Direct and Indirect

The proposed project is not expected to result in the loss of availability of known mineral resources that would be of value to the region and the residents of the State. According to CGC’s Mineral Resources Zones Maps, no areas of mineral deposits are indicated. Additionally, no active or proposed mine have been indicated by these maps within the project site boundary. Remnants of historic quicksilver and/or magnesite mining sites are present in various locations throughout the site, but have since been abandoned.

Areas on the northwest and southwest edges of the site are mainly designated as MRZ-1 with some MRZ-3a and MRZ-4 designations, which means areas that do not likely contain any significant mineral deposits and areas that have not been designated as containing minerals or significance (CDC, 1999). There are no known minerals deposits present where construction would occur on the site (CDC, 1999). Thus, the construction of lots, a community center, and roads would result in no impact related to the availability of mineral resources that would be of value to the region and State.

Impact MR-2: The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan (No Impact)

Direct and Indirect

No mineral resources of local importance such as construction aggregates, limestone, or salts are identified on any mineral resources map for the project site. Thus, the construction of lots, a community center, and roads would result in no impact related to the availability of locally important mineral resources.
3.11.4 Cumulative Impacts

Impact-C-MR: The proposed project would not have a cumulatively considerable impact on mineral resources. *(No Impact)*

The project would have no impact on mineral resources and therefore would not contribute to any cumulative impacts on such resources. Thus, there is *no impact*.

3.11.5 References


3.12 NOISE

This section describes the existing physical and regulatory setting related to noise and addresses the potential impacts of the proposed project related to noise.

No public or agency comments related to noise were received during the public scoping period in response to the Notice of Preparation.

3.12.1 Existing Conditions

Fundamentals of Acoustics

Noise is generally defined as unwanted or objectionable sound. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and in the extreme, hearing impairment. Noise effects can be caused by pitch or loudness. Pitch is the height of a tone; higher-pitched sounds are louder to humans than lower-pitched sounds. Loudness is intensity or amplitude of sound. The sound-pressure level is the most common descriptor used to characterize the loudness of a sound level. Because sound pressure can vary enormously within the range of human hearing, the logarithmic decibel scale (dB) is used to quantify sound levels.

The human ear is not equally sensitive to all frequencies within the entire sound spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive; this specific “filtering” of sound is called “A-weighting.” Because humans are less sensitive to low-frequency sound than to high-frequency sound, A-weighted sound levels deemphasize low-frequency sound energy to better represent how humans hear.

Different sound-level measurement descriptors are used to characterize the time-varying nature of sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise is dependent on the total acoustical energy content, as well as the time and duration of occurrence. Table 3.12-1 provides brief definitions of these measurement descriptors and other acoustical terminology used in this section.

In a typical environment, the day-night level (DNL or $L_{dn}$) and community noise equivalent level (CNEL) noise descriptors rarely differ by more than 1 dB. As a matter of practice, $L_{dn}$ and CNEL values are considered to be equivalent and are treated as such in this section. For a stationary point-source of sound, sound typically attenuates at a rate of 6 dB per doubling of distance (i.e., 6 dB at 50 feet, 12 dB at 100 feet, 18 dB at 200 feet). For a line source of sound such as free-flowing traffic on a freeway, sound attenuates at a rate of approximately 3 dB per doubling of distance (i.e., 3 dB at 50 feet, 6 dB at 100 feet, 9 dB at 200 feet). Atmospheric conditions including wind, temperature gradients, and humidity can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface such as grass attenuates at a greater rate than sound that travel over a hard surface such as pavement. The increased attenuation due to ground absorption is typically in the range of 1–2 dB per doubling of distance. Barriers such as building and topography that block the line of sight between a source and receiver also increase the attenuation of sound over distance.
### Table 3.12-1: Acoustical Terminology

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound</td>
<td>A vibratory disturbance created by a vibrating object that when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.</td>
</tr>
<tr>
<td>Noise</td>
<td>Sound that is loud, unpleasant, unexpected, or otherwise undesirable.</td>
</tr>
<tr>
<td>Ambient Noise</td>
<td>The composite of noise from all sources near and far in a given environment.</td>
</tr>
<tr>
<td>Decibel (dB)</td>
<td>A unitless measure of sound on a logarithmic scale, which represents the squared ratio of sound-pressure amplitude to a reference sound pressure. The reference pressure is 20 micro-Pascals, representing the threshold of human hearing (0 dB).</td>
</tr>
<tr>
<td>A-Weighted Decibel (dBA)</td>
<td>An overall frequency-weighted sound level that approximates the frequency response of the human ear.</td>
</tr>
<tr>
<td>Equivalent Sound Level (L&lt;sub&gt;eq&lt;/sub&gt;)</td>
<td>The average sound energy occurring over a specified time period. In effect, L&lt;sub&gt;eq&lt;/sub&gt; is the steady-state sound level that in a stated period would contain the same acoustical energy as the time-varying sound that actually occurs during the same period.</td>
</tr>
<tr>
<td>Statistical Sound Level (Ln)</td>
<td>The statistical sound level represents sound level that is exceeded over a fraction or percentage of a given period of time. For example, the L50 noise level represents the noise level that is exceeded 50 percent of the time. For a one hour period, the L50 presents the noise level exceeded 30 minutes.</td>
</tr>
<tr>
<td>Maximum and Minimum Sound Levels (L&lt;sub&gt;max&lt;/sub&gt; and L&lt;sub&gt;min&lt;/sub&gt;)</td>
<td>The maximum or minimum instantaneous sound level measured during a measurement period.</td>
</tr>
<tr>
<td>Day-Night Level (DNL or L&lt;sub&gt;dn&lt;/sub&gt;)</td>
<td>The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m. (nighttime).</td>
</tr>
<tr>
<td>Community Noise Equivalent Level (CNEL)</td>
<td>The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.</td>
</tr>
</tbody>
</table>

Source: Data compiled by AECOM in 2016 (Appendix J).

### Fundamentals of Vibration

Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) and root-mean-square (RMS) velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is the metric often used to describe blasting vibration and other vibration sources that may result in structural stresses in buildings (FTA, 2006). Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response to ground vibrations. It takes some time for the human body to respond to vibration signals; therefore, average vibration amplitude (RMS) is the best appropriate descriptor to gauge human response to the typical ground vibration. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a period of 1 second. As with airborne sound, the RMS velocity is often expressed in dB notation as vibration dB (VdB), which serves to compress the range of numbers required to describe vibration (FTA, 2006). This VdB scale is based on a reference value of 1 micro-inch per second. The background vibration-velocity level typical of residential areas is approximately 50 VdB (FTA, 2006).
Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Table 3.12-2 summarizes the general human response to different levels of groundborne vibration.

<table>
<thead>
<tr>
<th>Vibration-Velocity Level (VdB)</th>
<th>Human Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>Approximate threshold of perception.</td>
</tr>
<tr>
<td>75</td>
<td>Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.</td>
</tr>
<tr>
<td>85</td>
<td>Vibration acceptable only if there is an infrequent number of events per day.</td>
</tr>
</tbody>
</table>

Table 3.12-2: Human Response to Different Levels of Groundborne Vibration

Source: FTA, 2006

Acronyms:
VdB = vibration decibels referenced to 1 micro-inch per second and based on the root mean square vibration velocity.

**Existing Noise-Sensitive Land Uses**

Noise-sensitive land uses generally include those uses where exposure to noise would result in adverse effects, as well as uses where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern, because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other noise-sensitive land uses include hospitals, convalescent facilities, parks, hotels, churches, libraries, and other uses where low noise levels are essential.

The nearest noise-sensitive land use surrounding the proposed project site includes; the Silver Creek Country Club residential community adjacent to and north of the Site, a small cluster of single-family residence homes on the north side of Percy Road south of the Site (western portion), and a single-family residential community south of the Site (north of Basking Ridge Avenue and east of Tennant Avenue). The existing noise-sensitive uses in the vicinity of the proposed project site are located within the City of San Jose.

**Noise-Level Measurements**

Ambient noise measurements were conducted at five selected locations that represent the existing nearby noise-sensitive land uses in the vicinity of and at the proposed project site (Table 3.12-3 and Figure 3.12-1). The ambient noise measurements were performed using a Larson Davis Model 820 Integrated Sound Level Meter, which is a Type 1 standard instrument as defined in American National Standards Institute S1.4. All instruments were calibrated and operated according to the manufacturer’s specifications. The noise sensor device (microphone) was placed approximately 5 feet above the local grade. The noise measurements were made on July 27 and 28, 2016. Two 15-minute measurements were conducted at each of the off-site receptor locations during daytime and nighttime hours. The measured short-term ambient noise levels are provided in Table 3.12-3. In addition, a 24-hour measurement was conducted at the proposed project site (receptor R1). The measured 24-hr L_10 level at the proposed project site was 52.9 dBA L_10. Based on field observation and measured sound data, the current ambient noise environment in the vicinity of the plan area is controlled primarily by vehicular traffic on local roadways.
Figure 3.12-1: Noise Measurement Locations

Sources: Compiled by AECOM in 2016
Table 3.12-3: Existing Ambient Noise Levels

<table>
<thead>
<tr>
<th>ID</th>
<th>Description</th>
<th>Measurement Date/Time</th>
<th>Measured Noise Levels (dBA)</th>
<th>A-Weighted Sound Level (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L&lt;sub&gt;eq&lt;/sub&gt;</td>
<td>L&lt;sub&gt;50&lt;/sub&gt;</td>
</tr>
<tr>
<td>1</td>
<td>Project site, noise measurement was made near the southern proposed residential lots.</td>
<td>7/27/2016, 10:38 a.m. – 10:53 a.m.</td>
<td>55.0</td>
<td>54.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/28/2016, 7:50 a.m. – 8:05 a.m.</td>
<td>55.5</td>
<td>54.9</td>
</tr>
<tr>
<td>2</td>
<td>Project northern property line near the existing single-family residences at the cul-de-sac of Algonquin Way.</td>
<td>7/27/2016, 11:20 a.m. – 11:35 a.m.</td>
<td>45.2</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/28/2016, 8:29 a.m. – 8:44 a.m.</td>
<td>43.0</td>
<td>42.6</td>
</tr>
<tr>
<td>3</td>
<td>Project southern property line near the existing single-family residence on the Piercy Road.</td>
<td>7/27/2016, 12:13 p.m. – 12:28 p.m.</td>
<td>56.7</td>
<td>49.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/28/2016, 7:07 a.m. – 7:22 a.m.</td>
<td>51.6</td>
<td>51.3</td>
</tr>
<tr>
<td>4</td>
<td>Single-family residences on Gravina Loop, east of Tennant Avenue.</td>
<td>7/27/2016, 1:47 p.m. – 2:02 p.m.</td>
<td>49.7</td>
<td>45.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/28/2016, 9:19 a.m. – 9:34 a.m.</td>
<td>54.6</td>
<td>52.3</td>
</tr>
<tr>
<td>5</td>
<td>Ledesma Elementary School, south of the project site.</td>
<td>7/27/2016, 2:12 p.m. – 2:27 p.m.</td>
<td>44.3</td>
<td>43.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/28/2016, 5:50 a.m. – 6:05 a.m.</td>
<td>47.9</td>
<td>47.1</td>
</tr>
</tbody>
</table>

Source: Data collected by AECOM on July 27 and 28, 2016
Acronyms: dBA = A-weighted decibels; L<sub>eq</sub> = equivalent noise level; L<sub>max</sub> = maximum noise level; L<sub>n</sub> = statistical noise level.
Notes: Monitoring locations correspond to those depicted in Figure 3.12-1.

**Existing Traffic Noise**

In addition to the ambient noise measurements in the vicinity of the plan area, the existing traffic noise on local roadways in the surrounding areas near the plan area was calculated to quantify the 24-hour L<sub>dn</sub> noise levels, based on the existing traffic volumes as provided in the proposed project’s transportation impact analysis (Hexagon, 2016). Traffic noise levels along the local roadways were calculated based on daily volumes and their distribution, using the roadway noise calculation procedures provided in the California Department of Transportation (CDOT) TeNS, which is based on the Federal Highway Administration (FHWA) RD-77-108 roadway noise prediction methodologies.

Table 3.12-4 provides the calculated traffic noise levels for the analyzed local roadway segments based on existing traffic volumes. As shown, the existing L<sub>dn</sub>, attributable only to surface street traffic volumes ranged from 50.8 dBA L<sub>dn</sub> along Hawkstone Avenue (north of Silver Creek Valley Road) to 68.5 dBA L<sub>dn</sub> along Blossom Hills Road (west of U.S. 101 Freeway).
Table 3.12-4: Predicted Existing Roadway Traffic Noise Levels

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Approx. Distance to Roadway Centerline, ft</th>
<th>Calculated Traffic Noise Levels,(^1) dBA (L_{dn})</th>
<th>Adjacent Land Uses</th>
<th>Existing Noise Exposure Compatibility Category(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blossom Hills Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– West of U.S. 101 Freeway</td>
<td>100</td>
<td>68.5</td>
<td>Residential</td>
<td>Conditionally Acceptable</td>
</tr>
<tr>
<td>Silver Creek Valley Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– West of Coyote Road</td>
<td>80</td>
<td>66.6</td>
<td>Residential</td>
<td>Conditionally Acceptable</td>
</tr>
<tr>
<td>– Between Coyote Road and Hellyer Ave</td>
<td>100</td>
<td>64.1</td>
<td>Commercial</td>
<td>Normally Acceptable</td>
</tr>
<tr>
<td>– Between Hellyer Ave and Hawkstone Way</td>
<td>90</td>
<td>63.6</td>
<td>Residential</td>
<td>Conditionally Acceptable</td>
</tr>
<tr>
<td>– East of Hawkstone Way</td>
<td>60</td>
<td>65.4</td>
<td>Residential</td>
<td>Conditionally Acceptable</td>
</tr>
<tr>
<td>Coyote Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– North of Silver Creek Valley Road</td>
<td>50</td>
<td>61.8</td>
<td>Residential</td>
<td>Conditionally Acceptable</td>
</tr>
<tr>
<td>Hellyer Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– North of Silver Creek Valley Road</td>
<td>100</td>
<td>58.7</td>
<td>Commercial</td>
<td>Normally Acceptable</td>
</tr>
<tr>
<td>– South of Silver Creek Valley Road</td>
<td>70</td>
<td>61.5</td>
<td>Commercial</td>
<td>Normally Acceptable</td>
</tr>
<tr>
<td>Hawkstone Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– North of Silver Creek Valley Road</td>
<td>50</td>
<td>50.8</td>
<td>Residential</td>
<td>Normally Acceptable</td>
</tr>
</tbody>
</table>

Source: Data modeled by AECOM in 2016

Acronyms: dBA = A-weighted decibels; \(L_{dn}\) = day-night level

Notes:

\(^1\) Predicted traffic noise levels do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

\(^2\) The indicated noise exposure compatibility is based on the most stringent land use category, pursuant to the City of San Jose General Plan, as the analyzed roadways are within the City limit.

3.12.2 Regulatory Framework

Government agencies have established noise standards and guidelines to protect citizens from potential hearing damage and other adverse physiological and social effects associated with noise. The proposed project site is located within both the unincorporated Santa Clara County and the City of San Jose. The Santa Clara County and City of San Jose have adopted regulations and policies that are based in part on federal and state regulations/guidelines, and are intended to control, minimize, or mitigate environmental noise. Standards and guidelines applicable to the proposed project are discussed below. While the proposed development is located mostly within the Santa Clara County unincorporated limits, the off-site noise sensitive receptors (i.e., residential and school uses) are located within the City of San Jose. Therefore, the more restrictive noise regulations from the Santa Clara County and the City of San Jose are used to assess the potential noise impacts from the proposed project.

Federal

Federal Transit Administration

As described below, both the Santa Clara County and City of San Jose currently do not have quantitative vibration standards/limits. Therefore, the groundborne vibration standards and guidelines from the Federal Transit Administration (FTA) are used. FTA has published a technical manual titled *Transit Noise and Vibration Impact*
Assessment that provides groundborne vibration impact criteria with respect to building damage during construction activities (FTA, 2006). With respect to potential building damage, FTA provides guidelines for evaluating potential groundborne vibration damage applicable to various building categories. Table 3.12-5 provides the FTA vibration criteria applicable to construction activities. According to FTA guidelines, a vibration damage criterion of 0.20 inch per second PPV should be considered for non-engineered timber and masonry buildings. Furthermore, structures or buildings constructed of reinforced concrete, steel, or timber have vibration damage criteria of 0.50 inch per second pursuant to the FTA guidelines.

<table>
<thead>
<tr>
<th>Building Category</th>
<th>PPV (in/sec)</th>
<th>Approximate VdB¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforced concrete, steel, or timber (no plaster)</td>
<td>0.5</td>
<td>102</td>
</tr>
<tr>
<td>Engineered concrete and masonry (no plaster)</td>
<td>0.3</td>
<td>98</td>
</tr>
<tr>
<td>Non-engineered timber and masonry buildings</td>
<td>0.2</td>
<td>94</td>
</tr>
<tr>
<td>Buildings extremely susceptible to vibration damage</td>
<td>0.12</td>
<td>90</td>
</tr>
</tbody>
</table>

Source: FTA, 2006

Notes:
¹ Root mean square velocity in decibels (VdB) referenced to 1 micro-inch per second.

To address the human response to groundborne vibration, the Federal Transit Administration (FTA) has guidelines for maximum-acceptable vibration criteria for different types of land uses. Maximum-acceptable vibration criteria based on the frequency of an event are applied to different types of land uses to address the human response to groundborne vibration (FTA, 2006). Table 3.12-6 provides the FTA recommended groundborne vibration impact criteria for various land uses. As indicated in Table 3.12-6, maximum vibration level of 80 VdB is recommended for residential uses and buildings where people normally sleep and 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices) (FTA, 2006).

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Impact Levels (VdB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1: Buildings where vibration would interfere</td>
<td></td>
</tr>
<tr>
<td>with interior operations</td>
<td>65⁴  654</td>
</tr>
<tr>
<td>Category 2: Residences and buildings where</td>
<td>72  75  80</td>
</tr>
<tr>
<td>people normally sleep</td>
<td></td>
</tr>
<tr>
<td>Category 3: Institutional land uses with primarily</td>
<td>75  78  83</td>
</tr>
<tr>
<td>daytime uses</td>
<td></td>
</tr>
</tbody>
</table>

Source: FTA, 2006; Acronyms: VdB = Vibration level in decibel, referenced to 1 micro-inch per second.

Notes:
¹ Defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
² Defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
³ Defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
⁴ This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilation, and air conditioning systems and stiffened floors.
Local

Santa Clara County General Plan

The Santa Clara County General Plan (Santa Clara, 1994) has adopted noise compatibility guidelines for general land use planning. The level of acceptability of the noise environment is dependent upon the activity associated with the particular land use. Table 3.12-7 provides the exterior noise standard associated with various land uses. As indicated in Table 3.12-7, for residential use, exterior noise level up to 55 L_{dn} is considered “satisfactory”, 55 to 65 L_{dn} is considered “cautionary”, and above 65 L_{dn} is considered “critical.” In addition, the County’s general plan specified an interior noise limit of 45 dBA L_{dn} for residential use.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Exterior Noise Compatibility Standards (Noise Level – L_{dn} Value in Decibels)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Residential</td>
<td>Up to 55</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
</tr>
<tr>
<td>Hotel</td>
<td>Up to 55</td>
</tr>
<tr>
<td>Other</td>
<td>Up to 65</td>
</tr>
<tr>
<td>Industrial</td>
<td>Up to 70</td>
</tr>
<tr>
<td>Public or Semi-Public Facilities</td>
<td></td>
</tr>
<tr>
<td>Church, Hospital, and Nursing Home</td>
<td>Up to 60</td>
</tr>
<tr>
<td>Schools and Libraries</td>
<td>Up to 60</td>
</tr>
<tr>
<td>Civic Buildings and Other</td>
<td>Up to 60</td>
</tr>
<tr>
<td>Open Space*</td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>Up to 65</td>
</tr>
<tr>
<td>Parks, Open Space Reserves, Wildlife Refuges, etc.</td>
<td>Up to 55</td>
</tr>
</tbody>
</table>

Source: Santa Clara County, 2014.
Acronyms: dB = decibels; L_{dn} = day-night level
Notes:
* For open space use, there are no critical noise levels listed. Homes in agricultural areas are not subject to the “Residential” standards. For open space use, the maximum level of noise which a new land use may impose on neighboring open space shall be the upper limit of the “Satisfactory Noise Level.”

Effect on Humans at the following Noise Levels:
- 55 dBA – Maximum noise of undisturbed sleep – EPA.
- 55 to 65 dBA – Voice level which permits conversations at 3 meters (10 feet) – “Normal”
- 65 to 75 dBA – Voice level which permits conversations at 3 meters (10 feet) – “Raised”
- Above 75 dBA – Potentially hazardous to health – EPA.

Noise compatibility descriptions:
- Satisfactory: The ambient noise level at the site is compatible with the land use category of the proposed project and will not create annoyance and/or activity interference. Standard construction techniques will be adequate.
- Cautionary: The ambient noise level is great enough to require study on the compatibility of the proposed project. Normal building methods may not be adequate to protect the use.
- Critical: The ambient noise level is server. The situation requires rigorous analysis of the compatibility of the proposed project with the ambient noise level at the site.
Santa Clara County Municipal Code

Chapter VIII, Control of Noise and Vibration, of the Santa Clara County Municipal Code (County Noise Ordinance) establishes acceptable exterior noise standards to regulate intrusive noises (e.g., stationary mechanical equipment and vehicles other than those traveling on public streets) within specific land use zones. Applicable sections of the County Noise Ordinance are discussed below.

Sec. B11-152 of the County Noise Ordinance provides the exterior noise limits for various land uses and time periods, as provided in Table 3.12-8.

<table>
<thead>
<tr>
<th>Receiving Land Use Category</th>
<th>Time Period</th>
<th>Sound Level, dBA¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>One- and Two-Family Residential</td>
<td>10:00 p.m. – 7:00 a.m.</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>7:00 a.m. – 10:00 p.m.</td>
<td>55</td>
</tr>
<tr>
<td>Multiple-Family Dwelling</td>
<td>10:00 p.m. – 7:00 a.m.</td>
<td>50</td>
</tr>
<tr>
<td>Residential Public Space</td>
<td>7:00 a.m. – 10:00 p.m.</td>
<td>55</td>
</tr>
<tr>
<td>Commercial</td>
<td>10:00 p.m. – 7:00 a.m.</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>7:00 a.m. – 10:00 p.m.</td>
<td>65</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>Any Time</td>
<td>70</td>
</tr>
<tr>
<td>Heavy Industrial</td>
<td>Any Time</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Santa Clara County, 2016
Notes:
1. The County noise standards are based on the duration of the noise source, as described below.
   a. The noise standard is applicable to the specified land use for a cumulative period of more than 30 minutes in any hour; or
   b. The noise standard plus five dB for a cumulative period of more than 15 minutes in any hour; or
   c. The noise standard plus ten dB for a cumulative period of more than 5 minutes in any hour; or
   d. The noise standard plus 15 dB for a cumulative period of more than one minute in any hour; or
   e. The noise standard plus 20 dB or the maximum measured ambient, for any period of time.

2. If the measured ambient level exceeds that permissible within any of the first four noise limit categories above, the allowable noise exposure standard will be increased in five dB increments in each category as appropriate to encompass or reflect the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under the category will be increased to reflect the maximum ambient noise level.

With respect to construction, the County Noise Ordinance (Sec. B11-154.b.6) provides noise restrictions and limits for the construction activities during the daytime and nighttime hours. Specifically, the operation of any tools or equipment used in construction, drilling, repair, alteration demolition work is prohibited between weekdays and Saturday hours of 7:00 p.m. and 7:00 a.m. of the next day and anytime on Sundays or holidays, where the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance. The County Noise Ordinance further states, where technically and economically feasible, construction activities shall be conducted in a manner that the maximum noise levels at affected properties will not exceed those listed in Table 3.12-9.

With respect to groundborne vibration, the County Noise Ordinance (Sec. B11-154.b.7) prohibits operating or permitting the operation of any device that creates a vibrating or quivering effect that:

a. Endangers or injures the safety or health of human beings or animals; or
b. Annoys or disturbs a person of normal sensitivities; or
c. Endangers or injures personal or real properties.
Table 3.12-9: Santa Clara County Construction Noise Limits

<table>
<thead>
<tr>
<th>Equipment Type / Period</th>
<th>Maximum Noise Levels, dBA</th>
<th>Single- and Two-Family Dwelling Residential Area</th>
<th>Multi-Family Dwelling Residential Area</th>
<th>Commercial Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobile Equipment</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily, except Sundays and legal holidays 7:00 a.m. – 7:00 p.m.</td>
<td>75</td>
<td>80</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Daily, 7:00 p.m. – 7:00 a.m. and all day Sunday and legal holidays</td>
<td>50</td>
<td>55</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td><strong>Stationary Equipment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily, except Sundays and legal holidays 7:00 a.m. – 7:00 p.m.</td>
<td>60</td>
<td>65</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Daily, 7:00 p.m. – 7:00 a.m. and all day Sunday and legal holidays</td>
<td>50</td>
<td>55</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Source: Santa Clara County, 2016

Notes:

* Maximum noise levels for nonscheduled, intermittent, short-term operation (less than ten days) of mobile equipment.

** Maximum noise levels for repetitively scheduled and relatively long-term operation (periods of ten days or more) of stationary equipment.

**City of San Jose General Plan**

The *San Jose 2040 General Plan* (San Jose, 2011) established guidelines and goals for general land use planning. The level of acceptability of the noise environment is dependent upon the activity associated with the particular land use. Table 3.12-10 provides the exterior noise standard associated with various land uses. As indicated in Table 3.12-10, for residential use, exterior noise level up to 60 L_{dn} is considered “normally acceptable”, 60 to 75 L_{dn} is considered “conditionally acceptable”, and above 75 L_{dn} is considered “Unacceptable.” In addition, the City general plan Policy EC-1.1 specified an interior noise limit of 45 dBA L_{dn} for residential use.

**City of San Jose Municipal Code**

The City of San Jose Municipal Code (SJMC) provides maximum noise standards for various land uses in its Zoning Ordinance (SJMC, 2016), as provided in Table 3.12-11.

In addition, the SJMC Section 20.100.450 prohibits any construction activity on a site within 500 feet of a residential unit before 7:00 a.m. or after 7:00 p.m., Monday through Friday, or at any time on weekends, unless otherwise expressly allowed in a development permit or other planning approval.

With respect to groundborne vibration, the SJMC (Section 20.30.700) states that “*There shall be no activity on any site that causes ground vibration that is perceptible without instruments at the property of the site.*”
### Table 3.12-10: City of San Jose Land Use Compatibility for Community Noise Environments

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Normally Acceptable</th>
<th>Conditionally Acceptable</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential, Hotels and Motels, Hospitals and Residential Care¹</td>
<td>Up to 60</td>
<td>60 to 75</td>
<td>Above 75</td>
</tr>
<tr>
<td>Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds</td>
<td>Up to 65</td>
<td>65 to 80</td>
<td>Above 80</td>
</tr>
<tr>
<td>Schools, Libraries, Museums, Meeting Halls, Churches</td>
<td>Up to 60</td>
<td>60 to 75</td>
<td>Above 75</td>
</tr>
<tr>
<td>Office Buildings, Business Commercial, and Professional Offices</td>
<td>Up to 70</td>
<td>70 to 80</td>
<td>Above 80</td>
</tr>
<tr>
<td>Sports Arena, Outdoor Spectator Sports</td>
<td>Up to 70</td>
<td>70 to 80</td>
<td>Above 80</td>
</tr>
<tr>
<td>Public and Quasi-Public Auditorium, Concert Halls, Amphitheaters</td>
<td>--</td>
<td>Up to 70</td>
<td>Above 70</td>
</tr>
</tbody>
</table>

Source: City of San Jose, 2011.
Acronyms: dB = decibels; DNL = day-night level
Notes:
¹ Noise mitigation to reduce interior noise levels pursuant to Policy EC-1.1 is required.
² Noise exposure descriptions:
Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved area of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable: Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.
Unacceptable: New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

### Table 3.12-11: City of San Jose Noise Standards

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Maximum Noise Level in Decibels at Property Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any residential or non-residential use;</td>
<td></td>
</tr>
<tr>
<td>Commercial or Public/Quasi-Public, Industrial, Open Space or Agricultural use adjacent to a property used or zoned for residential purposes</td>
<td>55</td>
</tr>
<tr>
<td>Commercial or Public/Quasi-Public use adjacent to a property used or zoned for commercial or other non-residential purposes; Industrial, Open Space or Agricultural use adjacent to a property used or zoned for commercial purposes</td>
<td>60</td>
</tr>
<tr>
<td>Industrial use adjacent to a property used or zoned industrial or use other than commercial or residential purposes</td>
<td>65</td>
</tr>
<tr>
<td>Open Space or Agricultural use adjacent to a property used or zoned for industrial or use other than commercial or residential purposes</td>
<td>70</td>
</tr>
</tbody>
</table>

3.12.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts to noise and vibration. The proposed project would result in a significant impact if it would:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- For a project located within 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; and
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

Assessment Methodology

The aforementioned significance criteria were applied to determine impact significance using a quantitative approach, as described in Appendix J of this EIR. Construction noise generated by the proposed project was calculated using the noise emission levels and procedures published by the Federal Highway Administration’s (FHWA’s) Roadway Construction Noise Model (FHWA, 2006). Noise levels of specific construction equipment and the resulting noise levels at the locations of sensitive receptors were calculated. Construction noise impacts were evaluated by calculating the project-related construction noise levels at nearby sensitive receptor locations and comparing the results to the County’s noise standards for construction activities (provided in Table 3.12-9). Construction noise associated with the proposed project was analyzed using the anticipated construction equipment inventory for the estimated construction phases. The construction noise levels were then calculated for the receptor locations based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance. This is a conservative analysis, as the project site is currently undeveloped land with vegetation covering, which would provide additional sound attenuation.

Operational noise impacts from stationary sources, such as outdoor air-conditioning equipment, were evaluated by identifying the noise levels generated by outdoor stationary noise sources associated with the proposed project and comparing such noise levels to the County’s exterior noise standards. For the building outdoor mechanical equipment, a noise performance criterion is specified to meet the County’s noise standards, as detailed information is not available at this stage of the project.
The noise levels generated by existing traffic on local roadways were calculated using a noise prediction model developed based on calculation methodologies provided in the California Department of Transportation Technical Noise Supplement (TeNS) document. The roadway noise calculation procedures provided in the California Department of Transportation TeNS are consistent with FHWA RD-77-108 roadway noise prediction methodologies. This methodology allows for the definition of roadway configurations, barrier information (if any), and receiver locations, in addition to the traffic volumes. To present a simplified analysis consistent with the amount of project-related technical information currently available, the noise model assumes a “hard” site condition and no barriers between the roadway and receivers. Assuming a hard site condition is a conservative assumption that limits sound attenuation from ground condition to a maximum of 3 dBA per doubling of distance, whereas the “soft” ground condition would provide sound attenuation of 4.5 dBA per doubling of distance. Traffic noise levels along affected local roadways were calculated based on daily volumes and their distribution. The contribution of traffic noise levels along area roadways was determined by comparing the modeled noise levels under various conditions: existing, existing plus project, future background without project, future background with project, and future cumulative with project conditions, based on the traffic volumes provided in the project’s transportation impact analysis (Hexagon, 2016).

Groundborne vibration impacts were assessed quantitatively based on existing documentation (e.g., vibration levels produced by specific operations of construction equipment) and the distance of sensitive receptors from the given source. Short-term and long-term vibration sources and levels were calculated using the FTA procedures, and evaluating impacts against the established thresholds presented above in Tables 3.12-5 and 3.12-6 (FTA, 2006).

Impacts and Mitigation

Impact NO-1: The proposed project could expose persons noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less Than Significant with Mitigation)

Operational noise generated by the proposed project would result primarily from typical residential uses (e.g., outdoor air conditioning equipment and pool equipment) and off-site traffic.

Project-related noise impacts associated with on-site stationary sources were determined based on the standards set forth by the County Noise Ordinance (see Table 3.12-8).

The County does not have noise regulations as related to traffic traveling on public roadways. Therefore, the threshold to evaluate potential impacts associated with the project-related roadway traffic is based on the change in the ambient noise levels due to the project in conjunction with the County/City land use compatibility. Since the off-site roadways are located within the City of San Jose, the City’s land use compatibility is used for the significance threshold. Generally, a change in a noise level of less than 3 dBA is not perceptible in an outdoor environment; whereas, a 5 dBA increase is readily perceptible. Based on this information, significant off-site noise impacts would occur if the project-related traffic would increase the noise levels at noise-sensitive uses (i.e., residential) future conditions by 3 dBA (in L_{dn}), and the resulting noise would fall within the “unacceptable” category or an increase by 5 dBA, and the resulting noise would fall within “normally acceptable” or “conditionally acceptable”.
The project would include residential development. Therefore, significant noise impact would occur if the ambient noise levels at the project site exceed the “critical” category, pursuant to the County land use noise compatibility.

**Construction**

A significant construction noise impact could occur if the estimated construction-related noise levels at the off-site sensitive receptors (i.e., residential or school uses) exceed the County’s Noise Ordinance standards, as provided in Table 3.12-9. For mobile source equipment and short-term use of construction equipment (less than 10 days), the significance thresholds are 75 dBA for single-family residences between the hours of 7:00 a.m. and 7:00 p.m. every day, except Sundays and legal holidays. At all other times, the construction noise thresholds for these uses are 60 dBA for single-family residences.

Noise impacts from construction activities to the nearby noise-sensitive receptors would be a function of the noise generated by construction equipment, the location of the equipment, the timing and duration of the noise-generating construction activities, and the distance to noise-sensitive receptors. Construction activities for the proposed project would include development of proposed infrastructure (i.e., on-site roads, utilities, and trails) and building (residential and the community center).

Noise sources associated with project construction would include on-site (i.e., construction equipment) and off-site (i.e., vehicle trips associated with delivery and workers) construction activities. As described in the project description, the proposed project would involve grading and earthmoving activities; however, there would be no off-site export of grading materials, as the grading (cut and fill) would be balanced on site. Delivery trucks would access the project construction site via Silver Creek Valley Road, from the project site to the U.S. 101 Freeway. There are no noise-sensitive use (i.e., residential) along most of the roadway segment, with the exception of the few residential uses on the north side of Silver Creek Valley Road (between Coyote Road and the U.S. 101 Freeway). These residences are located approximately 60 feet from the roadway. Based on the maximum noise level of 76 dBA for delivery truck (see Table 3.12-12), the estimated maximum noise level at the residence along the delivery truck route would be approximately 74 dBA, which would be below the 75 dBA threshold.

Individual pieces of construction equipment that would be used for construction produce maximum noise levels of 74–90 dBA at a reference distance of 50 feet from the noise source, as provided in Table 3.12-12. The construction equipment noise levels at 50 feet distance (referenced maximum noise levels) are based on the *FHWA Roadway Construction Noise Model User’s Guide* (FHWA, 2006), which is a technical report containing actual measured noise data for construction equipment. The maximum noise levels would occur when the equipment is operating under full-power conditions.

The proposed project construction would commence with the site work, including access roads, water supply system, and utility infrastructure and recreation and trails infrastructure improvements. The residential construction would follow but could overlap some of the site work. Table 3.12-13 presents the estimated noise levels generated by on-site construction activities to the off-site noise receptor locations. As shown in Table 3.12-13, the estimated construction-period noise level would be below the County’s noise limit. In addition, construction activities would be limited to daytime hours of 7:00 a.m. to 7:00 p.m. (per Santa Clara County).
### Table 3.12-12: Noise Levels Generated by Typical Construction Equipment

<table>
<thead>
<tr>
<th>Construction Equipment</th>
<th>Acoustical Usage Factor(^1) (%)</th>
<th>Maximum Noise Levels at 50 Feet (dBA (L_{\text{max}}))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Compressor</td>
<td>40</td>
<td>78</td>
</tr>
<tr>
<td>Backhoe</td>
<td>40</td>
<td>78</td>
</tr>
<tr>
<td>Compactor</td>
<td>20</td>
<td>83</td>
</tr>
<tr>
<td>Concrete Pump</td>
<td>20</td>
<td>79</td>
</tr>
<tr>
<td>Concrete Truck</td>
<td>40</td>
<td>81</td>
</tr>
<tr>
<td>Concrete Saw</td>
<td>20</td>
<td>90</td>
</tr>
<tr>
<td>Crane</td>
<td>16</td>
<td>81</td>
</tr>
<tr>
<td>Rubber-Tired Dozer</td>
<td>40</td>
<td>82</td>
</tr>
<tr>
<td>Excavator</td>
<td>40</td>
<td>84</td>
</tr>
<tr>
<td>Forklift</td>
<td>20</td>
<td>75</td>
</tr>
<tr>
<td>Generator</td>
<td>50</td>
<td>81</td>
</tr>
<tr>
<td>Grader</td>
<td>40</td>
<td>85</td>
</tr>
<tr>
<td>Paver/Paving Equipment</td>
<td>50</td>
<td>77</td>
</tr>
<tr>
<td>Roller</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Loader</td>
<td>40</td>
<td>79</td>
</tr>
<tr>
<td>Dump/Haul/Delivery Truck</td>
<td>40</td>
<td>76</td>
</tr>
<tr>
<td>Water Truck</td>
<td>40</td>
<td>76</td>
</tr>
<tr>
<td>Welders</td>
<td>40</td>
<td>74</td>
</tr>
</tbody>
</table>


Notes:
\(^1\) The acoustical usage factor is a percentage of time that a particular piece of equipment is anticipated to be in full-power operation during a typical construction day.

