

MARTIAL COTTLE PARK

STATE PARK GENERAL PLAN/COUNTY PARK MASTER PLAN EIR
VOLUME I

**STATE CLEARINGHOUSE #2010022006
PUBLIC REVIEW DRAFT
SEPTEMBER 8, 2010**

MARTIAL COTTLE PARK

STATE PARK GENERAL PLAN/COUNTY PARK MASTER PLAN EIR
VOLUME I

*County of Santa Clara Parks and Recreation Department
& California State Parks*



DESIGN, COMMUNITY & ENVIRONMENT

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*Cover photograph of Martial Cottle taken at
Cottle Ranch 1951, courtesy of the Donor, included as part of the Oral History.*



**NOTICE OF AVAILABILITY AND INTENT TO ADOPT
AN ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED
MARTIAL COTTLE PARK STATE PARK GENERAL PLAN AND COUNTY
PARK MASTER PLAN PROJECT**

Date: September 7, 2010

To: Interested Members of the Public and Agency Representatives

The County of Santa Clara Parks and Recreation Department (Santa Clara County Parks) and the California Department of Parks and Recreation (California State Parks) have directed the preparation of and intends to adopt an Environmental Impact Report (EIR) for the proposed project, in compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines. The County of Santa Clara is the lead agency for the proposed project, and the State of California is a responsible agency under CEQA.

PROJECT LOCATION: Martial Cottle Park, San Jose, Santa Clara County

DESCRIPTION OF THE PROPOSED PROJECT:

Martial Cottle Park (the Park) is located in unincorporated Santa Clara County. The 256.64-acre Park is within the jurisdiction of Santa Clara County, but is surrounded by land within City of San Jose city limits. The Park consists of lands owned by the State of California and the County of Santa Clara. California State Parks and Santa Clara County Parks are preparing a combined State Park General Plan/County Park Master Plan in compliance with the requirements set forth in Title 14 of the California Administration Code.

The regional and project locations of the Park are shown in Figures 1 and 2, respectively (attached). As shown in Figure 2, the Park is generally rectangular in shape with a “panhandle” that extends from the southwest corner. The Park is roughly bounded by Branham Lane to the north; Snell Avenue and the Park donor’s Life Estate to the east; Chynoweth Avenue, Colony Field Drive, and State Route 85 to the south; and Barron Park Drive, Birmingham Drive, and Vistapark Drive to the west. At the southeast corner of the site, the Life Estate remains in active use. The Park donor’s private residence is located on the Life Estate, as well as approximately 25 acres of actively-farmed land.

The Martial Cottle Park State Park General Plan/County Park Master Plan (the Plan) contains goals, guidelines, and objectives to guide the creation of the Park. The Plan also includes design guidelines for the design and construction of the following Park components: entrances and gates, architecture, fencing, roads, parking areas, trails and buffers, planning, landscape components, and signage. The establishment of the Park is intended to protect a piece of Santa Clara Valley’s history and provide an agricultural, recreational, and educational resource. The main uses of the Park would include

agricultural production, habitat enhancement, visitor-serving and recreational facilities and trails, and educational and interpretive programming related to the site's cultural and natural resources. The conceptual master plan for the Park is shown in Figure 3.

Over half of the Park would be in agricultural production to provide food primarily for local and regional markets. The Park would include on-site marketing opportunities for farmers, as well as facilities for produce storage, processing, and packaging. The Park's natural resources would be enhanced through the restoration and enhancement of seasonal wetland habitat along the Canoas Creek channel, the retention of existing trees, and the establishment of diverse hedgerows. A small native plant nursery located on site would support on-site and regional habitat enhancement efforts. As part of the agricultural education programming, the Park would include interpretive and other signage along trails and at key points of interest, demonstration gardens, community gardens and urban forestry program areas, and youth agricultural facilities. Recreational activities within the Park would be passive, supported by a trail network through agricultural land and through the enhanced seasonal wetlands, and by picnic grounds and day use facilities. A visitor center, multi-use outdoor pavilion, grassy area, and picnic areas would serve as community space for events and gatherings.

The Park would be developed in a series of phases. Phase 1, extending from 2010 to 2019, would focus on establishing basic infrastructure and facilities to enable farming operations to be initiated as well as necessary improvements to allow for public access and limited recreational activities. Phase 1 improvements would include:

Parkwide Circulation and Access

- ◆ Design and construct the main Park entrance, including entry sign, landscaping, entry kiosk, paved entry road, and the primary public parking area.
- ◆ Establish at least one service/emergency entrance and develop unpaved service roads. Signage, gates, and fencing should be included.
- ◆ Design and construct multi-use trails and non-vehicular access points, including buffer landscaping pedestrian gates, dog courtesy stations, and other support facilities.

Parkwide Utilities

- ◆ Design and construct a water, electricity and gas infrastructure that includes meters and that allows for flexibility in park leasing.
- ◆ Design and construct an underground electrical supply system that includes meters and that allows for flexibility in park leasing.

Park and Recreation Areas

- ◆ Establish utility connections that will be necessary to support Park uses.
- ◆ Design and construct the visitor center complex, including gathering spaces, meeting rooms, staff offices and restrooms.

- ◆ Develop approximately five acres of developed open space in proximity to the visitor center. This area should provide opportunities for passive recreation, including picnicking.
- ◆ Develop a corporation yard and potential on-site caretaker residence to support Park activities. The corporation yard should include security fencing, security lighting, and temporary mobile trailer.
- ◆ Establish buffer areas in association with multi-use trails and initiate landscape improvements to these areas.
- ◆ Develop an interpretive program and signage program for the Park.
- ◆ Provide limited interpretive elements, such as panels, displays and programs.
- ◆ Provide signage to orient Park visitors, including informational and directional signage, regulatory signage, and Park maps.
- ◆ Develop adequate restrooms to accommodate level of use.

Leased Agriculture Areas

- ◆ Address the repair, maintenance and upgrade of the well located on State Parks property in order that the well may be utilized irrigation of agricultural areas.
- ◆ Develop and release Request for Proposals from farmers/lessees.
- ◆ Establish management structure for agricultural operations.
- ◆ Initiate soil improvement/preparation activities.
- ◆ Establish basic infrastructure for irrigation, water, sewer, electricity and other utilities.
- ◆ Develop an agricultural corporation yard.
- ◆ Provide security fencing around areas to be farmed.

Cooperative Management Areas

- ◆ Establish relationships with potential cooperative partners, including the City of San Jose, University of California Cooperative Extension (UCCE), Santa Clara Valley Water District (SCVWD), nongovernmental organizations, and others.
- ◆ Designate areas for agricultural research, youth agriculture, demonstration gardens, and urban forestry.
- ◆ Provide utility connections, gates, fencing and other basic infrastructure to enable cooperative partners to occupy designated areas.

Subsequent development phases would extend approximately ten to fifteen years beyond Phase 1. Subsequent phases would be necessary to complete park components initiated during Phase 1, such as interpretive programming and recreational open space areas, and to develop other components of the Plan that would not yet have been initiated, such as the seasonal wetland area, native plant nursery, and multi-use outdoor pavilion.

PUBLIC REVIEW PERIOD: The EIR is being circulated for public review and comment for a period of 45 days, beginning **September 8, 2010**. Questions regarding the project should be directed to Jane Mark, Senior Planner/Project Manager at the County of Santa Clara Parks and Recreation Department, 298 Garden Hill Drive, Los Gatos, CA, 95032, or by email at Jane.Mark@prk.sccgov.org.

Your views and comments on this project are welcomed. Written comments should be submitted **no later than October 22, 2010**, to the following address:

County of Santa Clara Parks and Recreation Department
ATTN: Jane Mark, AICP, Senior Planner
298 Garden Hill Drive
Los Gatos, CA 95032
Email: Jane.mark@prk.sccgov.org
Fax: (408) 355-2290

PUBLIC MEETING: A public meeting to present the scope of the EIR for the proposed Martial Cottle Park State Park General Plan/County Park Master Plan project has been scheduled for **September 22, 2010** at **Gunderson High School, 622 Gaundabert Lane, San Jose, California, 95136**, from **6:30 pm to 8:30 pm**. Representatives of the County Parks and Recreation Department will be present at this meeting and will be available to discuss the project proposal, its potential environmental effects, and proposed mitigation.

The project will be considered before the County of Santa Clara Board of Supervisors in a public meeting after receipt of public comments, and preparation of Department responses and a Final EIR. Notice of the Board of Supervisors meeting will be mailed to all agencies, organizations, and individuals that have expressed interest.

After the County's consideration of the project, the State of California Park and Recreation Commission will consider the proposed project in a public hearing to be held in a local venue after receipt of public comments and preparation of Department responses and a Final EIR. Notice of the hearing will be mailed to all agencies, organizations, and individuals that have expressed interest.

NOTICE OF PUBLICATION: This notice was published in the San Jose Mercury News, Almaden Times, and Blossom Valley Times.

Copies of the Draft State Park General Plan/County Park Master Plan and Draft EIR may be reviewed online at: <http://www.parkhere.org> and http://www.parks.ca.gov/?page_id=981 and at the following locations during normal business hours:

County of Santa Clara Clerk Recorder's Office

County Government Center

70 West Hedding Street,
East Wing, First Floor
San Jose, CA 95110

County Parks and Recreation Department

Administration Office
298 Garden Hill Drive
Los Gatos, CA 95032

Hellyer County Park Office
985 Hellyer Avenue
San Jose, CA 95111

California Department of Parks & Recreation

Monterey District Office
2211 Garden Road
Monterey, CA 93940

Gavilan Sector Office
P.O. Box 787
San Juan Bautista, CA 95045-0787

Santa Clara County Libraries

Campbell Library
77 Harrison Avenue
Campbell, CA 95008-1499
(408) 866-1991

Milpitas Library
160 North Main Street
Milpitas, CA 95035
(408) 262-1171

Saratoga Library
13650 Saratoga Avenue
Saratoga, CA 95070-5099
(408) 867-6126

City of San Jose Libraries

Almaden Branch Library
6445 Camden Avenue
San José, CA 95120
(408) 808-3040

Edenvale Branch Library
101 Branham Lane East
San José, CA 95111
(408) 808-3036

Pearl Avenue Branch Library
4270 Pearl Avenue
San José, CA 95136
(408) 808-3053

Santa Teresa Branch Library
290 International Circle
San José, CA 95119
(408) 808-3068

Vineland Branch Library
1450 Blossom Hill Road
San José, CA 95118
(408) 808-3000

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1 REPORT SUMMARY

This summary presents an overview of the proposed project and conclusions of the analysis contained in Chapter 4, Environmental Evaluation. The chapter also summarizes areas of controversy and alternatives to the project.

A. Proposed Project

This Draft Environmental Impact Report (EIR) provides an assessment of the potential environmental impacts of implementing the combined Martial Cottle Park State Park General Plan/County Park Master Plan (the Plan). The Plan contains goals, guidelines, and objectives to guide the creation of the proposed Martial Cottle Park (the Park). The project site is located in unincorporated Santa Clara County on land owned by the State of California and the County of Santa Clara. The project site is comprised of three parcels, of which one is owned by the State of California (136.52 acres) and two are owned by the County of Santa Clara (120.12 acres). The project site is within the jurisdiction of the County of Santa Clara, but is surrounded by land within the City of San Jose's jurisdiction.

The project site consists of 256.64 acres and is comprised of three parcels. The project site is roughly bounded by Branham Lane to the north; Snell Avenue to the east; Chynoweth Avenue, Colony Field Drive, and State Route 85 to the south; and Barron Park Drive, Birmingham Drive, and Vistapark Drive to the west. The following summarizes the major features of the Park Plan. Refer to Chapter 3, Project Description, for additional detail.