### Table 3.12-13: Predicted Short-Term Construction Noise Levels – On-Site Construction

<table>
<thead>
<tr>
<th>Location(^1)</th>
<th>Distance(^2) (Feet)</th>
<th>Estimated Maximum Noise Levels by Construction Activity (dBA (L_{\text{max}}))</th>
<th>Significance Threshold(^3) (dBA (L_{\text{max}}))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Infrastructure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Site Prep</td>
<td>Grading</td>
</tr>
<tr>
<td>2</td>
<td>550</td>
<td>58</td>
<td>64</td>
</tr>
<tr>
<td>3</td>
<td>1,060</td>
<td>52</td>
<td>58</td>
</tr>
<tr>
<td>4</td>
<td>610</td>
<td>57</td>
<td>63</td>
</tr>
<tr>
<td>5</td>
<td>3,380</td>
<td>42</td>
<td>48</td>
</tr>
</tbody>
</table>

Source: Data compiled by AECOM in 2016 (Appendix J)

Notes:
\(^1\) Location 1 is situated within the project site; therefore, it is not included in the construction noise analysis.
\(^2\) Closest Distance from location to Construction Area, feet
\(^3\) County’s noise limit for mobile construction equipment at residential uses, see Table 3.12-7
In addition to the on-site construction activities, the proposed project would include off-site construction activities for the connection of the wet (i.e., domestic water line) and dry (electricity and gas lines) utilities infrastructures. The domestic water and electricity/gas lines would be connected to the project site from Tennant Avenue (just north of Hellyer Avenue). There are existing residential uses along the east side of Tennant Avenue adjacent to the off-site utility infrastructure constructions (represented by location 4). The construction of the utility infrastructure would typically involve an open-cut-trenching method, which would include cutting, excavation and installation of piping/conduit, backfill and paving. Noise levels from the utility infrastructure installation would be up to 81 dBA $L_{max}$ at 50 feet from the construction zone. Therefore, the residential uses along the off-site utility infrastructure construction would be exposed to noise level up to 81 dBA. However, the construction-related noise for these utilities would be limited to daytime hours of 7:00 a.m. to 7:00 p.m. (per City of San Jose). Nevertheless, construction activities associated with the installation of the utility infrastructures would increase the ambient noise in the vicinity of the construction area, on a temporary basis. Therefore, this impact would be significant. As such, the following mitigation measure is recommended to minimize the construction-related noise.

**Mitigation Measure NO-1: Construction Noise Measures.** The applicant shall implement the following avoidance and minimization measures during construction:

i. Construction activities within 500 feet of residential use shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday in accordance with the County and City Municipal Code.

ii. Power construction equipment shall be equipped with state-of-the-art noise shielding and muffling devices. All equipment shall be properly maintained to assure that no additional noise attributable to worn or improperly maintained parts would be generated.

iii. Stationary-source construction equipment that may have a flexible specific location on site (e.g., generators and compressors) shall be located to maintain the greatest distance from sensitive land uses, and unnecessary idling of equipment shall be prohibited.

Implementation of Mitigation Measure NO-1 would reduce the construction noise impacts to **less than significant with mitigation**.

**Operation**

**On-Site Stationary Sources**

The proposed project would include typical residential air conditioners and pool equipment and commercial air conditioning equipment for the community center. The mechanical equipment for the residential homes would typically be located at the ground level and shielded from nearby noise-sensitive land uses by the property wall, which would attenuate noise and avoid conflicts with adjacent uses. The nearest off-site residential use to the project on-site residence is approximately 550 feet away. In addition, the proposed project would include two water pump stations located along the Tennant Avenue service road and ranch road. The water pump station would be minimum 1,000 feet from the nearest residential receptor (Location 4). The proposed project mechanical equipment would be designed with appropriate noise control devices, as required to comply with County’s Noise Ordinance, as not to exceed the County exterior noise limit (see Table 3.12-8) or the measured ambient levels (see
Table 3.12-3), whichever is greater. Therefore, the noise impact from proposed project on-site stationary sources would be less than significant.

**Off-Site Roadway Traffic**

The proposed project is expected to generate approximately 68 and 88 vehicle trips during the a.m. and p.m. peak traffic hour, respectively. The increase in the traffic volumes was analyzed to determine whether any traffic-related noise impacts would result from the proposed project, based on the traffic volumes provided in the project’s transportation impact analysis (Hexagon, 2016). The project-related traffic noise impact is determined by comparing the increase in noise levels from the “future without project” to “future with project” with the proposed project’s significance threshold. Table 3.12-14 provides a summary of the off-site roadway noise analysis. As shown in Table 3.12-14, the proposed project would result in a maximum 0.1 dBA increase in traffic noise along Blossom Hills Road, west of the U.S. 101 Freeway and along Silver Creek Valley Road, west of Coyote Road. At all other analyzed roadway segments, the increase attributable to project–related traffic would be less than 0.1 dBA. The incremental changes in traffic noise levels attributable to the proposed project would be considered negligible in the existing exterior noise environment. In addition, the change would be below the 3 dBA $L_{dn}$ significance threshold. Therefore, off-site traffic noise impacts associated with the proposed project would be less than significant.

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Calculated Traffic Noise Levels$^1$ (dBA $L_{dn}$)</th>
<th>Predicted Increase in Noise Levels (dBA $L_{dn}$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Future Without Project</td>
<td>Future With Project</td>
</tr>
<tr>
<td>Blossom Hills Road</td>
<td>72.0</td>
<td>72.1</td>
</tr>
<tr>
<td>– West of U.S. 101 Freeway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver Creek Valley Road</td>
<td>71.4</td>
<td>71.5</td>
</tr>
<tr>
<td>– West of Coyote Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Between Coyote Road and Hellyer Avenue</td>
<td>70.3</td>
<td>70.3</td>
</tr>
<tr>
<td>– Between Hellyer Ave and Hawkstone Way</td>
<td>67.8</td>
<td>67.8</td>
</tr>
<tr>
<td>– East of Hawkstone Way</td>
<td>70.3</td>
<td>70.3</td>
</tr>
<tr>
<td>Coyote Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– North of Silver Creek Valley Road</td>
<td>64.1</td>
<td>64.1</td>
</tr>
<tr>
<td>Hellyer Avenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– North of Silver Creek Valley Road</td>
<td>64.9</td>
<td>64.9</td>
</tr>
<tr>
<td>– South of Silver Creek Valley Road</td>
<td>66.7</td>
<td>66.7</td>
</tr>
<tr>
<td>Hawkstone Avenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– North of Silver Creek Valley Road</td>
<td>54.7</td>
<td>54.7</td>
</tr>
</tbody>
</table>

Source: Data modeled by AECOM in 2016 (Appendix J)

Acronyms: dBA = A-weighted decibels; $L_{dn}$ = day-night level

Notes:

$^1$ Predicted traffic noise levels do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.
In the event that all 79 proposed lots would be developed with secondary units, the impacts of the proposed project related to operational noise would still be considered less than significant. Under this scenario, the peak hour traffic would increase to approximately 94 and 120 vehicle trips during the a.m. and p.m. peak traffic hour, respectively. The increase in the traffic volume associated with additional secondary units would result in an increase in noise; however, this noise increase would be minimal (i.e., less than 0.1 dBA).

**Land Use Noise Compatibility**

The proposed project would include primarily single-family residential and a community center. The exterior ambient noise level at the proposed project site was measured at 52.9 dBA L_{dn}, which is considered “satisfactory” pursuant to the County’s land use noise compatibility category. Per the County’s general plan, standard construction techniques would be adequate to provide the required sound insulation from exterior noise sources. Therefore, noise impacts associated with the land use compatibility would be less than significant.

**Impact NO-2: The proposed project could expose persons to excessive groundborne vibration or groundborne noise levels. (Less Than Significant)**

Vibration levels generated by project-related construction activities and operational sources at the affected receptors exceed the FTA standards as provided in Table 3.12-5 (potential building damage) and Table 3.12-6 (potential human annoyance).

**Construction**

Construction activities can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. FTA has published standard vibration velocities for construction equipment operations. The vibration levels generated by typical construction equipment anticipated to be used during project construction are listed in Table 3.12-15, in terms of PPV and VdB. The groundborne vibration levels would be well below the most stringent building damage threshold of 0.12 PPV (Table 3.12-10).

With respect to the potential vibration impact on nearby residential uses, the nearest off-site residential use is located approximately 590 feet north of the project on-site construction activities (receptor R1). As indicated in Table 3.12-15, the estimated groundborne vibration at the nearest residential use to the project on-site construction activities would be a maximum of 46 VdB, which would be well below the 80 VdB threshold. The off-site utility construction would be approximately 50 feet to the residential use along Gravina Loop (receptor R4). As indicated in Table 3.12-15, the groundborne vibration levels at 50 feet from heavy equipment (i.e., large bulldozer and loaded trucks) would be approximately 78 VdB, which would also be below the 80 VdB significance threshold. Therefore, construction-related vibration impacts would be less than significant.

**Operational**

The proposed project would include typical residential and commercial-grade air condition and pool equipment, which would produce limited vibration. However, groundborne vibration generated by such equipment would be

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1 Traffic volumes under this scenario were calculated using the trip generation rates for primary and secondary dwelling units from the project’s transportation impact analysis (Hexagon, 2016), multiplied by the revised number of primary and secondary units that could potentially be constructed (79 primary units and 79 secondary units).
limited to areas near the equipment, and would not expect to exceed the 80 VdB vibration significance threshold at any off-site receptor locations. Therefore, vibration impacts associated with proposed project operation would be less than significant.

### Table 3.12-15: Vibration Levels Generated by Typical Construction Equipment

<table>
<thead>
<tr>
<th>Construction Equipment</th>
<th>FTA Vibration Levels 25 Feet¹</th>
<th>Estimated Vibration Levels at off-site sensitive receptors² (VdB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PPV (in/sec)</td>
<td>VdB</td>
</tr>
<tr>
<td>Large Bulldozer</td>
<td>0.089</td>
<td>87</td>
</tr>
<tr>
<td>Loaded Trucks</td>
<td>0.076</td>
<td>86</td>
</tr>
<tr>
<td>Jackhammer</td>
<td>0.035</td>
<td>79</td>
</tr>
<tr>
<td>Small Bulldozer</td>
<td>0.003</td>
<td>58</td>
</tr>
</tbody>
</table>

Sources: FHWA, 2006; data compiled by AECOM in 2016 (Appendix J)

Acronyms: in/sec = inches per second; PPV = peak particle velocity; VdB = vibration decibels

Notes:

¹ FTA reference vibration levels at 25 feet distance.
² Calculated vibration levels using FTA procedures.
³ 50 Feet from nearest construction area
⁴ 590 Feet from nearest construction area

**Impact NO-3: The proposed project could result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (Less Than Significant)**

**Construction**

Impact NO-3 is by its nature concerned with permanent operational impacts. There would be no impact from construction.

**Operation**

With respect to Threshold NO-3, the term “substantial” is not defined (qualitatively) in CEQA. For purposes of this analysis, a “substantial” noise increase is defined as an increase of 5 dBA over the existing ambient noise level. The 5 dBA threshold represents the minimum change in noise that is considered clearly noticeable.

The existing noise environment in the vicinity of the proposed project site is dominated by traffic noise from nearby roadways, as well as nearby commercial, industrial, and residential activities. Long-term operation under the proposed project would not have a significant effect on the community noise environment in the vicinity of the proposed project site. Noise sources that would have potential noise impacts include on-site stationary sources i.e., outdoor mounted mechanical (i.e., air conditioning and pool equipment) equipment and off-site automobile traffic. The noise levels associated with on-site operations (e.g., parking and mechanical equipment), as discussed in Impact NO-1 above, would be designed to meet the exterior noise limit provided by the County’s Noise Ordinance, as not to exceed the ambient. Table 3.12-16 presents the off-site traffic noise impacts as compared to the existing conditions. As indicated in Table 3.12-16, the proposed project would result in a maximum of 0.2 dBA increase in off-site traffic noise along Silver Creek Valley Road, between Coyote Road and Hellyer.
The estimated noise increase is considered negligible and less than significant. Therefore, noise impact under Threshold NO-3 would be **less than significant**.

### Table 3.12-16: Roadway Traffic Noise Impacts – Existing Conditions

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Calculated Traffic Noise Levels¹ (dBA L&lt;sub&gt;dn&lt;/sub&gt;)</th>
<th>Predicted Increase in Noise Levels (dBA L&lt;sub&gt;dn&lt;/sub&gt;)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing Without Project</td>
<td>Existing With Project</td>
</tr>
<tr>
<td>Blossom Hills Road – West of U.S. 101 Freeway</td>
<td>70.2</td>
<td>70.2</td>
</tr>
<tr>
<td>Silver Creek Valley Road – West of Coyote Road</td>
<td>68.3</td>
<td>68.4</td>
</tr>
<tr>
<td>– Between Coyote Road and Hellyer Avenue</td>
<td>65.8</td>
<td>66.0</td>
</tr>
<tr>
<td>– Between Hellyer Ave and Hawkstone Way</td>
<td>65.3</td>
<td>65.4</td>
</tr>
<tr>
<td>– East of Hawkstone Way</td>
<td>67.9</td>
<td>67.9</td>
</tr>
<tr>
<td>Coyote Road – North of Silver Creed Valley Road</td>
<td>63.5</td>
<td>63.5</td>
</tr>
<tr>
<td>Hellyer Avenue – North of Silver Creek Valley Road</td>
<td>60.4</td>
<td>60.4</td>
</tr>
<tr>
<td>– South of Silver Creek Valley Road</td>
<td>63.2</td>
<td>63.2</td>
</tr>
<tr>
<td>Hawkstone Avenue – North of Silver Creek Valley Road</td>
<td>54.7</td>
<td>54.7</td>
</tr>
</tbody>
</table>

Source: Data modeled by AECOM in 2016

Acronyms: dBA = A-weighted decibels; L<sub>dn</sub> = day-night level

Notes:

¹ Predicted traffic noise levels do not account for shielding from existing noise barriers or intervening structures.

**Impact NO-4: The proposed project could result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (Less Than Significant with Mitigation)**

**Construction**

Construction activities associated with the proposed project would generate noise on a temporary basis and would increase the existing ambient noise in the immediate vicinity of the plan area, including the existing residential uses located north and south of the proposed project site, and the existing residential use located near the off-site utility construction. Construction-related noise impacts are presented in the discussion of Impact NO-1 above. As described therein, noise generated by on-site construction activities would temporarily increase the existing ambient noise close to the project construction areas (i.e., off-site utility infrastructures installation). However, construction activities would be required to comply with the County and City allowable construction hours, which limit construction activities to the daytime hours, between 7:00 a.m. and 7:00 p.m., avoiding the typical sleeping hours for residents. Nevertheless, construction activities associated with the proposed project would increase the ambient noise in the vicinity of the plan area, on a temporary basis. Therefore, this impact would be potentially significant. Mitigation Measure NO-1, as described in Impact NO-1, is recommended to minimize the construction-related noise. Implementation of Mitigation Measure NO-1 would reduce the impact to **less than significant with mitigation**.
**Operation**

Impact NO-3 is by its nature concerned with temporary construction impacts. There would be *no impact* from operation of the proposed project.

**Impact NO-5: The proposed project could expose people residing or working in the project area to excessive airport-related noise levels. *(No Impact)*

**Construction and Operation**

The proposed project site is not located within 2 miles of a public airport or public use airport. The nearest public airport to the proposed project site is the San Jose International Airport, which is located approximately 9.2 miles to the northwest. Furthermore, the proposed project site is not located in the vicinity of a private airstrip. Therefore, the proposed project would not expose people to excessive noise levels associated with airport-related operation during construction or operation. As such, *no impact* would occur with respect to exposure of people to airport-related noise.

**3.12.4 Cumulative Impacts**

**Impact-C-NOI: The proposed project could have a cumulatively considerable impact related to noise and vibration. *(Less Than Significant)*

The geographic context for the analysis of cumulative noise impacts varies based on the type of noise impact being analyzed. For construction and stationary-source noise impacts, only the area around in the vicinity of the proposed project site would have potential to contribute to the cumulative impacts, as noise impacts are typically localized. For example, construction noise dissipates/attenuates quickly as the distance between the construction site and the receptor increases, as well as noise reduction provided by intervening structures. As a result, only those projects within 1,000 feet of the proposed project are considered for the analysis of cumulative construction noise impacts.

The geographic context for the analysis of cumulative operational mobile-source (i.e., roadway) noise impacts is defined as the immediate area surrounding the roadways that would be affected by implementation of the proposed project, as well as cumulative development. The potential cumulative operational impacts related to roadway noise were analyzed based on the traffic condition at the year 2021 (expected completion of the proposed project), which includes both regional growth and the approved developments.

**Noise**

**Construction**

The cumulative projects within the vicinity of the proposed project site, including: 1) The Silver Creek Plaza, a 8,413 square foot retail/commercial development located at 5601-5667 Silver Creek Valley Road, approximately 5,100 feet north of the proposed project site; 2) The Great Oaks Mixed-Use Addendum, a 386,000 square feet data center, located southwest side of Great Oaks Boulevard and approximately 1,000 feet northwesterly of Highway 85, approximately 6,500 southwest of the project site; and 3) The Google Fiber Project, a fiber-to-the-
To provide communication services (internet and video service) throughout the City of San Jose.

The Silver Creek Plaza and the Great Oaks Mixed-Use projects are located approximately 5,100 feet and 6,500 feet from the proposed project site. Therefore, potential construction noise from the proposed project would not be considered cumulatively considerable in combination with these cumulative projects due to the distance between the construction equipment to the affected noise sensitive receptors. The Google Fiber project construction includes installation of aggregators that connect to main line fiber-optic infrastructure. The fiber cables would be installed within existing utility corridors. Construction associated with the Google Fiber project would be short-duration—no more than five business days (San Jose, 2015). In addition, construction of the Google Fiber project would be minimum 1,000 feet from the proposed project construction area, which would not result in cumulative construction noise impacts. Therefore, cumulative construction noise impacts would be less than significant.

**Operation**

As described above, the cumulative projects are located at a substantial distance, greater than 1,000 feet, from the proposed project site. Noise levels would be less than significant at the property line for each related project due to the County’s and City’s provisions for projects located within their respective boundaries; that limit on-site stationary-source noise such as outdoor air-conditioning equipment. Thus, like the proposed project, noise impacts from on-site stationary-source associated with related projects would be less than significant, and therefore; the cumulative stationary-sources noise impacts would be less than significant. Therefore, cumulative impacts related to on-site stationary-source noise would be less than significant.

With respect to off-site operational mobile-source noise, the cumulative projects could contribute additional vehicle trips to the local roadway network in the vicinity of the proposed project site. To examine the potential cumulative effects of traffic increases in the vicinity of the proposed project site, the traffic noise levels associated with the cumulative conditions were calculated and compared to the existing conditions. The traffic for the cumulative conditions includes traffic volumes from existing conditions plus future ambient growth, cumulative projects, and the proposed project. Table 3.12-17 presents the off-site traffic cumulative noise impacts as compared to the existing conditions. As indicated in Table 3.12-17, the cumulative traffic would result in a maximum of 4.6 dBA increase in off-site traffic noise along Silver Creek Valley Road (between Coyote Road and Hellyer Avenue) and along Hellyer Avenue (north of Silver Creek Valley Road). The estimated noise increase is below the 5 dBA significant threshold. Therefore, cumulative operational noise impacts would be less than significant.

**Vibration**

**Construction**

As described above, the cumulative projects are located at a substantial distance, greater than 1,000 feet, from the proposed project site. Potential vibration impacts due to construction activities are generally limited to buildings/structures located in close proximity to the construction site. Due to the rapid attenuation of ground-borne vibration and the distance to the nearest noise sensitive receptors, cumulative construction impacts with respect to ground-borne vibration would be less than significant.
Table 3.12-17: Roadway Traffic Noise Impacts – Cumulative

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Calculated Traffic Noise Levels¹</th>
<th>Increase in Noise Levels due to the Proposed Project (dBA L₉₀)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing (dBA L₉₀)</td>
<td>Future Cumulative With Project (dBA L₉₀)</td>
</tr>
<tr>
<td>Blossom Hills Road</td>
<td>70.2</td>
<td>72.3</td>
</tr>
<tr>
<td>— West of U.S. 101 Freeway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver Creek Valley Road</td>
<td>68.3</td>
<td>71.7</td>
</tr>
<tr>
<td>— West of Coyote Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Between Coyote Road and Hellyer Avenue</td>
<td>65.8</td>
<td>70.4</td>
</tr>
<tr>
<td>— Between Hellyer Avenue and Hawkstone Way</td>
<td>65.3</td>
<td>68.0</td>
</tr>
<tr>
<td>— East of Hawkstone Way</td>
<td>67.9</td>
<td>70.5</td>
</tr>
<tr>
<td>Coyote Road</td>
<td>63.5</td>
<td>64.4</td>
</tr>
<tr>
<td>— North of Silver Creek Valley Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hellyer Avenue</td>
<td>60.4</td>
<td>65.0</td>
</tr>
<tr>
<td>— South of Silver Creek Valley Road</td>
<td>63.2</td>
<td>66.8</td>
</tr>
<tr>
<td>Hawkstone Avenue</td>
<td>54.7</td>
<td>55.0</td>
</tr>
<tr>
<td>— North of Silver Creek Valley Road</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data modeled by AECOM in 2016
Acronyms: dBA = A-weighted decibels; L₉₀ = day-night level
Notes:
¹ Predicted traffic noise levels do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

**Operation**

As described above, the proposed project would include typical residential and commercial-grade air condition and pool equipment, which would produce limited vibration. Therefore, operational cumulative vibration impacts related to on-site stationary-source noise would be *less than significant*.

**3.12.5 References**


City of San Jose (City), 2016. Envision San Jose 2040 General Plan. Adopted in November 2011.


3.13 POPULATION AND HOUSING

This section describes the existing physical and regulatory setting related to population and housing and addresses the potential impacts of the proposed project related to these topics.

The following comments relating to population and housing were received during the public scoping period in response to the Notice of Preparation:

- Concern with the impacts from the project to growth; and
- Concern that the project would displace existing ranches located on the project site.

3.13.1 Existing Conditions

Population

Santa Clara County

Santa Clara County is the sixth most populous county in the State of California, with a current population of approximately 1,927,888 million people (CDOF, 2016). The County’s population has increased seven percent from 2010, when the population was 1,682,585 (USCB, 2016b). However, the population of the unincorporated County has decreased during 2000 to 2010\(^1\) from 100,300 to 89,960 people (SCC, 2014).

City of San Jose

In the year 2016, the City of San Jose had a population of approximately 1,042,094 residents, representing 54 percent of the total population in the County (CDOF, 2016). The current population of San Jose represents a 14 percent increase since the year 2000, when the population in the City was 894,943 people (USCB, 2016a).

Project Site

There is no permanent population currently on the project site. The project site is ranched with cattle, but there are no residents.

Housing

Santa Clara County

According to the 2015–2022 County of Santa Clara Housing Element Update, Santa Clara County had approximately 625,325 housing units in 2010 (most recent year of data). 402,325 of these household units were single family, 204,982 were multi-family, and 18,582 were mobile homes (SCC, 2014). In 2010, the average household size for the County was 2.9 (USCB, 2016c). According to the Association of Bay Area Governments (ABAG) Projections 2013, the County will have approximately 818,400 total households by 2040 (ABAG,

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\(^1\) 2010 is the year of most recent available data.
Within the unincorporated portion of the County, approximately 28,570 total units were projected for 2015, increasing to approximately 31,070 housing units by 2040 (ABAG, 2013a).

**City of San Jose**

The City of San Jose has experienced household growth since the 1960s. The total housing stock in the City increased from 68,890 units in 1960 to 301,366 in 2010 (City, 2011). While the City includes a range of housing types and densities to serve its diverse population, the majority of its housing stock is single-family detached units, approximately 54.6 percent (City, 2011). The average household size was 3.09 for the City in 2010 (USCB, 2016d). ABAG Projections 2013 estimates the City will have approximately 378,870 households by 2030 and approximately 446,380 households by 2040 (ABAG, 2013d).

**Project Site**

There are no residential housing units currently on the project site.

**Population Growth**

The total population in the City of San Jose and Santa Clara County has increased dramatically during the last fifty years, especially during the 1950s, 1960s, and 1970s. This was due to an aggressive annexation program that allowed the City of San Jose’s physical land area to increase from 14 square miles in 1950 to 170 square miles by 1970, coupled with the region’s growing economy. Although the rate of growth has slowed since the 1970s, the City is still experiencing substantial growth (City, 2011). Despite the overall growth of the region, the unincorporated County population has decreased by 37 percent from 1970 to 2010 (SCC, 2014). This change is a result of annexations by the City.

ABAG’s Projections 2013 predict that the population in both Santa Clara County and the City of San Jose will continue to grow. According to ABAG, population in Santa Clara County is expected to increase to approximately 1,977,900 people by 2020, approximately 2,080,600 people by 2035, and approximately 2,423,500 people by 2040 (ABAG, 2013a). This represents a 2 and 20 percent increase by 2020 and 2040, from existing population counts, respectively. Within the unincorporated portion of Santa Clara County, the population is expected to increase to approximately 93,500 people by 2020, and approximately 103,000 people by 2040 (ABAG, 2013a). This represents a 2 and 11 percent increase by 2020 and 2040, from the 2010 population, respectively. For the City of San Jose, the population is expected to increase to approximately 1,064,900 people by 2020 and approximately 1,334,100 people by 2040 (ABAG, 2013b). This represents a 15 and 49 percent increase by 2020 and 2040, from existing population counts, respectively.

**3.13.2 Regulatory Framework**

**Federal**

There are no federal laws or regulations pertaining to population and housing applicable to the proposed project.
State

There are no State laws or regulations pertaining to population and housing applicable to the proposed project.

Local

**County of Santa Clara General Plan 1994–2010**

The following Countywide policies from the County of Santa Clara General Plan Book A are applicable to the proposed project:

C-GD 40 Improved balance between employment and housing opportunities should include the need for:
   a) increased overall supply and more varied types of housing;
   b) housing costs commensurate with household income distribution; and
   c) increased proximity of housing to employment centers.

For a detailed discussion of pertinent land use policies correlated to population growth, see Section 3.10 “Land Use and Planning.”

**County of Santa Clara Housing Element Update 2015–2022**


The County’s existing jobs-to-housing imbalance is noted in the Housing Element Update as a continued imbalance. The jobs/housing ratio for the County as of January 1, 2011 was 1.3. The County attributes this imbalance to the number of jobs created by Silicon Valley (Santa Clara County, 2014).

The County of Santa Clara General Plan and Housing Element 2015 policies relevant to population and housing of the proposed project are listed below.

HG 2 Housing at urban densities shall be built within the cities and their urban service areas, not in rural areas outside urban service areas.

HG 4 The County and the cities should work cooperatively to ensure that there is a balanced housing supply sufficient to achieve countywide economic, social, and environmental objectives. Further opportunities for inter-agency, intergovernmental, interregional, and public/private cooperation should be sought out and encouraged.

HG 5 Intergovernmental and public and private cooperation shall be encouraged to achieve an adequate supply of affordable housing that meets changing demographic needs in Santa Clara County.

HG 8 The County should continually review its land use and development procedures for opportunities to remove unnecessary constraints to, and provide new opportunities to fund, the construction of affordable housing.

HG 9 Review and reduce, where appropriate, regulations regarding the development of Second Units.
An adequate supply of affordable housing suitable for individuals at all stages of life should be available in every community.

**Association of Bay Area Governments Regional Housing Need Plan for the San Francisco Bay Area: 2014–2020**

To meet current and projected housing needs in Santa Clara County, the ABAG releases regional housing needs. According to the ABAG *Regional Housing Determination Report*, Santa Clara County needs 58,836 “very low,” “low,” “moderate,” and “above moderate” housing units for the 2014–2022 planning period (ABAG, 2013c). ABAG projects a need for 277 total homes within unincorporated County lands during the 2014–2022 planning period (SCC, 2014). Of these units, 22 are for “very low,” income, 13 for “low,” 214 for “moderate,” and 28 for “above average.” “Very low” housing units are defined as households with income less than 30 percent of the area median income (AMI).2 A “low” housing unit is defined as a household with income less than 80 percent of the AMI. A “moderate” household unit is as a household with incomes less than 120 percent of the AMI, and an “above average,” household unit as a household with income over 120 percent of the AMI (SCC, 2014).

**3.13.3 Environmental Impacts**

**Significance Standards**

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts to population and housing. The proposed project would result in a significant impact if it would:

- Induce substantial growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure); or
- Displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere.

**Assessment Methodology**

The aforementioned significance criteria were applied to determine impact significance using a quantitative approach. The following evaluation discusses whether the proposed project would result in direct impacts on population and housing, such as: population growth and existing housing supply of Santa Clara County. The following evaluation also discusses whether the proposed project would result in indirect impacts on population and housing, such as: off-site roadway and infrastructure improvements.

The following evaluation of impacts is based on review of published population and housing data, including information from the US Census Bureau, California Department of Finance, ABAG, Santa Clara County, and the City of San Jose.

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2 For 2013, the year the Santa Clara County Housing Element was published, the AMI for County was $105,500 for a family of four.
Impacts and Mitigation

Impact PH-1: The proposed project could induce a substantial direct or indirect population growth. *(Less Than Significant)*

**Direct Impacts**

The proposed project would involve the construction of 79 new single-family residences and 16 secondary units, which would add to the housing supply in the County. The new homes could be purchased by existing County residents or new residents relocating to the area. Using the County’s average household size of 2.9 persons per residence for primary dwellings (USCB, 2016c) and an average household size of 2 persons per unit for secondary units, the proposed project would create a population increase of approximately 261 people\(^3\).

Project build-out would depend on market conditions but would be expected to occur sometime between 2027 and 2032 (see Section 2.0 “Project Description”). According to ABAG, population in Santa Clara County is expected to increase by approximately 152,712 people by 2035. The population of unincorporated Santa Clara County is expected to increase by approximately 8,500 people by 2035 (ABAG, 2013a). If all the homes were purchased by residents new to Santa Clara County, the growth associated with the proposed project would represent less than 0.2 percent of the 2035 ABAG projections for the County as a whole and approximately 3 percent for the unincorporated portion of the County.

ABAG projects a need for 277 total homes within unincorporated Santa Clara County during the 2014–2022 planning period. Of these units, 22 housing units are designated for “very low,” income, 13 for “low,” 214 for “moderate,” and 28 for “above average.” Except for the four secondary units being dedicated for “low income,” the remaining primary housing units would be considered “above average” and the remaining 12 secondary units would be considered “moderate”. The proposed project is not factored into the Santa Clara County Housing Element Update 2015–2022. However, the County notes that it has capacity to accommodate 1,555 “above moderate” housing units for the 2014–2022 planning period and beyond (SCC, 2014). ABAG projects that the County would have an additional 2,500 housing units by 2040 (ABAG, 2013a). Project-buildout would fulfill approximately 4 percent of this projected increase.

In conclusion, the addition of 95 household units (79 single-family dwellings and 16 secondary units) associated with the proposed project to the unincorporated County’s 2015 estimated supply of 28,570 units would account for approximately 4 percent of the projected increase in new housing units for the County by 2040 (ABAG, 2013a). The anticipated population increase from the proposed project would represent approximately 3 percent of the projected increase in the County’s unincorporated population by 2035. This would result in a less-than-significant direct impact from the proposed project to population growth.

In the event that all 79 proposed lots would be developed with secondary units, the impacts of the proposed project on population growth would still be considered less than significant. Such buildout would result in the addition of 158 household units (79 single-family dwellings and 79 secondary units), and a total population

\(^3\) Seventy nine single-family homes x 2.9 people per residence (USCB, 2016c) would generate approximately 229 residents. Sixteen secondary units x 2 people per unit would generate approximately 32 new residents. Therefore, a total of approximately 261 new residents would be generated.
increase of 387 people. This would account for approximately 6.3 percent of the projected increase in new housing units for the County by 2040 (ABAG, 2013a) and approximately 4.5 percent of the projected increase in the County’s unincorporated population by 2035.

**Indirect Impacts**

The proposed project would also include limited roadway improvements, to Silver Creek Valley Road (see Section 2.3.3 “Circulation”). Section 3.17 “Utilities” provides a full discussion of the project’s impact related to utilities. Aside from some off-site road improvements to Silver Creek Valley Road, all roadway and utility improvements would be limited to the project site and would not indirectly induce growth by providing infrastructure that could serve additional growth. Thus, the proposed project would result in a less than significant indirect impact related to population growth.

**Impact PH-2: The proposed project would not displace existing housing or people, necessitating the construction of replacement housing. (No Impact)**

**Direct and Indirect Impacts**

The project site consists of an undeveloped former ranch property. There are no existing residences or housing units on the project site. Therefore, the project would have no impact related to displacement of housing and people and the need to construct replacement housing.

**3.13.4 Cumulative Impacts**

**Impact-C-PH: The project could induce substantial cumulative population growth. (Less Than Significant)**

Population growth, by itself, is not considered a significant cumulative effect, because it is not an environmental impact. However, the direct and indirect impacts, such as construction and operation of housing and infrastructure that are related to population growth, can result in physical environmental impacts.

At a regional level, the population of all of the Bay Area is anticipated to increase to approximately 9,299,100 by 2040 from 7,461,400 in 2015 (ABAG, 2013f). Santa Clara County (incorporated and unincorporated) is expected to grow by approximately 545,800 people during the same time period, to reach approximately 2,080,600 people by 2035 (project buildout) (ABAG, 2013a), and approximately 2,423,500 people by 2040 (ABAG, 2013g). Furthermore, the number of housing units in the County is anticipated to increase to approximately 3,309,090 housing units in 2040 from 2,720,410 housing units in 2015 (ABAG, 2013h).

Counties and their incorporated cities within the Bay Area implement general plans, along with other specific plans that are outside the development assumptions from local general plans, that could potentially plan for substantially greater population and employment growth compared to regional forecasts and planning efforts. Increased population and employment in the region could generate the need for additional housing and

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4 Seventy-nine single-family homes x 2.9 people per residence (USCB, 2016c) would generate approximately 229 residents. Seventy-nine secondary units x 2 people per unit would generate approximately 158 new residents. Therefore, a total of approximately 387 new residents could be generated if all 79 lots were developed with secondary units.
infrastructure, which could lead to conversion of undeveloped land and associated adverse physical environmental impacts that are considered in the topic-specific sections of this EIR (Sections 3.1 through 3.17). This would be considered a significant cumulative impact related to inducement of substantial population growth. However, the population growth associated with proposed project (261 people or approximately 0.05 percent of the County’s projected population growth by 2035 [ABAG, 2013a]), when considered with the indirect effects from past, present, and future development under the cumulative plans, would not constitute a cumulatively considerable contribution to this significant cumulative impact. Thus, the proposed project’s cumulative impact would be less than significant.

In the event that all 79 proposed lots would be developed with secondary units, the cumulative impacts would still be considered less than significant, as it would represent approximately 0.07 percent of the County’s projected population growth by 2035.

3.13.5 References


3.14 PUBLIC SERVICES

This section describes the existing physical and regulatory setting related to public services and addresses the potential impacts of the proposed project related to such fire protection, law enforcement, and school services. Note that park-related public services are addressed in Section 3.15, Recreation.

The following comments related to public services were received during the public scoping period in response to the Notice of Preparation:

- Concerned about impacts from project to police and fire;
- Concerned with impacts to City services; and
- Concerned with impacts to schools.

3.14.1 Existing Conditions

Fire Protection Services

Santa Clara County

Santa Clara County Fire Department (SCCFD) provides services to communities of Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Monte Sereno, Saratoga and unincorporated areas within the County. The SCCFD is comprised of 15 fire stations, an administrative headquarters, a maintenance facility, five other support facilities, 19 pieces of apparatus and 3 command vehicles, covering 128.3 square miles and a population of over 226,700 (SCCFD, 2016).

The department employs over 288 fire prevention, suppression, investigation, administration, and maintenance personnel; daily emergency response consists of 66 employees (SCCFD, 2016). In 2012, the Fire Department responded to a total of 19,458 emergency calls, 1,827 or 9 percent of which were fires.

SCCFD requires a certain amount of on-site water to be provided based on the building size, as shown in Table 3.14-1 below.

<table>
<thead>
<tr>
<th>Building Size</th>
<th>Volume of Fire Protection Water Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 10,000 sq. ft.</td>
<td>10,000 Gallons</td>
</tr>
<tr>
<td>10,001 sq. ft. – 15,000 sq. ft.</td>
<td>30,000 Gallons</td>
</tr>
<tr>
<td>Over 15,000 sq. ft.</td>
<td>45,000 Gallons</td>
</tr>
</tbody>
</table>

Source: SCCFD, 2011
**Project Site**

The nearest SCCFD station to the project site is Station 11; Battalion 83 at 123 Union Avenue, Campbell, which is approximately 13.5 miles driving distance. Engine 81 is the first line apparatus out of the Campbell Station.

The project site is also located within a designated State Responsibility Area for which California Department of Forestry and Fire Protection (CAL FIRE) is primarily responsible for addressing wildfires. CAL FIRE is the State’s agency that provides varied emergency services to over 31 million acres to California’s privately owned wildlands, responding to wild fires, rescue missions, civil disturbances, hazards material spills, floods, earthquakes and more (CAL FIRE, 2012). The Department's firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year, which burn more than 172,000 acres annually (CAL FIRE, 2012).

The Santa Clara division of CAL FIRE would serve the project site. The closest CAL FIRE station is at 20255 McKean Road, San Jose, approximately 13 miles driving distance from the project site.

**Law Enforcement Services**

**Santa Clara County**

The Santa Clara County Office of the Sheriff (SCCOS) provides public safety and law enforcement services to Cupertino, Los Altos Hills, Saratoga, and unincorporated areas of the County, including the Project Site. The Sheriff’s office is comprised of 1,302 sworn law enforcement officers. In addition to the badged staff, the Sheriff’s Office has 65 reserve deputy sheriffs, and to support the entire operation, the Department employs 426 non-sworn, civilian staff (SCCOS, 2016).

There are several specialized units and teams within SCCOS, including Community Relations, Canine Unit, Search & Rescue, Dive Team, Traffic/Motorcycles, Off-Road Enforcement Team, Hostage Negotiation Team, Sheriff’s Emergency Response Team (SERT), Crowd Control Unit, Intelligence/Vice and Bomb Squad (SCCOS, 2016). The California Highway Patrol (CHP) provides law enforcement along all State routes within California, including U.S. Interstate 101 and 85, which are in the vicinity of the project site. As requested, CHP also assists with local government emergencies.

**Project Site**

The Headquarters patrol provides 24 hour uniformed service for all Central, East and South unincorporated areas of Santa Clara County, including the project area. The Sheriff headquarters is located at 55 West Younger Avenue in San Jose approximately 12 miles from the project area.

**School Services**

**Santa Clara County**

Santa Clara County is served by 31 public school districts, as listed below in Table 3.14-2.
Table 3.14-2: School Districts

<table>
<thead>
<tr>
<th>City</th>
<th>School District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cupertino</td>
<td>Cupertino Union School District</td>
</tr>
<tr>
<td>Gilroy</td>
<td>Gilroy Unified School District</td>
</tr>
<tr>
<td>Los Altos</td>
<td>Los Altos School District</td>
</tr>
<tr>
<td>Los Gatos</td>
<td>Lakeside Joint School District</td>
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<tr>
<td></td>
<td>Loma Prieta Joint Union School District</td>
</tr>
<tr>
<td></td>
<td>Los Gatos Union School District</td>
</tr>
<tr>
<td></td>
<td>Los Gatos-Saratoga Joint Union H.S. District</td>
</tr>
<tr>
<td>Milpitas</td>
<td>Milpitas Unified School District</td>
</tr>
<tr>
<td>Morgan Hill</td>
<td>Morgan Hill Unified School District</td>
</tr>
<tr>
<td>Mountain View</td>
<td>Mountain View Whisman School District</td>
</tr>
<tr>
<td></td>
<td>Mountain View-Los Altos Union HS District</td>
</tr>
<tr>
<td>Palo Alto</td>
<td>Palo Alto Unified School District</td>
</tr>
<tr>
<td></td>
<td>Alum Rock Union School District</td>
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<tr>
<td></td>
<td>Berryessa Union School District</td>
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<tr>
<td></td>
<td>Cambrian School District</td>
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<tr>
<td></td>
<td>Campbell Union High School District</td>
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<tr>
<td></td>
<td>East Side Union High School District</td>
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<tr>
<td></td>
<td>Evergreen School District</td>
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<tr>
<td></td>
<td>Franklin-McKinley School District</td>
</tr>
<tr>
<td>San Jose</td>
<td>Luther Burbank School District</td>
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<tr>
<td></td>
<td>Metropolitan Education District</td>
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<tr>
<td></td>
<td>Moreland School District</td>
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<tr>
<td></td>
<td>Mount Pleasant School District</td>
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<tr>
<td></td>
<td>Oak Grove School District</td>
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<tr>
<td></td>
<td>Orchard School District</td>
</tr>
<tr>
<td></td>
<td>San Jose Unified School District</td>
</tr>
<tr>
<td></td>
<td>Union Elementary School District</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>Santa Clara Unified School District</td>
</tr>
<tr>
<td>Saratoga</td>
<td>Saratoga Union School District</td>
</tr>
<tr>
<td>Sunnyvale</td>
<td>Fremont Union High School District</td>
</tr>
<tr>
<td></td>
<td>Sunnyvale School District</td>
</tr>
</tbody>
</table>

Source: Santa Clara County Office of Education, 2016

Project Site

The project site lies within the boundaries of Oak Grove Elementary School District and East Side Union High School District according to the District’s boundary maps. Oak Grove Elementary School District is comprised of 16 elementary schools and 3 intermediate schools, serving 10,628 students from grades K through 8 (Oak Grove School District, 2014). Enrollment ranges from the highest of 905 students to the lowest of 440 students (Oak Grove School District, 2014). The assigned elementary school for the Site is Ledesma (Rita) Elementary School, serving 512 students grades K through 6 (Oak Grove School District, 2016). The elementary school’s student-to-teach ratio is 21/1. The elementary school is approximately 4 miles driving distance from the Site, via Silver Creek Valley Road.
The assigned Intermediate School is Bernal Intermediate School, serving 830 students grades 7 through 8 (Oak Grove School District, 2016). The student-to-teacher ratio is 21/1. The intermediate school is approximately 6 miles driving distance from the Site, via Silver Creek Valley Road.

East Side Union High School District was comprised of twenty-three (23) schools, serving 26,489 students from grades 9 through 12 in the school year 2014–2015 (National Center for Education Statistics, 2016). The average student-to-teacher ratio was 24.24/1 with 1,092.66 classroom teachers. The assigned high school for the Site is Oak Grove High School, serving 2117 students with a student-to-teacher ratio of 20/1 for the school year 2015–2016. The high school is located at 285 Blossom Hill Road, San Jose, which is 3.5 miles driving from the Site, via Silver Creek Valley Road.

**Other Public Services**

**Santa Clara County**

Hospitals serving Santa Clara County are listed in Table 3.14-3 below. The Santa Clara County Library District contains eight branches, as listed below in Table 3.14-4.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Address</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s Recovery Center of Northern California</td>
<td>3777 S Bascom Avenue</td>
<td>Campbell</td>
</tr>
<tr>
<td>Crestwood Psychiatric Health Facility–San Jose</td>
<td>1425 Fruitdale Avenue</td>
<td>San Jose</td>
</tr>
<tr>
<td>El Camino Hospital</td>
<td>2500 Grant Road</td>
<td>Mountain View</td>
</tr>
<tr>
<td>El Camino Hospital</td>
<td>815 Pollard Road</td>
<td>Los Gatos</td>
</tr>
<tr>
<td>Good Samaritan Hospital</td>
<td>2425 Samaritan Drive</td>
<td>San Jose</td>
</tr>
<tr>
<td>Kaiser Permanente – San Jose</td>
<td>250 Hospital Pkwy</td>
<td>San Jose</td>
</tr>
<tr>
<td>Kaiser Permanente – Santa Clara</td>
<td>700 Lawrence Expressway</td>
<td>Santa Clara</td>
</tr>
<tr>
<td>Kaiser Permanente P.H.F – Santa Clara</td>
<td>3598 Homestead Rd</td>
<td>Santa Clara</td>
</tr>
<tr>
<td>Lucile Salter Packard Children’s Hospital at Stanford</td>
<td>725 Welch Road</td>
<td>Palo Alto</td>
</tr>
<tr>
<td>Mission Oaks Hospital</td>
<td>15891 Los Gatos Almaden Road</td>
<td>Los Gatos</td>
</tr>
<tr>
<td>O’Connor Hospital – San Jose</td>
<td>2105 Forest Avenue</td>
<td>San Jose</td>
</tr>
<tr>
<td>Regional Medical of San Jose</td>
<td>225 N Jackson Avenue</td>
<td>San Jose</td>
</tr>
<tr>
<td>Santa Clara Valley Medical Center</td>
<td>751 S Bascom Avenue</td>
<td>San Jose</td>
</tr>
<tr>
<td>St. Louise Regional Hospital</td>
<td>9400 N Name Uno</td>
<td>Gilroy</td>
</tr>
<tr>
<td>Stanford Hospital</td>
<td>300 Pasteur Drive</td>
<td>Palo Alto</td>
</tr>
</tbody>
</table>

Source: Healthcare Atlas, 2010
### Table 3.14-4: Santa Clara County Libraries

<table>
<thead>
<tr>
<th>Libraries</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campbell</td>
<td>77 Harrison Avenue, Campbell</td>
</tr>
<tr>
<td>Cupertino</td>
<td>10800 Torre Avenue, Cupertino</td>
</tr>
<tr>
<td>Gilroy</td>
<td>350 W. Sixth Street, Gilroy</td>
</tr>
<tr>
<td>Los Altos</td>
<td>13 S. San Antonio Road, Los Altos</td>
</tr>
<tr>
<td>Milpitas</td>
<td>160 North Main Street, Milpitas</td>
</tr>
<tr>
<td>Morgan Hill</td>
<td>660 West Main Avenue, Morgan Hill</td>
</tr>
<tr>
<td>Saratoga</td>
<td>13650 Saratoga Avenue, Saratoga</td>
</tr>
<tr>
<td>Woodland Branch</td>
<td>1975 Grant Road, Los Altos</td>
</tr>
</tbody>
</table>

Source: Santa Clara County Library District (2016)

### Project Site

There are no hospitals, County libraries, or other public facilities within one mile of the project site. The nearest public library is Morgan Hill (approximately 14 miles from the project site), and the nearest hospital is Kaiser Permanente – San Jose (approximately 5 miles from the project site).

### 3.14.2 Regulatory Framework

**Federal**

There are no federal laws or regulations pertaining to public services that are applicable to the proposed project.

**State**

**California Department of Occupational Safety and Health (CalOSHA)**

The California Department of Occupational Safety and Health (CalOSHA) protects the health and safety of workers throughout California. California Code of Regulations, Title 8, establishes industrial safety standards for construction (CalOSHA, 2016). Employers are required to have an effective injury and illness prevention plan, which includes training and instruction on safe work practices (CalOSHA, 2005). CalOSHA conducts onsite inspections of construction sites and has the authority to fine or cite unsafe practices or incomplete Health and Safety Plans to ensure the practice of safe work environments (CalOSHA, 2005).

**California Health and Safety Code**

California Code – Health and Safety Sections 13100-13135 establishes the following policies related to fire protection:

- Section 13100.1: The functions of the office of the State Fire Marshall, including CAL FIRE, shall be to foster, promote and develop strategies to protect life and property against fire and panic.
• Section 13104.6: The Fire Marshall has the authority to require fire hazards to be removed in accordance with the law relating to removal or public nuisances on tax deeded property.

Local

Santa Clara County General Plan

The majority of local policies dealing with public services are related to population growth, availability and practicality of public services, and minimizing impacts to life and property from natural hazards. The Santa Clara County General Plan establishes the following goals and policies associated with public services that are relevant to the proposed project:

R-GD 20: Grading should not exacerbate existing natural hazards, particularly geologic hazards.

R-GD 28: County shall thoroughly evaluate development proposals on slopes exceeding 30% to secure public health, safety and welfare.

U-LM (i) 12: Contracts with the cities should be arranged whenever practical, to provide service to pockets which are inefficient for the sheriff or fire protection districts to serve.

SC15.4: When development is permitted in fire hazard areas, it should be planned to reduce exposure to fire hazards and to facilitate fire suppression efforts in the event of a wildfire.

R-LU 37: Population in rural communities is required to be held to a minimum and will not require higher levels of public services than those presently provided.

C-EC 8: Local governments should work to maintain overall quality of life in Santa Clara County by proving adequate and efficient public services.

C-HS 22: Ensure that emergency services and equipment is available in each jurisdiction to the extent possible.

C-HS 28: Countywide strategies for reducing the threat of natural hazards to life and property should include: minimizing resident population within high hazard areas, provide public information regarding natural hazards and inventory hazards and monitor changing conditions.

C-HS 29: Inventories and mapping of natural hazards should be maintained for use in planning and decision-making.

C-HS 30: Local jurisdictions should limit resident population within areas subject to high natural hazards in order to minimize: overall risk to life and property and the cost to the general public of providing urban services and infrastructure to urban development.

C-HS 32: Areas of significant natural hazards shall be designated in the County’s General Plan as Resource Conservation Areas with low development densities in order to minimize public exposure to avoidable risks.
3.14.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts to public services. The proposed project would result in a significant impact if it would:

- 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 following public services:
  a) Fire protection
  b) Police protection
  c) School facilities
  d) Parks (analyzed in Section 3.15, Recreation)
  e) Other public facilities

Assessment Methodology

The aforementioned significance criteria were applied to determine impact significance using a qualitative and quantitative approach. The following evaluation discusses whether the proposed project would result in direct impacts on public services such as: needing to construct new fire stations, police stations, or schools to serve the proposed project. The following evaluation also discusses whether the proposed project would result in indirect impacts on public services such as: increased fire or police response times associated with operation of the proposed project.

The Project area is planned on parcels in both unincorporated Santa Clara County and the City of San Jose. However, the proposed residential lots would only occur in unincorporated Santa Clara County, outside of the City of San Jose Urban Growth Boundary. It is assumed that all services for the proposed project would be provided by the County. While it is possible that the project could be serviced by the adjacent City of San Jose, an assessment of impacts related to provision of City services is not included, as this is a County EIR, and the City of San Jose have not given any indication that they would extend services to the unincorporated County area. The following evaluation of impacts is based on review of published public services information, including information from the Santa Clara County Fire Department, Santa Clara County Office of the Sheriff, Oak Grove School District, East Side Union High School District, and Santa Clara County.

Impact PS-1: The proposed project could result in substantial adverse physical impacts related to fire protection services. (Less Than Significant)

Construction

Construction of the proposed project could result in an increase in need for fire protection services. Construction activities would require staffing levels that would vary throughout the year in accordance with seasons and onsite activities. However, the staff increase would come from the local labor pool and the existing demand on fire
protection services would not be expected to increase or require the construction of new or expanded fire protection facilities.

County fire and safety precautions must be adhered to during construction, such as, prohibiting on-site fires; reporting any fires, even if they have been extinguished; discarding any smoking materials in approved containers; maintaining access for emergency vehicles; mounting a shovel and two 20-pound ABC-rated dry chemical fire extinguishers in plain view; and maintaining access to fire hydrants, emergency water tanks and emergency turnouts.

During construction, accidents involving construction personnel and equipment may impose a demand for local emergency responders. In order to reduce the likelihood of these incidents and the need for local service providers, CalOSHA’s Title 8 regulations require an emergency action plan that establishes protocol for any emergency scenarios and establishes safety measures to prevent and respond to medical emergencies (CalOSHA, 2005).

Thus, construction of the proposed project would result in less-than-significant direct and indirect impacts related to new or altered facilities for fire protection.

Operation

Project operation would be similar to baseline conditions related to fire protection response times, and would not cause a significant increase in demand for emergency or fire protection services. It is assumed that the proposed 79 primary dwellings would be 8,000 square-feet with 2.9 occupants per residence. The proposed 16 secondary units would be 800 square-feet with 2 occupants per residence. The total number of residents associated with the project is estimated at 261. This population increase is not expected to result in the need for new or physically altered governmental facilities or the need for new or physically altered governmental facilities because demand for fire protection services is not expected to significantly increase.

The emergency response times for emergency response services (EMS) is 8 minutes 90 percent of the time, and first unit arrives in under 8 minutes 90% of the time for structure fire calls (SSC Fire, 2015). Due to the distance of County services from the project site (approximately 13.5 miles driving distance), emergency response times for County emergency and fire services could slightly increase, particularly if the emergency vehicle access across City parcels had to be utilized. However, demand for fire services is not expected to increase, because fire management and good grazing practices would be utilized to control brush and reduce fuel loads, as required by the project’s Resource Management Plan (RMP, Appendix D). Additionally, the RMP requires owners to follow a Fuel Modification Plan, in which a minimum 30-foot defensible space is maintained around each structure. Within the defensible space, brush and other flammable vegetation would be cleared and fire retardant material/vegetation would be used. As such, expansion of existing fire protection services would not be required.

Thus, operation of the proposed project would result in less-than-significant direct and indirect impacts related to fire protection services.
Impact PS-2: The proposed project could result in substantial adverse physical impacts related to law enforcement services. *(Less Than Significant)*

**Construction**

The proposed project could result in a small increase of police protection services. During construction, the proposed project would require staffing levels that would vary throughout the year in accordance with seasons and onsite activities. However, the staff increase would come from the local labor pool and the existing demand on police protection services would not be expected to increase. Thus, the demand would not be expected to significantly increase or require the construction of new or expanded law enforcement facilities. There would be no impact related to construction.

**Operation**

Project operation would be similar to base line conditions related to law enforcement response times. As described above, the proposed project is estimated to result in 261 new residents. Operation of the proposed project would likely require occasional sheriff response to reports of crimes. Typical police protection services such as traffic enforcement or trespassing/vandalism prevention would not be required, as the proposed access road would be a private road. It is therefore not anticipated that the proposed project would result in a significant increase in demand for law enforcement services such that expansion of existing law enforcement services would be required. There would be no need for new or physically altered governmental facilities or the need for new or physically altered governmental facilities.

Thus, operation of the proposed project would result in less-than-significant direct and indirect impacts related to law enforcement services.

**Impact PS-3: The proposed project would not result in substantial adverse physical impacts related to school services. *(Less Than Significant)***

**Construction**

During construction, the proposed project would require staffing levels that would vary throughout the year in accordance with seasons and onsite activities. However, the staff increase would come from the local labor pool and the existing demand on school services would not be expected to increase. There would be no impact on school services related to construction.

**Operation**

The proposed project could result in increased demand for school facilities. Student generation rates (SGR) were used to estimate future demands for schools as a result of the proposed development. Based on a SGR of 0.6798; the proposed project would generate approximately 64 students for grades K through 12. ¹ The project would generate approximately 40 elementary school students, 9 intermediate school students and 15 high school students.

¹Specific SGR information for Oak Grove Elementary School District and East Side Union High School District were not found, therefore SGR rates from Fremont Unified School District, approximately 20 miles from the project site, were used. The SGR for Single Family Detached Units was used to calculate potential student generation from both primary dwelling units and secondary units, as a conservative estimate.
students. The greatest potential impact would be to elementary schools, as the SGR of 0.4237 is greater than that of intermediate school (0.0940) and high school (0.1553).

Oak Grove School District and East Side Union High School District have open registration for 2016–17, and are under capacity. There has been a trend of enrollment being lost due to a slow economy, which has resulted in a migration out of the local area (OGSD, 2016; ESUHSD, 2016). Ledesma (Rita) Elementary School, Bernal Intermediate School and Oak Grove High School would be able to accommodate the additional 64 students generated by the project (OGSD, 2016). Thus, the project would not result in the need for a new school. Additionally, other nearby schools in the Oak Grove School District and East Side Union High School District, as well as nearby private and charter schools could likely serve the project area. Existing school facilities would be able to serve the project site. Thus, operation of the proposed project would result in *less-than-significant* direct and indirect impacts related to school services.

In the event that all 79 proposed lots would be developed with secondary units, the impacts of the proposed project related to impacts on school services would still be considered *less than significant*. Under this scenario, it is anticipated that up to 107 new school students could be generated. Ledesma (Rita) Elementary School, Bernal Intermediate School and Oak Grove High School would be able to accommodate the additional 107 students generated under this scenario (OGSD, 2016).

**Impact PS-4: The proposed project would not result in substantial adverse physical impacts related to other public facilities. (No Impact)**

*Construction and Operation*

There are no other public facilities within one mile of the proposed project site. There would be *no impacts*.

### 3.14.4 Cumulative Impacts

**Impact-C-PS: The proposed project could have a cumulatively considerable impact on public services. (Less Than Significant)**

Construction and operation of the proposed project may add to the current demand for public services from Santa Clara County. However, the project proposes low-density development and the increase in demand would not be cumulatively considerable. Additionally, the project would not result in a need for new or physically altered governmental facilities, or the need for new or physically altered governmental facilities. Therefore, cumulative impacts on public services, including fire protection, law enforcement and schools, would be *less than significant*.

### 3.14.5 References

California Department of Forestry and Fire Protection (CAL FIRE), 2016. About CAL FIRE. Obtained on August 8, 2016 from http://calfire.ca.gov/about/about.


3.15 RECREATION

This section describes the existing setting related to recreational resources and addresses the potential impacts of the proposed project related to such resources.

No public or agency comments related to recreation were received during the public scoping period in response to the Notice of Preparation.

3.15.1 Existing Conditions

Recreational Resources

Santa Clara County

The Santa Clara County Parks and Recreation Department (SCCPRD) oversees 28 parks encompassing nearly 48,000 acres (SCC, 2016a). Regional parks are typically larger in size – usually more than 200 acres – than local neighborhood or community parks. Many of the County’s regional parks also feature points of local interest.

City of San Jose

The City provides and maintains developed parkland and open space to serve its residents. The City’s Departments of Parks, Recreation, and Neighborhood Services are responsible for the development, operation, and maintenance of all City park facilities (San Jose, 2011).

The City of San Jose manages a total of 3,435 acres of regional and neighborhood/community serving parkland. Park facilities vary in size and amenities. The City classifies parks as neighborhood-serving/community and regional. The City owns 180 neighborhood-serving parks and nine regional parks. The City uses the following categorization for its public parks:

- **Neighborhood/Community Parks** – may include amenities that serve the immediate or nearby neighborhood. They may include but are not limited to the following amenities: playgrounds, water features, dog parks, horseshoe pits, softball/baseball fields, soccer fields, tennis courts, basketball courts, handball courts, volleyball courts, bocce ball courts, and exercise and golf courses.

- **Regional Parks** – attract visitors from throughout the Bay Area and may include larger or unique amenities: access to a native open space, cultural heritage buildings, landscaped gardens, festival sites for large community events, and lakes.

- **Open Space** – lands are those lands managed by the City, or another public agency, which are open to the public for recreation usages, which do not require a formalized delineated playing field or turf areas, where picnicking, fishing, non-motorized boating, bicycling, horseback riding and permitted environmental education programs or renovation projects for viewing of natural habitats-type land are allowed.
The City has a total of 57 miles of open trails, available to the public (San Jose, 2016a). The trail systems are accessible to pedestrians, bicyclists, and/or equestrians. The Core Trail Systems carry higher volumes of traffic due to adjacency or access to high density development and extend significant distances or link to regional systems outside the City’s boundaries. The City also includes Edge Trail Systems, which often link to the core systems, but function as neighborhood collectors or offer a more recreational function. The combined Core and Edge systems form the City’s overall Trail Network (San Jose, 2011).

**Project Site Vicinity**

The greater context of recreational opportunities surrounding the project site is shaped by the geography of northern California and related land use management: the Pacific Ocean and San Francisco Bay, the coastal mountain ranges, several state reservoirs, parkland, open space preserves, and Lake Tahoe. Regional recreational opportunities are also correlated to the Bay Area’s generally mild climate, which allows for year-round outdoor recreation pursuits.

Recreational resources in the vicinity of the project site are shown on Figure 3.15-1, below. Given the unique site location, the project would be afforded recreational amenities located within the City of San Jose in addition to recreational opportunities located on County land. State Parks are located close by as well.

The County’s 2008 Regional Park and Scenic Highways Map identify several parks within the County surrounding the project site. The immediate vicinity includes the 459-acre Motorcycle County Park, located southerly adjacent to the project site. The motorcycle park includes: motocross competition track; mini-motorcross track; 12 miles of main trails for beginners and intermediate level riders; eight miles of single track expert trails; a hill climb area; obstacle courses; picnic areas, restrooms, and a visitor center (SCC, 2016b). Also southerly adjacent to the project site and the OHV park is the County Field Sports Park, which provides a 99-acre shooting range for rifle, pistol and Trap and skeet (SCC, 2016c).

Northwest of the project site is the Joseph D. Grant County Park (not pictured), on approximately 9,560 acres. The County park includes hiking and equestrian access to 52 miles of trails, mountain biking events, campgrounds and picnic areas, and fishing (SCC, 2016d). Additional County parks include the Anderson Lake County park to the south (not pictured) and the Calero Lake park to the southwest. Anderson Lake County Park includes the County’s largest reservoir within a 3,144-acre recreational area that also features the Coyote Creek Parkway multiple use trails, the Jackson Ranch historic park site, the Moses Rosendin Park and the Burnett Park area. Recreational uses within Anderson Park include boating, bicycling, equestrian trail riding, and picnicking (SCC, 2016e). The Calero Lake Park consists of 4,455-acres nestled in the eastern foothills of the Santa Cruz Mountains, and affords recreational opportunities on the Calero Reservoir in addition to hiking and equestrian backcountry opportunities (SCC, 2016f).

The Henry Coe State Park is located to the south of the project site (not pictured). This State park is open year-round for hikers, mountain bikers, backpackers, equestrians, car campers, picnickers, and photographers, boating, fishing within the 87,000-acre park (CSP, 2009).

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1 The project site vicinity includes the surrounding County lands and also the recreational opportunities available within the City of San Jose.
Figure 3.15-1: Recreational Parks and Facilities

Sources: Santa Clara County, 2016; Open Street Map, 2016; California Protected Areas Data Portal, 2016.
In addition to recreational opportunities on lands managed by County and State entities, the project area would benefit from recreational opportunities located within the City of San Jose. As discussed above, the City of San Jose manages a total of 3,435-acres of parkland. Several City parks near the project area within City-limits are shown on Figure 3.15-1, below. Adjacent City parks include Metcalf Park, which runs parallel to the Highway 101 just west of the project site. Metcalf Park includes the Coyote Creek Trail, one of the San Jose’s longest trails, spanning 18.7 miles from north of the project site near the Highway 237-Montague Expressway, to the southern end near Anderson County park in Morgan Hills (San Jose, 2016b). The Coyote Creek Park Chain is a continuous chain of hiking trails for hiking and bicycling. The trail system is a joint project between the City of San Jose, Santa Clara County, State of California, and the Santa Clara Valley Water District (Santa Clara, 2008).

Three golf courses are located just north of the project area via Silver Creek Road. These include the Silver Creek Valley and Country Club (private), The Villages Golf and Country Club (private, 55+), and the Ranch Golf Club (public). Other recreational amenities near the site include the Silver Creek Sportsplex, the San Jose Batting Cages, and the California Sports Center. Recreational amenities at the Silver Creek Sportsplex is located immediately northwest of the project site at 800 Embedded Way, San Jose, CA, and includes roller hockey, indoor soccer, lacrosse, flag football, marital arts, and badminton (GotoPlex, 2015). The San Jose Batting cages is located just west of the project site at 474 Piercy Road, San Jose, CA, and includes 3 indoor softball cages, 3 indoors baseball cages, live pitching batting practice, and a work-out facility (San Jose Batting Cages, 2013). The California Sports Center (Great Oaks) is located at 100 Great Oaks Blvd, west of the project area and Highway 101 and includes gymnastics, dance, swimming, water polo, diving, water fitness, and lifeguard training (CSC, 2016).

3.15.2 Regulatory Framework

State

Quimby Act (California Code 66477)

The Quimby Act (California Government Code Section 66477) was established by the California Legislature in 1965 to preserve open space and parkland in rapidly urbanizing areas of the state. The Quimby Act allows cities and counties to establish requirements for new development to dedicate land for parks, pay an in-lieu fee, or provide a combination of the two.

The Quimby Act provides two standards for the dedication of land for use as parkland. If the existing area of parkland in a community is greater than 3 acres per 1,000 residents, then the community may require dedication based on a standard of up to 5 acres per 1,000 persons residing in the subdivision based on the current ratio of parkland per 1,000 residents. If the existing amount of parkland in a community is less than 3 acres per 1,000 residents, then the community may require dedication based on a standard of only 3 acres per 1,000 persons residing in the subdivision.

The Quimby Act requires a city or county to adopt standards for recreational facilities in its general plan if it is to adopt a parkland dedication or fee ordinance. The Santa Clara County General Plan requires development fee and/or dedication of land per policy R-PR(i) 16.1(4).
It should be noted that the Quimby Act applies only to the acquisition of new parkland; it does not apply to the physical development of new park facilities or associated operations and maintenance costs. Therefore, the Quimby Act effectively preserves open space needed to develop park and recreation facilities, but it does not ensure the development of the land or the provision of park and recreation services to residents. In addition, the Quimby Act applies only to residential subdivisions. Nonresidential projects could contribute to the demand for park and recreation facilities without providing land or funding for such facilities. Quimby Act fees are collected by the local agency (e.g., park district, city, or county) in which the new residential development is located.

Local

Santa Clara County General Plan

The Santa Clara County General Plan, 1995–2010 (adopted in 1994) establishes the following goals and policies associated with public services that are relevant to the proposed project.

Countywide Strategies and Policies

C-PR 17: The private sector and non-profit organizations should be encouraged to provide outdoor recreational opportunities. In rural areas, private recreational uses shall be low intensity.

C-PR 20.1: Trail access should be provided for a range of user capabilities and needs (including persons with physical limitations) in a manner consistent with State and Federal regulations. (See also Rural Unincorporated Area Policy R-PR 22.1)

C-PR 22.1: Encourage private developers to incorporate trail routes identified on the Countywide Trails Master Plan Map into their development project designs. (See also Rural Unincorporated Area Policy R-PR 24.1)

C-PR 23: Trail routes shall be located, designed and developed with sensitivity to their potential environmental, recreational, and other impacts on adjacent lands and private property. (See also Rural Unincorporated Area Policy R-PR 25)

C-PR 29.1: Trails shall be considered as development projects when on private land.

C-PR 31: Use of motorized vehicles on trails shall be prohibited, except for wheelchairs, maintenance, and emergency vehicles. (See also Rural Unincorporated Area Policy R-PR 33)

Rural Unincorporated Area Policies:

R-LU 71: New or expanded facilities shall provide all services necessary for their operations and shall be compatible with the land uses in the area in which they are located.

C-PR 17: The private sector and non-profit organizations should be encouraged to provide outdoor recreational opportunities. In rural areas, private recreational uses shall be low intensity.


Santa Clara County Trails Master Plan Update (1995)

The Santa Clara County Trails Master Plan Update (1995) was approved by the County Board of Supervisors in 1995. The goal of the plan is to direct the County’s trail implementation efforts with a balanced regard for the public good and individual desires for privacy. The plan implements the vision to provide a contiguous trail network that connects cities to one another, connects cities to the County’s regional open space resources, connects County parks to other County parks, and connects the northern and southern urbanized regions of the County. The plan identifies regional trail routes, sub-regional trail routes, connector trail routes, and historic trails.

PR-TS 1.7: Encourage private developers to incorporate trial routes identified on the Countywide Trails Master Plan Map into their development project designs.

According to the Countywide Trails Master Plan Update, Regional Trail Route C23 (the South Metcalf Trail) traverses the potential open space area of the project site, on parcels currently under City jurisdiction (SCC, 2015).

3.15.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts to recreational resources. The proposed project would result in a significant impact if it would:

- 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; or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Assessment Methodology

The aforementioned significance criteria were applied to determine impact significance using a qualitative approach. The following evaluation discusses whether the proposed project would result in direct impacts on recreational resources, such as: County parks and related facilities, City park and related facilities; and privately owned publicly accessible recreational resources. Specifically, the evaluated focuses on whether the proposed project would have detrimental impacts to recreational parks and facilities such that the construction of new parks and/or facilities would be necessary.
Impacts and Mitigation

Impact REC-1: The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. *(Less Than Significant)*

**Construction**

Construction of the proposed project would draw the majority of the construction workforce from the San Francisco Bay Area and environs. It is unlikely that any construction personnel would need to relocate to the project site immediate vicinity. Any deterioration to neighborhood and regional parks facilities or other recreational facilities as a result of use by project construction workers would be minimal as commuting construction workers and their families would not be expected to use parks and recreational facilities in the project vicinity. Impacts from construction would be *less than significant*.

**Operation**

The proposed project would result in 79 new single-family residences and 16 secondary units. Some of the new residents may be property owners who already live in the project region, whereas other residents may relocate to the new residences from outside the project region, and potentially from outside the San Francisco Bay Area. The 261 new residences associated with the proposed project would add to the population served by the neighborhood and regional parks and recreational facilities. However, the increase in population would be small compared to the existing population of the City Jose (1,042,094 as of 2016) and Santa Clara County (1,927,888 as of 2016) already served by existing recreational facilities, and any added deterioration to neighborhood and regional parks or other recreational facilities as a result of the new project-related residents’ use would be minimal.

As shown in Figure 2-5 in Chapter 2.0 “Project Description”, the proposed project would include an extensive system of trails and open space. This trail system would likely reduce the need for new residences associated with the proposed project to seek recreational opportunities outside of the project site. Post-construction impacts to existing parks and recreational facilities would be less than significant.

Furthermore, the County has designated Trail Route C23 (the South Metcalf Trail) in the potential open space area, on parcels currently under City jurisdiction (SCC, 2015) with the intention of connecting the existing Coyote Creek trail system with the Joseph D. Grant County Park to the northeast of the project area and would also connect the trail system to the Anderson Lake County Park to the south. The implementation of this trail would be negotiated between the County, City and the project applicant prior to any construction work. Any impacts from the construction of Trail Route C23 would be analyzed when an agreement and funding has been put in place.

Thus, operational impacts related to existing parks and recreational facilities would be *less than significant*. 
Impact REC-2: The proposed project could 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)*

As shown on Figure 2-5 in Chapter 2.0 “Project Description”, the proposed project would include a walking trail within the network of residences and would provide for hiking and biking opportunities along the two existing access routes. The on-site hillside walking trail would not connect to any public or private trails located outside of the subdivision area. The existing access road trail routes would connect to land outside of the project area. However, connectivity of these existing dirt roads would not connect the project area to any existing recreational facility or trail system.

**Construction**

The environmental impacts associated with construction activities related to the project, including the on-site trail system, are discussed throughout this EIR in Sections 3.1 through 3.17. Mitigation measures proposed in those sections would reduce impacts to a less-than-significant level. Therefore, impacts from construction of the proposed project would be *less than significant.*

**Operation**

Recreational opportunities within the project site would be limited to low-impact opportunities (e.g., hiking, bicycle use) within existing designated access routes that would be available for public recreational use (see Figure 2-5 in Chapter 2.0 “Project Description”). A Resource Management Plan (RMP) was prepared for the proposed project (see Appendix D). The RMP provides an implementation strategy for the long-term management and preservation of the natural and scenic resources of the project site, by defining a series of conservation and management principles, including a grazing plan, monitoring program, and adaptive management. One of the stated objectives of the RMP is “to enable education, public access, and research that are an integral part of sustaining a healthy ecosystem.” The RMP further states that due to the sensitive habitats and species found within the preserved open space areas, public access would be limited to designated trails and that a public access plan shall be developed to ensure that such access does not degrade the site or the sensitive habitats and special-status species that occur there. Therefore, impacts related to construction and expansion of recreational opportunities within the project area would have a *less than significant* impact on the physical environment with implementation of the RMP.

The proposed project would include use of recreational facilities associated with the proposed community center by project residents and their guests. The community center would require a conditional use permit from the County. The proposed project would also allow recreational facilities such as tennis courts, basketball courts, and swimming pools in the home site zones; and would allow for off-street bicycling within the proposed project site trail network, and wildlife observation in the open space areas. Each home site’s recreational uses and activities would be for the private use of the property owner and would not be available to the public or other subdivision residents. Future home site-specific recreational facilities would have a *less-than-significant* impact on the physical environment.
3.15.4 Cumulative Impacts

**Impact-C-REC: The proposed project could have a cumulatively considerable impact on recreational resources. (Less Than Significant)**

At a regional level, the population of all of the Bay Area would increase to approximately 9,299,100 by 2040 from 7,461,400 in 2015 (ABAG, 2013a). Santa Clara County (incorporated and unincorporated) is anticipated to grow by 545,800 during the same time period, to reach approximately 2,080,600 people by 2035 (project buildout) (ABAG, 2013b). The demand for recreational opportunities and facilities will only grow as the population of the Bay Area grows. Development fees and State income taxes associated with this growth would provide revenue for State and local agencies to address the impacts of future growth on parks and recreational facilities. This regional growth would result in a significant cumulative impact on use of parks and recreational facilities.

However, as discussed in Section 3.13, Population and Housing, the proposed project would contribute less than 0.05 percent of the projected population growth in the entire County by 2035. This would represent a small fraction of the population growth projected for the County by 2035 that would be expected to utilize existing City and County parks[^2] and related facilities. Furthermore, the project would include an extensive trail network which would alleviate the pressure of future residents from requiring access to off-site recreational facilities. Therefore, the project would not represent a considerable contribution to the cumulative impact related to parks and recreational facilities. Thus, the proposed project’s cumulative impact would be *less than significant*.

3.15.5 References


[^2]: Incorporated and unincorporated County parks and related facilities are included together, since their use is not necessary dictated by the location of residents being either in incorporated or unincorporated County, the City of San Jose or other nearby communities.


3.16 TRANSPORTATION AND TRAFFIC

This section describes the existing physical and regulatory setting related to transportation and traffic and addresses the potential impacts of the proposed project related to these resources. Much of the analysis presented within this section is based on a transportation impact analysis prepared for the proposed project by Hexagon Transportation Consultants (contained within Appendix K), which was peer reviewed by AECOM prior to the preparation of this section. The transportation impact analysis was prepared in accordance with the standards and methodologies set forth by the Santa Clara Valley Transportation Authority and City of San Jose.

The following comments related to transportation and traffic were received during the public scoping period in response to the Notice of Preparation:

- Concern that Silver Creek Valley Road is already “very dangerous” and that new intersections and additional traffic generated by the proposed project may exacerbate the situation.
- Concern regarding pedestrian safety along San Felipe Road as a result of widening. (Note that the proposed project does not involve widening of San Felipe Road; see Chapter 2.0, Project Description.)
- Request that the EIR include a traffic impact analysis that discusses the proposed project’s travel demand; analysis of potential impacts to California Department of Transportation (Caltrans) roadway facilities; consistency of the proposed project with local plans and policies related to transportation; a discussion of the existing transportation network serving the project site; mitigation for increases in vehicle miles traveled (VMT); and potential impacts to pedestrian, bicycle, and transit facilities.
- Request that transportation demand management (TDM) programs for the proposed project should be documented with annual monitoring reports.
- Request that a Caltrans-approved Traffic Control Plan (TCP) be prepared if construction of the proposed project is anticipated to result in potential impacts to Caltrans roadway facilities.