The establishment of the Park is intended to provide recreational and educational resources that honor the Donor's intent to preserve and educate visitors about Santa Clara Valley's agricultural history. The Park's agricultural uses would be a component of educational and interpretive programming about the agricultural history of the Santa Clara Valley. The main uses of the Park would include recreational facilities and trails, educational and interpretive programming related to the site's cultural and natural resources and agricultural production that relates to the site's history. Over half of the Park would be in agricultural production capable of providing food primarily for

local and regional markets using sustainable farming practices.¹ The Park's agricultural facilities would include on-site marketing opportunities for farmers, as well as facilities for produce storage.

The site's natural resources would be enhanced through the restoration of seasonal wetland habitat along the Canoas Creek channel, the retention of existing trees, and the establishment of diverse hedgerows. Hedgerows are strips or other areas planted with trees, perennials, and annuals that create habitat for agriculturally beneficial insects and pollinators and other wildlife, help to control erosion and weeds, and reduce non-point source water pollution. A small native plant nursery located on site would provide plants to support on-site and regional habitat enhancement efforts.

As part of the agricultural education programming, the Park would include interpretive signage along trails and at key points of interest, demonstration gardens, and agricultural facilities oriented toward youth.

Recreational activities within the Park would be passive, supported by a trail network through agricultural land and through the enhanced seasonal wetlands, and by picnic grounds and day use facilities. A visitor center, a multi-use outdoor pavilion, grassy area, and picnic areas would serve as community space for events and gatherings.

B. Summary of Goals and Need for the Park Plan

The Donor's vision for Martial Cottle Park is that it be jointly developed, operated, and maintained as one park. The purpose of the combined State Park General Plan and County Park Master Plan is to provide guidelines and policies for the development, operation and maintenance of the Park as one park. By combining the State Park General Plan and County Park Master

¹ Sustainable farming practices integrate natural biological cycles and controls; protect and renews soil fertility and the natural resource base; and minimize adverse impacts on health, safety, wildlife, water quality and the environment.

Plan into one document, the Plan avoids redundant efforts and ensures consistency between the goals and guidelines of California State Parks and the County of Santa Clara Parks and Recreation Department (County Parks). Additional detail regarding the Plan is provided in Chapter 3, Project Description.

The Plan establishes the following fundamental parkwide goals based upon the Donor's vision, grant deed restrictions and public input:

- ◆ Ensure consistency with the goals and policies of California State Parks, the Santa Clara County Board of Supervisors, Parks and Recreation Department, the Countywide Trails Master Plan, and the County General Plan.
- ◆ The Park's focus will be education and commemoration of Santa Clara County's agricultural history. Portions of the Park will be under agricultural use, and portions under educational and cultural uses, all for the promotion of local agriculture. Research and commercial agricultural uses will be limited to those that are reasonably related to the history of farming in the Santa Clara Valley.
- ◆ Ensure public safety within all park areas.
- ◆ Minimize conflict among park elements, between park users, and with surrounding land uses.

C. Public Involvement

This section provides an overview of opportunities for public involvement provided during the planning process. Further description of the planning process is provided in Chapter 3, Project Description. Opportunities were provided for the public to be involved in all phases of the planning process through participation at regular Task Force meetings; community workshops and scoping meetings; County Parks and Recreation Commission meetings; State Park and Recreation Commission meetings; the County's Housing, Land Use, Environment and Transportation Committee meeting; and

County Board of Supervisors meetings that were scheduled at key milestones in the process.

The County of Santa Clara issued the Notice of Preparation for this Draft EIR on February 1, 2010 (see Appendix A). A public scoping meeting for this EIR was held on February 10, 2010, in conjunction with Public Workshop #4 for the Plan. During the scoping meeting, public input on the issues addressed in this EIR was solicited. Comment letters also were received from the public in response from the Notice of Preparation (see Appendix B).

The public was also invited to inform the Park development by reviewing draft planning documents available on-line at the California State Parks and County Parks' respective websites, or by contacting County Parks directly via mail, e-mail, facsimile, or phone. The EIR consultant team and County Parks distributed comment forms at each of the public workshops.

D. Park Plan Summary

The Plan establishes a vision for the future of the Park based on the Donor's vision, grant deed restrictions, and public input. Implementation of the Plan would be initiated by Phase I improvements and completed during subsequent phases. Phase 1, which would extend from 2010 to 2019, would focus on establishing basic infrastructure and facilities to enable farming operations to be initiated during Phase 1, as well as necessary improvements to allow for public access and limited recreational activities. All project site components developed during this phase would comply with the County's Williamson Act Program guidelines, as the last of the Williamson Act contracts remaining on the three parcels of the Park will expire by 2019. Park components that would be initiated in Phase I would include the following:

- ◆ Main Park Entrance, paved entry road, and primary public parking area
- ◆ At least one service/emergency entrance
- ◆ Unpaved service roads
- ◆ Multi-use trails and non-vehicular access points
- ◆ Visitor Center Complex

- ◆ Developed open space (approximately 5 acres during Phase I)
- ◆ A park corporation yard and an agricultural corporation yard
- ◆ Interpretive elements
- ◆ Orientation signage
- ◆ Restrooms
- ◆ Security fencing
- ◆ Water, electricity, and gas infrastructure
- ◆ Underground electrical supply system
- ◆ Utility connections for park and agricultural areas
- ◆ Utility connections, gates, fencing, and other basic infrastructure to enable cooperative partners to occupy designated areas
- ◆ Repair, maintenance, and upgrades of the well located on State Parks property
- ◆ Soil improvement

Subsequent development phases would allow for the completion of Park components initiated during Phase 1, such as interpretive programming and recreational open space, and for the development of other components of the Plan. The following components would be initiated in subsequent phases:

- ◆ Canoas Creek channel improvements
- ◆ Seasonal wetland feature
- ◆ Native plant nursery
- ◆ Multi-Use Outdoor Pavilion
- ◆ Agricultural Marketing Area

E. Areas of Controversy

The following is a discussion of issues that are likely to be of particular concern to agencies and interested members of the public during the environmental review process. This list does not necessarily identify all areas of concern, but attempts to capture those that are likely to generate greatest interest based on the input received during the scoping process.

- ◆ **Aesthetics.** Neighboring residents have expressed a desire for views to be maintained from residential properties surrounding the project site. Trees planted in the project site could block views of the hills from properties to the west of the project site.
- ◆ **Biological Resources.** Members of the public expressed concerns regarding the preservation of habitat for bird species and non-native foxes existing on the project site. Comments were also received describing past problems with rodents existing on the project site.
- ◆ **Buffers.** Neighboring residents expressed concern regarding security and potential nuisances from Park activities, and provided input on buffer areas between the project site and residential properties to the west of the project site. Residents also provided comments on proposed fencing and buffer designs.
- ◆ **Cultural Resources.** Commentors expressed concern regarding potential impacts to nearby Native American cultural resource sites.
- ◆ **Hazards and Hazardous Materials.** Members of the public commented that hazardous materials would need to be properly addressed, and expressed concerns regarding runoff containing pesticides, herbicides, and fertilizers.
- ◆ **Hydrology and Public Services.** Public workshop participants inquired as to whether water supply would be sufficient to support planned farming activities in the Park.
- ◆ **Noise.** Neighboring residents expressed concerns regarding noise levels associated with agricultural operations.
- ◆ **Security.** Workshop participants expressed concerns regarding security and safety in the Park, particularly at night after the regular Park hours, and asked whether security features would be provided to buffer trail users and neighboring residential properties.
- ◆ **Traffic and Circulation.** Public workshop participants expressed concerns regarding traffic conditions and questioned whether parking capacity would be sufficient. Participants stated that development and main-

tenance of walking trails within the Park should be prioritized and expressed concern regarding pedestrian safety on multi-use trails that would be shared with bicyclists. Members of the public also expressed concerns regarding the location of the proposed entrance on Snell Avenue.

F. Environmental Evaluation

CEQA allows environmental issues for which there is no likelihood of a significant impact to be “scoped out” during the EIR scoping process, and not analyzed further in the EIR. Based on initial environmental evaluation completed for the project, certain issues and thresholds of significance were scoped out from further analysis and have not been analyzed further in this Draft EIR. This initial assessment concluded that implementation of the project would have *no impact* in relation to the following issues and thresholds:

◆ Aesthetics:

- The project site is not visible from a State scenic highway and would therefore not substantially damage scenic resources within a State scenic highway.
- The project site is not located on a ridgeline and therefore would not be located on a ridgeline visible from the valley floor.

◆ Forest Resources:

- The project site does not contain any forest land or timberland and would therefore not conflict with forest land or timberland, loss of forest land, or conversion of forest land.

◆ Biological Resources:

- The project site does not contain oak woodland habitat and would therefore not result in any substantial adverse effect on oak woodland habitat.
- The project site does not contain any fresh water marsh, oak forest, or salt water tide land and would therefore not impact such local natural communities.

- ◆ Historical Resources:
 - The project site is not located within a Historic District.
- ◆ Geology and Soils:
 - The project site is not located within a Geologic Study Zone.
 - The project would not result in the construction of a building, road, or septic system on a slope of 10 percent or greater.
- ◆ Hazards and Hazardous Materials:
 - The project site is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.
 - The project would not result in the construction of a roadway greater than 20 percent slope for a distance of 300 feet or more.
 - The project site is not located within an Airport Land Use Commission Safety Zone.
 - The project is not located in an area already involving extreme fire hazard and would therefore not increase fire hazards in such an area.
 - The project site is not located on a cul-de-sac over 800 feet in length and would therefore not require secondary access which would be difficult to obtain.
 - The project is not expected to employ technology that could result in a safety hazard in the event of a breakdown.
- ◆ Hydrology and Water Quality:
 - The project would not result in the extension of a sewer trunk line without capacity to serve new development.
- ◆ Land Use and Planning:
 - The project would not conflict with San Martin, South County, Los Gatos Specific Plan, Lexington Watershed, East Foothills Policy Area, New Almaden Historic Area/Guadalupe Watershed, or Stanford policies.

◆ Mineral Resources:

- The project site does not contain known mineral resources that would be of value to the region or residents of the State and would therefore not result in a loss in the availability of such resources.
- The project site does not contain a locally important mineral resource recovery site or any non-renewable mineral resources and would therefore not result in the loss of such resources.

◆ Population and Housing:

- The project would not extend roads or other infrastructure in such a way that would substantially induce population growth.
- The project site does not contain any existing housing or people and would therefore not displace substantial numbers of existing housing or people.

◆ Public Services:

- The project would not increase demand for school facilities and would therefore not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities.

◆ Recreation:

- The project would not increase the use of existing neighborhood regional parks or recreational facilities.
- Although the project site is currently owned by the State and the County, the property is undeveloped and does not allow public use or access until park improvements are completed, such that the property is not currently used as an active public or private park, wildlife reserve, or trail.

◆ Transportation and Traffic:

- The project would not result in any change in air traffic patterns.

The proposed project has the potential to generate significant environmental impacts in a number of areas. As shown in Table 1-1, most of the significant impacts would be reduced to a less-than-significant level if the mitigation measures recommended in this report are implemented. However impacts related to climate change would remain significant and unavoidable.

G. Alternatives to the Plan

An EIR must evaluate a reasonable range of feasible alternatives to the project or the location of the project that would achieve most of the basic project objectives and would avoid or substantially lessen any of the significant impacts of the project. For more information about project alternatives, please consult Chapter 5, Alternatives. Each of the alternatives evaluated in Chapter 5 are summarized below:

- ◆ **No Project Alternative.** Under this alternative, the proposed Plan would not be adopted and future development on the project site would be subject to existing policies and regulations. Under this scenario, the County and State would maintain ownership of the property. Some intensification of agricultural activities may occur, but agricultural uses would not be as intense as under the proposed project. Public park uses would be limited to passive recreational uses, such as trails and community gardening. No on-site parking area would be provided apart from curb-side parking and a loading area.
- ◆ **Plan Alternative 1 (Branham Lane Entrance Alternative).** Implementation of this alternative would place the Park entrance on Branham Lane, and would include equestrian facilities. All farming at the Park would be organic, as defined by the Organic Foods Production Act, and water use for agricultural activities would be reduced by one half. In comparison to the proposed project, this alternative would have an increased emphasis on agricultural uses.
- ◆ **Plan Alternative 2 (Chynoweth Avenue Entrance Alternative).** Implementation of this alternative would place the Park entrance on Chynoweth Avenue. A concentrated visitor area with equestrian facilities, including a barn and riding arena, would be located centrally within the Park. In comparison to the proposed project, this alternative would have a more substantial emphasis on recreational elements, and would include a large lake, recreational trails, picnic areas, and a community hall.