3.16.1 Existing Conditions

Roadway Network

Regional

The project site is accessible by a network of regional and local roadways, including highways and freeways such as U.S. 101 and arterial, collector, and local streets such as Blossom Hill Road and Silver Creek Valley Road. U.S. 101 has a full-movement interchange at Blossom Hill Road / Silver Creek Valley Road, providing direct access to and from both directions of U.S. 101 for both directions of Blossom Hill Road / Silver Creek Valley Road.

Project Site

There are no paved permanent streets on the project site, although there are various unpaved access roads and trails.
Traffic Conditions

Regional

Existing traffic conditions at the following study intersections are discussed based on their proximity to the project site:

1. U.S. 101 Southbound (SB) Ramps / Blossom Hill Road (signalized);
2. Coyote Road / U.S. 101 Northbound (NB) Ramps / Silver Creek Valley Road (signalized);
3. Hellyer Avenue / Silver Creek Valley Road (signalized); and,
4. Hawkstone Way / Silver Creek Valley Road (unsignalized).

The study intersection locations are illustrated in Figure 3.16-1.

Traffic conditions at the study intersections are described in terms of level of service (LOS). LOS is a qualitative description of operating conditions ranging from LOS A (free-flow conditions with little or no delay) to LOS F (congested conditions with excessive delays). Intersection operations are described in terms of weekday AM and PM peak hours—typically the peak 60-minute period (four consecutive 15-minute periods) between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM, respectively. It is during these hours that traffic conditions are most congested on a typical weekday.

The various relevant LOS standards are described in further detail below.

- **Signalized Intersections (City of San Jose):** The City of San Jose LOS standards are used to describe study intersection #3 (Hellyer Avenue / Silver Creek Valley Road), a signalized intersection. The City of San Jose determines intersection LOS based on the 2000 *Highway Capacity Manual* (“HCM 2000”) method using the Traffix software package. This approach discusses signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. As the Santa Clara County Congestion Management Program (CMP) also uses Traffix and the HCM 2000 operations approach for signalized intersections as its designated LOS methodology, the City of San Jose approach employs the CMP default values for the analysis parameters. The City of San Jose LOS standard for signalized intersections is LOS D or better.

- **Signalized Intersections (CMP):** The CMP, administered by the Santa Clara Valley Transportation Authority (VTA), uses Traffix and the HCM 2000 operations approach as its designated LOS approach. The only difference with respect to City of San Jose intersections, however, is that the City of San Jose applies a LOS standard of D or better, while the CMP applies a LOS standard of E or better. The CMP LOS standards are used to describe study intersections #1 (U.S. 101 SB Ramps / Blossom Hill Road) and #2 (Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road).
Source: Hexagon, 2016 (Appendix K).

**Figure 3.16-1:** Traffic Study Intersections
• **Unsignalized Intersections**: The LOS for Intersection #4 (Hawkstone Way / Silver Creek Valley Road) is described using the Traffix software package. LOS for an unsignalized intersection is determined based on the delay experienced by the worst movement. The City of San Jose, however, does not have a LOS standard for unsignalized intersections.

The correlation between delay and level of service for signalized and unsignalized intersections is shown in Table 3.16-1.

<table>
<thead>
<tr>
<th>LOS</th>
<th>Description</th>
<th>Signalized Intersections</th>
<th>Unsignalized Intersections</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Little or no delay</td>
<td>≤ 10.0</td>
<td>≤ 10.0</td>
</tr>
<tr>
<td>B</td>
<td>Short traffic delay</td>
<td>&gt; 10.0 and ≤ 20.0</td>
<td>&gt; 10.0 and ≤ 15.0</td>
</tr>
<tr>
<td>C</td>
<td>Average traffic delay</td>
<td>&gt; 20.0 and ≤ 35.0</td>
<td>&gt; 15.0 and ≤ 25.0</td>
</tr>
<tr>
<td>D</td>
<td>Long traffic delay</td>
<td>&gt; 35.0 and ≤ 55.0</td>
<td>&gt; 25.0 and ≤ 35.0</td>
</tr>
<tr>
<td>E</td>
<td>Very long traffic delay</td>
<td>&gt; 55.0 and ≤ 80.0</td>
<td>&gt; 35.0 and ≤ 50.0</td>
</tr>
<tr>
<td>F</td>
<td>Extreme traffic delay</td>
<td>&gt; 80.0</td>
<td>&gt; 50.0</td>
</tr>
</tbody>
</table>

Source: TRB, 2000

Table 3.16-2 summarizes the existing peak-hour intersection operations at the study intersections, as documented in the Traffic Impact Assessment for the proposed project, undertaken by Hexagon Transportation Consultants, Inc., and contained in Appendix K. As shown in Table 3.16-2, all study intersections currently operate at an acceptable LOS during the weekday AM and PM peak hours.

Table 3.16-2: Intersection Level of Service—Existing Conditions

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Existing Conditions</th>
<th>Weekday AM Peak Hour</th>
<th>Weekday PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>Signalized Intersections (CMP)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 U.S. 101 SB Ramps / Blossom Hill Road</td>
<td></td>
<td>B</td>
<td>17.9</td>
</tr>
<tr>
<td>2 Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road</td>
<td></td>
<td>C</td>
<td>25.1</td>
</tr>
<tr>
<td>Signalized Intersections (City of San Jose)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Hellyer Avenue / Silver Creek Valley Road</td>
<td></td>
<td>C</td>
<td>25.5</td>
</tr>
<tr>
<td>Unsignalized Intersections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Hawkstone Way / Silver Creek Valley Road</td>
<td></td>
<td>C</td>
<td>16.0</td>
</tr>
</tbody>
</table>

Source: Hexagon, 2016 (Appendix K).

Notes:
For signalized intersections, average delay represents the average of all approaches.
For unsignalized intersections, average delay represents the worst movement.
Delay presented in seconds per vehicle.
Project Site

There are no major existing roadways on the project site. The existing roads and trails on the project site are primarily designed for occasional limited-use or restricted access and generally function adequately for these purposes.

Transit Service

Regional

The project site is not directly served by transit services. The closest transit hub is Caltrain’s Blossom Hill Station, located approximately 1.9 miles west of the site along Silver Creek Valley Road and Blossom Hill Road and 0.3 miles southeast along Monterey Boulevard. On weekdays, the station is served by three northbound trains during the morning commute period and three southbound trains during the afternoon / evening commute period, but there is no train service on weekends or during the midday period on weekdays.

VTA operates several bus routes in and around the vicinity of Blossom Hill Station, including lines 27, 42, and 68, and operates light rail service on the Alum Rock – Santa Teresa line further southwest of the project site along State Route 85. The closest bus stops are located along Monterey Boulevard at Blossom Hill Road and are utilized by VTA bus routes 42 and 68. The closest light rail station is Cottle Station, located approximately 1.9 miles west of the site along Silver Creek Valley Road and Blossom Hill Road and another 0.9 miles south along Cottle Road. Additional VTA bus service is provided further away to the north of the project site along Yerba Buena Road (Line 42) and San Felipe Road (Line 39).

Project Site

There are no transit services or facilities on the project site. The nearest transit services to the project site are described above.

Pedestrian and Bicycle Facilities

Regional

Pedestrian facilities in the immediate vicinity of the project site are limited to a paved trail located on the south side of Silver Creek Valley Road, which continues west to Hellyer Avenue and east and north to Hassler Parkway as part of the City’s Silver Creek Valley Trail. Portions of the path function similar to a sidewalk, located on a raised curb adjacent to travel lanes or bicycle lanes, while other portions function similar to open recreational trails, detouring away from the roadway alignment through undeveloped land.

Within the study area, Class II bikeway facilities (bicycle lanes) are provided along Silver Creek Valley Road between Coyote Road and Yerba Buena Road; Yerba Buena Road between Silver Creek Valley Road and Fowler Road; and Hellyer Avenue between Dove Road and Silicon Valley Boulevard. The southern reach of the Coyote Creek Trail, a Class 1 bikeway facility consisting of a paved, shared multi-use path, follows Coyote Creek between Tully Road and Anderson Lake County Park, and can be accessed from Silver Creek Valley Road just east of Coyote Road.
**Project Site**

There are no pedestrian or bicycle facilities on the project site. The nearest pedestrian and bicycle facilities to the project site are described above.

### 3.16.2 Regulatory Framework

**Federal**

There are no federal laws or regulations pertaining to transportation and circulation that are applicable to the proposed project.

**State**

**Senate Bill 743**

Senate Bill 743 (SB 743), which became effective September 2013, initiated reforms to the California Environmental Quality Act (CEQA) Guidelines to establish new criteria for determining the significance of transportation impacts that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses”. Specifically, SB 743 directs the Governor’s Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency for certification and adoption proposed changes to the CEQA Guidelines to replace automobile delay—as described solely by LOS or similar measures of vehicular capacity or traffic congestion—with VMT as the recommended metric for determining the significance of transportation impacts.

A draft of the proposed revisions to the CEQA Guidelines was published and circulated for public comment by OPR on January 20, 2016; however changes have yet to be formally adopted by the California Natural Resources Agency.

**Local**

The project site includes parcels located within both Santa Clara County and the City of San Jose, and portions of the transportation network in the study area are located within both County and City limits. Relevant plans and policies for Santa Clara County and the City of San Jose are summarized below.

**Envision San Jose 2040 General Plan**

The following policies and actions from the Circulation Element of the *Envision San Jose 2040 General Plan* are specifically applicable to the proposed project or the evaluation of transportation-related impacts associated with the proposed project.

**Goal TR-1 – Balanced Transportation System:** Complete and maintain a multimodal transportation system that gives priority to the mobility needs of bicyclists, pedestrians, and public transit users while also providing for the safe and efficient movement of automobiles, buses, and trucks.
Policy TR-1.1 Accommodate and encourage use of non-automobile transportation modes to achieve San Jose’s mobility goals and reduce vehicle trip generation and vehicle miles traveled (VMT).

Policy TR-1.2 Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects.

Policy TR-1.4 Through the entitlement process for new development, fund needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling, walking and transit facilities. Encourage investments that reduce vehicle travel demand.

Policy TR-1.5 Design, construct, operate, and maintain public streets to enable safe, comfortable, and attractive access and travel for motorists and for pedestrians, bicyclists, and transit users of all ages, abilities, and preferences.

Policy TR-1.6 Require that public street improvements provide safe access for motorists and pedestrians along development frontages per current City design standards.

Policy TR-1.7 Require that private streets be designed, constructed and maintained to provide safe, comfortable, and attractive access and travel for motorists and for pedestrians, bicyclists, and transit users of all ages, abilities, and preferences.

Policy TR-1.10 Require needed public street right-of-way dedication and improvements as development occurs. The ultimate right-of-way shall be no less than the dimensions as shown on the Functional Classification Diagram except when a lesser right-of-way will avoid significant social, neighborhood or environmental impacts and perform the same traffic movement function. Additional public street right-of-way, beyond that designated on the Functional Classification Diagram, may be required in specific locations to facilitate left-turn lanes, bus pullouts, and right-turn lanes in order to provide additional capacity at some intersections.

Action TR-1.12 Update the City’s engineering standards for public and private streets based on the new street typologies that incorporate the concept of “complete streets.”

Goal TR-2 – Walking and Bicycling. Improve walking and bicycling facilities to be more convenient, comfortable, and safe, so that they become primary transportation modes in San Jose.

Policy TR-2.8 Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and / or bicycle lanes / paths, or share in the cost of improvements.

Policy TR-2.11 Prohibit the development of new cul-de-sacs, unless it is the only feasible means of providing access to a property or properties, or gated communities that do not provide through and publicly accessible bicycle and pedestrian connections. Pursue the development of new through bicycle and pedestrian connections in existing cul-de-sac areas where feasible.

Goal TR-3 – Maximize Use of Public Transit. Maximize use of existing and future public transportation services to increase ridership and decrease the use of private automobiles.

Policy TR-3.3 As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute
toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.

Action TR-3.9 Ensure that all street improvements allow for easier and more efficient bus operations and improved passenger access and safety, while maintaining overall pedestrian and bicycle safety and convenience.

Goal TR-5 – Vehicular Circulation. Maintain the City’s street network to promote the safe and efficient movement of automobile and truck traffic while also providing for the safe and efficient movement of bicyclists, pedestrian, and transit vehicles.

Policy TR-5.1 Develop and maintain a roadway network that categorizes streets according to function and type, considers the surrounding land use context, and incorporates the concepts of “complete streets.”

Policy TR-5.3 The minimum overall roadway performance during peak travel periods should be level of service “D” except for designated areas. How this policy is applied and exceptions to this policy are listed in the following bullets:

• Vehicular Traffic Mitigation Measures. Review development proposals for their impacts on the level of service and require appropriate mitigation measures if development of the project has the potential to reduce the level of service to “E” or worse. These mitigation measures typically involve street improvements. Mitigation measures for vehicular traffic should not compromise or minimize community livability by removing mature street trees, significantly reducing front or side yards, or creating other adverse neighborhood impacts.

• Area Development Policy. An “area development policy” may be adopted by the City Council to establish special traffic level of service standards for a specific geographic area which identifies development impacts and mitigation measures. These policies may take other names or forms to accomplish the same purpose. Area development policies should be considered during the General Plan Annual Review and Amendment Process.

Policy TR-5.4 Maintain and enhance the interconnected network of streets and short blocks that support all modes of travel, provide direct access, calm neighborhood traffic, reduce vehicle speeds, and enhance safety.

Policy TR-5.5 Require that new development, which includes new public or private streets, connect these streets with the existing public street network and prohibit the gating of private streets with the intention of restricting public access. Furthermore, where possible, require that the street network within a given project consists of integrated short blocks to facilitate bicycle and pedestrian travel and access.

Action TR-5.8 Update the City’s existing Area Development Policies to align with the Envision General Plan planned growth capacity and Envision General Plan goals and policies.

The Envision San Jose 2040 General Plan also includes transportation-related policies and actions covering the city’s network of trails. The following policies and actions are specifically applicable to the proposed project or the evaluation of transportation-related impacts associated with the proposed project.
Goal TN-2 – *Trails as Transportation*. Develop a safe and accessible Trail Network to serve as a primary means of active transportation and recreation within an integrated multi-modal transportation system.

Policy TN-2.2 Provide direct, safe and convenient bicycle and pedestrian connections between the trail system and adjacent neighborhoods, schools, employment areas and shopping areas.

Policy TN-2.7 Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location, in accordance with Policy PR-8.5.

*Santa Clara County General Plan*

The following transportation-related policies and implementation recommendations from the Transportation chapters of the *Santa Clara County General Plan* are specifically applicable to the proposed project or the evaluation of transportation-related impacts associated with the proposed project.

*Countywide Issues & Policies*

C-TR 1 Santa Clara County should develop and maintain an adequate, balanced, and integrated transportation system that is affordable and convenient to use and that is capable of meeting projected future demand.

C-TR 3 In order to safeguard future mobility and achieve other transportation-related goals and objectives stated in the Vision of the General Plan, the following set of coordinated strategies should guide decision-making and implementation efforts on a sub-regional basis:

a) develop urban land use patterns that support travel alternatives;

b) manage travel demand, system operation, and congestion levels;

c) expand system capacity and improve system integration; and

d) support new transportation technologies.

C-TR 6 Increase the proximity between housing and major employment areas to reduce commute distances and automobile-dependency by:

a) increasing supply and affordability of units in northern portions of the County, as well as increasing employment-related land uses in the southern portion of the metropolitan area;

b) applying the concepts of “balanced urban growth and development” in general to both the north and south valley areas;

c) encouraging developers and employers to build on-site or near-site housing for potential workers at a planned commercial or industrial site, the cost of which is matched to the workers’ wages;

d) encouraging developers to provide pedestrian and bicycle paths that connect housing and employment sites so as to encourage walking and bicycling.

C-TR 12 It is the goal of this plan to achieve a level-of-service (LOS) no lower than D at peak travel periods on City streets, County roads, expressways and state highways. However, in certain instances, a lower level of service may be acceptable when LOS D cannot practically be achieved.
Implementation Recommendation C-TR(i) 6  Development proposals which would cause existing levels-of-service for roadway segments and intersections in the vicinity of the proposed project to fall below level-of-service D at peak travel periods; or would create congestion at peak periods worse than level-of-service D on nearby roadway segments and intersections may be approved if either of the following mitigations are included in the project.

1. The developer implements ‘reasonable’ mitigation measures to offset increases in traffic congestion created by the project. Such mitigation measures could include contributing to transit improvements, contributing to TSM improvements, establishing employer-based TDM measures or other measures acknowledged by the Congestion Management Agency to offset the level-of-service impacts of the proposed project.

2. The project is located at or near an existing or planned transit node, higher density is desired by the approving agency, and programs will be implemented to encourage commuters to use commute alternatives, including transit.

Implementation Recommendation C-TR(i) 7  A CMA-approved deficiency plan must be written and implemented for all development proposals for which the level-of-service at peak travel periods on the CMP system roadways and intersections falls below LOS E.

C-TR 16 Provide a balanced and integrated transportation system, which will allow for alternative means of travel and opportunities for transfer between alternative means.

C-TR 34 Bicycling and walking should be encouraged and facilitated as energy conserving, non-polluting alternatives to automobile travel.

Implementation Recommendation C-TR(i) 47  Incorporate bicycle and pedestrian facilities (e.g., bicycle and pedestrian access routes, showers, secure bicycle storage facilities) in site designs.

Rural Unincorporated Area Issues & Policies

R-TR 6 Pathways and / or sidewalks which would provide safe, non-motorized circulation routes (i.e., pedestrian, equestrian and bicycle) should be provided within identified rural residential areas.

Implementation Recommendation R-TR(i) 8  Condition development proposals in the rural unincorporated area to allow for the development of safe pedestrian, equestrian and bicycle facilities.

R-TR 9 Rural roads should be designed and built to standards that will assure driving safety and provide access for emergency vehicles.

R-TR-11 New development which would significantly impact private or public roads, should be allowed only when safety hazards and roadway deterioration will be mitigated to a less than significant level.

Santa Clara County Congestion Management Program

In accordance with California Statute (Government Code §65088), VTA serves as the Congestion Management Agency (CMA) for Santa Clara County and administers and maintains the County’s Congestion Management Program (CMP). The CMP is a comprehensive transportation improvement program aimed at reducing traffic
congestion and mitigating the effects of local growth on the regional transportation system. The VTA is responsible for overseeing operations and monitoring performance standards (such as LOS) on the CMP roadway, transit, and bicycle networks. If performance deteriorates, then local jurisdictions must prepare a deficiency plan to be in conformance with the Countywide plan.

The CMP roadway network includes all state highways and principal arterials, as well as selected key intersections, in Santa Clara County. In the vicinity of the project site, U.S. 101 and Blossom Hill Road / Silver Creek Valley Road are designated as part of the CMP roadway network, and the U.S. 101 SB Ramps / Blossom Hill Road and Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road intersections are designated as CMP intersections.

The components of the CMP transit network closest to the project site include Caltrain, the Alum Rock – Santa Teresa light rail line, and bus service along Monterey Boulevard, Blossom Hill Road, and Cottle Road. The components of the CMP bicycle network closest to the project site include cross-country bicycle corridors along Monterey Boulevard and Blossom Hill Road / Silver Creek Valley Road.

**Edenvale Area Development Policy**

In accordance with General Plan Policy TR-5.3, the City of San Jose has adopted an Area Development Policy for the Edenvale Area of south San Jose (located west of the project site), establishing special traffic level of service standards and identifying development impacts and associated mitigation measures for the area. Portions of the Edenvale Area Development Policy (EADP) border the northwestern edge of the project site, generally encompassing the area bounded by U.S. 101 and Coyote Creek Trail on the west and the project site on the east, stretching from just south of Dove Avenue on the north to Silicon Valley Boulevard / Tennant Avenue on the south. This area includes Silver Creek Valley Road between the project site and the U.S. 101 northbound ramps at Coyote Road.

The EADP seeks to manage traffic congestion generated by near-term development in the Edenvale Area; promote General Plan goals for economic development (especially high technology-driven industries); encourage Citywide reverse commuting to jobs in southern San Jose; and facilitate transit-oriented, mixed-use (residential and commercial) development to increase internal trip capture and encourage transit use.

Key provisions of the EADP include ensuring the completion of major gateway infrastructure facilities and updating the design of these facilities to accommodate bicycles and pedestrians (in conformance with General Plan Goal TR-1, “Balanced Transportation System”). The EADP allows LOS at specific signalized intersections within the Edenvale Area to temporarily exceed the standards set forth in the Citywide LOS Policy, with the intention that operations at these intersections will be returned to a level better than or equivalent to background conditions upon completion of all identified mitigation measures.

Specifically, the EADP identifies several key infrastructure improvements necessary to accommodate development build-out in the Edenvale Area, including improvements to the U.S. 101 Blossom Hill Road / Silver Creek Valley Road interchange and other projects. The EADP also identifies “spot” improvements such as turn pocket extensions, intersection widening, and signalization at other locations in the area. Many of the identified improvements have already been constructed, although some, including the improvements to the U.S. 101
Blossom Hill Road / Silver Creek Valley Road interchange, have yet to be implemented. Development projects in or near the Edenvale Area are generally required to make a fair-share contribution toward the costs of these improvements proportionate to their contribution to the overall traffic at these locations.

3.16.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts related to transportation and circulation. The proposed project would result in a significant impact if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; and
- Conflict with adopted policies, plans, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Vehicle Miles Traveled

As discussed under the Regulatory Framework above, SB 743 initiated reforms to the State CEQA Guidelines to establish new criteria for determining the significance of transportation impacts to replace LOS with VMT as the recommended metric for determining the significance of transportation impacts. A draft of the proposed revisions to the State CEQA Guidelines was published and circulated by OPR for public comment on January 20, 2016. While the changes have yet to be formally adopted by the California Natural Resources Agency, some local jurisdictions have already begun implementing the changes required under SB 743 in transportation-related environmental review. While Santa Clara County has yet to adopt any formal changes to its significance criteria in response to SB 743, a brief discussion of vehicle miles traveled has been provided below for informational purposes.
Assessment Methodology

A transportation impact analysis (Appendix K) was prepared for the project in accordance with the standards and methodologies set forth by the City of San Jose and the Santa Clara Valley Transportation Authority. As discussed in further detail in the transportation impact analysis, the proposed project’s estimated travel demand does not warrant an analysis of freeway operations. Topics not explicitly addressed in the transportation impact analysis, including consistency with local transportation-related plans and policies and VMT, are discussed in this section.

In order to determine potential impacts to components of the roadway circulation system, intersection operations during the weekday AM and PM peak hours were evaluated for the following scenarios:

- **Existing Conditions**: Existing conditions as described in Section 3.16-1.

- **Existing plus Project Conditions**: Existing conditions with the addition of traffic and other effects generated by the proposed project. Project impacts are determined by evaluating intersection operations against Existing Conditions.

Significance criteria for determining project impacts on intersection operations are based on the thresholds established by the City of San Jose and the VTA Congestion Management Program. The VTA administers the County CMP, and the CMP traffic study methodology is used by the County for projects such as this one located near San Jose. Significance criteria for the City of San Jose and CMP intersections is described below.

- **City of San Jose**: A project is said to create a significant adverse impact on traffic conditions at a signalized intersection in the City of San Jose if one of the following conditions holds for either peak hour:
  - The level of service at the intersection degrades from an acceptable LOS D or better under background conditions to an unacceptable LOS E or F under project conditions; or,
  - The level of service at the intersection is an unacceptable LOS E or F under background conditions and the addition of project trips causes both the critical-movement delay at the intersection to increase by four (4) or more seconds and the volume-to-capacity (v/c) ratio to increase by 0.01 or more. An exception to this rule applies when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e., the change in average stopped delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical-movement v/c ratio by 0.01 or more.

A significant impact by City of San Jose standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to background conditions or better.

- **CMP**: The definition of a significant impact at a CMP intersection is the same as for the City of San Jose, except that the CMP standard for acceptable level of service at a CMP intersection is LOS E or better. Thus, a CMP intersection that operates at LOS F would fail to meet the CMP level of service standard.
Other transportation-related impacts of the project are evaluated qualitatively to determine if they would constitute significant impacts.

**Impacts and Mitigation**

**Impact TT-1:** The proposed project could conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. *(Less Than Significant)*

**Construction**

Construction of the proposed project would generally be completed in phases, beginning with site grading and continuing through to utilities / infrastructure and building construction. Construction activities are expected to last for several years and would involve the transport of construction materials, equipment, and crews to and from the site. The average daily traffic generated by construction activities, however, would be less than the estimated daily traffic generated by the project upon completion of construction and full occupancy of all dwelling units on the site. Furthermore, construction-related traffic would typically be spread over the course of the day and, unlike commute-related traffic, would not be concentrated during the weekday AM and PM peak periods. In contrast, residential uses such as under the proposed project typically generate their highest levels of vehicle activity during the weekday AM and PM peak periods, when demands on the transportation system are typically greatest. Thus, any transportation impacts related to construction would generally be smaller in magnitude than the equivalent impacts associated with full occupancy of the completed project (which are discussed in more detail below).

While traffic generated by construction activities on some days could approach or slightly exceed the daily traffic generated by the project upon completion and full occupancy, these conditions would be temporary and would not result in impacts that would be substantially greater than those generated by the project upon completion and full occupancy. As discussed previously, the EADP allows LOS at specific signalized intersections within the Edenvale Area to temporarily exceed the standards set forth in the Citywide LOS Policy, with the intention that operations at these intersections will eventually be returned to a level better than or equivalent to background conditions upon completion of identified mitigation measures.

Any heavy vehicle traffic, such as haul trucks or flatbed trailers carrying equipment or materials, would be expected to use specified truck routes with adequate capacity and accommodations to handle such vehicles. The general contractor(s) responsible for constructing the project would also be expected to minimize the effects of truck traffic and other traffic generated by construction activities at the site (such as construction worker vehicles) on general traffic circulation, transit service, and bicycle and pedestrian circulation and safety.

The project is not located in proximity to any Caltrans roadway facilities and would not require traffic restrictions or detours on any Caltrans roadway facilities during construction, or a Caltrans-approved Traffic Control Plan.

Overall, construction impacts on traffic operations and circulation, transit service, and bicycle and pedestrian circulation and safety would be *less than significant.*
Operation

Roadway Circulation (LOS Analysis)

Project impacts were evaluated for both a full-access alternative (traffic would be able to make both left turns and right turns into and out of the site at Silver Creek Valley Road) and a limited-access alternative (traffic would be restricted to right turns into and out of the site at Silver Creek Valley Road).

Travel demand for the proposed project (trip generation, trip distribution, and trip assignment) was estimated using a combination of data sources, including land use-based trip generation rates published by the Institute of Transportation Engineers (ITE) and trip distribution data derived from existing travel patterns on the surrounding roadway network. More detail on the estimated travel demand for the project is provided in Appendix K.

The results of the intersection LOS analysis under Existing plus Project Conditions are summarized in Table 3.16-3. As shown in Table 3.16-3, all study intersections would operate at an acceptable LOS during the weekday AM and PM peak hours. Therefore, operation of the proposed project would result in a less-than-significant impact on roadway circulation. As such, measures such as Travel Demand Management (TDM) programs designed to reduce vehicle miles traveled are not warranted.

| Table 3.16-3: Intersection Level of Service—Existing plus Project Conditions |
|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Intersection | Existing Conditions | Existing plus Project Conditions | | |
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scenario, the peak hour traffic would be approximately 87 vehicle trips during the weekday AM peak hour and 120 vehicle trips during the weekday PM peak hour. This would represent a slight increase in peak hour vehicle trips over the proposed project (17 more vehicle trips during the weekday AM peak hour and 33 more vehicle trips during the weekday PM peak hour). As shown in Table 3.16-3, all four study intersections would operate at LOS C or better during the weekday AM and PM peak hours under the proposed project, and it is not anticipated that such additional peak hour traffic would cause these intersections to degrade to unacceptable conditions (LOS E or LOS F).

Roadway Circulation (Vehicle Miles Traveled Analysis)

As discussed above, SB 743 established VMT as the recommended metric for determining the significance of transportation impacts, replacing LOS. While Santa Clara County has yet to adopt any formal changes to its significance criteria in response to SB 743, a brief informational discussion of VMT is provided in this subsection. Based on the analysis of project impacts related to greenhouse gas (GHG) emissions in Section 3.7, the proposed project would generate an estimated 1,886,500 vehicle-miles annually, including approximately 1,679,000 vehicle-miles for the 79 single-family residences and an additional 207,500 vehicle-miles for the 16 secondary units. On a per-household (i.e., per-unit) basis, the proposed project would generate approximately 19,850 vehicle-miles annually per household (approximately 21,250 vehicle-miles per household for the single-family residences and 12,970 vehicle-miles per household for the secondary units).

In the event that all 79 proposed lots would be developed with secondary units, the scenario would generate an estimated 2,704,000 vehicle-miles annually, including approximately 1,679,000 vehicle-miles for the 79 single-family residences and an additional 1,025,000 vehicle-miles for the 79 secondary units. On a per-household (i.e., per-unit) basis, this scenario would generate approximately 17,110 vehicle-miles annually per household (approximately 21,250 vehicle-miles per household for the single-family residences and 12,970 vehicle-miles per household for the secondary units).

This vehicle miles traveled analysis has been provided for informational purposes; however no significance conclusion is attributed to this analysis given that the Natural Resources Agency has not formally adopted revised guidelines in response to SB 743, and the VMT significance criteria has not been established.

Transit Service

Given the project’s total estimated travel demand, its location relative to existing transit services, the quality of these existing transit services, and the suburban development pattern of the surrounding neighborhoods, the project is expected to result in a negligible increase in transit ridership. Added automobile traffic generated by the project would generally result in slight increases to average delays at intersections in the vicinity of the project site, but these increases are not expected to be substantial enough to constitute a significant impact to transit operations. Operational impacts on transit service would be less than significant.

Pedestrian and Bicycle Circulation

Given the project’s total estimated travel demand, its location relative to existing pedestrian and bikeway facilities, and the suburban development pattern of the surrounding neighborhoods, the project is expected to result in a negligible increase in pedestrian and bicycle activity. The project would generate additional automobile
traffic on roadways in the vicinity of the project site, but this increase would not be substantial enough to constitute a significant impact to pedestrian or bicycle circulation. Operational impacts on pedestrian and bicycle circulation would be less than significant.

Impact TT-2: The proposed project could conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways. (Less Than Significant)

Construction

The average daily traffic generated by construction activities would be less than the estimated daily traffic generated by the project upon completion of construction and full occupancy of all dwelling units on the site. Thus, any transportation impacts related to construction would generally be smaller in magnitude than the equivalent impacts associated with full occupancy of the completed project (which are discussed in more detail below). Overall, construction impacts would be less than significant.

Operation

According to the CMP technical guidelines, a level of service analysis for freeway or rural highway segments is typically required when a project would add trips greater than one percent of a segment’s capacity or when the project is located adjacent to one of the freeway segment’s access or egress points or to the highway. Based on the estimated travel demand for the proposed project and the trip distribution for project-generated vehicle-trips, the proposed project would add no more than 24 vehicle-trips in any one direction to any segment of U.S. 101 during either the weekday AM or PM peak hour, equivalent to no more than 0.35 percent of the total capacity of the given freeway segment. In most directions and on most segments during either the weekday AM or PM peak hour, the proposed project would generate substantially less vehicle-trips.

Because the proposed project would add less than one percent of capacity to all freeway segments in the area, a freeway analysis for the CMP is not necessary and this impact would be less than significant. Detailed calculations are provided in Appendix K.

In the event that all 79 proposed lots would be developed with secondary units, the operational impacts of the proposed project related to congestion management would still be considered less than significant, as the anticipated increase in vehicle trips would still be well below one percent of the total capacity of any segment.

Impact TT-3: The proposed project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. (No Impact)

The project would not result in a change in air traffic patterns. As there would be no impact, no further evaluation of potential impacts related to air traffic patterns is required.
Impact TT-4: The proposed project would substantially increase traffic safety hazards due to a design feature or incompatible uses. *(Significant and Unavoidable)*

**Construction**

Any heavy vehicle traffic, such as haul trucks or flatbed trailers carrying equipment or materials, would be expected to use specified truck routes with adequate capacity and accommodations to handle such vehicles. Given the project’s location relative to the regional roadway system, it is expected that the majority of construction-related truck traffic would access the site from the west, via U.S. 101 and Silver Creek Valley Road. This route would have sufficient capacity and accommodations to handle heavy vehicle traffic generated by project-related construction activities. The general contractor(s) responsible for constructing the project would also be expected to minimize the effects of construction activities at the site (such as construction worker traffic) on general traffic safety through use of advance warning signage and coning to slow traffic, flaggers to temporarily stop traffic during truck maneuvers, and / or other solutions. The project is not located in proximity to any Caltrans roadway facilities and would not require traffic restrictions or detours on any Caltrans roadway facilities during construction, or a Caltrans-approved Traffic Control Plan.

Overall, construction impacts related to traffic safety would be *less than significant.*

**Operation**

As described in Appendix K, the proposed project would be served by a single access road connecting into Silver Creek Valley Road. Within the site, the development would include several neighborhood streets, and each of the residential homes would have access to the main road or one of the neighborhood streets. The main road would be 28 feet in width, curb-to-curb, and the neighborhood streets would be 26 feet in width. These widths would be adequate to allow one vehicle in each direction, but would not accommodate on-street parking.

The project also proposes pedestrian footpaths throughout the neighborhood and connecting to the existing Silver Creek Valley Trail along the south side of Silver Creek Valley Road. While no designated bikeways would be provided within the site, traffic activity on the internal street network would generally be low, making these streets conducive to bicycle travel and attractive to potential bicycle users. Streets and intersections would be constructed according to local and / or industry roadway design standards, including standards related to safety for motorists, pedestrians, bicyclists, and other roadway users.

Vehicular access to and from the project site would be restricted to the single access road and new intersection proposed along Silver Creek Valley Road. An operations analysis of the proposed intersection shows that it would not meet any of the Manual on Uniform Traffic Control Devices (MUTCD) signal warrants, and that it could function adequately with stop control. There are, however, potential traffic safety concerns associated with vehicle egress from the project site due to the traffic levels and prevailing travel speed along Silver Creek Valley Road. Specifically, motorists exiting the project site onto westbound Silver Creek Valley Road may have difficulty finding adequate gaps in oncoming traffic with sufficient frequency and / or of sufficient length, which may encourage motorists to attempt unsafe maneuvers. As there is no queuing space provided in the median of the roadway, motorists exiting left would also need to wait for simultaneous gaps in both directions of Silver Creek Valley Road. Vehicles attempting to enter the site at the same time would further complicate potential egress and
safety issues for vehicles exiting the site, as well as for background traffic traveling westbound along Silver Creek Valley Road. While egress from the project site could be restricted to right-turn movements, this would be an undesirable solution because it would shift these issues to the downstream intersection approximately 0.75 miles to the northeast at Hawkstone Way, which is also currently unsignalized.

Because the proposed project does not specifically propose any improvements to Silver Creek Valley Road at the new intersection with the proposed access road, the project’s traffic safety impacts would be potentially significant. However, this impact could be mitigated to less than significant with implementation of the following mitigation measure.

*Mitigation Measure TT-4: Construct Traffic Safety Improvements at the Intersection of Silver Creek Valley Road with the Proposed Access Road.* The project applicant shall provide a left-turn pocket (for ingress into the project site) and a merge lane (for egress from the project site) along westbound Silver Creek Valley Road at the intersection with the proposed access road. Objects within the sight distance triangle that could obstruct the vision of exiting motorists shall also be relocated or removed. Because these improvements are required as a direct result of the project, the project shall fund 100 percent of the cost to plan, design, and construct the proposed improvements. The improvements shall be completed prior to the issuance of any building permit.

The improvements required by Mitigation Measure TT-4 would allow vehicles exiting westbound to safely perform left-turn maneuvers in two stages (one to clear oncoming eastbound traffic and another to merge into the westbound traffic flow) and would segregate left-turning traffic entering the project site from through-traffic along westbound Silver Creek Valley Road. As such, implementation of Mitigation Measure TT-4 would mitigate the proposed project’s impact at this location to less than significant.

However, Silver Creek Valley Road is owned and maintained by the City of San Jose, which would have the authority and responsibility to review and approve the improvements at the proposed new intersection with the access road required by Mitigation Measure TT-4. As such, while the proposed mitigation is technically feasible, Santa Clara County has no jurisdic-tional control over the recommended improvements to City streets. It should be noted that the City has not confirmed that they would approve of such mitigation; therefore, the County cannot guarantee that the proposed mitigation would be implemented as described here. Therefore, this traffic safety impact is conservatively deemed *significant and unavoidable.*

**Impact TT-5: The proposed project could result in inadequate emergency access. (Less Than Significant)**

*Construction*

The general contractor(s) responsible for constructing the project would also be expected to minimize the effects of construction activities at the site (such as construction worker traffic) on emergency access. Silver Creek Valley Road features two travel lanes in each direction, which would allow background traffic to maneuver out of the path of oncoming emergency vehicles. In general, non-emergency vehicles must yield to emergency vehicles, as required by California Vehicle Code §21806. Furthermore, the project site is not located in the immediate vicinity of any facilities that would generate unusual amounts of emergency vehicle traffic, such as hospitals or
fire stations. While construction-related activities may result in temporary disruptions to traffic flow along Silver Creek Valley Road (e.g., when trucks need to enter or exit the project site), these effects would be temporary and minor and would not substantially affect overall emergency vehicle access in or through the area.

Overall, construction impacts would be less than significant.

**Operation**

Proposed streets and intersections would be constructed according to local and / or industry roadway design standards (such as standards issued by the National Association of City Transportation Officials (NACTO) and American Association of State Highway and Transportation Officials (AASHTO)), including standards related to access for emergency vehicles such as fire engines and trucks. As discussed above, Silver Creek Valley Road would have sufficient capacity to allow emergency vehicles to bypass background traffic, and the proposed project is not located in the immediate vicinity of any facilities that would generate unusual amounts of emergency vehicle traffic. While the proposed project would create a new intersection along Silver Creek Valley Road to provide access into and out of the project site, it would not fundamentally alter the roadway network or emergency access to or through the surrounding area.

Therefore, the impact associated with potential to result in inadequate emergency access would be less than significant.

**Impact TT-6: The proposed project could conflict with adopted policies, plans, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. (Less Than Significant)**

**Construction**

Any heavy vehicle traffic, such as haul trucks or flatbed trailers carrying equipment or materials, would be expected to use specified truck routes with adequate capacity and accommodations to handle such vehicles. The general contractor(s) responsible for constructing the project would also be expected to minimize the effects of construction activities at the site (such as construction worker traffic) on the performance and safety of public transit, bicycle, and pedestrian facilities. Overall, construction impacts would be less than significant.

**Operation**

The project would include pedestrian footpaths throughout the site, connecting to the existing Silver Creek Valley Trail along the south side of Silver Creek Valley Road. Streets and intersections would be constructed according to local and / or industry roadway design standards, including standards related to safety for pedestrians and bicyclists, and would not preclude future pedestrian or bikeway improvements along Silver Creek Valley Road or other roadways in the vicinity of the project site. As discussed under Impact TRA-1, the project would generate additional automobile traffic on roadways in the vicinity of the project site, but this increase would not be substantial enough to constitute a significant impact to transit operations or pedestrian or bicycle safety or circulation. Therefore, the project would not conflict with adopted policies, plans, or programs regarding public
transit, bicycle, or pedestrian facilities, and would not involve modifications to existing public transit, bicycle, or pedestrian facilities. This impact would be *less than significant*.

### 3.16.4 Cumulative Impacts

This section analyzes potential cumulative impacts related to transportation that could occur from a combination of the proposed project and other past, present, and reasonably foreseeable projects in the surrounding vicinity.

Implementation of the proposed project, in combination with other cumulative projects, would increase automobile traffic within the study area and thus would represent a potential cumulative transportation and circulation impact.

Specifically, the project would result in less-than-significant impacts with respect to conflicts with an applicable congestion management program (Impact TRA-2), safety hazards (Impact TRA-3), emergency vehicle access (Impact TRA-4), and alternative transportation (Impact TRA-5). Increased automobile traffic may, for example, increase emergency vehicle response times or transit vehicle delay at intersections, but these effects would not be substantial enough to constitute a cumulatively considerable contribution to any potentially significant cumulative impacts related to emergency access or transit service. Therefore, the analysis of cumulative impacts focuses primarily on intersection operations.

**Impact-C-TT: The proposed project could conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. (Less Than Significant with Mitigation)**

In order to determine potential impacts to components of the roadway circulation system, intersection operations during the weekday AM and PM peak hours were evaluated for the following scenarios:

- **Baseline Conditions:** Existing conditions with the addition of traffic and other effects generated by other land use developments in the study area that have been approved but are not yet completed. The added traffic from these developments was obtained from the City of San Jose’s Traffix database.
- **Baseline plus Project Conditions:** Baseline conditions with the addition of traffic and other effects generated by the proposed project. Project impacts are determined by evaluating intersection operations against Baseline Conditions.
- **Cumulative Conditions:** Future background conditions in the expected completion year of the project (2021). Cumulative Conditions conservatively assumes no improvements to the transportation network relative to Baseline Conditions, and future traffic volumes are estimated by applying a compound annual growth rate of 1.2 percent per annum to existing traffic volumes. Detailed information regarding the Cumulative Conditions analysis provided in Appendix K.
• Cumulative plus Project Conditions: Cumulative conditions with the addition of traffic and other effects generated by the proposed project. Project impacts are determined by evaluating intersection operations against Cumulative Conditions.

Similar to Existing plus Project Conditions, project impacts are evaluated for both the full-access and limited-access alternatives, using the significance criteria described in Section 3.16-3.

The results of the intersection LOS analysis under Baseline plus Project Conditions are summarized in Table 3.16-4. As shown in Table 3.16-4, the project would result in a significant impact at the Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road intersection. Specifically, the intersection would already operate at LOS F during the weekday PM peak hour under Baseline Conditions, and the added traffic generated by the project would cause critical movement average delay to increase by as much as 7.7 seconds (greater than the significance criteria threshold of 4.0 seconds) and critical movement v/c ratio to increase by as much as 0.016 (greater than the significance criteria threshold of 0.01).

### Table 3.16-4: Intersection Level of Service—Baseline plus Project Conditions

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Baseline Conditions</th>
<th>Baseline plus Project Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full-Access Alternative</td>
<td>Limited-Access Alternative</td>
</tr>
<tr>
<td></td>
<td>Weekday Peak Hour</td>
<td>Weekday Peak Hour</td>
</tr>
<tr>
<td></td>
<td>AM</td>
<td>PM</td>
</tr>
<tr>
<td><strong>LOS</strong></td>
<td>Delay</td>
<td>LOS Delay</td>
</tr>
<tr>
<td><strong>Signalized Intersections (CMP)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 U.S. 101 SB Ramps / Blossom Hill Road</td>
<td>F 100.1</td>
<td>F 206.2</td>
</tr>
<tr>
<td>2 Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road</td>
<td>F 131.0</td>
<td>F 299.3</td>
</tr>
<tr>
<td><strong>Signalized Intersections (City of San Jose)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Hellyer Avenue / Silver Creek Valley Road</td>
<td>C 32.7</td>
<td>D 42.8</td>
</tr>
<tr>
<td><strong>Unsignalized Intersections</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Hawkstone Way / Silver Creek Valley Road</td>
<td>F 57.2</td>
<td>C 22.8</td>
</tr>
</tbody>
</table>

Source: Hexagon, 2016 (Appendix K).

Notes:
For signalized intersections, average delay represents the average of all approaches.
For unsignalized intersections, average delay represents the worst movement.
Delay presented in seconds per vehicle.
**Bold** indicates substandard level of service.
**Bold underline** indicates significant project impact.

During the weekday AM peak hour, the intersection would operate at LOS F under both Baseline Conditions and Baseline plus Project Conditions, but the added traffic generated by the project would not cause an increase in critical movement average delay or critical movement v/c ratio in excess of the respective significance criteria.
thresholds. The same would hold for the U.S. 101 SB Ramps / Blossom Hill Road intersection during the weekday AM and PM peak hours. This represents a potentially significant cumulative traffic impact.

This cumulative level of service impact would be mitigated to a less-than-significant impact with implementation of the following Mitigation Measure C-TT-1:

Mitigation Measure C-TT-1: Make a Fair-Share Contribution towards the Edenvale Area Development Policy’s Planned Improvements at the Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road Intersection. The project applicant shall make a fair-share contribution towards the planned EADP improvements at this location, which involve adding a left-turn lane to the northbound U.S. 101 off-ramp, adding an eastbound through lane, and adding a westbound through lane at this intersection, as well as widening the Blossom Hill Road overpass. The project’s fair-share contribution toward the cost of the planning, design, and construction of these improvements shall be calculated based on the number of vehicle-trips the project adds to the overall traffic at the intersection and shall be paid prior to issuance of building permits.

These Mitigation Measure C-TT-1 improvements would result in an average delay (132.1 seconds) that is better than that under Baseline Conditions, satisfactorily mitigating the project’s significant impact at this intersection. Therefore, this impact is less than significant with mitigation incorporated. The project shall make a fair-share contribution toward the cost of improvements, calculated based on the number of trips the project adds to the overall traffic at the intersection.

The results of the intersection LOS analysis under Cumulative plus Project Conditions are summarized in Table 3.16-5. As shown in Table 3.16-5, the cumulative projects would result in a significant impact at the Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road intersection. Specifically, the intersection would already operate at LOS F during the weekday PM peak hour under Cumulative Conditions, and the added traffic generated by the cumulative projects would cause critical movement average delay to increase by as much as 7.7 seconds (greater than the significance criteria threshold of 4.0 seconds) and critical movement v/c ratio to increase by as much as 0.015 (greater than the significance criteria threshold of 0.01). This represents a potentially significant cumulative traffic impact.

However, during the weekday AM peak hour, the intersection would operate at LOS F under both Cumulative Conditions and Cumulative plus Project Conditions, but the added traffic generated by the project would not cause an increase in critical movement average delay or critical movement v/c ratio in excess of the respective significance criteria thresholds. The same would hold for the U.S. 101 SB Ramps / Blossom Hill Road intersection during the weekday AM and PM peak hours.

The project’s contribution to the cumulative level of service impact would be mitigated to a less-than-significant level through implementation of Mitigation Measure C-TT-1, resulting in an average delay that is better than that under Cumulative Conditions. Therefore, the proposed project’s cumulative impact would be less than significant with mitigation.
Table 3.16-5: Intersection Level of Service—Cumulative plus Project Conditions

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Cumulative Conditions</th>
<th>Cumulative plus Project Conditions</th>
<th>Full-Access Alternative</th>
<th>Limited-Access Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weekday Peak Hour AM</td>
<td>Weekday Peak Hour AM</td>
<td>Weekday Peak Hour AM</td>
<td>Weekday Peak Hour AM</td>
</tr>
<tr>
<td></td>
<td>LOS Delay</td>
<td>LOS Delay</td>
<td>LOS Delay</td>
<td>LOS Delay</td>
</tr>
<tr>
<td>U.S. 101 SB Ramps / Blossom Hill Road</td>
<td>F 118.7 F 237.4</td>
<td>F 119.7 F 237.2</td>
<td>F 119.7 F 237.2</td>
<td></td>
</tr>
<tr>
<td>Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road</td>
<td>F 141.7 F 317.1</td>
<td>F 144.5 F 321.7</td>
<td>F 144.5 F 321.7</td>
<td></td>
</tr>
<tr>
<td>Hellyer Avenue / Silver Creek Valley Road</td>
<td>C 33.0 D 44.0</td>
<td>C 33.1 D 45.1</td>
<td>C 33.1 D 45.5</td>
<td></td>
</tr>
<tr>
<td>Hawkstone Way / Silver Creek Valley Road</td>
<td>F 68.6 C 23.7</td>
<td>F 69.2 C 24.0</td>
<td>F 96.0 D 26.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Hexagon, 2016 (Appendix K).
Notes:
For signalized intersections, average delay represents the average of all approaches.
For unsignalized intersections, average delay represents the worst movement.
Delay presented in seconds per vehicle.
**Bold** indicates substandard level of service.
**Bold underline** indicates significant project impact.

In the event that all 79 proposed lots would be developed with secondary units, the cumulative impacts would still be considered less than significant with mitigation. Potential cumulative transportation impacts under this scenario and differences from the proposed project are discussed in further detail below.

- **U.S. 101 SB Ramps / Blossom Hill Road**
  Under both Baseline plus Project Conditions and Cumulative plus Project Conditions, the proposed project would only increase critical movement average delay at this intersection by up to 1.4 seconds during the weekday AM peak hour and up to 1.0 seconds during the weekday PM peak hour, which is well below the significance threshold of 4.0 seconds. The additional traffic generated by the alternative scenario would be unlikely to cause average delay on any of the critical movements to increase by 4.0 seconds or more. Therefore, impacts at this intersection would remain less than significant.

- **Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road**
  Under both Baseline plus Project Conditions and Cumulative Conditions, the proposed project would increase critical movement average delay by up to 3.0 seconds during the weekday AM peak hour and would result in a significant impact at this intersection during the weekday PM peak hour. Mitigation Measure C-TT-1 would mitigate the impact to a less than significant impact, with substantially lower average delay than conditions without the project (132.1 seconds for Baseline plus Project Conditions
with mitigation vs. 304.0 seconds for Baseline Conditions, and 147.7 seconds for Baseline plus Project Conditions with mitigation vs. 317.1 seconds for Cumulative Conditions).

Based on these results, the alternative scenario would also be likely to result in a significant impact at this intersection during the weekday AM and PM peak hours, but Mitigation Measure C-TT-1 would likely be sufficient to mitigate the impact to a less than significant impact.

- **Hawkstone Way / Silver Creek Valley Road**
  The proposed project would increase average delays on the worst movement, but the intersection would not satisfy the MUTCD peak hour traffic signal warrant under Baseline plus Project Conditions or Cumulative plus Project Conditions, indicating that the intersection likely does not warrant signalization based on minor-street approach delay alone. While the alternative scenario would further increase average delays on the worst movement, the intersection would still not satisfy the MUTCD peak hour traffic signal warrant. Therefore, the alternative scenario would result in a less than significant impact at this intersection.

### 3.16.5 References

City of San Jose (City), 2016a. *Citywide Trail Network*. Available online at:

______, 2016b. *Silver Creek Valley and Upper Silver Creek Trails*. Available online at:


______, 2011. *Envision San Jose 2040 General Plan*. Adopted November 1, 2011. Available online at:


Santa Clara Valley Transportation Authority (SCVTA), 2016a. *Bus & Rail Map*. Available online at:


3.17 UTILITIES AND ENERGY RESOURCES

This section describes the existing physical and regulatory setting related to utilities and energy resources and addresses the potential impacts of the proposed project related to these resources.

The following comments related to utilities and energy resources were received during the public scoping period in response to the Notice of Preparation:

- Inquiry regarding whether the proposed project would rely on City of San Jose utilities and services; and
- Concern regarding the impacts of the project on existing water supplies.

3.17.1 Existing Conditions

Water Supply

Santa Clara County

Water Demand and Allocation

Great Oaks Water Company (Great Oaks) is a retail urban water supplier, providing water for municipal purposes to more than 3,000 customers within a portion of the City of San Jose known as Edenvale, Blossom Valley, SE Almaden Valley and Coyote Valley area (Great Oaks, 2015). Great Oaks supplies more than 3,000 acre-feet of water annually. At the end of 2015, Great Oaks had more than 20,500 service connections and served a population of nearly 100,000 customers within its service area on a daily basis (Great Oaks, 2015). In 2015, Great Oaks met its customer demand, providing a total of 2,763 million gallons year (MGY) (see Table 3.17-1 below).

<table>
<thead>
<tr>
<th>Water Use</th>
<th>Volume (MGY*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>1,550</td>
</tr>
<tr>
<td>Multi-Family</td>
<td>537</td>
</tr>
<tr>
<td>Commercial</td>
<td>203</td>
</tr>
<tr>
<td>Industrial</td>
<td>61</td>
</tr>
<tr>
<td>Institutional/Governmental</td>
<td>275</td>
</tr>
<tr>
<td>Landscape</td>
<td>137</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,763</strong></td>
</tr>
</tbody>
</table>

Note: MGY = million gallons year, *values are rounded

Great Oaks expects its service population to reach approximately 140,574 customers by 2040 (an approximate 40 percent increase from existing service population). All of the demand served by Great Oaks is provided with potable water (no recycled or raw water is supplied). This increase demand for service is expected to increase water demand to 3,530 MGY by 2030, and 4,067 MGY by 2040, as shown in Table 3.17-2, below.
### Table 3.17-2: Retail: Projected Future Water Demand for Great Oaks Service Area

<table>
<thead>
<tr>
<th>Water Use</th>
<th>Projected Future Retail Demand (MGY)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2020</td>
</tr>
<tr>
<td>Single Family</td>
<td>1,726</td>
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<tr>
<td>Multi-Family</td>
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<tr>
<td>Commercial</td>
<td>226</td>
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<tr>
<td>Industrial</td>
<td>67</td>
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<tr>
<td>Institutional/Governmental</td>
<td>308</td>
</tr>
<tr>
<td>Landscape</td>
<td>154</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,080</strong></td>
</tr>
</tbody>
</table>

Note: MGY = million gallons year  
Source: Great Oaks, 2015

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**Groundwater**

The Santa Clara Valley Water District (SCVWD) is the local government agency responsible for groundwater management in Santa Clara County. The SCVWD manages two groundwater subbasins within the County: the Santa Clara Subbasin and the Llagas Subbasin. The Santa Clara Subbasin is delineated into two groundwater management areas, the Santa Clara Plain, and the Coyote Valley. Great Oaks’ groundwater supplies are sourced from the Santa Clara Subbasin (Great Oaks, 2015) and are, therefore, subject to decisions made by SCVWD pertaining to groundwater recharge and surface stream flows.

**Santa Clara Plain Groundwater Management Area**

The operational storage capacity of the Santa Clara Plain is estimated at 350,000 acre-feet (AF) (SCVWD, 2012). In 2010, 81,100 AF was pumped, 95 percent of which was utilized for municipal and industrial uses. Groundwater pumping and recharge for the Santa Clara Groundwater Basin is not a closed system. The SCVWD imports water from the Department of Water Resources State Water Project (SWP) and Central Valley Project (CVP) for groundwater recharge. Additional recharge is supplied by water rights stored in Hetch Hetchy. The recharge program also uses water runoff from rainfall. Between 2009 and 2011, the SCVWD recharged an average of 100,000 AF of local and imported water per year. Between 2006 and 2010, 36 percent of the groundwater recharge came from imported water (i.e., SWP and CVP), 31 percent was sourced from local reservoirs, and the remaining 33 percent was supplied by local rainfall (SCVWD, 2012).

**Coyote Valley Groundwater Management Area**

The project site is located in the vicinity of the Coyote Valley Groundwater Management Area. The operational storage capacity of Coyote Valley is estimated to the range between 23,000 and 33,000 AF (SCVWD, 2012). In 2010, 12,300 AF was pumped, of which 45 percent was utilized for agricultural purposes and 53 percent was utilized for municipal and industrial uses. Annual recharge is estimated to be about 14,500 AF per year, with approximately 80 percent of that coming from SCVWD’s managed recharge supplies (see discussion under “Santa Clara Plain Groundwater Management Area” above). Natural sources of recharge include the deep percolation of rainfall, subsurface inflow from surrounding hills (mountain front recharge), natural seepage from creeks, and return flows from septic systems and irrigation. Coyote Valley is dependent on Coyote Creek for its
water supply, which is predominately fed by SCVWD releases from the Anderson-Coyote reservoir system and imported CVP water (SCVWD, 2012).

**Drought Contingency Planning**

The SCVWD has flexibility during periods of drought, as it relies on a medley of local and important water supplies (see discussion above under “Groundwater”). Ongoing drought conditions and mandatory water conservation measures have been largely successful for Great Oaks during recent drought years. For the June to December 2015 period, the State Water Board mandated that Great Oaks reduce its water production by twenty percent against its 2013 water production schedule. Great Oaks proposed mandatory water conservation measures in a new schedule (Schedule No. 14.1 tariff), and through those measures, Great Oaks reduced its water production (by reducing its customers’ water use) by 33.5 percent between the June and December 2015 (Great Oaks, 2015).

**Project Site**

Presently, there is no public water supply infrastructure or facilities on the project site. The domestic water provider for the proposed project would be Great Oaks, a privately-owned utility company. All of the water provided by Great Oaks is sourced from underground water supplies stored in the Santa Clara Valley Groundwater Basin (Basin No. 2-09, Subbasin No. 2-09.02). This basin is the largest “reservoir” in the Santa Clara County.

**Storm Drainage and Sanitary Sewer**

**Santa Clara County**

Drainage and flood control within the Santa Clara County is managed jurisdictionally by the context of local drainages and “flood control” by County and city governments through the construction of curbs, gutters, inlets, and storm drains that collect runoff and direct it into the major creeks and channels on the valley floor. The SCVWD provides management of runoff in creeks and channels that collect runoff from storm drains (Santa Clara County, 1994).

Santa Clara County is served by eight municipal and eight special sanitary district sewage collection systems. Sewage collected from incorporates areas in northern parts of the County are treated at the San Jose/Santa Clara Water Pollution Control, Palo Alto and Sunnyvale plants. These plants discharge their effluent waste directly or indirectly into the San Francisco Bay. Most of the Unincorporated County is not served by sanitary sewers, but relies on septic tanks. The County regulates the siting of septic leachfields to ensure that they pose no hazards to the health of local water bodies (Santa Clara County, 1994).

**Project Site**

The project site contains a north-south ridge line with intermittent drainages breaking either west towards Coyote Creek or east towards Silver Creek. A small part of Silver Creek flows through the eastern portion of the property. The area between the project site and Highway 101 is served by City storm drains that discharge to Coyote Creek. A 36-inch storm drain line in Silver Creek Valley Road parallels the project site’s northern boundary.
There is no existing sewage system for the project site.

Energy

Santa Clara County

Electricity

PG&E is currently the electric service provider to the County of Santa Clara. Pacific Gas & Electric Company (PG&E) electrical transmission lines and towers run in a north-south direction across the eastern portion of the project site. Additional overhead electrical transmission lines and towers run northwest to southeast from Silver Creek Valley Road along the northwestern boundary of the project site.

PG&E serves approximately 16 million customers through 158,000 circuit miles of electric transmission and distribution lines within its 70,000-square-mile service area in northern and central California (PG&E, 2016a). In 2014 (year of most recent data), PG&E delivered approximately 102,589.46 million kilowatt-hours (kWh) of electricity within its service area (CEC, 2016a).

Of this total, approximately 16,670.8 million kWh of electricity was consumed in the County of Santa Clara (including incorporated and unincorporated areas), which accounted for approximately 3 percent of the total electrical consumption within the PG&E service area (CEC, 2016b). Table 3.17-3 shows PG&E’s historic electrical consumption and future consumption forecasts.

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumption (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>86,803</td>
</tr>
<tr>
<td>2000</td>
<td>101,333</td>
</tr>
<tr>
<td>2005</td>
<td>101,675</td>
</tr>
<tr>
<td>2010</td>
<td>108,344</td>
</tr>
<tr>
<td>2015</td>
<td>115,828</td>
</tr>
<tr>
<td>2020</td>
<td>122,414</td>
</tr>
<tr>
<td>2024</td>
<td>123,443</td>
</tr>
</tbody>
</table>

Source: CEC 2009; 2013
Acronyms: GWh = gigawatt hours
Notes:
1. PG&E Service Area includes 70,000 square-miles in northern and central California, covering the Bay Area, Sacramento, and most of the Central Valley and California Central and North Coast.
2. A gigawatt equals 1 billion watts.

Electricity Sources

PG&E electricity is generated through a combination of nuclear power plants; natural gas-fired power plants; renewable energy sources, such as wind, solar, geothermal, and small hydroelectric facilities; and additional energy purchased from other energy suppliers. As shown in Table 3.17-4 (below), in 2015, PG&E received 25 percent of its electricity from natural gas-fired power plants; 23 percent from nuclear generation; 30 percent from eligible renewable resources, such as biomass, solar, wind, geothermal, and small hydroelectric power plants that
generate 30 megawatts (MW) or less of electricity; 6 percent from large hydroelectric power plants; and 17 percent from other unspecified power sources (i.e., electricity that is not traceable to specific generation sources by any auditable contract) (PG&E, 2016b). ¹

<table>
<thead>
<tr>
<th>Electrical Sources</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>25</td>
</tr>
<tr>
<td>Nuclear</td>
<td>23</td>
</tr>
<tr>
<td>Renewable²</td>
<td>30</td>
</tr>
<tr>
<td>Large Hydroelectric</td>
<td>6</td>
</tr>
<tr>
<td>Other Unspecified</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: PG&E, 2016b

Notes:
¹ See Service Area description in Table 3.17-3, above.
² Renewable energy sources include biomass, solar, wind, geothermal, and small hydroelectric power plants that generate 30 MW or less of electricity. These energy sources are considered eligible to meet California’s renewable portfolio standard of 33 percent renewable energy generation by 2020.
³ Other unspecified sources refer to electricity that is not traceable to specific generation sources by any auditable contract.

**Natural Gas**

PG&E provides gas distribution service to the adjacent Silver Creek residential community north of the project site, as well as to the Piercy Road and Basking Ridge Avenue development west of the project site. PG&E has a 34-inch gas transmission main within a 50-foot wide easement on the property running generally just of the ridgeline from the center of the north project boundary to the southeast corner of the project site. A second 34-inch gas transmission main runs between the project and Highway 101, generally between Piercy Road and Hellyer Avenue, continuing through the Basking Ridge Avenue development to where Coyote Creek crosses Highway 101. Adjacent to the Coyote Creek/Highway 101 crossing, the transmission main crosses under Basking Ridge Avenue, and continues south between Basking Ridge and Highway 101.

In 2014 (year of most recent data), PG&E delivered approximately 4,386.40 million therms (MM therms) of natural gas throughout its service area in California (CEC, 2016c). Of this total, the County of Santa Clara received 402.53 MM therms – approximately 9 percent of the total deliveries within the PG&E service area (CEC, 2016d). Table 3.17-5 shows PG&E’s historic natural gas consumption and forecasts of future consumption. New efficiency initiatives, including the 2013 Title 24 building standards update, contribute to a lower natural gas future forecast (CEC, 2013).

¹ Renewable energy sources for the purposes of California’s renewable portfolio standard of 33 percent renewable energy generation by 2020 include biomass, solar, wind, geothermal, and small hydroelectric power plants that generate 30 MW or less of electricity.
Table 3.17-5: PG&E Service Area\(^1\) Natural Gas Consumption and Forecast

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumption (MM Therms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>5,275</td>
</tr>
<tr>
<td>2000</td>
<td>5,291</td>
</tr>
<tr>
<td>2012</td>
<td>4,761</td>
</tr>
<tr>
<td>2015</td>
<td>4,761</td>
</tr>
<tr>
<td>2020</td>
<td>4,848</td>
</tr>
<tr>
<td>2024</td>
<td>4,909</td>
</tr>
</tbody>
</table>

Source: CEC, 2013
Acronyms: MM therms = million therms
Notes:
\(^1\) See Service Area description in Table 3.17-3, above.

**Project Site**

Public utilities, including those related to energy, are not currently provided to the project site. On-site utility easements on the project site serve other properties in the area.

**Solid Waste and Recycling Collection Service**

**Santa Clara County**

The project site area of unincorporated Santa Clara County receives solid waste services from the Green Team. Solid waste is transported and disposed of at the Guadalupe Landfill in San Jose. Guadalupe Landfill provides waste management services for nonhazardous solid wastes, including construction/demolition, mixed municipal, industrial, and green material waste. Guadalupe Landfill has a maximum permitted throughput of 1,300 tons per day of solid waste, and has a remaining capacity of approximately 11 million cubic yards (as of 2011). The estimated closure date for the landfill is 2048 (CalRecycle, 2016a). With implementation of the California Green Building Code, which requires the reduction of construction waste and demolition debris by 50 percent, and implementation of other County recycling programs, such as curbside recycling of paper, plastics, and bottles, the life of the Guadalupe Landfill will likely be extended beyond 2048 (see “Regulatory Framework” below for further discussion of the Green Building Code).

**Project Site**

Currently, the project site is undeveloped and generates minimal, if any, waste. In 2014, the unincorporated areas of the Santa Clara County disposed a total of 52,606.26 tons of solid waste (CalRecycle, 2016b).
3.17.2 Regulatory Framework

Federal

National Energy Conservation Policy Act (NECPA)

NECPA (Public Law 95-619) is a U.S. statute signed into law in 1978 as part of the National Energy Act. NECPA requires utilities to provide residential consumers with energy conservation audits and other services to encourage slower growth of electricity demand. NECPA was amended in 1985 by the Energy Policy and Conservation Act Amendments of 1985 (Public Law 99-58).

USEPA and DOE Energy Star Program

Energy Star is a joint program of the United States Environmental Protection Agency (USEPA) and the Department of Energy (DOE). The program establishes criteria for energy efficiency for household products and labels energy efficient products with the Energy Star seal. Homes can be qualified as Energy Star homes as well if they meet efficiency standards. In California, Energy Star homes must use at least 15 percent less energy than the Title 24 regulations, pass the California Energy Star Homes Quality Insulation Installation Thermal Bypass Checklist Procedures, have Energy Star windows, and have minimal duct leakage.

State

California Urban Water Management Planning Act

Senate Bill (SB) 610 requires preparation of a Water Supply Assessment for any development whose approval is subject to CEQA and that meets the definition of “project” under CWC section 10913 (i.e., a residential development project of more than 500 dwelling units or other types of development) (e.g., commercial buildings, industrial parks, and hotels) expected to use a comparable amount of water.

Projected water use for the proposed project would be much less than the 500 dwelling unit equivalency threshold, therefore SB 610 is not applicable.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed Assembly Bill (AB) 939, the California Integrated Waste Management Act of 1989, effective January 1990. The legislation required each local jurisdiction in the state to set diversion requirements of 25 percent by 1995 and 50 percent by 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, SB 1016, Wiggins, Chapter 343, Statutes of 2008, introduced a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. Therefore, the new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction’s population (or in some cases employment) and its disposal as reported by disposal facilities.
The County’s established annual per capita disposal rate set by the California Department of Resources Recycling and Recovery (CalRecycle) for the unincorporated area is 4.0 pounds per day per resident and 13.1 pounds per day per employee (CalRecycle, 2016b).

**2013 California Green Building Standards Code**

The California Green Building Code (Part 11, Title 24) standards became effective on January 1, 2011. The California Green Building Standards Code was updated in 2013 (CBSC, 2013). This code was developed to enhance the design and construction of buildings and sustainable construction practices through planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental air quality.

The 2013 standards require a 20 percent mandatory reduction in indoor water use, separate water meters for nonresidential buildings’ indoor and outdoor water use. It further requires the preparation of a construction waste management plan that identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale; determines if materials will be sorted on site or mixed; identifies diversion facilities where material collected will be taken; and specifies that the amount of materials diverted should be calculated by weight or volume, but not by both (CEC, 2009). In addition, the Green Building Code requires that 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing be reused or recycled. It also requires separate water meters for nonresidential buildings’ indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects, and mandatory inspections of energy systems (e.g., heat furnace, air conditioner and mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity and according to their design efficiencies Section 4.408 of the code establishes state-wide standards for construction waste reduction, disposal, and recycling. This section requires the reduction of most nonhazardous construction and demolition waste by at least 50 percent, the use of a construction waste management plan, and documentation demonstrating compliance with the waste management plan (CBSC, 2013).

**California Energy Regulations**

Title 24, Part 6, of the California Code of Regulations (CCR) is the California Building Code, which governs all aspects of building construction. Included in Part 6 of the Code are standards mandating energy efficiency measures in new construction. Since its establishment in 1977, the building efficiency standards (along with standards for energy efficiency in appliances) have contributed to a reduction in electricity and natural gas usage and costs in California. The standards are updated every three years to incorporate new energy efficiency technologies. The latest update to the Title 24 standards became effective on January 1, 2008. The standards regulate energy consumed in buildings for heating, cooling, ventilation, water heating, and lighting. Title 24 is implemented through the local planning and permit process.

**California Water Conservation Act**

The California Water Conservation Act (SB X7-7) was enacted in November 2009 and requires each urban water supplier to select one of four water conservation targets contained in California Water Code Section 10608.20 with the statewide goal of achieving a 20 percent reduction in urban per-capita water use by 2020. Under SBX7-7,
urban retail water suppliers are required to develop water use targets and submit a water management plan to DWR by July 2011. The plan must include the baseline daily per-capita water use, water use target, interim water use target, and compliance daily per-capita water use.

Great Oaks prepared an Urban Water Management Plan (UWMP) in 2015, which demonstrates compliance with State water conservation requirements through implementation of 14 demand management measures (Great Oaks, 2015).

**California Integrated Waste Management Act**

The California Integrated Waste Management Act (CIWMA) created the California Integrated Waste Management Board (now known as CalRecycle). CalRecycle is the agency designated to oversee, manage, and track California’s 92 million tons of waste generated each year. The California Water Resources Control Board and the Central Valley Regional Water Quality Control Board also regulate waste disposal (the latter regulated solid waste prior to CalRecycle).

The CIWMA of 1989 is the result of two pieces of legislation, AB 939 and SB 1322. The CIWMA was intended to minimize the amount of solid waste that must be disposed of by transformation and land disposal by requiring all cities and counties to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000.

**California Building Energy Efficiency Standards**

Energy Conservation Standards for new residential and commercial buildings were originally adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2013 (Title 24 CCR Part 6 “also known as the California Energy Code”). In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The California Energy Commission adopted changes to the 2008 Building Energy Efficiency Standards contained in Title 24 CCR Part 6 and associated administrative regulations in Part 1 (collectively referred to here as the Standards). The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction (CEC, 2012). The standards offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Projects accommodated under the Proposed Plan will be required to comply with current Title 24 regulations related to energy efficiency.

There is another update to the energy efficiency standards for 2016 that becomes effective January 1st, 2017. The 2016 update to the Building Energy Efficiency Standards will improve the energy efficiency of newly constructed

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2 CalRecycle provides grants and loans to help cities, counties, businesses, and organizations meet the State’s waste reduction, reuse and recycling goals. CalRecycle promotes a sustainable environment where these resources are not wasted, but can be reused or recycled. In addition to many programs and incentives, CalRecycle promotes the use of new technologies for the practice of diverting resources away from landfills. CalRecycle is responsible for ensuring that waste management programs are primarily carried out through local enforcement agencies (LEAs).

3 These new energy efficiency standards were developed in response to the State’s energy crisis, as well as AB 970 (Chapter 329, Statutes of 2000), the California Energy and Reliability Act of 2000.
buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential standards include improvements for attics, walls, water heating, and lighting. The new standards address non-residential development, as well, and build on the energy efficiency progress made within previous iterations.

The 2016 Building Energy Efficiency Standards may reduce statewide annual electricity consumption by approximately 281 gigawatt-hours per year, electrical peak demand by 195 megawatts, and natural gas consumption by 16 million therms per year. The potential effect of these energy savings to air quality may be a net reduction in the emission of nitric oxide by approximately 508 tons per year, sulfur oxides by 13 tons per year, carbon monoxide by 41 tons per year and particulate matter less than 2.5 microns in diameter by 13.57 tons per year. Additionally, Energy Commission staff estimated that the implementation of the 2016 Standards may reduce statewide greenhouse gas emissions by 160 thousand metric tons CO$_2$e per year.

**California 2012 Appliance Efficiency Regulations**

The 2012 Appliance Efficiency Regulations (Title 20 CCR Sections 1601-1608), dated October 2012, were adopted by the California Energy Commission on January 12, 2012, and were effective as of February 1, 2013. The regulations include standards for both federally-regulated appliances and non-federally regulated appliances. While these regulations are now often seen as “business as usual” in California, they do exceed the standards imposed by any other state and reduce energy demand.

**Regional**

**San Francisco Bay Area Regional Water Quality Control Board**

The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) regulates the discharge of municipal waste water into the San Francisco Bay. The three sewage treatment plants that serve all of the urban communities in Santa Clara County include: the San Jose/Santa Clara Water Pollution Control Plant (WPCP), the Palo Alto Regional Water Quality Control Plant, and the Sunnyvale WPCP. Treated effluent from these South Bay municipal dischargers is discharged to shallow sloughs contiguous with the Bay, south of the Dumbarton Bridge (SFBRWQCB, 2016).

The proposed project would not contribute waste water to the municipal wastewater system or to the three sewage treatment plants identified above.

**Local**

**Santa Clara County General Plan**

The County of Santa Clara General Plan was adopted by the County in 1994. The following County-wide (C) and Rural Unincorporated area (R-) policies are relevant to the proposed project in regards to utilities (Santa Clara County, 1994):
**Water**

R-RC 8  The strategies for assuring water quantity and quality for the rural unincorporated areas shall include:

a) Require adequate water quantity and quality as a pre-condition of development approval.

b) Reduce the water quality impacts of rural land use and development.

R-RC 9  Development in rural unincorporated areas shall be required to demonstrate adequate quantity and quality of water supply prior to receiving development approval.

**Wastewater**

C-RC 13  Use of reclaimed wastewater for landscaping and other uses, including groundwater recharge if adequately treated, should be encouraged and developed to the maximum extent possible.

Other County policies related to septic systems are included in Section 3.6, Geology and Soils and Section 3.9, Hydrology and Water Quality.

**Solid Waste**

C-RC 63  Santa Clara County shall strive to reduce the quantity of solid waste disposed of in landfills and to achieve or surpass the requirements of state law (the law currently specifies 25 percent reduction of landfilled wastes by 1995, and 50 percent by 2000).

C-RC 64  County-wide solid waste management efforts shall be guided by the hierarchy of strategies outlined below, emphasizing resource recovery in accordance with state law:

a) Source reduction and reuse,

b) Recycling and composting,

c) Transformation, and

d) Landfilling as final option.

C-RC 66  Santa Clara County shall seek innovative and effective means of reducing the primary components of solid waste generated by homes and businesses, including but not limited to such efforts as reducing waste paper, junk mail, unnecessary product containers, and yard waste.

**Energy**

C-RC 77  Energy efficiency and conservation efforts in the transportation, industrial, commercial, residential, agricultural and public sectors shall be encouraged at the local, county (sub-regional), and regional level.

C-RC 78  The objectives of the state energy plan should be implemented at the local and regional level through an overall strategy consisting of:

a) Reducing transportation energy demand and oil-dependency;

b) Conserving energy in residential, commercial, agricultural, and industrial sectors; and
c) Increasing consumer and general public awareness through education.