As determined through the comparative analysis of alternatives presented in Chapter 5 of this EIR, the No Project Alternative would be the environmentally superior alternative. The No Project Alternative would generate fewer vehicle trips and would not result in new development or substantially increase the number of visitors accessing the project site. As such, the No Project Alternative would represent an improvement over the proposed project in relation to air quality; biological resources; climate change; hydrology, floodplains, and water quality; and noise impacts.

H. Summary of Impacts and Mitigation Measures

The impacts and mitigation measures identified in this Draft EIR are summarized in Table 1-1. The table is organized to correspond with the environmental factors discussed in Chapter 4. Table 1-1 is arranged in four columns: (1) environmental impacts; (2) significance before mitigation; (3) mitigation measures; and (4) significance after mitigation. A series of mitigation measures is noted where more than one mitigation may be required to reduce an impact to a less-than-significant level. The full description of each impact and mitigation measure is presented in Chapter 4.

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
LAND USE, PLANS, AND POLICIES			
<i>The project would not result in significant project or cumulative impacts related to land use; therefore, no mitigation measures are required.</i>			
AESTHETICS AND VISUAL QUALITY			
<i>The project would not result in significant project or cumulative impacts related to aesthetics; therefore, no mitigation measures are required.</i>			
AGRICULTURAL RESOURCES			
<i>The project would not result in significant project or cumulative impacts related to agricultural resources; therefore, no mitigation measures are required.</i>			
AIR QUALITY			
AQ-1: Construction activity during buildout of the proposed project would generate air pollutant emissions that could expose sensitive receptors to substantial pollutant concentration and would have a cumulatively considerable net increase of NOx emissions. This is a significant impact.	S	AQ-1: Consistent with guidance from the BAAQMD, the following actions shall be required of construction contracts and specifications for the project. <ul style="list-style-type: none"> ◆ All exposed surfaces (e.g. parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. ◆ All haul trucks transporting soil, sand, or other loose material off-site shall be covered. ◆ All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. ◆ All vehicle speeds on unpaved roads shall be limited to 15 mph. ◆ All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. 	LTS

S = Significant PS = Potentially Significant LTS = Less Than Significant

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AQ-1 <i>continued</i>		<ul style="list-style-type: none"> ◆ Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. ◆ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 2 minutes (the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR] limits idling time to 5 minutes). Clear signage shall be provided for construction workers at all access points. ◆ All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. ◆ A publicly visible sign shall be posted with the telephone number and person to contact at the County of Santa Clara regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations. ◆ The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e. owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and a 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. ◆ All construction equipment including diesel trucks and generators, shall be equipped with Best Available Control Technology for emission reductions of NOx and PM. 	

LTS = Less Than Significant; PS = Potentially Significant; S = Significant; SU = Significant and Unavoidable

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AQ-1 <i>continued</i>			
AQ-2: Construction activities could expose sensitive receptors to substantial pollutant concentrations of toxic air contaminants. This would be a <i>potentially significant</i> impact.	PS	<ul style="list-style-type: none"> All contractors shall use equipment that meets ARB's most recent certification standard for off-road heavy duty diesel engines. AQ-2: Implement Mitigation Measure AQ-1. 	LTS
AQ-3: Future agriculture operations associated with the project could include livestock which could present a source of odors that could result in odor complaints from residences adjacent to the project site. This would be a <i>potentially significant</i> impact.	PS	AQ-3: Prior to implementation of any livestock operations, appropriate buffers between the livestock facility and existing residential uses shall be established. An odor impact minimization plan with fence line odor detection thresholds shall be implemented prior to developing livestock facilities. The odor impact minimization plan shall describe odor controls and procedures designed into the livestock operations along with contingencies to address potential odor complaints.	LTS
BIOLOGICAL RESOURCES			
BIO-1: The proposed project could result in the disturbance of an active white-tailed kite nest, red-tailed hawk nest, or other native bird nests. This would be a <i>significant</i> impact to special-status species and a <i>potentially significant</i> impact to a nesting site.	PS/S	<p>BIO-1a: Project-related construction activities shall ideally occur during the non-breeding season (September 1 to January 31) to avoid potential impacts to nesting birds, if present. If construction activities cannot occur in the non-breeding season, then a pre-construction survey for active bird nests shall be required within 500 feet of an area proposed for development.</p> <p>During the breeding season (February to August), surveys to determine the presence of nesting birds shall be conducted by a qualified wildlife biologist (i.e. approved by CDFG) no more than 30 days prior to the initiation of any construction activities. If birds (excluding non-native species) are observed nesting on or adjacent to the site during these surveys, construction buffers shall be established around all active nests. The size of the nest buffer shall be determined by the biologist in consultation with CDFG and would be based to a large extent on the nesting species and its sensitivity to disturbance. All project-related activity shall occur outside of the</p>	LTS

LTS = Less Than Significant; PS = Potentially Significant; S = Significant; SU = Significant and Unavoidable

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-1 <i>continued</i>		<p>exclusion area until a qualified biologist has determined that the young have fledged from the nest.</p> <p>BIO-1b: The County shall annually monitor raptor nesting activity within the Park and establish appropriate human exclusion zones around the active nest(s). The size of the nest buffer shall be determined by a qualified biologist in consultation with CDFG and would be based to a large extent on the bird's sensitivity to disturbance. All human activity shall occur outside of the exclusion area until a qualified biologist has determined that the young have fledged from the nest or the raptor nesting has ceased for the year.</p>	
BIO-2: Construction of the proposed project could result in impacts to western pond turtle eggs and/or young turtles in nest chambers in upland areas. This would be a <i>significant</i> impact.	S	<p>BIO-2: Construction within potential pond turtle nesting areas should be delayed until after the eggs have hatched and the young have become independent; most likely on a date after August 15 in which impacts to eggs and young turtles would be unlikely. Young western pond turtles, however, are known to over-winter in their nest chambers and construction activities within pond turtle nesting areas after August 15 could still result in impacts to young turtles in nests.</p> <p>Western pond turtle nests sites are difficult to detect because turtles lay their eggs underground and surveying for nest sites after female turtles have laid their eggs is not feasible; it is thus not practicable to attempt to locate nests and move turtle nests or young prior to construction activities. Pond turtles could nest up to 50 feet from Canoa Creek in the fallowed fields on both sides of the creek. After the construction of Park facilities is complete, western pond turtles may nest on the site, but normal Park activities should not have a significant impact on these turtles.</p>	LTS

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-2 <i>continued</i>		<p>In areas adjacent to Canoas Creek, the project contractor shall place a fence between the proposed grading areas and the creek to discourage adult female turtles from entering and nesting in these areas. Installation of the fence shall be supervised by a qualified biologist. The fence mesh shall be of a size to allow hatchling turtles to pass through, but exclude adult females (approximately 3 by 3 inches). The fence shall be in place prior to April 1 and grading within the fenced-off areas shall be delayed until July 1. This would allow hatchling turtles that have over-wintered in the proposed grading area to leave the nest and return to aquatic habitat in the creek. After the first year of grading, construction within the fenced areas can be conducted throughout the year because nesting females would have been excluded from these areas and nests would not be present. After project construction is complete, the turtle exclusion fence may be removed.</p>	LTS
BIO-3: The proposed project could result in the loss of approximately 250 acres of foraging habitat within the fallowed fields. This would be a <i>significant</i> impact.	S	<p><u>BIO-3a: Mitigation Measure BIO-3a:</u> Develop and implement an agricultural management plan for the Leased Agriculture Zone that will promote crop rotation, harvesting techniques, establishment of cover strips, and other agricultural practices to support wildlife values while maintaining viable agricultural operations. The agricultural management plan shall be approved by Santa Clara County Parks.</p>	LTS
		<p><u>BIO-3b:</u> The application of rodenticides shall be eliminated or reduced in order to increase prey abundance.</p>	

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-4: Development on the project site may impact the special-status Congdon's tarplant, if present. This would be a <i>significant</i> impact.	S	BIO-4a: Prior to construction of the project, a rare plant survey according to CNPS, CDFG, and USFWS protocols shall be conducted for Congdon's tarplant in areas where development is proposed to determine if any rare plants are present. The survey shall be conducted by a qualified biologist approved by CDFG, familiar with the flora of the San Jose area, and with expertise in the identification of Congdon's tarplant. Surveys shall be conducted during the peak of Congdon's tarplant's growing season within the summer months to ensure that they are observed, if present. If no Congdon's tarplant populations are found on-site, then the qualified biologist shall prepare and submit a report to the County documenting the negative findings of the survey. At a minimum, the report shall include dates of surveys, names of surveyors, and a list of all plants observed. No additional mitigation shall be required if Congdon's tarplant are not found during the protocol-level surveys. According to the standard protocols, the results of a negative-findings plant surveys would be considered valid for two years. Thereafter, additional protocol-level surveys would be required.	LTS
		BIO-4b: If Congdon's tarplant populations are observed on-site, then a mitigation and monitoring plan shall be developed by the County to avoid and or compensate for the loss of special-status plant populations. Significant adverse impacts to this plant shall be mitigated either by avoidance or through compensatory mitigation in accordance with the following standards. 1. Whenever feasible, Congdon's tarplant populations shall be avoided and the populations protected in place. Avoidance measures may include fencing the existing plants with Environmentally Sensitive Area (ESA) fencing prior to construction,	

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-4 <i>continued</i>		<p>establishing a buffer zone of at least 20 feet around rare plant populations, and implementing a training program for construction personnel to ensure avoidance of the preserved plant populations.</p> <p>2. If impacts to Congdon's tarplant populations are unavoidable, the project sponsor shall mitigate for the impact by preserving existing plant populations of the same species at an offsite mitigation site at a minimum 2:1 ratio (2 acres of occupied habitat preserved for each acre of occupied habitat impacted). The project sponsor shall develop a mitigation and monitoring plan for the plants that are impacted and submit the plan to the County and CDFG for approval.</p>	
BIO-5: Improvements to Canoas Creek would temporarily impact the limited riparian habitat within the Canoas Creek channel. This would be a <i>significant</i> impact.	S	BIO-5: Prior to initiating construction or enhancements to Canoas Creek, the applicant shall contact the Corps and RWQCB to determine what type of permit is required and if any mitigation is necessary. If BMPs are employed, impacts to Corps jurisdiction would be short-term and temporary, and mitigation may not be required. However, both agencies shall be contacted before any construction activity below the OHWM occurs.	LTS
BIO-6: Development of the project site may result in the fill of jurisdictional wetlands that are subject to jurisdiction as waters of the United States under Section 404 of the Clean Water Act and/or are waters of the State subject to jurisdiction under the Porter-Cologne Act. Impacts to these waters, if present, would be a <i>significant</i> impact. Implementation of Mitigation Measures BIO-6a, BIO-6b, BIO-6c, BIO-6d, and BIO-6e will reduce this impact to <i>less than significant</i> .	S	BIO-6a: Prior to implementing any development projects on the project site, a formal wetland delineation shall be conducted to determine the extent of jurisdictional waters of the U.S. and waters of the State on the site. Potential impacts to jurisdictional waters shall be avoided if feasible, and unavoidable impacts shall be minimized to the extent that is feasible. BIO-6b: The applicant shall obtain the appropriate federal and State permits authorizing the fill of jurisdictional wetlands and other waters including waters of the State. All work in jurisdictional areas shall be in compliance with the terms and conditions of the federal and state permits.	LTS