C-RC 79 Energy use and fossil fuel dependency in the transportation sector should be reduced by the following general means:

a) Growth management policies and implementation to minimize increases in the extent of the urbanized area and to promote balanced, compact urban development;

b) Land use and development standards which support alternative transportation modes;

c) Travel demand management, TDM, and transportation system operational efficiency;

d) Expanded transit service; and

e) Increased availability and use of alternative fuels.

C-RC 82 Alternatives to non-renewable energy sources should be encouraged and implemented in the design of new buildings and incorporated in the redesign and reconstruction of older buildings.

Santa Clara County Code of Ordinances

Green Building Regulations

Title C, Chapter III, §C3-52(a) and C3-53, the Green Building Regulations (County of Santa Clara, 2012) seek to enhance public health and welfare and assure that green building principles and practices are incorporated into new development to limit impacts to the natural and human environment within unincorporated Santa Clara County. These regulations reflect and also amend and revise the 2013 California Green Building Regulations identified above. The provisions referenced are designed to achieve the goals listed below:

- Increase energy efficiency in buildings.
- Reduce potable water demand.
- Encourage natural resource conservation.
- Reduce waste generated by construction projects.
- Provide durable buildings that are efficient, cost-effective, and economical to own and operate.
- Promote the health and productivity of residents and workers who occupy and live in buildings within the County.

Water Conservation in Landscaping Ordinance

In 2010, the County of Santa Clara Board of Supervisors adopted the Water Conservation in Landscaping Ordinance, which implements AB 1881: The California Water Conservation in Landscaping Act. The purpose of the ordinance is to reduce water waste in the County by promoting the use of region-appropriate plants that require minimal supplemental irrigation, and by establishing standards for irrigation efficiency. The ordinance was updated per Executive Order B-29-15 (adopted January 2016), to incorporate the DWR update to the ordinance requirements; superseding AB 1881. The new ordinance stipulates more stringent water efficiency standards.
3.17.3 Environmental Impacts

Significance Criteria

The following significance criteria are from Appendix G of the CEQA Guidelines and are used to determine the level of impacts related to utilities and energy. The proposed project would result in a significant impact if it would:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
d) Require new or expanded entitlements in order to have sufficient water supplies available to serve the project;
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments;
f) Not be able to be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs; or

g) Be in non-compliance with federal, State, and local statutes and regulations related to solid waste.

In addition the following significance criteria are from Appendix F of the CEQA Guidelines and are used to determine the level of impacts related to energy resources and conservation. The proposed project would result in a significant impact if it would:

h) Encourage activities that result in large amounts of fuel, water, or energy use, or use of these in a wasteful manner;
i) Result in inefficient use of energy, as indicated by a substantial increase in per capita energy consumption in the jurisdiction;
j) Require or result in the construction of new electrical generation and/or transmission facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects; or

k) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing energy use, particularly non-renewable energy use (often referred to as energy efficiency standards and can be applicable to projects, buildings, appliances, etc.).

Assessment Methodology

The aforementioned significance criteria were applied to determine impact significance using a quantitative approach. The following evaluation discusses whether the proposed project would result in direct impacts on
utilities and energy resources such as existing wastewater and storm water drainage facilities, water supply, water treatment facilities, existing landfill capacity, and the consumption of energy (i.e., electricity or natural gas). The following evaluation also discusses whether the proposed project would result in indirect impacts on utilities and services systems such as: construction impacts from new storm water drainage systems,

The following evaluation of impacts is based on review of published data and material provided by the California Building Standards Commission, California Energy Commission, CalRecycle, Santa Clara County, Great Oaks Water Company, PG&E, Santa Clara Valley Water District, the Sustainable Sites certification program, communications with service providers, project applicant’s design drawings, and other available information.

**Impact UE-1: The proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, result in the construction of new or expanded wastewater treatment facilities, or result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve the project’s projected demand. (No Impact)**

**Construction**

No wastewater service is available for the project site, and the project does not propose to extend such service into the project site. Thus, there would be **no impact** to wastewater systems from project construction.

**Operation**

A separate septic system and leach field would serve each proposed lot and the community center. Septic systems are a typical form of sanitary sewer disposal in unincorporated County areas, and do not require a common collection system as do city sewer systems. Because the proposed project would not be served by a municipal wastewater service provider with a facility regulated by the SFBRWQCB, the proposed project would not exceed wastewater treatment requirements of the SFBRWQCB and would not require new or expanded wastewater treatment facilities.

As permitted in Santa Clara County Code Section B11, all proposed lots at the project site would be served by individual septic systems and leach fields in conformance with County’s On-site Wastewater Treatment Systems (Septic) Ordinance (Sections B11-60 through B11-95 of the Santa Clara County Code). The Community Guidelines for the proposed project (Appendix C) include a diagram of each proposed lot that identifies a septic feasibility area, which the project applicant indicates as being suitable to accommodate septic systems. As discussed in Section 3.6, Geology and Soils, the Septic Ordinance requires review of the proposed project by the County’s Department of Health, and any proposed lots that do not meet the requirements of the ordinance would not be included on the tentative map for the project.

Given that the proposed project would not be served by a municipal wastewater service provider, the provider of such services did not need to determine the adequacy of the systems treatment capacity to serve the proposed project’s demand. Therefore, operation of the proposed project would result in **no impact** to wastewater services.
Note that impacts related to the proposed septic systems on slope stability are discussed in Section 3.6, Geology and Soils, and impacts from proposed septic systems on surface and ground water quality are discussed in Section 3.9, Hydrology and Water Quality.

**Impact UE-2: The proposed project would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Less Than Significant)**

**Construction**

The proposed project would require the construction of storm drainage system for the portion of the project site that would be developed.

During construction activity, the proposed project would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) and file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) at the proper time. The SWPPP will include erosion control plans that will show seasonally- and phase-appropriate Best Management Practices (BMPs) for erosion control, run-on and run-off control, sediment control, good site management, and non stormwater management. Project construction would also comply with San Francisco Regional Water Quality Control Board Municipal Regional Stormwater Permit Order No. 2009-0074 Provision C.3 and the Santa Clara Valley Urban Runoff Pollution Prevention Program C.3 Stormwater Handbook (SCVURPPP). These matters are discussed further in Section 3.9, “Hydrology and Water Quality.”

Note that physical impacts associated with the construction of new stormwater infrastructure are evaluated throughout this EIR in Sections 3.1 through 3.16.

With implementation of the BMPs discussed above, and compliance with SWPPP and the San Francisco Regional Water Quality Control Board Municipal Regional Stormwater Permit Order No. 2009-0074 Provision C.3 and the SCVURPPP C.3 Stormwater Handbook, impacts from the proposed project on the environment from the construction of new stormwater drainage systems as part of the proposed project would be less than significant.

**Operation**

The open space area of the project site that would remain undeveloped is considered to be “self-treating.” As a result, only runoff from the individual lots, community center site and the roadway area would need to be treated. Runoff from the individual lots and community center would be treated before leaving each lot, as discussed in Section 3.9, Hydrology. Runoff from the roadway would utilize infiltration as the treatment method by directing runoff to open space areas. The proposed storm drainage systems would mimic existing drainage patterns and largely avoid traditional pipe drainage systems with implementation of Low Impact Development (LID) measures to infiltrate, treat, and manage stormwater. Stormwater treatment would be addressed by one or a combination of the following options: landscape dispersion, grassy swales, bio-retention planter areas, and permeable pavement.

The project’s expansive open space areas would be employed as a means of reducing stormwater runoff, using two basic storm drainage design approaches. First, in non-hillside areas, where feasible, runoff would sheet flow from the road to the adjacent vegetated landscape areas. Where this is not feasible (i.e., if the road is in a valley
and the adjacent topography does not slope away from the road), drainage ditches would be placed on one or both sides of the roadway, to be discharged with proper erosion controls at low points or where the road transitions to a hillside section. Second, in hillside areas, where the roadway traverses a slope, a ditch on the upslope side of the road would collect runoff from the hillside. Cross drains, located at intervals, would limit the size of the drainage ditch, which would be naturalistic and lined with native grasses. The cross drains would discharge on the downslope side of the road to energy dissipaters designed to slow and spread runoff. This would avoid concentration of runoff that often is the main cause of hydromodification of downstream drainages. Additional storm drain infrastructure would be needed where the entry road descends toward Silver Creek Valley Road.

The extensive open space planned for the proposed project would help dissipate surface flows that may develop from the limited hardscape areas within the project site. The proposed project design standards, as outlined in the Design Guidelines (Appendix C) would exceed local and State urban runoff treatment requirements required for new development by primarily directing overland runoff to adjacent vegetated areas. The proposed LID project relies on the expansive open space areas as a means to reduce runoff, utilizing two basic storm drainage design approaches:

- **Non-Hillside Condition**: where feasible, runoff sheet flows from the road to the adjacent vegetated landscape areas. If this is not feasible (i.e., if the road is in a valley and the adjacent topography does not slope away from road), drainage ditches may be needed on one or both sides of the roadway, to be discharged at low points or where the road transitions to a hillside section.

- **Hillside Section**: where the roadway traverses a slope, a ditch on the upslope side of the road collects runoff from the hillside. Cross drains are installed at intervals to limit the size of the drainage ditch. The cross drains discharge on the down slope side of the road to dissipaters designed to slow and spread runoff. This avoids concentration of runoff that often is the main cause of hydromodification of downstream drainages.

Stormwater treatment options would vary from “local” improvements at individual building sites to “area wide” concepts such as stormwater treatment wetlands with large open space areas. A combination of treatment measures would address the stormwater runoff generated by the proposed project, such as landscape dispersion, swales with check dams, bio-retention planter, and permeable pavement. These concepts have proven effective for stormwater pollutant filtration and reduction on building sites and streets.

As discussed above, the proposed storm drainage method would mimic existing drainage patterns and avoid the traditional pipe drainage systems that can increase the rate of runoff. Due to the large size of the project site, the small development footprint, implementation of the Municipal Regional Permit’s C.3 guidelines in the drainage design for the residential development and the proposed operational use of LID measures, a significant operational increase in stormwater runoff above predevelopment conditions is not anticipated. Impacts would be *less than significant.*
Impact UE-3: The proposed project would not require the construction of new or expanded water treatment facilities or require new or expanded water entitlements to serve its water supply needs. *(Less Than Significant)*

**Construction**

Water for the proposed project would be supplied by Great Oaks. Great Oaks provided a will-serve letter for the project, on August 3, 2016, confirming it would serve the project as proposed (Great Oaks, 2016). Since Great Oaks pumps water from existing wells, the water does not require treatment.

Great Oaks has two water tanks between the project site and the Basking Ridge community. The new connection of the Great Oaks water supply to the project site would be supplied via a 12-inch extension from Tennant Avenue (see Figure 2-8 in Chapter 2.0, “Project Description”). This new service would be routed through an existing parcel owned by PG&E, through private property and then routed within the project site via an existing 10’ wide road up to the existing primary road. The proposed project would not require the construction of new water treatment facilities or expansion of existing water treatment facilities. The proposed water supply for the site would be provided via existing water wells operated by Great Oaks. The proposed project would not be served by an offsite water supply system that would not require new or expanded water supply treatment facilities. Impacts related to the need for construction of new or expanded water treatment facilities would be *less than significant*.

Note that physical impacts associated with construction and operation of new water supply infrastructure are evaluated throughout this EIR in Sections 3.1 through 3.16.

**Operation**

The water demand that would be created by the project is shown in Table 3.17-6.

As shown in Table 3.17-6 above, project buildout would create an annual water demand of approximately 9.54 MGY. In 2005, Great Oaks supplied 1,549.85 MGY of water for single-family residences, and a total of 2,763 MGY of water for all customers within its service area. The water demand created by the project would represent approximately one percent of the 2015 annual demand for single-family residences, and less than 0.01 percent of the overall demand met by Great Oaks in 2015. Furthermore, as discussed above in Table 3.17-2, Great Oaks expects supply to increase, as demand is set to increase to approximately 4,067 MGY by 2040. Impacts to existing water entitlements with operation of the proposed project would therefore be *less than significant*.

**Table 3.17-6: Average Daily Domestic Water Demand**

<table>
<thead>
<tr>
<th>Use</th>
<th>Living Units</th>
<th>Occupants per Unit</th>
<th>Load</th>
<th>Avg. Daily Demand (gpd)</th>
<th>MGY*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Dwelling Unit</td>
<td>79</td>
<td>2.9</td>
<td>100 gpd/person</td>
<td>22,910</td>
<td>8.37</td>
</tr>
<tr>
<td>Secondary Unit</td>
<td>16</td>
<td>2</td>
<td>100 gpd/person</td>
<td>3,200</td>
<td>1.17</td>
</tr>
<tr>
<td><strong>Total Domestic Demand</strong></td>
<td><strong>95</strong></td>
<td>--</td>
<td>--</td>
<td><strong>26,110</strong></td>
<td><strong>9.54</strong></td>
</tr>
</tbody>
</table>

Source: Adjusted from BKF, 2016.
Acronyms: gpd = gallons per day; MGY = million gallons year
Notes:
*Values rounded.
Assumptions:
1. Typical primary dwelling assumes 8,000 square feet (SF) of living space, 5 bedrooms, with 2.9 occupants per residence.
2. Typical secondary unit assumes 800 SF of living space, 2 bedrooms, with 2 occupants per residence.
3. Building Construction Type V assumed per CBC 602.5
4. Domestic water demands include irrigation water usage. Irrigation assumed to be high efficiency, low impact design.
5. 100 gallons per person per day assumed for domestic demand.
6. Domestic Water Demands are average daily demand and are not peaked.

Impact UE-4: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate its solid waste disposal needs and comply with federal, State, and local statutes and regulations related to solid waste. *(Less Than Significant)*

**Construction**

Implementation of the proposed project would result in the generation of solid waste during construction. The Applicant would reduce construction waste generated during construction of the project in accordance with California Green Building Code (Part 11 of Title 24), requiring that all construction contractors reduce construction waste and demolition debris by 50 percent.

As noted in the Design Guidelines for the project (Appendix C), the project would incorporate the following improvement measures to reduce construction waste:

- All topsoil disturbed by grading operations is to be stockpiled within the construction and reused as part of landscape restoration plans.
- Imported topsoils, or manufactured soil blends may not be mined from other greenfield locations, prime farmland, unique farmland or farmland of state or local importance as defined by the U.S. Natural Resources Conservation Service unless the soils are a waste product of another construction process.
- Reducing and reusing construction waste is required. All building projects within the project site are required to recycle or reuse a minimum percentage of construction materials.
- Construction Waste Management Plan (WMP) shall be prepared to identify construction waste materials to be diverted from disposal by recycling, how waste materials will be sorted, and how construction methods used on site will reduce waste.
- Trash and debris are to be cleaned up at the end of each day. Trash and debris are to be removed or recycled (as appropriate) from each construction site at least once a week and transported to an authorized disposal site.
- Dumping, burying and/or burning trash is not permitted anywhere within the project area.
- Heavy and large debris, such as broken stone and wood scraps, are to be removed or recycled from the site immediately upon completion of each work trade.

With implementation of these improvement measures, construction-related solid waste generation and, thus, landfill impacts would be *less than significant*. In addition, project construction would comply with federal, State, and local statutes and regulations related to solid waste.
Operation

Residences associated with the project-buildout would generate solid waste and further necessitate the need for solid waste disposal services. It is assumed that solid waste collected from the proposed project site would be hauled to the Guadalupe Landfill by a private solid waste provider such as Green Team. The total remaining capacity of the landfill (as of 2011) is approximately 11 million cubic yards. The Guadalupe Landfill is anticipated to meet solid waste disposal needs within its service area through 2048 (CalRecycle, 2016a). With implementation of the Green Building Code and other County recycling programs, such as curbside recycling of paper, plastics, and bottles, the life of the Guadalupe Landfill will likely be extended beyond 2048.

Based on CalRecycle’s generation rates for the Santa Clara County (0.6 ton per resident per year)\(^4\), the estimated total population for the proposed project (261 persons) would generate approximately 156.6 tons of solid waste per year, or 0.43 tons per day (tpd). The Guadalupe Landfill has a maximum permitted throughput of 1,300 tpd. The estimated 0.43 tpd of solid waste generated by the proposed project would be less than one percent of the daily maximum that could be received at the landfill. Given the disposal capacity at the Guadalupe Landfill and the amount of solid waste the proposed project is estimated to generate, there would be sufficient capacity at the applicable landfill to serve the project. Additionally, the Applicant would adhere to all applicable laws and regulations pertaining to solid waste disposal. Therefore, the impacts from project operation related to solid waste disposal and thus landfill capacity and applicable regulations pertaining to solid waste use disposal would be less than significant.

Impact UE-5: The proposed project would not encourage activities that result in large amounts of fuel, water, or energy use, or use of these in a wasteful manner; result in inefficient use of energy, as indicated by a substantial increase in per capita energy consumption in the jurisdiction; require construction of additional energy infrastructure facilities, the construction or operation of which could cause significant environmental effects; or conflict with applicable plan, policy, or regulation adopted for the purpose of reducing energy use, particularly non-renewable energy use. (Less Than Significant)

Construction

The primary energy demands during project construction would be associated with construction vehicle fueling. Energy in the form of fuel and electricity would be consumed during this period by construction vehicles and equipment operating on site, trucks delivering equipment and supplies, and construction workers driving to and from the project site. Gasoline and diesel fuel consumption is necessary to perform construction activities; however, the proposed project would be required to comply with the County’s Basic Construction Mitigation Measures for construction projects, which includes limits on vehicles idling times and requires that all construction equipment be maintained and properly tuned in accordance with manufacturer’s specifications (see Section 3.3 “Air Quality,” and Section 3.7 “Greenhouse Gas Emissions” for a further discussion of specific construction fuel-reduction measures). There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of Santa Clara County. The proposed project would further comply with California Building Code, which governs

\(^4\) Calculated by dividing the total reported disposal amount (52,606) / population during 2014 (87,263) = 0.6 tons per resident per year
all aspects of building construction. Included in Part 6 of the Code are standards mandating energy efficiency measures in new construction. Therefore, project construction is not expected to cause the inefficient, wasteful, or unnecessary consumption of energy, including fuel, during construction activities.

Implementation of the proposed project would require the construction of new utility and energy infrastructure to deliver services to the project site\(^5\). A conceptual rendering of the proposed electricity and natural gas utilities for the project site is shown on Figure 2-9 in Chapter 2.0, “Project Description”. Electricity and natural gas would be provided to the project site by PG&E. Existing electrical transmission lines and towers run in a north-south direction across the eastern portion of the project site. Additional overhead electrical transmission lines and towers run northwest to southeast from Silver Creek Valley Road along the northwestern boundary of the project site. PG&E has a 34-inch gas transmission main within a 50-foot wide easement on the property running generally just of the ridgeline from the center of the north project boundary to the southeast corner of the project site. A second 34-inch gas transmission main runs between the project and Highway 101, generally between Piercy Road and Hellyer Avenue, continuing through the Basking Ridge Avenue development to where Coyote Creek crosses Highway 101. Other miscellaneous easements exist on the project site for access.

PG&E would provide electrical and natural gas infrastructure to the project site through extension of existing off-site infrastructure. PG&E is responsible for upgrading existing electrical and natural gas distribution systems to meet the demands of individual projects, including the proposed project. Electrical and natural gas infrastructure is anticipated to include construction of underground electrical transmission line and natural gas distribution facilities in roadways throughout the project site. The proposed project would construct a self-contained distribution system that connects to the existing off-site electrical and natural gas systems and existing telecommunications infrastructure described above. The on-site service lines would be sized to meet the demands of the proposed project and public utility easements and would be dedicated for all underground facilities. The location of this infrastructure would be planned in collaboration with PG&E and the location of infrastructure will be identified in the final project design. As part of the project approval process, the project applicant would be required to coordinate with, and meet the requirements of PG&E regarding the extension and locations of on-site infrastructure.

Note that physical impacts associated with construction of new electrical and natural gas infrastructure are evaluated throughout this EIR in Sections 3.1 through 3.16.

Thus, the construction energy resources impact would be \textit{less than significant}.

\textbf{Operation}

Project buildout would increase the demand for electricity and natural gas in PG&E’s service area, and would include operation of additional energy infrastructure on the project site. Electrical and natural gas service in Santa Clara County is provided by PG&E (PG&E, 2016c). The proposed project would be required to comply with the Building Energy Efficiency Standards (Title 24 of the California Code of Regulations), including the 2016

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\(^5\) Note that physical impacts associated with construction and operation of energy infrastructure are evaluated throughout this EIR. The placement of these utilities has been considered in the other sections of this EIR, such as Air Quality (Section 3.3), Biological Resources (Section 3.4), and other sections, which specifically analyze the potential impacts of project construction.
Building Energy Efficiency Standards. This code was developed to enhance the energy efficiency of the design and construction of buildings.

The proposed project would also be required to comply with applicable portions of the 2013 California Green Building Code (Part 11, Title 24), which was developed to enhance the design and construction of buildings and sustainable construction practices through planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental air quality. It is the intent of this code to achieve more than a 15 percent reduction in energy use when compared to existing standards, to reduce indoor potable water demand by 20 percent, to reduce landscape water usage by 50 percent.

During 2015 PG&E received 30 percent of its electricity from eligible renewable resources, such as biomass, solar, wind, geothermal, and small hydroelectric power plants that generate 30 megawatts (MW) or less of electricity and 18 percent from large hydroelectric power plants (PG&E, 2016). By 2020, PG&E must receive 33 percent of its electricity from eligible renewable resources to meet California’s renewable portfolio standard.

The proposed project would comply the County’s Green Building Standards (Title C of the County Code of Ordinances), and would meet CALGreen Tier 2 current mandatory and voluntary measures, and all residences would be built to achieve Sustainable Sites Initiative (SITES) certification\(^6\). Additionally, the proposed project would incorporate design features to reduce energy use, which may include the following:

- Incorporate on-site renewable energy production, including installation of photovoltaic cells or other solar options installed in appropriate high sunlight locations as feasible.
- Select a building’s orientation, massing and fenestration design to maximize effective daylighting to reduce building energy requirements, without increasing glare and/or electric lighting loads that offset glare is required. The selection and extent of window glazing should vary, depending on the criteria required by the window’s location, including solar heat gain, energy performance, daylighting, views and glare factors. Exterior sun controls (including porches, overhangs, trellises, balconies and shutters) may be integrated into the building’s fenestration design to effectively admit and block sun penetration as required.
- All roofs will be encouraged to incorporate solar panels to reduce the reliance on energy. Solar panel systems are to be integrated into the roof system and roof materials applications to obscure visibility.
- A high level of individual occupant control for thermal, ventilation and lighting systems should be incorporated. Occupancy sensors and time clock controls should be incorporated into the building’s mechanical design to reduce energy usage.
- Using CFC-free HVAC & R base building systems is required. Intakes should be located and designed to assure maximum levels of indoor air quality. The use of carbon monoxide monitoring sensors is encouraged.

\(^6\) SITES is a sustainability-focused framework for landscape architects, engineers and others toward practices that protect ecosystems and enhance benefits such as climate regulation, carbon storage and flood mitigation. SITES-certified landscapes help reduce water demand, filter and reduce stormwater runoff, provide wildlife habitat, reduce energy consumption, and improve air quality (SITES, 2016).
• Separating ventilation and plumbing systems for those rooms containing contaminants, such as artist studios, from those in the rest of the building is encouraged.

• Retaining a Commissioning Agent (a professional qualified to evaluate and certify that a building is designed, constructed and functions in accordance with the Building’s specified operational requirements) is encouraged.

• Distributing building area to promote effective and energy efficient use of shade, shadow, breezes and daylight is required to decrease long-term energy costs and to exceed Title 24 state energy-efficient requirements per CalGreen Tier 2 performance requirements.

The increase in demand for electricity and natural gas would not be substantial in relation to existing or future electrical and natural gas consumption in PG&E’s service area. Land uses associated with the proposed project would result in an estimated use of 627,741 kWh of electricity and 330,989 therms of natural gas each year. In addition, with implementation of Building Energy Efficiency Standards (Title 24 of the California Code of Regulations), the County’s Green Building Standards, SITES certification, and energy reduction measures discussed immediately above, the project-buildout would not be expected to cause the inefficient, wasteful or unnecessary consumption of energy. Operation of the proposed electrical utilities would further be required to comply with all existing local and utility requirements and Building Energy Efficiency Standards (Title 24 of the California Code of Regulations).

Furthermore, project-buildout would also necessitate water consumption (see discussion under Impact UE-3, above). Design features as part of the proposed project would comply with Santa Clara County Ordinance NS-1200.320 “Water Conservation in Landscaping,” requiring that all home sites include drip irrigation systems, automatic timers for outdoor water landscaping use, and rainfall capture and retention for landscaping. Proposed lots would also comply with California Green Building Code Standards requiring water-conserving appliances and plumbing fixtures to achieve Tier 2 compliance as well as the use of flow restrictions and/or reduced flow aerators for lavatory, sink, and shower fixtures.

Thus, the operational energy resources impact would be less than significant.

3.17.4 Cumulative Impacts

Impact-C-UE: The proposed project could have a cumulatively considerable impact relating to utilities. (Less Than Significant)

In terms of cumulative impacts, the appropriate service providers are responsible for ensuring adequate provision of utilities and energy resources within their service boundaries. The appropriate public utilities would be provided to the proposed project by the Great Oaks, Green Team, and PG&E. There are no cumulative projects in the immediate vicinity that would affect these utility providers from serving the proposed project. As the County is expected to continue to grow (see discussion on population growth in Section 3.13 “Population and Housing”), the demand for these service providers will continue to grow as the County’s population increases. The cumulative impacts from the proposed project on water supply, solid waste disposal and energy consumption is discussed below.
Water

As previously discussed, Great Oaks plans for future growth and expects to meet Santa Clara County’s projected 2040 water supply (see Table 3.17.2 above). Thus, there would be a less than significant cumulative water supply impact. Specifically, the amount of demand created by the proposed project would represent less than one percent of the water pumped by the SCVWD from the Santa Clara Plain and Coyote Valley management areas of the Santa Clara Groundwater Basin.

Solid Waste

Solid waste in the County is disposed at the Guadalupe Landfill. The estimated closure date for the landfill is 2048, and the remaining capacity is approximately 11 million cubic yards (CalRecycle, 2016a). In 2014, the unincorporated areas of Santa Clara County disposed a total of 52,606.26 tons of solid waste (CalRecycle, 2016b). Thus, there would be a less than significant cumulative solid waste impact. The proposed project would generate approximately 156.6 tons of solid waste a year, which represents less than 1 percent of the County’s annual solid waste contribution.

Energy

Electricity and natural gas in the County is served by PG&E. PG&E expects a minuscule increase in demand for electricity and natural gas over the next eight years within its California service area (see Table 3.17-3, above). This can be attributed largely to Title 24 regulations. Thus, there would be a less than significant cumulative energy impact. The proposed project would include various energy saving mechanisms to reduce its demand for energy supplies, as outlined in the project’s Design Guidelines (Appendix C).

3.17.5 References


4.0 ALTERNATIVES

4.1 INTRODUCTION

4.1.1 CEQA Requirements

State CEQA Guidelines Section 15126.6(a) requires that an EIR describe a range of reasonable alternatives to a project, or the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, a range of potentially feasible alternatives, governed by the “rule of reason,” must be considered. This is intended to foster informed decision making and public participation (State CEQA Guidelines Section 15126.6[f]).

CEQA generally defines “feasible” to mean the ability to be accomplished in a successful manner within a reasonable period of time, taking into account environmental, social, technological, and legal factors. The following factors may also be taken into consideration when assessing the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and the ability of a project proponent to attain site control (State CEQA Guidelines Section 15126.6[f][1]).

CEQA also requires that a No Project Alternative be evaluated (State CEQA Guidelines Section 15126.6[c]). The analysis of a No Project Alternative is based on the assumption that a project would not be approved. In addition, an environmentally superior alternative must be identified among the alternatives considered. The environmentally superior alternative is generally defined as the alternative that would result in the least adverse environmental impacts to a project site and affected environment. If the No Project Alternative is found to be the environmentally superior alternative, the EIR must also identify an environmentally superior alternative among the other alternatives.

The analysis of alternatives is of benefit to decision makers, because it provides more complete information about the potential impacts of land use decisions. Consequently, there is a better understanding of the interrelationship among all of the environmental topics under evaluation. Decision makers must consider approval of an alternative if it would substantially lessen or avoid significant environmental impacts identified for a proposed project and if it is determined to be feasible.

This chapter identifies alternatives to the proposed Young Ranch Residential project and discusses environmental impacts associated with each alternative. Alternatives were selected that could reduce identified impacts of the proposed project.

4.1.2 Project Objective and Purpose

As previously discussed in Section 2.3, “Project Objectives”, the applicant has identified the following objectives for the proposed project:

1) Develop rural residential uses at densities sufficient to encourage the landowner to exceed nexus requirements by conveying extensive biological and scenic resource areas for permanent preservation and
enhancement consistent with the Valley Habitat Plan, thereby contributing towards a systematic, unified approach to habitat conservation on a regional basis.

2) Implement General Plan provisions relating to rural uses, scenic resources, contiguity of undeveloped areas, land uses and location efficiencies, and State housing laws that mandate density bonuses, by developing a clustered rural community at densities allowed by the General Plan, on a site that is close to existing development and major arterials, and that contains extensive areas of high quality biological habitat.

3) Develop rural residential uses at densities sufficient to support the construction of infrastructure, utilities and services needed to serve the site.

4) Maintain the rural nature of the site by developing at densities sufficient to make feasible the maintenance of a private roadway network and service by a private water supplier with a proven track record, all to implement General Plan provisions promoting non-urban, rural development.

4.1.3 Significant Environmental Impacts

This EIR discloses that the proposed project would have potentially significant or significant project-level impacts in several environmental categories. These categories include:

- Aesthetics (Significant and Unavoidable Impact with no mitigation available);
- Air Quality (Potentially Significant Impacts; however mitigation is available to reduce the impact);
- Biological Resources (Potentially Significant Impacts; however mitigation is available to reduce the impact);
- Cultural and Paleontological Resources (Potentially Significant Impacts; however mitigation is available to reduce the impact);
- Hazards and Hazardous Materials (Potentially Significant Impacts; however mitigation is available to reduce the impact);
- Land Use (Significant and Unavoidable Impact with no mitigation available);
- Noise (Potentially Significant Impacts; however mitigation is available to reduce the impact); and
- Traffic and Transportation (Significant and Unavoidable Impact - note that while technically feasible mitigation is available to reduce this impact, implementation of the relevant proposed mitigation measure is outside of the County’s jurisdiction and, thus, control).

Per Section 15126.6 (b) of the CEQA Guidelines, the discussion of alternatives shall focus on alternatives to a project (or its location) that are capable of avoiding or substantially lessening significant impacts of a project, even if the alternatives would impede to some degree the attainment of the project objectives or would be more costly. This alternatives analysis, therefore, focuses on project alternatives that could avoid or substantially lessen environmental impacts of the proposed project related to the environmental categories listed above.
4.2  ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER ANALYSIS

Section 15126.6(c) of the CEQA Guidelines permits the elimination of an alternative from detailed consideration due to:

- Failure to meet most of the basic project objectives;
- Infeasibility; and
- Inability to avoid significant environmental impacts.

Section 15126(f)(1) of the CEQA Guidelines states that “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries… and whether the proponent can reasonably acquire control or otherwise have access to the alternative site. No one of these factors establishes a fixed limit on the scope of reasonable alternatives.”

Three potential alternatives to the proposed project that were initially considered but determined infeasible and eliminated from further analysis include a non-clustered development alternative, City and County parcels development alternative, and an alternative project location.

4.2.1  Non-Clustered Development Alternative

The proposed project includes a clustering of proposed lots on a portion of the County parcels, and permanently preserving the remainder of the project site. The applicant also considered a more grid-like development pattern to allow for greater private open space between homes. Such a non-clustered development alternative was rejected due to its failure to meet project objectives and its inability to avoid significant environmental impacts.

Specifically, a non-clustered development alternative would not achieve project objective (1), as it would not convey extensive biological and scenic resource areas for permanent preservation and enhancement. Nor would it achieve project objective (2), as it would not develop a clustered rural community at densities allowed by the County General Plan. A non-clustered development alternative would also not achieve project objective (4) to maintain the rural nature of the site by developing at densities sufficient to make the maintenance of private utilities feasible. A non-clustered development alternative would also likely cause significant and unavoidable impacts to biological and scenic resources. For these reasons, a non-clustered development alternative is not discussed further in this EIR.

4.2.2  City and County Parcels Development Alternative

The proposed project situates all of the proposed development (except for the emergency access road) within the County parcels, and includes application for a Zoning Ordinance Text Amendment to allow a transfer of density from the City parcels to the County parcels, in exchange for permanent open space dedication on the City parcels. The applicant also considered developing the project site with proposed lots on both the County and City parcels at densities allowed under the County’s and City’s land use designations. This alternative was rejected due to its inability to avoid significant environmental impacts.
The City parcels contain the majority of biological resource areas within the project site, and development of the City parcels at allowable densities under the City’s land use designations would likely cause significant and unavoidable impacts to biological resources. For this reason, a City and County parcels development alternative is not discussed further in this EIR.

### 4.2.3 Alternative Project Locations

The proposed project entails a 79 residential lot cluster subdivision on the 2,150-acre Young Ranch property, which is located along Coyote Ridge on the eastern side of the Santa Clara Valley. Alternative project locations were considered but rejected, as no land of comparable size and biological value (for purposes of preserving land under a VHP or HCP similar to under the proposed project) was identified for immediate sale. Alternative locations would also not meet project objective (2) to implement General Plan provisions by developing a clustered rural community on a site that is close to existing development and major arterials and that contains extensive areas of high quality biological habitat. As such, alternative project locations are not considered viable project alternatives and are not discussed further in this EIR.

### 4.3 ALTERNATIVES RETAINED FOR FURTHER ANALYSIS

Three alternatives to the proposed project, including the No Project Alternative, are considered in this EIR and described below. Table 4-1 at the end of the section provides a comparison of these alternatives and the proposed project that indicates whether each alternative would result in greater, lesser, or equal impacts when compared with the proposed project.

#### 4.3.1 Alternative A – No Project Alternative

**Description of Alternative A**

The No Project Alternative assumes the current application is not approved, a Zoning Ordinance Text Amendment is not approved, the project area is not subdivided into 79 lots, and the future residences are not built. The No Project Alternative assumes that existing grazing would continue on the two Santa Clara County parcels (County parcels) and four City of San Jose parcels (City parcels) and that residential development could occur as permitted under the *Santa Clara County General Plan, 1995–2010* (County General Plan; SCC, 1994) and *Envision San Jose 2040 General Plan* (City General Plan; City of San Jose, 2011) land use designations and County and City zoning for those parcels. As currently allowed, it is assumed that up to 6 single-family dwelling units could be developed on the project site, specifically one on each of the six parcels. Similar to the proposed project, although every approved building site would be entitled to a secondary unit under the County Zoning Ordinance, it is assumed that approximately 20 percent of lots would have secondary units. Therefore for purposes of this environmental analysis, it is assumed that one secondary unit would be developed under the No Project Alternative.

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1 This assumption is based on the average number of secondary units that have been constructed in other California jurisdictions (Cultivate, 2016), and on the County’s forecasted production of secondary dwellings in its 2015 Housing Element Update (SCC, 2014), as described in Perkins Coie, 2016.
Single-family residences and secondary units would have the same square footage for development as under the proposed project. It is assumed that typical single-family residences would be up to 8,000 square feet (SF) in area and that secondary units would be up to 800 SF. Based on County-wide averages, each primary single-family dwelling would have 2.9 residents, and each secondary unit would have 2 residents.

It is unknown where future residential development would be located on each the six parcels; however, it is likely that residences would be sited to avoid steep topography (slopes greater than 30 percent). On the County parcels, development would be required to occur on approved building sites per Section C12-310 of the County Ordinance Code. Other permits, such as for grading, drainage, and building, would also be required. It is expected that similar permits would be required for single family residential development of the City parcels.

The remaining areas outside of the building sites within the six parcels would remain as open space under the No Project Alternative, although construction of accessory structures, such as barns, would be allowed by right for the County parcels. However, on the County parcels there would be no dedication of open space to the County for management of the parcels in a natural state, and on the City parcels there would be no transfer of development rights from the City to the County for open space easement dedication. Therefore, the No Project Alternative would not include the preservation of any open space in perpetuity with management in support of the sensitive habitats and species that occur there.

Potable water would be provided to each home by new groundwater wells. New individual septic systems and leach fields would serve each home’s wastewater treatment needs. Electricity, natural gas, and telecommunications would be provided by private utility companies. It is assumed that stormwater management would be handled on site.

Roadway improvements would be limited to those required to access the new residences. The No Project Alternative would not include improvements to the existing ranch road that crosses the portion of the property within the City of San Jose’s jurisdiction.

The No Project Alternative would not meet any of the proposed project’s objectives identified in Sections 2.3 and 4.1.2, “Project Objectives.”

**Alternative A Impacts**

**Aesthetics**

The No Project Alternative would avoid the significant and unavoidable impacts on scenic views of the project site that would occur under the proposed project. Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit. It is unknown where future residences on the six lots would be located, and there is the potential that new residences could be visible from the Santa Clara Valley floor. However, given the residences would occupy only a small area of relatively large parcels, a substantial amount of the open undeveloped ridgelines and hillsides would continue to be visible and would remain prominent features from the Santa Clara Valley floor.

The County parcels are located within the –d1 Design Review district. The –d1 combining district is intended to conserve the scenic attributes of those hillside lands most immediately visible from the Santa Clara Valley floor.
and to minimize the visual impacts of structures and grading on the natural topography and landscape. All new homes on the County parcels would be subject to design review approval under Section 3.20 of the County’s Zoning Ordinance. Development standards and procedures within the -d1 combining district use a tiered regulatory structure based primarily on building size. Section 3.20.050 outlines design review regulations for light reflectivity, building form and massing, retaining walls, and ridgeline development. Design review applications would be reviewed and approved by the Zoning Administrator. In addition, a public hearing by the Planning Commission would be held if residential structures exceed 12,500 square feet.

Development of the City parcels would be subject to the City of San Jose residential design guidelines and design standards outlined in Chapter 20.30 of the City of San Jose Zoning Ordinance, which include limits on height, building size, setbacks, and fencing. New development would also comply with City General Plan policies related to development on hillsides and outside of the City’s Urban Growth Boundary through a discretionary development review process in order to protect the hillsides and to minimize potential adverse visual impacts.

As discussed above, compliance with the Santa Clara County and City of San Jose design review guidelines and standards would minimize the visual impacts of structures on the natural topography and landscape. In addition, individual residences located on ridgelines would not visibly obstruct scenic views from the Santa Clara Valley floor, would not substantially degrade the existing visual character or quality of the site and its surroundings, or create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, aesthetic impacts under the No Project Alternative would be less than significant and less than under the proposed project.

**Agriculture and Forestry Resources**

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit. It is assumed that the area of land associated with residential uses would be approximately 2 acres per parcel and would, therefore, result in a total of approximately 12 acres of land converted from agricultural use, which is substantially less than for the proposed project (approximately 91 acres). It is assumed that the remaining 2,110 acres, or 98 percent off the project site, would be managed for continued grazing, similar to existing uses.

The No Project Alternative would not conflict with existing zoning for agricultural use or with a Williamson Act contract, as no portion of the site is subject to the Williamson Act. City and County parcels are zoned as Open Hillside and Hillsides (HS) districts, respectively. Open Hillside district allows no more than one dwelling unit per acre, while HS district requires a minimum parcel size of 2 acres for cluster development. No portion of the project site is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and no portion of the project site has forest land or timberland.

Additionally, under the No Project Alternative, there would be no permanent preservation of undeveloped portions of the County and City parcels as there is under the proposed project, which could result in future impacts to agricultural resources not evaluated in this EIR. However, any such future development is not part of this No Project Alternative and would likely require future discretionary approvals and/or CEQA analysis to determine potential impacts.
Impacts on agriculture and forestry resources from the No Project Alternative would be less than significant and less than under the proposed project.

**Air Quality**

Development under the No Project Alternative would be consistent with the current zoning and General Plan designations and, therefore, also consistent with the BAAQMD Clean Air Plan. Construction activities under this alternative would be reduced as compared to the proposed project. Therefore, the emissions associated with the use of construction equipment, haul trucks, and worker commutes would be less than under the proposed project and would not violate or contribute to an existing violation of an air quality standard. Similar to the proposed project, BAAQMD Basic Construction Mitigation Measures would be required to control fugitive dust emissions.

Operational emissions associated with the No Project Alternative would be less than under the proposed project and would not violate or contribute substantially to an existing or projected air quality violation. Based on the reduced construction activities, health effects associated with diesel PM and PM$_{2.5}$ emissions generated during construction of the No Project Alternative would also be less than significant. Similar to the proposed project, the sensitive receptors would not be located within 1,000 feet of existing TAC emission sources, and the health risk impacts would be less than significant. Similar to the proposed project, the No Project Alternative would not create objectionable odors affecting a substantial number of people.

Overall, the air quality impacts of the No Project Alternative would be less than under the proposed project and would remain less than significant with mitigation.

**Biological Resources**

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit, as well as new wells and septic systems. While the footprint of development under the No Project Alternative would be substantially less than the proposed project, direct impacts to biological resources cannot be determined because the exact location of future building sites is unknown.

Development under the No Project Alternative would be required to comply with the Santa Clara Valley Habitat Plan (Valley Habitat Plan). The Valley Habitat Plan includes a variety of requirements and avoidance measures designed to limit the impacts of future developments on the species and habitats that are covered by the Valley Habitat Plan such as those that could occur on the County and City parcels. In addition new development would be required to comply with the federal Endangered Species Act, the Section 404 of the Clean Water Act, the California Fish and Game Code, and the Oak Woodlands Conservation Law (Public Resource Code §21083.4). A separate CEQA analysis would be conducted, if necessary, to analyze specific impacts and identify any required mitigation measures to reduce impacts on biological resources from development of new residences under the No Project Alternative.

Impacts on biological resources under the No Project Alternative would be less than significant with implementation of any mitigation measures identified during CEQA review and compliance with the Valley Habitat Plan and other regulations related to the protection of biological resources. Because there would be less overall development compared to the proposed project, impacts under the No Project Alternative would be less than the proposed project.
Cultural and Paleontological Resources

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit, as well as new wells and septic systems. Because the footprint of development under the No Project Alternative is less than under the proposed project, it is assumed that the impacts to cultural resources would be reduced as well.

Two resources on the County parcels are CRHR eligible: YR-19 and portions of YR-12 and YR-13a-e (CA-SCL-651). There is no guarantee that these resources would be avoided or any less affected under the No Project Alternative. A separate CEQA analysis would be conducted, if necessary, to analyze specific impacts and identify any required mitigation measures to reduce impacts on cultural resources from development of new residences under the No Project Alternative. As such, impacts under the No Project Alternative may be similar to the proposed project.

Additionally, under the No Project Alternative, there would be no permanent preservation of undeveloped portions of the County and City parcels as there is under the proposed project, which could result in future impacts to additional known or as-yet discovered cultural resources not evaluated in this EIR.

Overall cultural resources impacts under the No Project Alternative would be less than significant with implementation of any mitigation measures identified during CEQA review, and would be less than under the proposed project.

Geology and Soils

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit, as well as new wells and septic systems. It is unlikely that the No Project Alternative would disturb more than 1 acre of land per parcel; therefore, a stormwater pollution prevention plan (SWPPP) and the associated best management practices (BMPs) relating to prevention of soil erosion and loss of topsoil may not be required. However, given the smaller disturbance footprint, impacts related to soil erosion and loss of topsoil would be considered less than significant.

The No Project Alternative would be required to comply with the California Building Code, the County’s Geologic Ordinance, and the Santa Clara County On-site Wastewater Treatment Ordinance, which would address exposure of people or structures to geological hazards (including seismic hazards, landslides, and soil instability), expansive soils, and ability to support septic systems. Because there would be less overall development, potential impacts to geology and soils would be less than significant and less than under the proposed project.

Greenhouse Gas Emissions

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit. This level of development is substantially below the Bay Area Air Quality Management District (BAAQMD) screening level (discussed in Section 3.7, Greenhouse Gas Emissions) for single family residential developments, which is 56 dwelling units for operational GHG emissions.
It is noted that the proposed project did not exceed the BAAQMD service population threshold for GHG emissions, which is 4.6 metric tons of carbon dioxide equivalent (MTCO₂e). Based on the potential level of development under the No Project Alternative (including elimination of the community center, elimination of infrastructure, and substantial reduction in the potential number of residential units), the total GHG emissions would be substantially less than under the proposed project and therefore would not be anticipated to exceed the threshold of significance. The No Project Alternative would also not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions.

Impacts of the No Project Alternative in relation to GHG emissions would, therefore, be less than significant and less than under the proposed project.

**Hazards and Hazardous Materials**

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit, as well as new wells and septic systems. The scale of construction activities would be smaller under the No Project Alternative, and construction would not likely disturb more than 1 acre of land at a time. Therefore, a stormwater pollution prevention plan (SWPPP) and the associated BMPs relating to spill prevention may not be required. However, the use, transport, storage, and disposal of hazardous materials would be subject to federal, State, and local health and safety regulations. Similarly, because the No Project Alternative may not disturb more than 1 acre, an asbestos dust mitigation plan under the California Air Resource Board (CARB) Asbestos Airborne Toxic Control Measure (Asbestos ATCM) would not be required. However, the Asbestos ATCM requires that all construction and grading projects (even those disturbing less than one acre) require several specific actions to minimize emissions of dust. Operational uses of hazardous materials would be similar to the proposed project, albeit on a smaller scale due to the fewer number of dwellings.

There would be no impacts relating to hazardous emissions near schools, hazardous materials sites, or airport safety hazards under the No Project Alternative, for the same reasons as the proposed project. Given the scale of the No Project Alternative, there would be no impacts related to interference with emergency response or evacuation plans, which is a lesser impact than under the proposed project.

Impacts relating to wildland fires from construction of the No Project Alternative would be reduced, given the considerably smaller scale of construction activities compared to the proposed project. Impacts under the No Project Alternative would be less than significant with compliance with the County’s Weed Abatement Program and other applicable building code and fire code regulations, and less than under the proposed project.

Impacts relating to hazards and hazardous materials under the No Project Alternative would be similar to the proposed project, and would be less than significant.

**Hydrology and Water Quality**

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit, for a total of 7 dwelling units. This alternative would have less potential impacts related to soil erosion, hydromodification, surface water runoff, and groundwater quality and flow than under the proposed project due to a smaller construction footprint, less impervious surface area after construction, and less wastewater flow that would be processed through on-site wastewater treatment systems.
Septic systems would be designed with adequate separation from groundwater and would meet minimum setbacks from watercourses, steep slopes and embankments, drainage swales, and property lines as required by the Santa Clara County On-site Wastewater Treatment Ordinance. Although potential impacts would be reduced, effects to water quality and hydrology are unlikely to be so low as to be negligible. Because construction of new residences would have some impact to hydrology and water quality, even at the reduced rate expected under the No Project Alternative, impacts would be less than significant and similar to the proposed project.

**Land Use and Planning**

The No Project Alternative would avoid the project’s significant and unavoidable impacts related to conflicts with General Plan policies that have been adopted to mitigate significant environmental impacts related to scenic resources. Development of a single-family residential dwelling on each of the two County parcels would be consistent with the County General Plan’s Hillside land use designation, which allows for residential development at a maximum density of one dwelling unit per 20 acres. Development of a single-family residential dwelling on each of the four City parcels would be consistent with the City’s Open Hillside land use designation and R-1-1 zoning which also allows for residential development at this density. Future development on the County and City parcels would likely undergo CEQA review, which would ensure development is consistent with the County and City General Plan policies.

Impacts relating to land use and planning from the No Project Alternative would be less than significant and would, therefore, be less than under the proposed project.

**Mineral Resources**

No mineral resources, such as construction aggregates, limestone, or salts, are identified on any mineral resources map for the project site. Similar to the proposed project, no impacts related to the availability of mineral resources that would be have value to the region and State or the availability of locally important mineral resources would occur under the No Project Alternative.

**Noise**

Construction activities under the No Project Alternative would be reduced as compared to the proposed project due to the considerable reduction in proposed development, including the reduction in the number of lots (from 79 lots to 6 lots), elimination of the community center, and reduction of infrastructure development (i.e., on-site roads, utilities corridor, and trails). Therefore, noise levels associated with the on-site construction activities would be less than the proposed project, and, as such, noise impacts at the off-site sensitive receptors would remain less than significant under the No Project Alternative. In addition, the No Project Alternative would not include construction for the off-site utilities connections (i.e., wet and dry utility infrastructure); therefore, the significant construction-related noise impact at the off-site residential uses along the east side of Tennant Avenue would not occur under the No Project Alternative.

Heavy construction equipment (i.e., large bulldozer and loaded truck) for the site grading would generate limited groundborne vibration at the project construction site. The vibration levels generated by construction equipment under the No Project Alternative would be similar to the proposed project and would be well below the 80
vibration dB (VdB) significance threshold. Therefore, construction-related vibration impacts under the No Project Alternative would be similar to the proposed project and would be less than significant.

The No Project Alternative would result in considerably fewer on-site stationary noise sources (i.e., air conditioner and pool equipment), due to the reduction in lots and because this alternative would not include any water pump stations. Therefore, noise levels associated with on-site stationary noise sources would be considerably less under the No Project Alternative and impacts would remain less than significant.

The reduction in the number of lots under the No Project Alternative would result in a considerable reduction of vehicle traffic trips, due to reduction in the number of population from 387 under the proposed project to approximately 20 under the No Project Alternative. Therefore, noise levels associated with off-site traffic under the No Project Alternative would be less than under the proposed project (with a maximum increase of 0.1 A-weighted decibels [dBA], which is considered negligible), and would be less than significant.

As such, overall noise impacts under the No Project Alternative would be less than significant and less than under the proposed project.

**Population and Housing**

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit, for a total of 7 dwelling units. Assuming the County’s criteria of 2.9 residents per primary dwelling unit and 2 residents per secondary unit, the No Project Alternative would result in a total population of approximately 20 people. This would be 73 less primary residential units (or 88 less dwelling units in total) and 241 less people than under the proposed project. The No Project Alternative would not displace housing or people, nor induce population growth. Impacts to population and housing under Alternative A would, therefore, be less than significant and less than under the proposed project.

**Public Services**

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit, for a total of 7 dwelling units and a total population of approximately 20 residents. The additional 20 residents generated from the No Project Alternative would result in a small increase in demand for public services above existing demand, but significantly less demand than under the proposed project. Residents occupying the County parcels would be served by the Santa Clara County Fire Department (SCCFD) and Santa Clara County Office of the Sheriff (SCCOS), and residents occupying the City parcels would be served by the City of San Jose Fire Department and City of San Jose Police Department. It is expected that project operation would be similar to base line conditions related to fire, emergency, and law enforcement response times, because of the small growth in population. Residents would be required to clear vegetation in accordance with minimum fire safety standards of the County’s Weed Abatement Program and/or City of San Jose ordinance.

The No Project Alternative would generate a substantially smaller number of students than the proposed project, due to the smaller number of proposed dwelling units. Based on student generation rates (SGR), it is estimated that this alternative would generate a total of approximately 5 students for grades K through 12. The existing schools in the area (Ledesma (Rita) Elementary School, Bernal Intermediate School and Oak Grove High School) would be able to accommodate the additional 5 students generated by the No Project Alternative.
The No Project Alternative is not expected to result in the need for new or physically altered governmental facilities or the need for new or physically altered governmental facilities, because demand for fire protection, law enforcement, schools and other public services is not expected to significantly increase in a manner that would require construction of new facilities or infrastructure. Thus, impacts to public services would be less than significant and similar to the proposed project.

**Recreation**

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit, for a total number of 7 dwelling units and a total population of approximately 20 residents. There would be no permanent preservation of undeveloped lands or development of recreational trails under this alternative. All recreational use by future residents would likely be satisfied outside of the project area. However, as the population of the project site under the No Action Alternative would be minimal, impacts to recreation would be less than significant and less than under the proposed project.

**Transportation and Traffic**

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings and one secondary unit, for a total number of 7 dwelling units and a total population of approximately 20 residents. As the intensity of potential development on the site would be substantially lower than under the proposed project, any impacts related to transportation and traffic would be less than those under the proposed project. The proposed project would result in impacts related to traffic safety at the intersection of Silver Creek Valley Road with the proposed new access road, as well as a cumulative level of service impact at the Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road intersection. While the exact nature of potential roadway connections for the No Project Alternative is unknown, given the substantial reduction in development intensity and associated traffic volume, the No Project Alternative would likely not result in significant impacts, and mitigation would likely not be required. Thus, this impact would be less than under the proposed project and would be less than significant.

**Utilities and Service Systems**

Under the No Project Alternative, the project site would be developed with 6 single-family residential dwellings (and potential secondary unit), for a total number of 7 dwelling units and a total population of approximately 20 residents. Individual septic systems and leach fields for each lot would be required to comply with the Santa Clara County On-site Wastewater Treatment Ordinance. Water supply would be provided by new groundwater wells instead of a private water service provider. Future residents would be required to obtain services for electricity, natural gas, and solid waste disposal and it is anticipated that the demand for these services would be less than the proposed project. As the population of the project site under the No Action Alternative would be minimal and require construction of less new infrastructure, impacts to utilities and service systems would be less than significant and less than under the proposed project.
4.3.2 Alternative B – Reduced Project Visibility Alternative

Description of Alternative B

The Reduced Project Visibility Alternative (Alternative B) would reduce the visibility of the proposed project by not including development on 21 of the 79 lots that are most visible\(^2\) from the Santa Clara Valley floor. Under Alternative B, development of the cluster subdivision would be limited to the other 58 lots, as shown in Figure 4-1. Therefore Alternative B would include development of 58 single-family homes and a community center on the County-owned parcels. Similar to the proposed project, this alternative would include an amendment to the County Zoning Ordinance for the transfer of density from parcels located within the City’s jurisdiction to the County’s jurisdiction. It is assumed for purposes of analysis that the 21 lots removed would be preserved as open space.

As required by the County’s cluster development policies, all single-family homes would be on lots at least two acres in size, and all development on individual lots would avoid slopes greater than 30 percent. Under the County Zoning Ordinance, each residential lot would be eligible to construct a secondary unit. Similar to the proposed project, it is anticipated that only 20 percent of the lots would include a secondary unit, as explained in footnote \(^1\) above. Therefore, for purposes of this environmental analysis, it is assumed that 12 secondary units would be developed under Alternative B.

Single-family residences and secondary units would have the same square footage for development as under the proposed project. It is assumed that typical single-family residences would be up to 8,000 SF in area and that secondary units would be up to 800 SF. Based on County-wide averages, each primary single-family dwelling would have 2.9 residents, and each secondary unit would have 2 residents.

Alternative B would implement the same Design Guidelines as the proposed project, including guidelines for building heights, building forms and massing, color palette, building materials, and exterior lighting and height limits.

Utility improvements would be the same as those proposed for the project. New domestic water, electricity, natural gas, and telecommunications infrastructure would be provided to each lot. New individual septic systems and leach fields would serve each lot and the Community Center, and stormwater management would be handled on site in a similar manner to the proposed project.

Roadway improvements would be the same as those under the proposed project. Access to the community would be obtained via a new entry road connecting Silver Creek Road to the existing main ranch road through the site. A network of new private roadways would be developed within the site. Emergency ingress and egress would be provided via an improved existing ranch road that crosses the portion of the property within the City of San Jose’s jurisdiction.

\(^2\) Residences on lots A1, A3, A4, A5, A7, A8, D7, D8, 10, D11, D13, D15, D16, D17, D18, E5, E6, E9, F6, F11, and F12 would not be developed under Alternative B. These 21 lots are the ones that would visibly “protrude” above the ridgeline, as shown in Figures 3.1-2 through 3.1-8, in Section 3.1, “Aesthetics”.
Figure 4-1: Conceptual Site Layout for Alternative B – Reduced Project Visibility Alternative

Source: AECOM, 2016
Alternative B would meet the proposed project’s objectives identified in Sections 2.3 and 4.1.2, “Project Objectives.”

**Alternative B Impacts**

*Aesthetics*

Alternative B would be consistent with County General Plan Policies related to scenic resources and comply with the intent and requirements of the Design Review combining district (-d1) outlined in Chapter 3.20 of the Santa Clara County Zoning Ordinance through implementation of the same Design Guidelines (Appendix C) as the proposed project. These Design Guidelines provide standards for building heights, building forms and massing, color palette, building materials, and exterior lighting so that the new residential development would blend into the surrounding hillsides consistent with County General Plan Policies R-GD 19, R-GD 34, and R-GD 35. Design review applications would be reviewed and approved by the Zoning Administrator. In addition, a public hearing before the Planning Commission would be held if residential structures exceed 12,500 square feet. Therefore, Alternative B would not substantially degrade the existing visual character or quality of the site and its surroundings or create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Alternative B would avoid the significant and unavoidable impacts on scenic views of the project site that would occur under the proposed project. As shown in Figure 4-1, Alternative B would remove the 21 residences that would protrude above the ridgeline under the proposed project. The remaining residential development visible from public vantage points on the Santa Clara Valley floor would be seen primarily with hillsides as backdrop. A large amount of the open undeveloped ridgelines and hillsides would continue to be visible from these locations and would remain prominent features from these viewpoints. In addition, the Design Guidelines would serve to reduce or minimize the views of new development. Therefore, Alternative B would not conflict with General Plan policies adopted for the protection of scenic views of ridgelines and hillsides from the valley floor. Aesthetic impacts on scenic views of the project site from the Santa Clara Valley floor under Alternative B would be less than significant Alternative B and less than under the proposed project.

*Agriculture and Forestry Resources*

Under Alternative B, 21 of the proposed project lots would not be developed, resulting in a total of 58 lots, and a slight increase in open space. Similar to the proposed project, within each proposed lot, a minimum of one acre would be identified as a “natural area”, where structures or other development would not be allowed under the project’s Design Guidelines (Appendix C). Good grazing practices would occur on these acres to clear fire hazards around the lots, under the proposed project’s Resource Management Plan (Appendix D). Therefore, only the proposed “improvement envelope” (consisting of the “private area” and “transitional area”) of each lot would be permanently converted from grazing uses. Additionally, a community center, utility corridors, septic systems, emergency access would be developed. The majority of the project site acreage would be permanently preserved in accordance with County cluster subdivision policies and the project’s Design Guidelines and Resource Management Plan, which would include continued grazing.
Alternative B would not conflict with existing zoning for agricultural use or with a Williamson Act contract, as no portion of the site is subject to the Williamson Act. City and County parcels are zoned as Open Hillside and Hillsides (HS) districts, respectively. Open Hillside district allows no more than one dwelling unit per acre, while HS district requires a minimum parcel size of 2 acres for cluster development. Residential lots would be a minimum of 2 acres under Alternative B, and would not conflict with these zoning requirements. No portion of the project site is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and no portion of the project site has forest land or timberland.

Impacts on agriculture and forestry resources from Alternative B would be less than significant and less than under the proposed project.

**Air Quality**

Consistency with the Bay Area CAP can be determined by evaluating the consistency with the BAAQMD CEQA significance thresholds.

Construction activities under Alternative B would be reduced as compared to the proposed project due to the reduction in number of lots from 79 to 58. Therefore, the emissions associated with the use of construction equipment, haul trucks, and worker commutes would be less than under the proposed project and would not violate or contribute to an existing violation of an air quality standard. As for the proposed project, BAAQMD Basic Construction Mitigation Measures would be required to control fugitive dust emissions.

Operational emissions associated with Alternative B would be less than under the proposed project and would not violate or contribute substantially to an existing or projected air quality violation. Based on the reduced construction activities compared to the proposed project, health effects associated with diesel PM and PM$_{2.5}$ emissions generated during construction of Alternative B would be less than significant. Similar to the proposed project, the sensitive receptors would not be located within 1,000 feet of existing TAC emission sources, and the health risk impacts would be less than significant. Similar to the proposed project, Alternative B would not create objectionable odors affecting a substantial number of people.

Overall, the air quality impacts of Alternative B would be less than under the proposed project and would remain less than significant with mitigation.

**Biological Resources**

Under Alternative B, 21 of the lots under the proposed project would not be developed, resulting in a total of 58 lots and a slight increase in open space. However, the types of impact associated with Alternative B, especially impacts to special-status species, would be similar to those associated with the proposed project, and a similar level of mitigation (similar suite of mitigation measures) would be required for Alternative B. Overall biological resources impacts would be less than significant with mitigation and less than under the proposed project.

**Cultural and Paleontological Resources**

Under Alternative B, 21 of the proposed project lots would not be developed, resulting in a total of 58 lots (Figure 4-1). The location of the Community Center, roadways, trails, and utilities would remain the same and the
proposed project. The reduced development footprint and greater permanent open space preservation under this alternative would likely result in a reduction in impacts to as-yet discovered cultural resources on the remainder of the project site.

Impacts of Alternative B on known cultural resources would be similar to the proposed project. Two resources on the County parcels are CRHR eligible: YR-19 and portions of CA-SCL-651. Y-19 is located within the vicinity of Lot E9 and partially within Lot E8. Under Alternative B, Lot E9 would not be developed; however, impacts from development on Lot E8 and roadway improvements would have impacts similar to the proposed project on Y-19.

CA-SCL-651 is located within the vicinity of Lots A1 through A-5 and Lots C1 through C6. Lots A1, A3, A4, and A5 and Lots C1, C2, and C3 would be eliminated under Alternative B. However, impacts from development on Lots A2, C4, C5, and C6 and development of the Community Center would have impacts similar to the proposed project on CA-SCL-651.

Alternative B would implement the same mitigation measures as identified for the proposed project. Therefore, overall cultural resources impacts of Alternative B would remain less than significant with mitigation and less than the proposed project.

**Geology and Soils**

Alternative B would involve less ground disturbance than the proposed project due to the reduction in number of lots from 79 lots to 58 lots. Similar to the proposed project, Alternative B would still disturb more than one acre of soil and, therefore, the same provisions in the National Pollutant Discharge Elimination System (NPDES) Construction General Permit and the San Francisco Bay Regional Water Quality Control Board’s (RWQCB’s) Municipal Regional Permit would apply.

Similar to the proposed project, project construction plans and specifications would require the contractor to develop and implement a SWPPP and BMPs to minimize wind- and water-related soil and sediment discharges at the construction site. Alternative B would comply with the California Building Code and the County’s Geologic Ordinance. The County’s Geologic Ordinance requires that the County Planning Office and/or the County Geologist review the proposed project using maps showing the official County Geologic Hazard Zones and other maps and pertinent data to determine if a geologic investigation is required and the site geologic map would include the susceptibility of the project site to strong seismic ground shaking, seismic-related ground failure, liquefaction landslides, unstable geologic and soil units, and expansive soils. The decision of the County Geologist shall provide a basis for approval, or disapproval, of the application by the Board of Supervisors and for a determination of the number of usable lots, lot design, circulation systems, and other conditions and mitigations. Wastewater would be treated by on-site septic systems and, therefore, provisions in the Santa Clara County On-site Wastewater Treatment Ordinance would also apply and be subject to review and approval by the County Department of Environmental Health. As such, the impacts from Alternative B to geology and soils would be less than significant and similar to the proposed project.
Greenhouse Gas Emissions

Under Alternative B, the project site would be developed with 58 single-family residential dwellings and 12 secondary units. This level of development is above the BAAQMD screening level for single family residential developments, which is 56 dwelling units for operational GHG emissions.

The proposed project did not exceed the BAAQMD service population threshold for GHG emissions, which is 4.6 MTCO₂e. Based on the level of development for Alternative B (including reduction in the number of dwellings and associated vehicle trips), the total GHG emissions would be substantially less than the proposed project and would not be anticipated to exceed the threshold of significance. Alternative B would also not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions.

As such, the impacts related to GHG emissions from Alternative B would be less than significant and less than under the proposed project.

Hazards and Hazardous Materials

Alternative B would involve less ground disturbance than the proposed project due to the reduction in number of lots from 79 lots to 58 lots. Similar to the proposed project, Alternative B would still disturb more than one acre of soil and therefore a SWPPP and the associated BMPs relating to spill prevention would be required, and the project would be subject to federal, State, and local health and safety regulations pertaining to the use, transport, storage, and disposal of hazardous materials. Similarly, because Alternative B would disturb more than 1 acre, an asbestos dust mitigation plan under CARB’s Asbestos ATCM would be required.

There would be no impacts relating to hazardous emissions near schools, hazardous materials sites, or airport safety hazards under Alternative B, for the same reasons as the proposed project. Impacts relating to interference with emergency response or evacuation plans of Alternative B would be similar to the proposed project and would be less than significant.

Impacts relating to wildland fires from Alternative B would be potentially significant, as for the proposed project, because construction activities could require the use of tools and equipment that could present a fire threat if performed near dry grass or other natural fuels. This impact would be reduced to less than significant with implementation of Mitigation Measure HH-6 requiring Fire Prevention Measures, as well as compliance with the County’s Weed Abatement Program and other applicable building code and fire code regulations.

Therefore impacts relating to hazards and hazardous materials under Alternative B would be less than significant with mitigation and similar to the proposed project.

Hydrology and Water Quality

Alternative B would involve less ground disturbance than the proposed project due to the reduction in number of lots from 79 lots to 58 lots. Similar to the proposed project, Alternative B would disturb more than one acre of soil and increase the amount of impervious surfaces by more than 10,000 square feet (0.23 acres), and therefore the same provisions in the NPDES Construction General Permit and the San Francisco Bay RWQCB’s Municipal...
Regional Permit would apply. Wastewater would be treated by on-site septic systems and, therefore, provisions in the Santa Clara County On-site Wastewater Treatment Ordinance would also apply.

Similar to the proposed project, project construction plans and specifications would require the contractor to develop and implement a SWPPP and BMPs to minimize wind- and water-related soil and sediment discharges at the construction site, to minimize potential contamination of stormwater and nonstormwater discharges, and to prevent hazardous material spills. A drainage system would be installed in the development area to maintain pre-development runoff conditions through the use of vegetated swales, bio-retention systems, detention pipes and energy dissipaters for the road network and by pervious paving, rain gardens, vegetated swales, rainwater storage, vegetated roofs, and/or other LID practices on the individual residential lots. Septic systems would be designed with adequate separation from groundwater and would meet minimum setbacks from watercourses, steep slopes and embankments, drainage swales, and property lines, and would be subject to review and approval by the County Department of Environmental Health. As such, the impacts from Alternative B to hydrology and water quality would be less than significant and similar to the proposed project.

**Land Use and Planning**

Similar to the proposed project, Alternative B would not physically or visually encroach into existing residential areas and would not modify or close existing publicly accessible roads that provide access to the office parks and research and industrial uses or that provide connectivity among the existing residences in the area.

Alternative B would avoid some of the project’s significant and unavoidable impacts related to conflicts with the Santa Clara County General Plan policies related to protection of environmental resources. As discussed above in relation to the relevant resources, Alternative B would implement the same mitigation measures as under the proposed project to reduce impacts on biological and cultural resources to less than significant, and would avoid significant impacts to scenic resources by eliminating those 21 lots that would result in homes protruding above the ridgeline. As such, Alternative B would not conflict with County policies that have been adopted to mitigate significant environmental impacts on specific resources, including scenic resources (County General Plan Policies R-GD 32, R-GD 34, R-RC 96, R-RC 97, and R-RC 102).

However, in the absence of a General Plan and a Zoning Ordinance Amendment, development of the 58 new lots under Alternative B would result in 1 dwelling unit per 16 acres, which exceeds the allowed density based on the slope-density formula in the General Plan. Similar to the proposed project, while Alternative B would include a proposed Zoning Ordinance Amendment to allow for a greater density of dwelling units through a density transfer from the City to the County (see Appendix B), there is no General Plan Amendment proposed to allow such an increase in density through transfer from City parcels to County unincorporated areas. Considering only the County parcels, Alternative B would also preserve less than 90 percent of the land as open space, which is required under County General Plan Policy R-LU 20.

Given its location and orientation, Alternative B would avoid significant physical effects on scenic, biological, cultural, or geological resources as a result of such densities, as discussed above, and would therefore have a

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3 The residential density was calculated by adding the number of proposed lots (58 lots) divided by the total acreage of the County’s Parcels (906 acres).
lesser impact than the proposed project. However, land use impacts associated with potential conflicts with the Santa Clara County General Plan policies adopted to mitigate significant environmental impacts would still remain, and would be significant and unavoidable under Alternative B.

**Mineral Resources**

No mineral resources, such as construction aggregates, limestone, or salts, are identified on any mineral resources map for the County or City parcels. Similar to the proposed project, no impacts related to the availability of mineral resources that would be have value to the region and State or the availability of locally important mineral resources would occur under Alternative B.

**Noise**

Construction activities under Alternative B would be slightly reduced as compared to the proposed project due to the reduction in proposed development, including the reduction in the number of lots from 79 lots to 58 lots. Therefore, noise levels associated with the on-site construction activities would be slightly less than under the proposed project, and, as such, noise impacts at the off-site sensitive receptors would remain less than significant.

Alternative B would include off-site construction for the utilities connections (i.e., wet and dry utilities infrastructures), at a similar scale to the proposed project. Similar to the proposed project, construction activities associated with the off-site utilities connection would result in potentially significant noise impacts at the off-site residential uses along the east side of Tennant Avenue. However, mitigation measures as specified for the proposed project would be implemented under Alternative B to reduce the construction noise impacts to a less-than-significant level.

Similar to the proposed project, heavy construction equipment (i.e., large bulldozer and loaded truck) associated with the site grading would generate limited groundborne vibration at the project construction site. However, vibration levels generated by the project construction equipment would be similar to the proposed project and would be well below the 80 VdB significance threshold. Therefore, construction-related vibration impacts under Alternative B would be similar to the proposed project and impact would remain less than significant.

Similar to the proposed project, Alternative B would include two water pump stations associated with proposed infrastructure, but would include slightly fewer on-site stationary noise sources associated with dwellings (i.e., air conditioner and pool equipment), due to the reduction in the number of lots. Therefore, noise levels associated with on-site stationary noise sources would be slightly less under Alternative B than under the proposed project, and the impact would remain less than significant.

The reduction in the number of residents under Alternative B would result in a slight reduction of population (from 261 to 192 residents), which would reduce vehicle traffic trips generated, as compared to the proposed project. Therefore, noise levels associated with off-site traffic under Alternative B would be slightly less than under the proposed project (maximum increase of 0.1 dBA, which is considered negligible). Impacts related to off-site traffic noise would therefore be less than significant.

Overall noise impacts under Alternative B would be slightly less than the proposed project and would be less than significant with mitigation.
Population and Housing

Under Alternative B, the project site would be developed with 58 single-family residential units, with up to 12 detached or secondary units, for a total of up to 70 dwelling units. Assuming the County’s criteria of 2.9 residents per dwelling unit and 2 residents per secondary unit, Alternative B would result in a total population of 192 people, which is 69 people less than the proposed project (which would result in 261 people). Similar to the proposed project, aside from some off-site road improvements to Silver Creek Valley Road, all roadway and utility improvements under Alternative B would be limited to the project site and would not indirectly induce growth by providing infrastructure that could serve additional growth. Similar to the proposed project, Alternative B would not result in the displacement of housing or people. Thus, impacts related to population and housing would be less than significant and less than under the proposed project.

Public Services

Under Alternative B, the number of lots developed on the County parcels would be reduced from 79 lots to 58 lots. Impacts to public services from Alternative B would be similar to those from the proposed project, although on a slightly reduced scale, due to the reduction in population. Residents would be served by existing fire, emergency, and law enforcement services such as SCCFD and SCCOS.

Alternative B would generate approximately 40 students for grades K through 12, including: 25 elementary school students, 6 intermediate school student, and 9 high school students. The existing local schools (Ledesma (Rita) Elementary School, Bernal Intermediate School and Oak Grove High School) would be able to accommodate an additional 40 students generated by Alternative B.

Alternative B is not expected to result in the need for new or physically altered governmental facilities or the need for new or physically altered governmental facilities, because demand for fire protection, law enforcement, schools and other public services is not expected to significantly increase in a manner that would require construction of new facilities or infrastructure. Thus, impacts to public services would be similar to the proposed project and would be less than significant.

Recreation

Under Alternative B, 21 fewer lots would be developed on the project site than under the proposed project, for a total population of 192 people. This alternative would include a community center similar to the proposed project, permanently preserve the undeveloped portion of the project site as open space, and include a network of trails. Because this alternative would have less residents, impacts to recreation from Alternative B would be less than significant and less than under the proposed project.

Transportation and Traffic

Under Alternative B, the project site could be developed with up to 58 single-family residential dwellings and 12 secondary units, for a total of 70 dwelling units. This alternative would, therefore, represent a slight reduction in development intensity for the site (70 dwelling units versus 95 dwelling units) and population (192 residents versus 261 residents). Alternative B would therefore generate less traffic than the proposed project, with
approximately 49 AM peak hour vehicle-trips and 64 PM peak hour vehicle-trips (compared with 68 and 88 peak hour vehicle-trips respectively for the proposed project).

However, the reduction in development intensity and traffic generation under this alternative would be unlikely to change any of the significance conclusions identified for the proposed project, and Alternative B would likely result in the same impacts identified for the proposed project—namely, impacts related to traffic safety at the intersection of Silver Creek Valley Road with the proposed new access road and a cumulative level of service impact at the Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road intersection.

The mitigation measures identified for the proposed project would be sufficient to mitigate the project-level and cumulative impacts under Alternative B to less than significant. However, as described for the proposed project, the improvements proposed at the intersection of the project’s access road with Silver Creek Valley Road would require review and approval from the City of San Jose, and Santa Clara County has no jurisdictional control to enforce implementation of the proposed mitigation measure at this location. Thus, this project-level impact is conservatively deemed significant and unavoidable, similar to the proposed project.

**Utilities and Service Systems**

Alternative B would develop 58 single-family homes and 12 secondary units that would result in a total population of 192 people. Individual septic systems and leach fields for each lot would comply with the Santa Clara County On-site Wastewater Treatment Ordinance. Water for the proposed project would be supplied by Great Oaks. Using the methodology shown in Table 3.17-6 of Section 3.17, “Utilities and Service Systems,” Alternative B would create an annual water demand of approximately 7.0 million gallons per year (MGY). This is approximately 2.5 MGY less than the proposed project (9.54 MGY).

Similar to the proposed project, solid waste would be disposed of at the Guadalupe Landfill. The estimated solid waste generated by Alternative B would be approximately 0.32 tons per day (tpd), which is 0.11 less than the proposed project (0.43 tpd). Development under Alternative B would comply with California Green Building Code (Part 11 of Title 24), County recycling programs and the same Design Guidelines as proposed for the project.

Similar to the proposed project, the demand for utilities and service systems under Alternative B would be less than significant. However, because the number of single-family homes and secondary units under Reduced Visibility Alternative would be less than the proposed project and require construction of less new infrastructure, the impacts on utilities from Alternative B would be less than under the proposed project.