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-6 <i>continued</i>		<p><u>BIO-6c:</u> All waters of the United States or waters of the State, if present, that are filled as a result of project development shall be mitigated at a minimum 1:1 ratio or the higher of the ratios stipulated in the federal or State permit authorizing fill of the wetlands or non-wetland waters. Mitigation for impacts to wetlands or other waters may be accomplished by on- or off-site creation of wetlands or non-wetland waters at an appropriate mitigation site on parkland within the County parks system.</p> <p><u>BIO-6d:</u> If the wetland delineation results determine that wetlands are present and cannot be avoided, and may be impacted by the Park, the County shall implement a wetland mitigation and monitoring plan as mitigation for impacts to jurisdictional wetlands and waters. The plan shall detail the mitigation design, wetland planting design, maintenance and monitoring requirements, reporting requirements, and success criteria. The mitigation wetlands shall be monitored for a minimum of five years. This plan shall be approved by the Corps, RWQCB, and the County prior to implementation.</p> <p><u>BIO-6e:</u> During project construction, no material shall be allowed to enter or be stored in any wetlands, if present, that are to be preserved. Project related dirt and other material shall be kept sufficiently far away from preserved wetlands and drainages to prevent material from entering these features. If earthmoving activities or material stockpiling occur upslope from a preserved wetland or drainage, silt fencing shall be installed around the preserved feature to prevent soil from entering the wetland. Silt fencing shall be installed at the least 5 feet from the edges of preserved wetlands. Silt</p>	

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<i>BIO-6 continued</i>			
		fencing shall also be installed around preserved features whenever earthmoving activities or material stockpiling occurs within 20 feet of a preserved feature. All equipment washing shall occur downslope from preserved wetlands to prevent the runoff from entering the preserved wetlands. Berms or other barriers shall be constructed outside of preserved wetlands to prevent wash water runoff from entering the preserved wetlands.	
BIO-7: Improvements to Canoas Creek would temporarily impact jurisdictional waters under Section 404 of the Clean Water Act. This would be a <i>significant</i> impact.	S	BIO-7: Implement Mitigation Measure BIO-5.	LTS
BIO-8: Increased level of development and increased use of the property could cause red-tailed hawks and white-tailed kites, as well as other raptors, to abandon the site if used as a regular breeding site. This would be a <i>potentially significant</i> impact on nesting habitat sites.	S	BIO-8: Implement Mitigation Measures BIO-1a and BIO-1b.	LTS
BIO-9: Construction of the enhancements to Canoas Creek and the creation of a seasonal wetland may temporarily disrupt nesting white-tailed kites and other native bird nests, if present. This would be a <i>potentially significant</i> impact on nesting sites.	S	BIO-9: Implement Mitigation Measures BIO-1a and BIO-1b.	LTS
BIO-10: The proposed project could impact wetlands on the site, if present. This would be a <i>significant</i> impact.	S	BIO-10: Implement Mitigation Measures BIO-6a, BIO-6b, BIO-6c, BIO-6d, and BIO-6e.	LTS
BIO-11: Improvements to Canoas Creek would temporarily impact a watercourse and limited riparian habitat. This would be a <i>significant</i> impact.	S	BIO-11: Implement Mitigation Measure BIO-5.	LTS
CLIMATE CHANGE			
CC-1: Construction and operation of the project would result in GHG emissions that would have a <i>significant</i> physical adverse impact and cumulatively contribute to global climate change.	S	CC-1a: The following construction practices shall be implemented at the project site during the construction and pre-construction phases of the project: <ul style="list-style-type: none"> ◆ Implement Mitigation Measure AQ-1 to reduce exhaust emissions. 	SU

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
LC-1 <i>continued</i>		<ul style="list-style-type: none"> ◆ Use local building materials when feasible and to the extent that materials are available. ◆ Recycle or reuse at least 50 percent of construction waste or demolition materials. ◆ For all building construction projects with a defined footprint, the County shall establish a construction limit of work area and install fencing around the limit of work. (This measure shall not apply to other park improvements such as trail construction.) <p><u>CC-1b:</u> The following measures shall be incorporated into the design and construction of the project:</p> <p>Energy Efficiency Measures:</p> <ul style="list-style-type: none"> ◆ Design, construct and operate all newly constructed and renovated commercial structures to meet the County of Santa Clara’s green building standards. ◆ Design buildings to facilitate use of solar energy for electricity, water heating, and/or space heating/cooling within parameters of historical design. ◆ Provide a landscape and development plan for the project that takes advantage of shade, prevailing winds, and landscaping. ◆ Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems. ◆ Install light colored “cool” roofs and cool pavements (e.g. porous pavement). ◆ Install energy efficient heating and cooling systems, appliances and equipment, and control systems. ◆ Install energy-efficient, solar or light emitting diodes (LEDs) for outdoor lighting, as appropriate. 	

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
CC-1 <i>continued</i>		<p>Water Conservation and Efficiency Measures:</p> <ul style="list-style-type: none"> ◆ Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include the following, plus other innovative measures that might be appropriate: <ul style="list-style-type: none"> • Create water-efficient landscapes within the development, including climate-appropriate and drought-tolerant species in non-agricultural areas. • Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls. • Design buildings to be water-efficient. Install water-efficient fixtures and appliances, including low-flow faucets, dual-flush toilets and waterless urinals. • Restrict watering methods (e.g. prohibit systems that apply water to non-vegetated surfaces) and control runoff. • Install a separate, non-potable distribution system (i.e. “purple pipe”) to accommodate the use of recycled water or grey water for landscape irrigation needs of non-agricultural areas with irrigated landscaping, where feasible and where the supply infrastructure exists and/or as reclaimed water sources become available for the site. • Utilize rainwater harvesting techniques to collect rainwater and store in on-site cisterns to allow use of reclaimed water for landscape irrigation needs of non-agricultural areas with irrigated landscaping. 	

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
CC-1 <i>continued</i>		<p>Agriculture:</p> <ul style="list-style-type: none"> ◆ Require that agricultural and animal operations, managed by the Master Farmer and/or lessees, implement best management and sustainable farming practices to reduce emissions conserve energy and water, and utilize alternative energy sources. ◆ When feasible, implement best management practices for crop rotation and weed control in agricultural areas. <p>Solid Waste:</p> <ul style="list-style-type: none"> ◆ Establish and implement target reduction goals for recycling, composting, and other on-site solid waste reduction measures to achieve a 75 percent diversion rate consistent with the policies in the Santa Clara County Climate Action Plan. <p>Transportation and Motor Vehicle Measures:</p> <ul style="list-style-type: none"> ◆ Develop a transportation demand management (TDM) program that includes trip reduction components such as free transit passes, a dedicated employee transportation coordinator, and carpool matching program. ◆ Provide transit facilities (e.g. bus bulbs/turnouts, benches, shelters). ◆ Provide bicycle lanes and/or paths, incorporated into the proposed street systems and connected to a community-wide network (such as bikeways along Branham Lane). ◆ Provide sidewalks and/or paths, connected to adjacent land uses, transit stops (such as the existing VTA bus stops on Snell Avenue), and/or a community-wide network. 	SU
CC-2: The project would generate increased GHG emissions that hinder or delay the State's ability to meet the AB 32 reduction target. This would be a <i>significant</i> impact.	S	CC-2: The applicant shall implement Mitigation Measures CC-1a and CC-1b.	SU

LTS = Less Than Significant; PS = Potentially Significant; S = Significant; SU = Significant and Unavoidable

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
CULTURAL RESOURCES			
CULT-1: Project ground-disturbing activities, including construction of secondary service roads, unpaved multi-use trails, pedestrian trails, bridges, and habitat enhancements along Canoas Creek have the potential to result in a <i>significant</i> impact on archaeological deposits that qualify as “historical resources” or “unique archaeological resources.”	S	CULT-1a: Prior to project construction or ecological enhancement within 1,000 feet to the east of Canoas Creek and southwest of Canoas Creek to the park boundary to the southwest, a qualified archaeologist shall undertake a presence/absence subsurface archaeological testing program. The testing shall determine if prehistoric archaeological deposits, human remains, and/or buried paleosols suitable for occupation by prehistoric peoples are within areas slated for development in the vicinity of Canoas Creek and CA-SCL-295. The County shall consult with an appropriate Native American consultant included on a list of local tribal representatives maintained by the Native American Heritage Commission prior to any archaeological excavations. The consultation shall identify concerns that local tribal representatives may have regarding the excavations, and the appropriate agency shall make a good-faith effort to address such concerns.	LTS
		Upon completion of the subsurface testing, the archeologist shall prepare a report documenting the methods and results of the excavation and provide recommendations regarding the treatment of archaeological deposits or human remains and any associated cultural materials, as appropriate. Pursuant to California Code of Regulations Section 15126.4(b)(3), preservation of archaeological sites in place shall be the preferred manner of mitigating impacts to archaeological sites. The report shall be submitted to the appropriate Lead Agency and the Northwest Information Center at Sonoma State University.	

LTS = Less Than Significant; PS = Potentially Significant; S = Significant; SU = Significant and Unavoidable

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

	Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
CULT-1	<i>continued</i>		<p>CULT-1b: In the event that archaeological materials are discovered during project activities and an archaeologist is not on site, the County shall inform its contractor(s) of the archaeological sensitivity of the project site by including the following measures in contract documents:</p> <p><i>“If prehistoric or historical archaeological deposits are discovered during project activities, all work within 25 feet of the discovery shall be redirected and a qualified archaeologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Project personnel should not collect or move any archaeological materials or human remains and associated materials. Archaeological resources can include flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite toolmaking debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone-milling equipment (e.g., mortars, pestles, bandstones). Prehistoric archaeological sites often contain human remains. Historical archaeological sites often include stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse.”</i></p>	
CULT-2	Although human remains have not been identified in the project site, the possibility of buried remains in the project site cannot be discounted. Disturbance of human remains would be a <i>significant</i> impact.	S	<p>CULT-2: If human remains are encountered during the project, these shall be treated in accordance with California Health and Safety Code Section 7050.5. The County shall inform its contractor(s) associated with project ground-disturbing activities of the sensitivity of the project site for human remains by including the following measures in contract documents:</p> <p><i>“If human remains are uncovered, work within 25 feet of the discovery shall be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted—if</i></p>	LTS

LTS = Less Than Significant; PS = Potentially Significant; S = Significant; SU = Significant and Unavoidable

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<i>CULT-2 continued</i>		<i>one is not already on site—to assess the situation and consult with agencies as appropriate. Project personnel shall not collect or move any human remains or associated materials. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.”</i>	
		The County shall verify that the above language has been included in the appropriate contract documents before commencement of project ground-disturbing activities.	
		Upon completion of the assessment, the archeologist shall prepare a report documenting the methods and results and provide recommendations regarding the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the Most Likely Descendent. The report shall be submitted to the appropriate Lead Agency and the Northwest Information Center at Sonoma State University.	
CULT-3: The project site has the potential to contain buried archaeological deposits and human remains, which, in addition to their archaeological value, may have profound sacred significance to members of the local Native American community. Disturbance of such remains would constitute a <i>significant</i> impact.	S	CULT-3: Implement Mitigation Measures CULT-1a, CULT-1b, and CULT-2.	LTS
CULT-4: Although no archaeological sites have been identified within the project site, prehistoric sites in the Santa Clara Valley are frequently buried under alluvium, with little or no surface manifestation. The project has the potential to have a <i>significant</i> impact on buried archaeological sites.	S	CULT-4: Implement Mitigation Measure CULT-1a.	LTS

LTS = Less Than Significant; PS = Potentially Significant; S = Significant; SU = Significant and Unavoidable

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
GEOLOGY AND SOILS			
<i>There are no significant impacts related to geology and soils as a result of proposed project; therefore, no mitigation measures are required.</i>			
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-1: The project would result in ground disturbances that could potentially cause rodents to leave the site into nearby neighborhoods, causing a <i>significant</i> impact.	S	HAZ-1: Prior to ground disturbance, a representative from the County of Santa Clara Vector Control District shall be contacted to survey the property and make recommendations for pest control at the site. Additionally, if vector displacement is noted during any phase of the project, the Vector Control District shall be contacted to provide recommendations. Mitigations to the Park property would involve the installation of buried welded wire extending below and above ground, and along the perimeter of the project site in areas adjacent to existing residential development to provide a barrier to movement by rodents. The fence shall be maintained until all vegetation is removed from the areas to be developed on the project site. Ground clearing and vegetation removal shall be started adjacent to the existing residences and move toward the preserved open spaces onsite. By moving from the existing development toward the open space, suitable cover in which rodents may seek shelter would be located away from the residences. Animals seeking such cover could then move to vegetated areas instead of to adjacent residences. The specific design of this mitigation, such as the size, height, and depth of the mesh, shall be determined in consultation with the Vector Control District.	LTS
HYDROLOGY, FLOODPLAINS, AND WATER QUALITY			
HYDRO-1: The project site is located within the mapped dam failure inundation areas for the Leroy Anderson and Calero Creek	PS	HYDRO-1: The project proponents shall provide adequate public signage warning park patrons of potential flood hazard.	LTS

LTS = Less Than Significant; PS = Potentially Significant; S = Significant; SU = Significant and Unavoidable

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

	Significance Before Mitigation	Significant Impact	Mitigation Measures	Significance With Mitigation
		Dams, as shown on the Dam Failure Inundation Hazard Map for San Jose. The project would have a typical visitor use of 2,683 people on a typical weekday and 4,610 people on a typical weekend day during the high season. Therefore, the project would result in a <i>potentially significant</i> impact by exposing visitors to risks associated with dam failure.		
		NOISE		
	S	NOISE-1: Construction activities could result in exposure of persons to or generation of noise levels in excess of County standards. This would be a <i>significant</i> impact.	<p>NOISE-1: The construction contractor shall implement the following measures:</p> <ul style="list-style-type: none"> ◆ In accordance with Chapter VIII of the County of Santa Clara Ordinance Code, the operating of tools and equipment for construction activities (including earthmoving and grading) within the project site shall be conducted only between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. Noise producing construction activities shall not occur on Sundays or holidays. ◆ A notice of these construction hour restrictions shall be conspicuously posted at the entrance to the work site prior to commencement of the work informing all contractors and subcontractors, their employees, agents, materialmen and all other persons at the property of the basic limitations upon noise and construction activities provided in the County's Ordinance Code. 	LTS

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
NOISE-1 <i>continued</i>			
		<ul style="list-style-type: none"> ◆ The applicant shall designate a “Noise Disturbance Coordinator” who shall be responsible for responding to any complaints about construction noise. The Noise Disturbance Coordinator shall determine the cause of the noise complaint and shall require that reasonable measures warranted to correct the problem be implemented. The applicant shall conspicuously post a telephone number for the Noise Disturbance Coordinator at the construction site. ◆ The construction contractor shall minimize the number of earthmoving equipment pieces operated simultaneously within 60 feet of any single adjoining noise sensitive land use. ◆ During construction, all construction equipment powered by internal combustion engines shall be properly muffled and maintained. ◆ Unnecessary idling of internal combustion engines shall be prohibited. ◆ All stationary noise-generating equipment, such as air compressors, shall be located as far as practical from residences in the vicinity of the project site. ◆ Whenever feasible, quiet construction equipment, particularly air compressors, shall be utilized. 	

TRANSPORTATION AND CIRCULATION

The project would not result in any significant impacts to transportation and circulation; therefore, no mitigation measures are required.

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
UTILITIES AND INFRASTRUCTURE			
<i>The project would not result in any significant impacts to utilities and infrastructure; therefore, no mitigation measures are required.</i>			
PUBLIC SERVICES AND RECREATION			
<i>The project would not result in any significant impacts to public services and recreation; therefore, no mitigation measures are necessary.</i>			

2 INTRODUCTION

This Draft Environmental Impact Report (EIR) has been prepared to provide an assessment of the potential environmental consequences of adopting a combined Martial Cottle Park State Park General Plan/County Park Master Plan (the Plan). Additionally, the report identifies feasible mitigation measures and alternatives that would avoid or reduce significant impacts. This Draft EIR is intended to inform State and County decision-makers, other responsible agencies, and the public of the nature of the project. This Draft EIR has been prepared in accordance with the California Environmental Quality Act (CEQA). The County of Santa Clara is the lead agency for this project, and the State of California is a responsible agency under CEQA.

This document is a programmatic EIR, as described in Section 15168 of the CEQA Guidelines, but includes project-specific environmental analysis for Phase I elements of the Plan, as described in Section 15161 of the CEQA Guidelines. A program-level document is appropriate when a project consists of a series of smaller projects or phases that may be implemented separately. Under the program EIR approach, future projects or phases may require additional, project-specific environmental analysis. In order to identify whether additional analysis would be necessary when the project is implemented, the Lead Agency (the County) will need to determine the following:

- ◆ Whether the planned characteristics of the project are substantially different from those defined in the Program EIR;
- ◆ Whether the project would require additional mitigation measures; or
- ◆ Whether specific impacts were not evaluated in sufficient detail in the Program EIR.

If any of these conditions apply, then a project-specific Initial Study or other appropriate environmental document would be necessary to identify how the impacts of the project differ from those identified in this EIR or what additional mitigation measures would be necessary. Additional environmental documentation would not be required for Phase 1 elements of the Plan because this EIR included a project-level review of Phase 1 components.

A. Proposed Action

The proposed project, the Martial Cottle Park State Park General Plan/County Park Master Plan, contains goals, guidelines, and objectives to guide the creation of the proposed Martial Cottle Park (the Park). The proposed Plan is described in more detail in Chapter 3, Project Description.

The Park is proposed to provide a recreational park with complementary agricultural uses. The Donor agreed to sell and transfer 255.54 acres of his family ranch to the State of California and the County of Santa Clara in 2003 in order to promote and sustain farming traditions thereby displaying the agricultural heritage of Santa Clara County from the mid 1800s to the present. The Donor's vision for the Park is that it be jointly developed, operated, and maintained as a County-State public historic agricultural park in a manner that will promote and sustain farming traditions thereby showing and displaying the agricultural heritage of Santa Clara Valley from the mid 1850s into the 20th century, while also providing passive recreational, interpretive, educational, research, and commercial use opportunities that are reasonably related to the primary historical purpose of the Park.

The Park is to be developed and operated by the County of Santa Clara Parks and Recreation Department (County Parks) and the State of California Department of Parks and Recreation (State Parks) under a Joint Powers and Operating Agreement (JPOA). The JPOA provides that the "County will assume exclusive possession, operation and control of the State's Acquisition together with the County's Donation on the terms set forth..." in the JPOA. Under this agreement, County Parks will manage and operate the State-owned and the County-owned portions of the Park as one park unit. The combined State Park General Plan and County Park Master Plan provides guidelines and policies for the development, operation, and maintenance of the Park as a single park. For consistency's sake, County regulations will be noted in the EIR.

B. Planning Process

This section provides an overview of the planning process for Martial Cottle Park. The process is further described in Chapter 3, Project Description.

The Park Donor transferred the land to the State and the County in 2003 to create a park to promote, educate, and sustain farming traditions in the Santa Clara Valley. The vision for the Park originated with the Donor's mother, who envisioned someday preserving the land for public use in her father's name. At that time of the transfer, a 32.2-acre portion of the property was reserved by the Donor as a Life Estate. Subsequently, a 1.3-acre parcel of the Life Estate's was transferred to the County resulting in the current 30.9-acre Life Estate. Following the transfer of property, the JPOA was established. As discussed above, under the JPOA it is the responsibility of County Parks to manage and operate both the State-owned and the County-owned portions of the Park as one park unit.

To ensure an inclusive and informed planning process, three groups were formed to assist and provide input to the plan: the Project team, Task Force, and the Technical Advisory Committee (TAC). These groups began meeting in 2007. Meetings were strategically scheduled to allow input on the following key project milestones:

- ◆ Martial Cottle Park Master Plan Case Studies Report, October 2007.
- ◆ Resource Inventory Report, revised August 2008.
- ◆ Program Document, March 2008.
- ◆ Development of Project Alternatives, October 2008.
- ◆ State Parks' Classification and Naming of Martial Cottle Park, October 2008
- ◆ Identification of a Preferred Plan Alternative, April 2009.
- ◆ Draft Martial Cottle Park State Park General Plan/County Park Master Plan, January 2010.

C. Project Components

Land use zones would define the use and management scheme for the Park. These land use zones include: Park and Recreation, Habitat Enhancement, Leased Agriculture, and Cooperative Management. Although the Leased Agriculture Zone comprises the greatest amount of land within the Park, agricultural uses would be secondary to the park and recreational uses. Project components are identified below according to the land use zone with which they are associated.

1. Park and Recreation Zone

The Park and Recreation Zone would encompass all areas and facilities related to recreation and visitor services. County Parks would manage the Park and Recreation Zone. This management would include the following components:

- ◆ **Main Park Complex.** This complex would include a visitor center; multi-use outdoor pavilion; interpretive and educational facilities; parking areas; and open park areas, trails, and picnic areas for passive recreational activities.
- ◆ **Western Use Area.** This area would provide opportunities for passive recreation, picnicking, and environmental education in proximity to the enhanced Canoas Creek and seasonal wetland. A small parking lot would be included.
- ◆ **Trails.** Park trails would include a perimeter trail around the Park that would provide for multiple uses, and pedestrian-only interior trails that will provide access through the Park and between different areas of the Park.
- ◆ **Buffers.** Buffers would be landscaped areas that would provide a separation between agricultural and other land uses.
- ◆ **Support Facilities.** Support facilities would support Park operations and would include a possible caretaker's residence or site host.

2. Leased Agricultural Zone

Production agriculture would be a dominant land use within this zone of the Park, comprising approximately 140 acres. Components included in this area are listed below.

- ◆ **Production agriculture.** Farmer(s) would lease land in the Park for the production of food and other crops, including row crops, and orchards.
- ◆ **Support Facilities.** Support facilities may include, but are not limited to, a corporation yard and storage areas, as well as irrigation systems.
- ◆ **Commercial Use Facilities.** Commercial facilities provided at the Park may include a farmers market area, a produce stand, a farm café, catering facilities, and processing and packaging facilities.

3. Habitat Enhancement Zone – Canoas Creek and Seasonal Wetland

The Habitat Enhancement Zone would be intended only for Canoas Creek and surrounding land, which will be specifically managed to enhance habitat associated with Canoas Creek and a potential seasonal wetland feature.

4. Cooperative Management Zone

The Cooperative Management Zone would be managed by entities other than County Parks, either through lease agreements or other arrangements. There would be six sub-zones within this management zone.

- ◆ **Demonstration gardens.** These gardens would include plots for experimentation, training, and events pertaining to gardening.
- ◆ **Youth agriculture.** This area may include barns, greenhouses, and other support facilities, but would be predominantly grazing and agricultural land.
- ◆ **Research.** The area designated for agricultural research may include minimal storage, security fencing, and support facilities, but would be comprised primarily of agricultural land.
- ◆ **Native plant nursery.** A native plant nursery in the Western Use Area would propagate and grow plants native to Santa Clara County for resto-

ration and habitat enhancement projects in the region. Greenhouses would be included in this area.

- ◆ **Community gardens.** Community gardens would contain publicly accessible garden plots.
- ◆ **Urban forestry.** A nongovernmental organization would grow native trees to be planted primarily in urban and park areas throughout the region. Greenhouses and storage areas may be included.

D. Report Organization

This EIR is organized into the following chapters:

- ◆ **Chapter 1: Report Summary.** Summarizes environmental consequences that would result from the Plan, describes recommended mitigation measures, and indicates the level of significance of environmental impacts before and after mitigation. A Summary Table is also included for clarity.
- ◆ **Chapter 2: Introduction.** Provides a preface and overview describing both the intended use of the document and the review and certification process of both the Plan and the EIR.
- ◆ **Chapter 3: Project Description.** Describes the Plan in detail, including the project site location and characteristics; the vision of the Plan; proposed land use and management zones; proposed circulation improvements; and implementation.
- ◆ **Chapter 4: Environmental Evaluation.** Provides an analysis of the potential environmental impacts of the Plan and presents recommended mitigation measures, if required, to reduce their significance. Chapter 4 also contains a summary and evaluation of relevant policies and regulations. Although the project site is within the County's jurisdiction, City of San Jose policies are discussed where relevant.