**4.3.3 Alternative C – Reduced Development Density Alternative**

**Description of Alternative C**

The Reduced Development Density Alternative (Alternative C) would include development of 30 single-family homes and a community center on the County-owned parcels. Alternative C would not include an amendment to the County Zoning Ordinance for the transfer of density from parcels located within the City’s jurisdiction to the County’s jurisdiction and would not count land on City parcels toward the County’s open space dedication requirement for cluster subdivisions.
Figure 4-2 shows a conceptual land use plan of Alternative C that was created by removing 21 of the 79 lots that would protrude above the ridgeline (see footnote 1 above, under description of Alternative B), and an additional 28 lots. The remaining lots are clustered towards the center of the County parcels, which would allow for a more efficient internal road network.

As required by the County’s cluster development policies, all single-family homes would be on two-acre minimum lots, and all development on individual lots would avoid slopes greater than 30 percent. Under the County Zoning Ordinance, each residential lot would be eligible to construct a secondary unit. Similar to under the proposed project, it is anticipated that only 20 percent of the lots would include a secondary unit, as explained in footnote 1 above. Therefore, six secondary units would be developed under this alternative.

Single-family residences and secondary units would have the same square footage for development as under the proposed project. It is assumed that typical single-family residences would be up to 8,000 SF in area and secondary units could be up to 800 SF. Based on County-wide averages, each primary dwelling would have 2.9 residents, and each secondary unit would have 2 residents. Similar to the proposed project, open space on the remainder of the County parcels would be preserved in perpetuity and managed in a natural state through dedication of an open space easement that would be owned by the County, per the provisions of § 5.45.050(D) of the Zoning Ordinance. Approximately 820 acres (91 percent of the County parcels) would be preserved as open space in perpetuity and managed in support of the sensitive habitats and species that occur there, according to the goals and policies of the Design Guidelines (Appendix C), the Resource Management Plan prepared for the project site (Appendix D), and the goals and policies of the Valley Habitat Plan. Alternative C would not include the transfer of development rights from the City to the County, nor would it include an open space easement dedication on the City parcels. Therefore, the acreage of permanent open space preservation under this alternative (approximately 820 acres) would be less than under the proposed project (approximately 1,947 acres), although it would meet the requirement that at least 90 percent of the County parcels be preserved in perpetuity in accordance with §5.45.050(D) of the Zoning Ordinance. It is assumed for the purposes of this alternatives analysis, that the City parcels would largely remain as open space, similar to existing conditions or with development of up to four single family residences as per the No Project Alternative.

Alternative C would implement the same Design Guidelines as the proposed project, including guidelines for building heights, building forms and massing, color palette, building materials, exterior lighting, and height limits.

Utility improvements would be the same as those proposed under the proposed project. New domestic water, electricity, natural gas, and communications infrastructure would be provided to each lot. New individual septic systems and leach fields would serve each lot and the community center. Stormwater management would be handled on site in a similar manner to the proposed project.

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4 Alternative C does not include development of the 21 lots that would visibly protrude above the ridgeline (described under Alternative B). In addition, the following 28 lots would also not be developed under Alternative C: A2, B15, D2, D3, D5, D9, D12, D14, D19, D20, D21, D22, E1, E2, E3, E4, E7, E8, F1, F2, F3, F4, F5, F7, F8, F9, F10, and F13.
Figure 4-2: Conceptual Site Layout for Alternative C – Reduced Development Density Alternative
Roadway improvements would be similar to those under the proposed project. Access to the proposed community would be obtained via a new entry road connecting Silver Creek Road to the existing main ranch road through the site. A network of new private roadways would provide access to the lots; however, the main access road would be shorter, and fewer private roadways would be required due to the smaller cluster of proposed lots. Emergency ingress and egress would be provided via an improved existing ranch road that crosses the portion of the property within the City of San Jose’s jurisdiction.

Alternative C would meet the proposed project’s objectives identified in Sections 2.3 and 4.1.2, “Project Objectives.”

**Alternative C Impacts**

**Aesthetics**

Alternative C would be consistent with County General Plan Policies related to scenic resources and would comply with the intent and requirements of the Design Review combining district (-d1) outlined in Chapter 3.20 of the Santa Clara County Zoning Ordinance through implementation of the same Design Guidelines (Appendix C) as the proposed project. These Design Guidelines provide standards for building heights, building forms and massing, color palette, building materials, and exterior lighting so that the new residential development would blend into the surrounding hillsides, consistent with County General Plan Policies R-GD 19, R-GD 34, and R-GD 35. Design review applications would be reviewed and approved by the Zoning Administrator and as well as the Santa Clara County Planning Commission. In addition, a public hearing would be held if residential structures exceed 12,500 square feet. Therefore, Alternative C would not substantially degrade the existing visual character or quality of the site and its surroundings or create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Alternative C would avoid the significant and unavoidable impacts on scenic views that would occur under the proposed project. Alternative C would remove 49 lots, including the 21 lots that would protrude above the ridgeline. As shown on Figure 4-2, the 30 remaining lots would be in two clusters, and any residences visible from public vantage points on the Santa Clara Valley floor would be seen primarily with hillsides as backdrop. A large amount of the open undeveloped ridgelines and hillsides would continue to be visible from these locations and would remain prominent features from these viewpoints. In addition, the Design Guidelines would serve to reduce or minimize the views of new development. Therefore, Alternative C would not conflict with General Plan policies adopted for the protection of scenic views of ridgelines and hillside from the valley floor. Aesthetic impacts on scenic views of the project site from the Santa Clara Valley floor would be less than significant under Alternative C, which is Significant and Unavoidable under the proposed project.

**Agriculture and Forestry Resources**

Under Reduced Density Alternative, 30 residential lots would be developed on County parcels only. Similar to the proposed project, within each proposed lot, a minimum of one acre would be identified as a “natural area”, where structures or other development would not be allowed under the project’s Design Guidelines (Appendix C). Good grazing practices would occur on these acres to clear fire hazards around the lots, under the proposed project’s Resource Management Plan (Appendix D). Therefore, only the proposed “improvement envelope” (consisting of
the "private area" and "transitional area") of each lot would be permanently converted from grazing uses. Additionally, a community center, utility corridors, septic systems, emergency access are proposed, as per proposed project on approximately 30 acres. The remaining acreage of the County parcels would be permanently preserved in accordance with County cluster subdivision policies and the project’s Design Guidelines and RMP, which would include continued grazing.

The total area of land that would be converted to non-agricultural uses would be less than the proposed project.

Note that under Alternative C, there would be no permanent preservation of City parcels as there is under the proposed project, which could result in future impacts to agricultural resources not evaluated in this EIR. However, any such future development is not part of this Reduced Density Alternative and would likely require future discretionary approvals and/or CEQA analysis to determine potential impacts.

This project alternative would not conflict with existing zoning for agricultural use or with a Williamson Act contract, as no portion of the site is subject to the Williamson Act. The County parcels are zoned as Hillsides (HS), which requires a minimum parcel size of 2 acres for cluster development. Residential lots would be a minimum of 2 acres under this alternative, and would not conflict with these zoning requirements. No portion of the project site is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and no portion of the project site has forest land or timberland.

Impacts on agriculture and forestry resources from Alternative C would be less than significant and less than under the proposed project.

**Air Quality**

Consistency with the Bay Area CAP can be determined by evaluating the consistency with the BAAQMD CEQA significance thresholds. Construction activities under Alternative C would be reduced as compared to the proposed project due to the reduction in number of lots from 79 to 30. Therefore, the emissions associated with the use of construction equipment, haul trucks, and worker commutes would be less than the proposed project and would not violate or contribute to an existing violation of an air quality standard. Similar to the proposed project, BAAQMD Basic Construction Mitigation Measures would be required to control fugitive dust emissions.

Operational emissions associated with Alternative C would be less than the proposed project and would not violate or contribute substantially to an existing or projected air quality violation. Based on the reduced construction activities compared to the proposed project, health effects associated with diesel PM and PM$_{2.5}$ emissions generated during construction of Alternative C would be less than significant. Similar to the proposed project, the sensitive receptors would not be located within 1,000 feet of existing TAC emission sources, and the health risk impacts would be less than significant. Similar to the proposed project, Alternative C would not create objectionable odors affecting a substantial number of people.

Overall, the air quality impacts of Alternative C would be less than under the proposed project and would remain less than significant with mitigation.


**Biological Resources**

Under Alternative C, 49 of the lots under the proposed project would not be developed, resulting in a total of 30 lots. The acreage of open space permanently preserved under Alternative C would be less than the proposed project, as only the undeveloped areas of County parcels would be preserved, not the City parcels.

Biological impacts associated with Alternative C would be less than those associated with the proposed project, due to the reduction in the number of lots and associated footprint of disturbance. A reduced footprint of disturbance would result in fewer acres of potential impacts to species habitats, including California tiger salamander upland dispersal habitat, western burrowing owl nesting, overwintering, and foraging habitat, and golden eagle foraging habitat. In addition, fewer lots would result in a smaller number of humans living within the project site, which reduces potential operational impacts associated with domestic dogs, herbicide, rodenticide, and introduction of invasive weeds. However, the types of impact associated with Alternative C, especially impacts to special-status species, would be similar to those of the proposed project. Although the level of impact would be less than the proposed project, a similar level of mitigation (similar suite of mitigation measures) would be required for Alternative C, including compliance with the VHP.

Additionally, under Alternative C, there would be no permanent preservation of City parcels as there is under the proposed project, which could result in future impacts to biological resources not evaluated in this EIR. However, any such future development is not part of this Reduced Density Alternative and would likely require future discretionary approvals and/or CEQA analysis to determine potential impacts.

Overall biological resources impacts of Alternative C would be less than significant with mitigation and less than under the proposed project.

**Cultural and Paleontological Resources**

Under Alternative C, only the County parcels would be developed with a total of 30 lots. The location of the community center would remain the same as the proposed project and fewer roadways and utilities would be required under this alternative. The reduced development footprint under this alternative would likely result in a reduction in impacts to as-yet discovered cultural resources on the remainder of the County parcels. Note that under Alternative C, there would be no permanent preservation of City parcels as there is under the proposed project, which could result in future impacts to cultural resources not evaluated in this EIR. However, any such future development is not part of this Reduced Density Alternative and would likely require future discretionary approvals and/or CEQA analysis to determine potential impacts.

Impacts of Alternative C on known cultural resources would likely be similar to the proposed project. Two resources on the County parcels are CRHR eligible: YR-19 and portions of CA-SCL-651. Y-19 is located within the vicinity of Lot E9 and partially within Lot E8. Figure 4-2 shows a conceptual map of Reduced Density Alternative. Under this alternative, it is assumed Lots E8 and E9 would not be developed, however, impacts from roadway improvements would have impacts similar to the proposed project on Y-19.

CA-SCL-651 is located within the vicinity of Lots A1 through A-5 and Lots C1 through C6. Lots A1 through A6 and Lots C1, C2, and C3 would be eliminated under Alternative C. However, impacts from development on Lots
C4, C5, and C6 and development of the Community Center would have impacts similar to the proposed project on CA-SCL-651.

Alternative C would implement the same mitigation measures as identified for the proposed project. Given that there would be less chance of disturbing unknown resources, overall cultural resources impacts of Alternative C would remain less than significant and less than under the proposed project.

**Geology and Soils**

Alternative C would involve less ground disturbance than the proposed project due to the reduction in number of lots from 79 lots to 30 lots. Similar to the proposed project, Alternative C would disturb more than one acre of soil and therefore the same provisions in the NPDES Construction General Permit and the San Francisco Bay RWQCB’s Municipal Regional Permit would apply. In addition, project construction plans and specifications would require the contractor to develop and implement a SWPPP and BMPs to minimize wind- and water-related soil and sediment discharges at the construction site.

Alternative C would comply with the California Building Code and the requirements of the County’s Geologic Ordinance. Wastewater would be treated by on-site septic systems and, therefore, provisions in the Santa Clara County On-site Wastewater Treatment Ordinance would also apply, including review and approval by the County’s Department of Environmental Health. As such, the impacts from Alternative C to geology and soils would be less than significant and similar to the proposed project.

**Greenhouse Gas Emissions**

Under Alternative C, the project site would be developed with 30 single-family residential dwellings and 6 secondary units. This level of development is below the BAAQMD screening level for single family residential developments, which is 56 dwelling units for operational GHG emissions.

It is noted that the proposed project did not exceed the BAAQMD service population threshold for GHG emissions, which is 4.6 MTCO2e. Based on the level of development for Alternative C (including reduction in the number of dwellings and associated vehicle trips), the total GHG emissions would be substantially less than under the proposed project and therefore would also not be anticipated to exceed the threshold of significance. Alternative C would also not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions.

As such, the impacts related to GHG emissions from Alternative C would be less than significant and less than under the proposed project.

**Hazards and Hazardous Materials**

Alternative C would involve less ground disturbance than the proposed project due to the reduction in the number of lots from 79 lots to 30 lots. Similar to the proposed project, Alternative C would still disturb more than one acre of soil and therefore a SWPPP and associated BMPs relating to spill prevention would be required. Similarly, because Alternative C would disturb more than 1 acre, an asbestos dust mitigation plan under CARB’s Asbestos...
ATCM would be required. The alternative would also be subject to federal, state, and local health and safety regulations pertaining to the use, transport, storage, and disposal of hazardous materials.

There would be no impacts relating to hazardous emissions near schools, hazardous materials sites, or airport safety hazards under Alternative C, for the same reasons as the proposed project. Impacts relating to interference with emergency response or evacuation plans of Alternative C would be similar to the proposed project and would be less than significant.

Impacts relating to wildland fires from Alternative C would be potentially significant, as for the proposed project, because construction activities could require the use of tools and equipment that could present a fire threat if performed near dry grass or other natural fuels. This impact would be reduced to less than significant with implementation of Mitigation Measure HH-6 requiring Fire Prevention Measures, as well as compliance with the County’s Weed Abatement Program and other applicable building code and fire code regulations.

Therefore impacts relating to hazards and hazardous materials under Alternative C would be less than significant with mitigation and similar to the proposed project.

**Hydrology and Water Quality**

Alternative C would involve less ground disturbance than the proposed project due to the reduction in number of lots from 79 lots to 30 lots. Similar to the proposed project, Alternative C would disturb more than one acre of soil and increase the amount of impervious surfaces by more than 10,000 square feet (0.23 acres), and therefore the same provisions in the NPDES Construction General Permit and the San Francisco Bay RWQCB’s Municipal Regional Permit would apply. Wastewater would be treated by on-site septic systems, and therefore provisions in the Santa Clara County On-site Wastewater Treatment Ordinance would also apply.

Similar to the proposed project, project construction plans and specifications would require the contractor to develop and implement a SWPPP and BMPs to minimize wind- and water-related soil and sediment discharges at the construction site, to minimize potential contamination of stormwater and nonstormwater discharges, and to prevent hazardous material spills. A drainage system would be installed in the development area to maintain pre-development runoff conditions through the use of vegetated swales, bio-retention systems, detention pipes and energy dissipaters for the road network and by pervious paving, rain gardens, vegetated swales, rainwater storage, vegetated roofs, and/or other LID practices on the individual residential lots. Septic systems would be designed with adequate separation from groundwater and would meet minimum setbacks from watercourses, steep slopes and embankments, drainage swales, and property lines, and would be subject to review and approval by the County Department of Environmental Health under the OWTS Ordinance. As such, the impacts from Alternative C to hydrology and water quality would be less than significant and similar to the proposed project.

**Land Use and Planning**

Similar to the proposed project, Alternative C would not physically or visually encroach into existing residential areas and would not modify or close existing publicly accessible roads that provide access to the office parks and research and industrial uses or that provide connectivity among the existing residences in the area.
Alternative C would avoid the project’s significant and unavoidable impacts related to conflicts with the Santa Clara County General Plan policies on scenic resources. As discussed above in relation to the relevant resources, Alternative C would implement the same mitigation measures as under the proposed project to reduce impacts on biological and cultural resources to less-than-significant, and would avoid significant impacts to scenic resources by eliminating 49 lots, including the 21 lots that would result in homes protruding above the ridgeline. Therefore, Alternative C would not conflict with County policies that have been adopted to mitigate significant environmental impacts on scenic resources (County General Plan Policies R-GD 32, R-RC 96, R-RC 97, and R-RC 102) or policies regarding the intensity of development (R-LU-19 and R-LU-20).

Alternative C would avoid the project’s significant and unavoidable impacts related to conflicts with the County General Plan’s Hillside land use designation for the project site. The 30 primary residential units would be the same as maximum number of allowable residential units (30 units) under the Hillsides land use designation.\(^5\) In other regards, Alternative C would comply with the clustered subdivision requirements. Specifically, the clustered development on the County parcels would occupy 55.5 acres (6.1 percent) of the 906-acre project site, and the remainder of the County parcels (approximately 820.2 acres or 93.9 percent) would be dedicated as open space.

Therefore, land use impacts associated with potential conflict with the Santa Clara County General Plan policies adopted to mitigate significant environmental impacts related to scenic resources or the Hillsides land use designation would be less than significant under Alternative C and, therefore, less than under the proposed project.

**Mineral Resources**

No mineral resources, such as construction aggregates, limestone, or salts, are identified on any mineral resources map for the County or City parcels. Similar to the proposed project, no impacts related to the availability of mineral resources that would be have value to the region and State or the availability of locally important mineral resources would occur under Alternative C.

**Noise**

Construction activities under Alternative C would be reduced as compared to the proposed project due to the reduction in proposed development, including a considerable reduction in the number of lots (from 79 lots to 30 lots), and a slight reduction in infrastructure due to a smaller internal road network. Therefore, noise levels associated with the on-site construction activities would be less than the proposed project, and, as such, noise impacts at the off-site sensitive receptors would remain less than significant. Similar to the proposed project, Alternative C would include off-site construction for the utilities connections (i.e., wet and dry utilities infrastructures) at a similar scale to the proposed project. As such, construction activities associated with the off-site utilities connection would result in potentially significant noise impacts at the off-site residential uses along the east side of Tennant Avenue. However, mitigation measures, as described for the proposed project, would be implemented to reduce the construction noise impacts to a less-than-significant level.

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\(^5\) The County parcels total 906 acres and the average slope of the parcels is approximately 25 percent. Using this acreage and average slope, the maximum number of allowable residential units, based on the 1 dwelling unit per 30 acres slope-density formula, would be 30 dwelling units.
Similar to the proposed project, heavy construction equipment (i.e., large bulldozer and loaded truck) associated with the site grading would generate limited groundborne vibration at the project construction site. However, the vibration levels generated by the construction equipment would be similar to the proposed project and would be well below the 80 VdB significance threshold. Therefore, construction-related vibration impacts under Alternative C would be similar to the proposed project and impacts would remain less than significant.

Similar to the proposed project, Alternative C would include two water pump stations associated with proposed infrastructure, but would include considerably fewer on-site stationary noise sources associated with dwellings (i.e., air conditioners and pool equipment), due to the reduction in the number of lots. Therefore, noise levels associated with on-site stationary noise sources would be less under Alternative C, and the impact would remain less than significant.

Under Alternative C, the number of residents would be reduced by more than half (from 261 to 99 residents), which would result in a considerable reduction of vehicle traffic trips, as compared to the proposed project. The reduction in vehicle trips would result in a lower noise contribution to the existing traffic noise. The noise levels increase associated with off-site traffic under Alternative C would be approximately 0.1 dBA (as compared to the estimated noise levels increase under the proposed project of 0.2 dBA). Therefore, the off-site traffic noise increase under Alternative C would be approximately 0.1 dBA less than the proposed project. However, a change of 0.1 dBA is considered negligible as relates to environmental noise, therefore impacts would be less than significant.

Overall noise impacts under Alternative C would be less than under the proposed project and impacts would be less than significant with mitigation, as for the proposed project.

**Population and Housing**

Under Alternative C, the project site would be developed with 30 single-family residential units and up to 6 detached or secondary units, for a total of up to 36 dwelling units. Assuming the County’s criteria of 2.9 residents per dwelling units and 2 residents per secondary homes, Alternative C would result in a total population of 99 people, which is 162 people less than the proposed project (which would result in 261 people). Similar to the proposed project, aside from some off-site road improvements to Silver Creek Valley Road, all roadway and utility improvements would be limited to the project site and would not indirectly induce growth by providing infrastructure that could serve additional growth. Similar to the proposed project, Alternative C would not result in displacement of houses or population. Population and housing impacts under Alternative C would be less than significant and less than under the proposed project.

**Public Services**

Under Alternative C, the number of lots developed on the County parcels would be reduced from 79 lots to 30 lots. Impacts to public services from Alternative C would be similar to those from the proposed project, although on a reduced scale, due to the reduction in population from 261 to 99 residents. Residents would be served by existing fire, emergency, and law enforcement services such as SCCFD and SCCOS.

Alternative C would generate approximately 67 students for grades K through 12, including: 42 elementary school students, 9 intermediate school student, and 16 high school students. Ledesma (Rita) Elementary School,
Bernal Intermediate School and Oak Grove High School would be able to accommodate an additional 67 students generated by Alternative C.

Alternative C is not expected to result in the need for new or physically altered governmental facilities or the need for new or physically altered governmental facilities, because demand for fire protection, law enforcement, schools and other public services is not expected to significantly increase in a manner that would require construction of new facilities or infrastructure. Thus, impacts to public services from Alternative C would be similar to the proposed project and would be less than significant.

**Recreation**

Alternative C would include a clustered subdivision on the County parcels, with a total of 30 residential lots and a population of approximately 99 people. This alternative would include a community center similar to the proposed project. Alternative C would also permanently preserve the undeveloped portion of the County parcels as open space and include walking trails on the County parcels. As this alternative would have less residents, impacts to recreation under this alternative would be less than significant and less than under the proposed project.

Under Alternative C, there would be no permanent preservation of City parcels. Future development on those parcels could impact recreational resources. However, any such future development is not part of this Reduced Density Alternative and would likely require future discretionary approvals and/or CEQA analysis to determine potential impacts.

**Transportation and Traffic**

Under Alternative C, the two County parcels could be developed with up to 30 single-family residential dwellings, and 6 secondary units. This alternative would, therefore, represent a substantial reduction in development intensity for the site (36 dwelling units versus 95 dwelling units) and population (99 residents versus 261 residents). Alternative C would therefore generate substantially less traffic than the proposed project, with approximately 25 AM peak hour vehicle-trips and 33 PM peak hour vehicle-trips (compared with 68 AM and 88 PM peak hour vehicle-trips for the proposed project).

However, the reduction in development intensity under this alternative would be unlikely to change any of the significance conclusions identified for the proposed project, and Alternative C would likely result in the same impacts identified for the proposed project—namely, impacts related to traffic safety at the intersection of Silver Creek Valley Road with the proposed new access road and a cumulative level of service impact at the Coyote Road / U.S. 101 NB Ramps / Silver Creek Valley Road intersection.

While the intensity of development, and therefore the amount of traffic generated, under this alternative would be substantially reduced compared to the proposed project, there could be some variation in the magnitude of potential cumulative impacts depending on how vehicular access is provided for potential future development on the City parcels. However, these factors would be unlikely to change any of the significance conclusions identified for the proposed project, and Alternative C would likely result in the same impacts identified for the proposed project. The mitigation measures identified for the proposed project would be sufficient to mitigate the project-level and cumulative impacts under Alternative C to less than significant. However, as described for the
proposed project, the improvements proposed at the intersection of the project’s access road with Silver Creek Valley Road would require review and approval from the City of San Jose, and Santa Clara County has no jurisdictional control to enforce implementation of the proposed mitigation measure at this location. Thus, this project-level impact is conservatively deemed significant and unavoidable, similar to the proposed project.

**Utilities and Service Systems**

Alternative C would develop 30 single-family homes and up to 6 secondary units that would result in a total population of 99 people. Individual septic systems and leach fields for each lot would comply with the Santa Clara County On-site Wastewater Treatment Ordinance. Water for the proposed project would be supplied by Great Oaks. Using the methodology shown in Table 3.17-6 of Section 3.17, “Utilities and Service Systems,” Alternative C would create an annual water demand of approximately 3.61 MGY. This is approximately 5.93 MGY less than the proposed project (9.54 MGY).

Similar to the proposed project, solid waste would be disposed of at the Guadalupe Landfill. The estimated solid waste generated by Alternative C would be approximately 0.16 tpd, which is 0.27 tpd less than the proposed project (0.43 tpd). Development under Alternative C would comply with California Green Building Code (Part 11 of Title 24), County recycling programs and the same Design Guidelines as proposed for the project.

Similar to the proposed project, the demand for utilities and service systems under Alternative C would be less than significant. However, because the population under Reduced Density Alternative would be less than the proposed project and require construction of less new infrastructure, the demand for utilities and service systems under Alternative C would be less than under the proposed project.

### 4.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that, among the alternatives, an “environmentally superior” alternative must be selected and that the reasons for such selection be disclosed. In general, the environmentally superior alternative is the alternative that would generate the fewest or least severe adverse impacts. Table 4-1 below provides a comparison of the proposed project to the three alternatives with respect to the potential to avoid or substantially reduce environmental impacts.

For the purposes of this EIR, the No Project Alternative is environmentally superior, since it would have reduced impacts compared to the proposed project with regard to the greatest number of environmental impact areas (Table 4-1). When the No Project Alternative is environmentally superior, another alternative must be identified.

As shown in Table 4-1, Alternative C would avoid the proposed project’s significant and unavoidable impacts related to aesthetics and land use and planning, but could still have a significant and unavoidable impact in relation to traffic safety, similar to the proposed project. In comparison, Alternative B would only avoid the project’s significant and unavoidable impact related to aesthetics, but would still have significant and unavoidable impacts in relation to land use and planning, and traffic safety. In addition, Alternative C would not require the approval of a Zoning Ordinance Amendment, as would be required for the proposed project and Alternative B.

As such, Alternative C, the Reduced Development Density Alternative, is identified as the environmentally superior alternative.
### Table 4-1: Comparison of Environmental Impacts of the Alternatives to the Proposed Project

<table>
<thead>
<tr>
<th>Environmental Issue Area</th>
<th>Proposed Project</th>
<th>Alternative A: Reduced Project Visibility</th>
<th>Alternative B: Reduced Development Density</th>
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<tr>
<td>Aesthetics</td>
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<td>LTS</td>
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<td>LTS</td>
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<td>LTSM*</td>
<td>LTSM</td>
</tr>
<tr>
<td>Biological Resources</td>
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<td>LTSM*</td>
<td>LTSM</td>
</tr>
<tr>
<td>Cultural and Paleontological Resources</td>
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<td>LTSM*</td>
<td>LTSM</td>
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<tr>
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<td>LTS</td>
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<tr>
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<tr>
<td>Hazards and Hazardous Materials</td>
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<td>LTS</td>
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<td>Hydrology and Water Quality</td>
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<td>S&amp;U</td>
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<td>NI</td>
<td>NI</td>
</tr>
<tr>
<td>Noise</td>
<td>LTSM</td>
<td>LTS</td>
<td>LTSM</td>
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<td>Population and Housing</td>
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<td>LTS</td>
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<td>Public Services</td>
<td>LTS</td>
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<td>Recreation</td>
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<tr>
<td>Transportation and Traffic</td>
<td>S&amp;U</td>
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<td>S&amp;U</td>
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<tr>
<td>Utilities and Energy Sources</td>
<td>LTS</td>
<td>LTS</td>
<td>LTS</td>
</tr>
</tbody>
</table>

**Number of categories with increased level of significance compared with project:**
- 0
- 0
- 0

**Number of categories with reduced level of significance compared with project:**
- 5
- 1
- 2

**Number of categories with same level of significance compared with project:**
- 12
- 16
- 15

**Acronyms:**
- S&U: Significant and Unavoidable Impact
- LTSM: Less than Significant with Mitigation Impact
- LTS: Less than Significant Impact
- NI: No Impact

**Notes:**
* The level of impact related to biological resources and cultural and paleontological resources under the No Impact Alternative would be determined through a separate CEQA analysis, if necessary, depending on the proximity of future development to such resources. As a conservative approach, it is assumed that such impacts would be of a similar level to the proposed project.
5.0 OTHER CEQA CONSIDERATIONS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

Section 21100(b)(2)(A) of the California Environmental Quality Act (CEQA) requires that a draft environmental impact report (EIR) identify significant environmental effects that cannot be avoided if a project is implemented. Most impacts identified related to the proposed project would either be less than significant or could be mitigated to a less-than-significant level. However, the proposed project would also result in some significant impacts that cannot be mitigated to less-than-significant levels. Based on the environmental analyses within this Draft EIR, the County has determined that implementation of the proposed project would result in the following significant and unavoidable impacts:

- Impact AES-1: The proposed project would have a substantial adverse effect on a scenic vista;
- Impact C-AES-1: The proposed project would have a cumulatively considerable impact on scenic vistas;
- Impact LU-2: The proposed project would conflict with general plan policies that have been adopted to mitigate significant environmental effects; and
- Impact TT-4: The proposed project would substantially increase traffic safety hazards due to a design feature or incompatible uses.

Due to these significant unavoidable environmental effects, approval of the Young Ranch Residential Project would require the adoption of a Statement of Overriding Considerations, which would include findings that the County is aware of the significant environmental consequences and yet has concluded that the benefits of the project outweigh the impacts.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA and the State CEQA Guidelines (Section 151826[c]) require that an EIR address “significant irreversible environmental changes which would be involved in the Project, should it be implemented.” Section 15126.2(c) of the State CEQA Guidelines identifies irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents.

If the proposed project is implemented, the project would involve the use of nonrenewable resources during its construction phase. Construction would include the use of building materials, such as petroleum-based products and metals that cannot reasonably be recreated. Construction also would involve significant consumption of energy, usually petroleum-based fuels that deplete supplies of nonrenewable resources. Construction of structures and infrastructure would consume energy and water; however, because of its temporary and one-time nature and because of compliance with the State’s Green Building Standards Code, construction under the proposed project would not represent a significant irreversible use of resources.

Once construction is complete, the land uses associated with the proposed project would use some nonrenewable fuels to heat and light structures and consume water. Plan elements would be built to current codes, including the California Green Building Standards Code, which requires insulation and support designs that minimize wasteful
energy consumption. Specific aspects of the proposed project are intended to be energy efficient and to reduce the extent of environmental changes as well. The siting of lots, the effort to avoid substantial grading, and the preservation of a majority of the project site in its natural state would minimize the conversion of land resources for urban uses and reduce possible irreversible changes to habitat. Finally, because the land uses associated with the proposed project would consume energy for heat and light and water for irrigation and plumbing efficiently (per compliance with California Green Building Standards Code), operation under the proposed project would represent a minimal use in resources, and thus would not represent a significant irreversible use of resources.

5.3 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the State CEQA Guidelines requires that an EIR discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Typical growth inducing factors might be the extension of urban services or transportation infrastructure to a previously unserved or underserved area, or the removal of major barriers to development. This section evaluates the proposed project’s potential to create such growth inducements. Not all aspects of growth inducements are negative; rather, negative impacts associated with growth inducement occur only where the projected growth would cause substantial environmental impacts.

Growth-inducing impacts fall into two general categories: direct or indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect, or secondary growth-inducing impacts consist of growth induced in the region by additional demands for housing, goods, and services associated with population increase caused by or attracted to, a new project.

The State CEQA Guidelines, as interpreted by the County, state that a significant growth-inducing impact may result if the proposed project would:

a) induce substantial population growth in an area (for example, by proposing new homes and commercial or industrial businesses beyond the land use density/intensity envisioned in the community plan);

b) substantially alter the planned location, distribution, density, or growth rate of the population of an area; or

c) include extensions of roads or other infrastructure not assumed in the community plan or adopted Capital Improvements Project list, when such infrastructure exceeds the needs of the project and could accommodate future developments.

The project site is located within an undeveloped area of the County. Implementation of the proposed project, including the proposed zoning ordinance, would directly induce growth within the County beyond what would be permitted by the County-wide land use densities/intensities envisioned in the General Plan. The actual residential development and population increase is relatively small (95 dwelling units and 261 persons), given the scale and nature of the proposed project; however, in the absence of the proposed zoning amendment, the proposed project would result in more residential units on the site than currently allowed. For some perspective on this growth, according to the Association of Bay Area Governments (ABAG), the unincorporated County’s population is expected to increase by 8,500 people from the 2015 population estimates by 2035 (ABAG, 2013a), resulting in a total anticipated population of 103,000 by 2035. Implementation of the proposed project would include the construction of up to 95 residential units, which would increase the population of the project site and the County.
by 261 residents\(^1\). The population growth that could be accommodated by the proposed project would be consistent with growth projections for the County as projected by the ABAG (2013).

Direct growth from the proposed project would not include retail and service commercial facilities, public institutional facilities, office facilities, light industrial facilities; but would include improvements to City roads near the project site to provide access to the project site. The access to an area currently unserved would not be expected to induce further growth because the roadway improvements are sized to serve the project site and no additional development would be permitted at the 2,150-acre project site. The proposed project would not result in indirect growth because no non-residential development or jobs would be created that could increase housing demand. As a result, no indirect growth would be created by the project that would be inconsistent with ABAG’s population, housing, and employment projections for Santa Clara County.

Construction of future development is anticipated to generate temporary construction-related jobs. The addition of construction jobs associated with development allowed under the proposed project could be supported by the skill sets available in the Santa Clara County area’s labor pool. Construction employment often has no regular place of business and requires commuting to job sites that change several times a year. Many construction workers are specialized, which limits the duration of a construction worker to a project, and some construction workers are likely to be drawn from the existing Santa Clara County labor pool. Consequently, project-related construction workers would not be likely to relocate their place of residence as a result of working on future developments under the proposed project. This impact associated with temporary jobs would be less than significant, as discussed further in Section 3.13, “Population and Housing”.

The project site currently consists of vacant, undeveloped land; see Chapter 2.0, “Project Description,” for a more details on the existing project site setting. Implementation of the proposed project would require the extension of electric, natural gas and water utility infrastructure to the project area. Because the project site is partially surrounded by existing residential development, this would not induce growth in other areas. Therefore, the proposed project would not include significant infrastructure expansion that would facilitate growth in other areas of the County.

As discussed in more detail in Section 3.10, “Land Use and Planning”, the entire project site is located within the Sphere of Influence of the City of San Jose but outside the City’s Urban Growth Boundary. The 2001 Amended and Restated Agreement of Redevelopment (Agreement) between the County and City of San José provides that prior to any substantive amendment or modifications to the County’s general plan, ordinances, or other policies pertaining to development within the City’s Sphere of Influence, which would significantly affect the consistency between the County land use policies and City development standards, the County should first receive written approval from the City. The project includes a proposal to amend the Zoning Ordinance of the County of Santa Clara that, if approved, would allow the transfer of density from the City parcels to the County parcels, allowing higher density of development of County parcels that are within the City’s Sphere of Influence. In accordance with the Agreement, the County referred the proposed Zoning Ordinance amendment to the City (SCC, 2016). The City Department of Planning, Building and Code Enforcement reviewed the proposed Zoning Ordinance amendment and determined that it would be inconsistent with the City’s General Plan and did not provide written approval of the Zoning Ordinance amendment (City, 2016).

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\(^1\) 79 single family homes x 2.9 people per residence = 229.1 residents; 16 secondary units x 2.0 = 32 residents; 229 + 32 = 261 residents.
In addition, the City has expressed concern that residential development of the project site could result in growth inducing impacts from introducing such development to hillside lands outside of the Urban Growth Boundary and Urban Service Area (City, 2012; 2015). Although the Zoning Ordinance amendment is project site specific, if approved by the County Board of Supervisors it would establish precedence to authorize transfer of density from lands within a city to lands within unincorporated County. Consequently, approval of the Zoning Ordinance amendment establishes a path of allowing densities on County unincorporated lands that are higher than what is envisioned in the County’s General Plan. Therefore, the proposed project would be indirectly growth-inducing.

The proposed project would not significantly affect the permanent jobs/housing balance. As discussed above, the proposed project would not create nonresidential development or jobs that would increase housing demand above what would otherwise occur in the County. The proposed project would also include for up to 95 new residential units and would provide for 261 new residents (see footnote 1). New residents would be expected to have existing jobs within the greater Santa Clara County/San Jose metropolis.

The direct population growth created by implementation of the proposed project would be consistent with the ABAG future growth projections; would not alter the existing jobs/housing balance; nor would it be inconsistent with the ABAG’s growth projections for the project’s build-out. However, if approved, the project could establish precedent for transfer of density from urban incorporated areas into unincorporated rural areas, which could lead to indirect growth-inducement.

5.4 REFERENCES


San Jose, City of (City), 2012. “Re: File No. PRE11-101 (Silver Creek Ridge between Silver Creek Valley and Metcalf Roads).” Letter to YCS Investments from City of San Jose Department of Planning, Building, and Code Enforcement. February 14, 2012.

______, 2015. “Young Ranch Application Completeness Comments.” Email to Santa Clara County Planning Department from City of San Jose Department of Planning, Building, and Code Enforcement. February 20, 2015.

______, 2016. “Young Ranch Subdivision Zoning Ordinance Amendment (County File No. 10256-14CSP-14Z) Redevelopment Agreement Referral Response.” Letter to Santa Clara County Department of Planning and Development. From City of San Jose Department of Planning, Building, and Code Enforcement, City of San Jose June 20, 2016.

Santa Clara County (SCC), 2016. “Young Ranch Subdivision Zoning Ordinance Amendment (County File No. LO256-[4CSP-142) Redevelopment Agreement Referral.” Letter to City of San Jose Department of
Planning, Building, and Code Enforcement. From Santa Clara County Department of Planning and Development. June 1, 2016.
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Hydrology and Water Quality: Elizabeth Neilsen and Phil Mineart
Land Use and Planning: Jenifer King
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