- ◆ **Chapter 5: Alternatives to the Proposed Project.** Considers three alternatives to the proposed project, including the CEQA-required “No Project Alternative.”
- ◆ **Chapter 6: CEQA-Required Assessment Conclusions.** Discusses growth inducement, unavoidable significant effects, and significant irreversible changes as a result of the project.

E. Environmental Review Process

The County of Santa Clara issued the Notice of Preparation for this Draft EIR on February 1, 2010 (see Appendix A). On February 10, 2010, a public scoping meeting was held in conjunction with Public Workshop #4 on the Plan. During the scoping meeting, public input on the issues addressed in this EIR was solicited.

This Draft EIR will be available for review by the public and interested parties, agencies and organizations for a 45-day comment period. During the comment period, the public is invited to submit written or e-mail comments on the Draft EIR and/or requested entitlements to the County Parks. The County Parks department will also hold a public meeting on the Draft EIR during the environmental review phase. The public is invited to attend a hearing to offer oral comments on the Draft EIR. Written comments should be submitted to:

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STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN/
COUNTY PARK MASTER PLAN EIR
INTRODUCTION

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3 PROJECT DESCRIPTION

The project that is the subject of this Environmental Impact Report (EIR) is the proposed Martial Cottle Park State Park General Plan/County Park Master Plan (the Plan), which contains goals, guidelines, and objectives to guide the development, operations and management of the proposed Martial Cottle Park (the Park). This chapter describes the planning process that resulted in the Park Plan, the project location and setting, the vision and major components of the Plan, the phased approach to implementing the Plan, and required permits and approvals that will be necessary for implementation.

A. Overview of the Proposed Project

The proposed Plan improvements would occur on the State- and the County-owned properties of the project site, not including the Life Estate Area which is not included in the Plan. The Plan has been developed through a combined Plan prepared in coordination between the State of California and the County of Santa Clara, consistent with a Joint Powers Operating Agreement (JPOA) and applicable deed restrictions. The purpose of the Plan, as specified in the Plan, is “to provide guidelines and policies for the development, operation, and maintenance of the Park as one park.” The Plan includes design guidelines for the design and construction of the following project components: entrances and gates, architecture, fencing, roads, parking areas, trails and buffers, planning, landscape components, and signage.

1. Goals and Need for the Park Plan

The Donor’s vision for the Park is to create a park to promote, educate, and sustain farming traditions in the Santa Clara Valley in accordance with the wishes of Ethel Lester. The Donation Agreement/Grant Deeds for both the California Department of Parks and Recreation (State Parks) and the County of Santa Clara Parks and Recreation Department (County Parks) identify allowable uses for the property as agricultural leases, farmers’ markets, produce stands, community gardens, educational programs related to agriculture, and passive recreational activities such as picnicking and trail uses.

The Donor envisions the Park as being developed, operated, and maintained as a single park unit. By combining the State Park General Plan and County Park Master Plan into one document, the Plan avoids redundant efforts and ensures consistency between California State Parks and County Parks goals and guidelines. State Park General Plans are broad, goal-oriented plans which serve as the primary management documents for park units within the California State Park System. State Park General Plans define the purpose, vision, and a management direction for the future, but typically do not include specific objectives and strategies for implementation. County Park Master Plans tend to include more detail by including specific guidelines for development and operations. The combined State Park General Plan and County Park Master Plan establishes the broad vision and long-term direction for the Park, as well as the specific implementation policies and guidelines that will guide the County in implementing the vision for the Park.

Fundamental parkwide goals established by the Plan include:

- ◆ Ensure consistency with the goals and policies of California State Parks, the Santa Clara County Board of Supervisors, Parks and Recreation Department, the Countywide Trails Master Plan, and the County General Plan.
- ◆ The Park's focus will be education and commemoration of Santa Clara County's agricultural history. Portions of the Park will be under agricultural use, and portions under educational and cultural uses, all for the promotion of local agriculture. Research and commercial agricultural uses will be limited to those that are reasonably related to the history of farming in the Santa Clara Valley.
- ◆ Ensure public safety within all park areas.
- ◆ Minimize conflict among park elements, between park users, and with surrounding land uses.

2. Planning Process

Key milestones in the planning process for the Park are described below, from the acquisition of the property to the preparation of this EIR.

a. Property Acquisition

The project site has been used for agriculture by the Cottle family and their descendents, the Lester family, for approximately 150 years, extending from 1864 to the present. Ethel Cottle Lester inherited the property from her father, Martial Cottle, and envisioned someday preserving the land for public use in her father's name. Upon Ethel's passing, the ranch went to Edith and Walter Lester (the Park Donor). Walter Lester has continued to keep the ranch in production, raising hay, barley, and other crops and planted a small orchard near the house.

In the fall of 2003, the Donor transferred the land to the State and the County to create a park to promote, educate, and sustain farming traditions in the Santa Clara Valley in accordance with the wishes of Ethel Lester. At that time, a 32.2-acre portion of the property was reserved as a Life Estate by the Donor. Subsequently, a 1.3-acre parcel of the Life Estate was transferred to the County, resulting in the current 30.9-acre Life Estate.

A Joint Powers Operating Agreement (JPOA) was established following the transfer of property to the State and County. Under the JPOA, County Parks is responsible for the management and operations of both the State-owned and the County-owned portion as one unit.

b. Formation of Advisory Groups

To ensure an inclusive and informed planning process, three following groups were formed to assist and provide input to the plan:

- ◆ **Project Team.** The Project Team – consisting of County Parks and California State Parks staff, two County Parks Commissioners, the Donor's representative, a Policy Aide from the Office of Supervisor Don Gage, and staff from the Santa Clara County Open Space Authority – worked directly with the Plan and EIR consultant team to assist in Plan development, review documents, and assist with public outreach. The Project Team held seven meetings from June 2007 to November 2008, and will continue to meet as the Plan is finalized and through the environmental review process.

- ◆ **Technical Advisory Committee.** The Technical Advisory Committee (TAC) consists of representatives from the local, State, and federal agencies and potential partner organizations that may be affected by or involved in the development, regulation, and/or long-term operation of the Park. The purpose of the TAC is to identify and provide input on technical and operational concerns that need to be addressed in the Master Plan and environmental review process. The TAC held four meetings from September 2007 to December 2008, and will continue to meet as the Plan is finalized.
- ◆ **Task Force.** The Task Force is an advisory group comprised of citizens and staff from State and local agencies whose purpose is to bring the diverse ideas and perspectives of the community into the planning process. Members of the Task Force represent a range of community, agricultural and recreational groups that have an interest in the Park's development. The Task Force held six meetings from October 2007 to February 2009, and will continue to meet as the Plan is finalized.

c. Project Initiation and Background Research

The first phase of the planning process focused on data collection and the development of an *Agricultural Parks Case Studies Report* that informed subsequent phases of the planning process.

A resources team prepared the *Martial Cottle Park Resource Inventory* based on research and field investigations and an evaluation of the Park's physical, biological, cultural, recreational, and aesthetic resources. The report provides a body of information on the project site's resources that provided the California State Park and Recreation Commission with the necessary information to approve the recommended classification, as specified in Article 1.7 of the Public Resources Code.

d. Defining the Vision

The Plan developed through this planning process is based on the vision as defined by the Donor. A *Program Document* was created to summarize key project attributes important to the continuing planning effort, including: the

Donor's vision serving as the basis for planning and the park program; the project's history; the site's regional and regulatory context; an inventory and analysis of existing project site conditions; the goals for the Plan; the potential Park program elements to be explored in design alternatives; and any opportunities or constraints to the development of recreational and educational activities or the conservation of natural and cultural resources.

e. Design Development and Project Alternatives Evaluation

During the alternative development phase, three project alternatives were developed based on the concepts and ideas presented in the Program Document. The Project Team, TAC, and Task Force, as well as community participants, evaluated the alternatives. The alternatives evaluation led to the development of one preferred alternative that guides the Plan.

f. State General Plan/County Master Plan Development

The previous phases of the planning process and extensive community input culminated with the development of the Plan. The Plan serves as the guiding document for the development and ongoing operations and management of the Park.

g. Environmental Review

State Park General Plans and County Park Master Plans are considered a project under the California Environmental Quality Act (CEQA). The public was invited to participate in the public scoping process for this EIR and is invited to review and comment on the EIR, and to attend public comment meetings.

h. Final Adoption and Certification

The County Parks and Recreation Commission; the County Board of Supervisors; and the California State Park and Recreation Commission will jointly consider adoption of the Plan and certification of this, with respect to their property ownership and jurisdiction under the JPOA.

B. Project Site Location and Setting

The project site is located on unincorporated land in Santa Clara County. The project site is generally rectangular in shape with a “panhandle” that extends from the southwest corner. The project site consists of land owned by California State Parks and County Parks. The project site consists of 256.64 acres and is comprised of three parcels: Assessor’s Parcel Number (APN) 464-06-019, owned by California State Parks (136.52 acres); and APNs 464-06-020 and APNs 464-06-022, owned by the County Parks (120.12 acres). A 30.9-acre site (the Life Estate) located in the southeast corner of the project site remains as private property under the prior owner’s retained Life Estate, as described in the property transfer agreement between the County and the Park Donor. In the future, the Life Estate will become part of the Park as the fourth parcel, but this area is not included in the Plan that is the subject of this Draft EIR.

The regional location of the project site is shown in Figure 3-1.

1. Project Site Boundaries

The project site is within the jurisdiction of the County of Santa Clara, but is surrounded by land within City of San Jose city limits. The project site is roughly bounded by Branham Lane to the north; Snell Avenue and the Life Estate to the east; Chynoweth Avenue, Colony Field Drive, and State Route 85 to the south; and Barron Park Drive, Birmingham Drive, and Vistapark Drive to the west.

The project site and its surrounding context are shown in Figure 3-2. To the north, east, and south, the site boundaries are largely comprised of arterial and highway roadways. To the southeast, the site is bounded by the Life Estate property. To the west, the site abuts the rear lots of private residential properties.

2. Existing Circulation Network

There is currently no public access to the project site (the site). The site can be accessed by Highway 85, Highway 87 (the Guadalupe Freeway), and



Source: Santa Clara County Parks and Recreation Department, Martial Cottle Park Final Resource Inventory, page I-5, April 2008.

FIGURE 3-1
REGIONAL LOCATION



Source: DC&E and LSA Associates, Inc., 2010. Aerial imagery from the United States Department of Agriculture, NAIP, 2005.

FIGURE 3-2

Highway 101. The Blossom Hill Road exit from Highway 85 is the nearest highway interchange, located approximately a half-mile to the southeast of the site. Local access to the site is provided via two major arterials, Branham Lane on the north and Snell Avenue on the east. Chynoweth Avenue offers access to the south side of the site. Kehoe Court enters the eastern edge of the site, providing access to the site from Snell Avenue.

The Santa Clara Valley Transportation Authority (VTA) and Caltrain provide transit service to the site and the general vicinity. The VTA operates fixed route, commuter, and paratransit bus service and light rail service in Santa Clara County. Caltrain provides rail service between San Jose and San Francisco, as well as weekday commute-hour service from Gilroy to San Francisco. The nearest bus stops to the site are located on Snell Avenue immediately east of the site. The Blossom Hill VTA light rail station is located immediately south of the site and the Blossom Hill Caltrain station is located approximately two miles east of the site.

There are northbound and southbound bike lanes on Snell Avenue and eastbound and westbound bike lanes on Branham Lane. Nearby pedestrian facilities consist of the sidewalks along the north side of Branham Lane, the eastern length of Snell Avenue, and the south side of Chynoweth Avenue. A chainlink fence along the project site's perimeter restricts direct access into the project site. Locked gates on Branham Lane, Snell Avenue, and Chynoweth Avenue permit only maintenance access. The Santa Clara Valley Water District (SCVWD) also has access to the maintenance roads along Canoas Creek via gates at Hyde Park Drive to the west of the site and Blossom Hill Road to the south of the site, but not into other parts of the site. No public access is currently permitted to the site, except to the produce stand located on Snell Avenue, during the stand's business hours.

3. Existing Land Uses

The land within the site's boundaries consists primarily of flat, open fields that are seasonally cultivated for agricultural production. The majority of the site is currently dry farmed with hay and other grains. A Christmas tree

farm, located along Chynoweth Avenue, represents the only previously public, agriculture-related use in operation. The Christmas tree farm and the produce stand on Snell Avenue remain operational.

Existing structures on the site include a pump house and various infrastructure improvements associated with agriculture and production, such as water wells, irrigation lines, and fencing.

There are several easements on the project site, including an SCVWD easement along Canoas Creek and Pacific Gas & Electric (PG&E) and SCVWD easements along Snell Avenue for the Snell Pipeline and utilities along the western boundary of the site. In addition to these easements, there are two vacant parcels in close proximity the project site that are privately owned. These parcels include a 2.34-acre SCVWD-owned parcel adjacent to the southeast corner of the project site's panhandle and a 0.75-acre privately-owned property on the corner of Snell Avenue and Chynoweth Avenue.

The California Land Conservation Act of 1965 – Government Code Section 51200 *et. seq.*, commonly referred to as the Williamson Act, is a State land protection program that discourages the conversion of agricultural land to urban uses. Under this program, landowners voluntarily restrict uses of their land to agriculture and compatible uses and, in return, are assessed for property taxes based on agricultural use rather than potential market value. The County of Santa Clara Planning Office administers the County's Williamson Act program. The County and State-owned properties remain under Williamson Act contracts. However, non-renewal periods that were initiated for the two County-owned parcels will expire in 2017 and 2019, and the non-renewal for the State-owned parcel will expire in 2018.

4. Natural Environment

The site contains mature vegetation consisting of approximately a dozen valley oaks that are scattered through the eastern portion of the site. Parallel to the southeastern perimeter of the site, Canoas Creek flows northward, then trends northwesterly across the panhandle and through the adjoining

neighborhood where it drains into the Guadalupe River, eventually reaching the San Francisco Bay. Through the site, the Canoas Creek channel is a trapezoidal channel with a concrete bottom and earthen sides that is engineered to accommodate the flood management requirements of the SCVWD. Intermittent creek maintenance prevents significant natural vegetation and habitat from establishing. Areas with soils that exhibit hydric field indicators and obligate hydrophytic plant species occur in the fallowed fields on the site. Special-status plants are unlikely to occur on the site due to the highly disturbed habitat present, with the exception of one plant species that could occur in disturbed grassland habitat within the on-site fallowed fields. Special-status animal species, such as nesting white-tailed kites and western pond turtles, may also occur on the site.

C. Plan Vision and Project Components

The project site was originally part of the Bernal family's Rancho Santa Teresa. In 1864 it was purchased by Edward Cottle who later deeded 350 acres to his son, Martial Cottle. Martial Cottle used the property for cattle, grain, and row crops, and left the property to his daughter, Ethel Cottle Lester. In 1977 upon Ethel's passing, the ranch went to her children Edith and Walter Lester. Edith Lester died in 1999, leaving Walter Cottle Lester the sole owner.

In the fall of 2003, Walter Cottle Lester (the Park Donor) transferred the land to the State and County to create an agricultural park to promote, educate, and sustain farming traditions in the Santa Clara Valley in accordance with the wishes of Ethel Lester. The Plan identifies a vision that is consistent with the vision of the Donor. The vision of the Plan is described below.

The establishment of the Park is intended to protect a piece of Santa Clara Valley's history and provide a recreational and educational resource with agricultural components. The main uses of the Park would include recreational facilities and trails, habitat enhancement, educational and interpretive pro-

gramming related to the site's agricultural, cultural and natural resources, where secondary uses of the Park would be the agricultural production.

Over half of the project site would be in agricultural production that may provide food primarily for local and regional markets. Sustainable farming practices would be employed in order to reduce impacts to, and potentially enhance, the health of the soil, water, habitat, and food resources.¹ The Park would include on-site marketing opportunities for farmers, as well as facilities for produce storage, processing, and packaging. The Park would also include community gardens and a community-based, nongovernmental urban forestry program.

The site's natural resources would be enhanced through the restoration and enhancement of seasonal wetland habitat along the Canoas Creek channel, the retention of existing trees, and the establishment of diverse hedgerows. A small native plant nursery located on site would provide plants to support on-site and regional habitat enhancement efforts.

As part of the agricultural education programming, the Park would include interpretive signage along trails and at key points of interest, demonstration gardens, and youth agricultural facilities.

Recreational activities within the project site would be passive, supported by a trail network through agricultural land and through the enhanced seasonal wetlands, and by picnic grounds and day use facilities. A visitor center, multi-use outdoor pavilion, grassy area, and picnic areas would serve as community space for events and gatherings.

1. Proposed Land Uses and Management Zones

The Plan identifies management zones to spatially define the management scheme for the Park. While the project site's existing land use is dominated

¹ Sustainable farming practices integrate natural biological cycles and controls; protect and conserve water, air, soil, and energy resources; and minimize adverse impacts on health, safety, wildlife, water quality and the environment.

by fallow fields, the management zones of the Plan are intended to lead to the development of more diverse land uses, including agricultural production, habitat enhancement, parks and recreation, and agricultural education. Each of these land uses is associated with distinct management goals and objectives, and occupies well-defined areas of the project site. The management zones are intended to guide the development of the Park, ensuring that the intensity and character of each area contributes to the overall vision for the project. The management zones are described below and are shown the Figure 3-3, Project Conceptual Master Plan.

a. Park and Recreation Zone

Park and Recreation Zone is a broad management zone that encompasses all areas and facilities related to recreation and visitor services that would be managed by County Parks. Most of this management zone is concentrated in the eastern portion of the park. This management zone includes public components of the circulation system, such as trails, which would overlap into other management zones as well, and the following uses, all of which have a common purpose of serving the general public:

- ◆ **Main Park Complex.** The Main Park Complex would include public buildings such as a visitor center and multi-use outdoor pavilion, as well as open park areas for passive recreational activities. The visitor center would serve as the base for Park operations and could ultimately include interpretive exhibits, a gift store, classrooms, staff offices, and restrooms. The pavilion would include a kitchen and would provide a venue for special events and large group gatherings such as harvest festivals, interpretive programs, farmers' market uses, and community events. The project site's open spaces would provide opportunities for passive recreation, such as hiking and picnicking, as well as interpretation and educational programming. Picnic areas would range in size and include large group areas that could be available for private rental for special events, small picnic areas near trails, and walk-in picnic areas. Picnic areas could include barbeque grills and/or pits, picnic tables/benches, water fountains, restrooms, shade structures, and rain shelters. This area would provide approximately ten acres of parking, including paved parking lots and



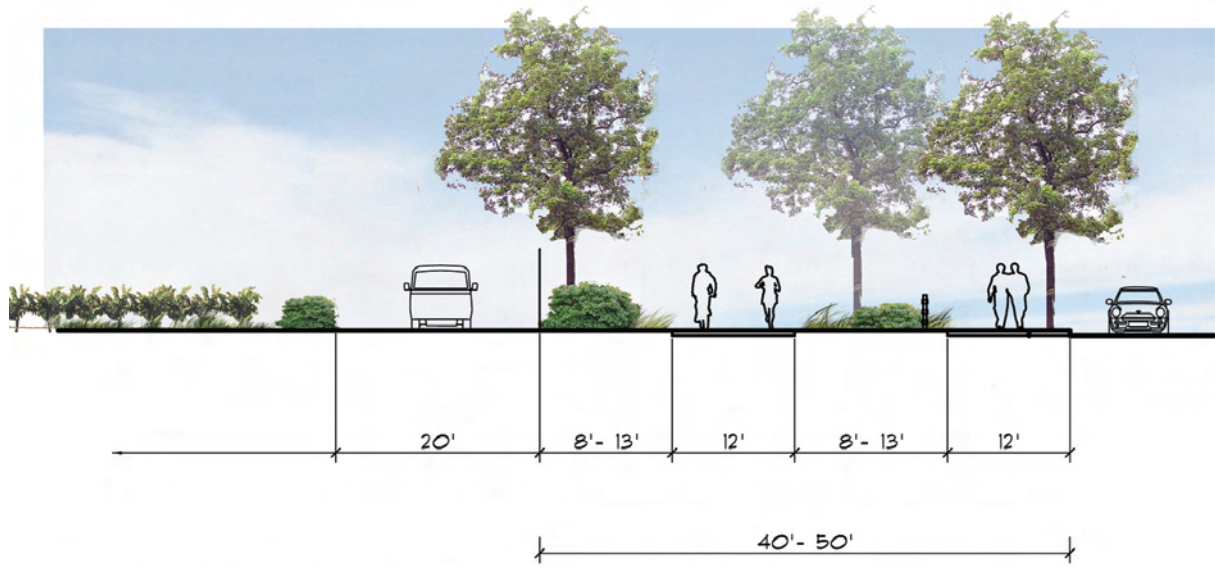
Source: DC&E, 2010

FIGURE 3-3
 PROJECT CONCEPTUAL MASTER PLAN

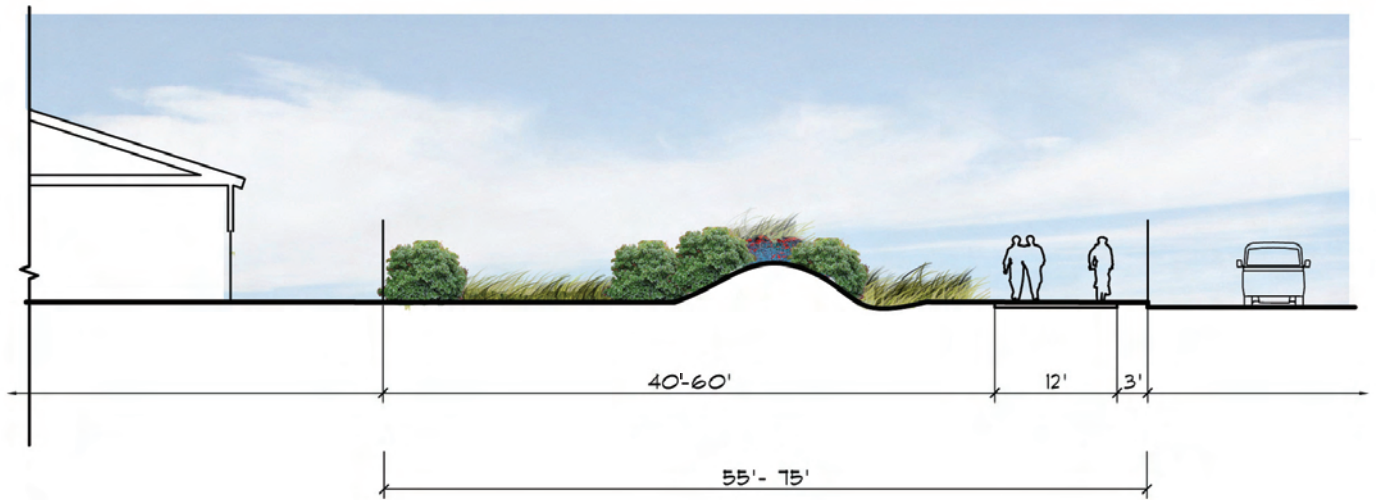
overflow parking areas, as well as restrooms, potable water, shaded areas, emergency and service access, garbage, and recycling facilities.

- ◆ **Western Use Area.** The Western Use Area would provide opportunities for passive recreation, picnicking, and environmental education in proximity to the enhanced Canoas Creek and the seasonal wetland. This area would provide opportunities for nature observation, natural resources education, and hiking. A small parking lot with capacity for approximately 25 cars and school buses and restrooms would be provided that would be accessed on a reservation and/or limited use basis.
- ◆ **Trails.** Trails would be a significant recreational amenity at the Park. A perimeter trail around the project site would provide for multiple uses, including walking, hiking, jogging, biking, and horseback riding. In addition, pedestrian-only interior trails would provide access through the project site and between different areas of the project site. Trail connections would be established to the City of San Jose's citywide trail system at the western edge of the project site, along Chynoweth Avenue. Support facilities for the project site's internal trail network include potable water; shade areas; staging areas; bicycle parking facilities; emergency and service access; gates and fencing, where needed; and educational, informational, and directional signage.
- ◆ **Buffers.** Buffers would be landscaped areas that would provide a separation between agricultural and other land uses, and between the project site and surrounding land uses. Many of the buffers would also include a recreational trail. Planting in the buffers would emphasize the use of native, regionally appropriate plants; plants that are significant to the region's agricultural history, such as walnut trees; plants that are water-efficient; and plants that provide habitat and/or benefit agricultural uses by attracting beneficial insects. Buffers would include features such as low berms or shrubs, and possibly stormwater swales, to screen foreground views.

A typical cross-section of a trail and buffer along the project site's perimeter is shown in Figure 3-4. When adjacent to residential uses along



TYPICAL TRAIL AND BUFFER ON BRANHAM LANE AND SNELL AVENUE



TYPICAL WESTSIDE RESIDENTIAL TRAIL AND BUFFER

Source: DC&E, 2010.

FIGURE 3-4
PERIMETER MULTIPLE USE TRAILS AND BUFFERS

the perimeter of the project site, buffers would be up to 75 feet wide with trails at least 40 feet from the project site boundary. Along the western perimeter of the project site, the buffer would be vegetated with shrubs and an 8- to 10-foot security fence would be installed to separate the buffer from adjacent residential properties.

When adjacent to agricultural uses or existing streets, buffer width would vary from 40 to 50 feet, as appropriate, to reduce the potential for conflicts between different land uses. The buffer along existing streets would be landscaped with trees and shrubs, and would be separated from service roads within the project site by an 8- to 10-foot security fence. Tree types within the buffers adjacent to agricultural uses or existing streets could include sycamore, cottonwood, and oak species.

- ◆ **Park Support Facilities.** Support facilities for Park operations are likely to include a Park corporation yard and a caretaker's residence or a site host facility. The need for a caretaker's residence or site host facility and location of any facility will be determined by the County based upon the location and function of existing and planned facilities as well as the Park's programmatic needs. The corporation yard would include a storage building and associated facilities for the maintenance and operation of the park and recreational uses. These facilities would be located and designed to minimize interference with the serene, agricultural character of the project site.

b. Leased Agricultural Zone

Agricultural production areas would comprise approximately 143 acres of the project site. Agricultural fields would be consolidated into large, contiguous blocks in order to promote efficient agricultural activities. This zone includes the agricultural land, as well corporation yards and marketing areas that would support agricultural uses and service roads that would support farming activities.

- ◆ **Production.** Farmer(s) would lease land at the project site for the production of food and other crops, including row crops and orchards. Given the conditions and scale of the Park, it would be possible to pro-

duce most of the crops and other agricultural products that historically were produced in Santa Clara Valley. These include fruits, nuts, and vegetables; grains; legumes; animal feed and forage crops; rangeland and pasture for livestock production; seed crops; oilseed crops; nursery stock; livestock; and poultry. Which products are grown would likely be determined by the producer or producers involved, the demands of their target markets, and conditions of their lease agreement.

- ◆ **Agricultural Support Facilities.** Support facilities for agricultural production would be necessary to ensure viable operations. These facilities could include a corporation yard and storage areas, and would be separate from the facilities utilized by County Parks and the general public. The corporation yard would include miscellaneous buildings such as a barn and buildings for equipment storage.
- ◆ **Commercial.** The financial success of the agricultural operations would depend as much on the post-harvest activities and facilities as it would on the production capacity. Commercial facilities provided at the project site could include a farmers' market area, a produce stand, a farm café, and catering facilities. Processing and packaging facilities could also be included in commercial areas in order to provide opportunities for value-added marketing of farm produce and the distribution of farm produce to other locations.

c. **Habitat Enhancement Zone: Canoas Creek and Seasonal Wetland**

Habitat enhancement at the project site would be intended to benefit the area's natural communities and create recreational opportunities. Although other areas of the project site, such as landscaped buffers, would provide habitat and contribute to the overall natural diversity of the project site's vegetation, this management zone is intended only for Canoas Creek and surrounding land, which would be specifically managed to enhance habitat as described below. The Habitat Enhancement Zone would provide opportunities for interpretation and education. The Western Use Area, described above, would be located adjacent to the Habitat Enhancement Zone and would provide a staging area and picnic grounds to allow visitors, including school groups, to enjoy this area with minimal impact to the sensitive resources.

- ◆ **Canoas Creek.** The proposed project would not impact the existing concrete-lined channel and banks. Canoas Creek would be enhanced with landscaping in the upland habitat above the top of the creek banks. These enhancements would allow for enhanced habitat and scenic values, but would not include improvements to the concrete lining or earthen sides of the existing creek channel.
- ◆ **Canoas Creek Seasonal Wetland Connection.** A seasonal wetland immediately north of the Canoas Creek channel would be created to provide recreational opportunities, enhance the habitat value of the project site, and contribute to stormwater management. Recreational amenities in this area would be limited to trails, which could be closed when necessitated by flood conditions.

d. Cooperative Management Zone

The Cooperative Management Zone would be managed by entities other than County Parks, either through lease agreements or other arrangements. The leased agriculture areas utilized for production of agriculture, as described above, are not included in this management zone. There are six sub-zones within this management zone, each of which is described below.

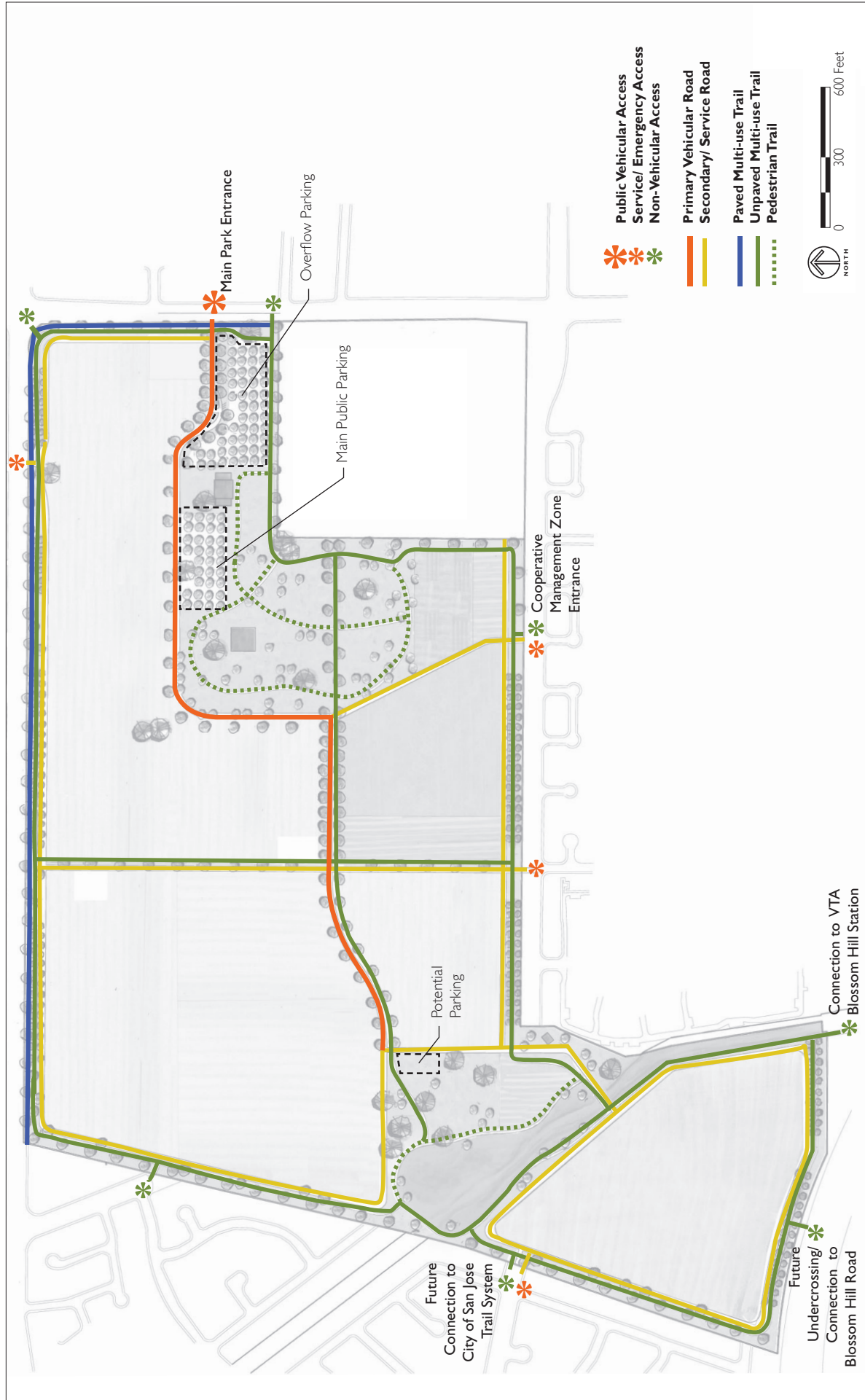
- ◆ **Demonstration gardens.** Demonstration gardens would demonstrate sustainable farming and gardening practices. These gardens would include plots for experimentation, training, and events pertaining to gardening.
- ◆ **Youth agriculture.** Youth agriculture programs would provide opportunities for children to experience farm activities such as raising and caring for animals, growing plants, and other farm chores. This program could include barns, greenhouses, and other support facilities, but would be predominantly grazing and agricultural land.
- ◆ **Research.** Research in sustainable agriculture would support on-site farming operations as well as those throughout the State. Programs operated in the research area could include data collection, limited demonstration areas, and exploration and experimentation relating to crops of interest and new farming practices. The area designated for agricultural

research could include minimal storage, security fencing, and support facilities, but would be comprised primarily of agricultural land.

- ◆ **Native plant nursery.** A native plant nursery would propagate and grow plants that are native to Santa Clara County for restoration and habitat enhancement projects in the region.
- ◆ **Community gardens.** Community gardens would contain publicly accessible garden plots for the potential use of City and County residents for raising fruit, vegetables, and ornamental plants. The gardens would include perimeter fencing and an entry gate and a storage shed, but would be primarily garden plots. Water connections and house bib couplets would be required. Parking and bathroom facilities would be shared with adjacent uses. It is estimated that the garden would receive approximately 15,000 visitors per year. This visitor estimate assumes 46 visits per average weekday and 40 visits per average weekend day. (See Appendix C for visitor estimates.)
- ◆ **Urban forestry.** A nongovernmental organization would grow native trees to be planted primarily in urban and park areas throughout the region in order to provide shade and ecological services such as air and water purification and soil building. This program would provide opportunities for community members to engage in urban enhancement projects.

2. Circulation

Circulation strategies for the project site include entrance points, roads, and trails for vehicular and non-vehicular use. These components are shown in Figure 3-5 and described below. All parking, trails, and facilities would be consistent with the Board-approved Santa Clara County Countywide Trails Master Plan Update (1995), the Uniform Interjurisdictional Trail Use, Design and Management Guidelines (1999), and the Americans with Disabilities Act (ADA) guidelines. Trail design guidelines are further described in Section C.6, below.



Source: DC&E, 2010.

FIGURE 3-5
 CIRCULATION PLAN

a. Park Entrances

There would be one public vehicular entrance to the project site, located off of Snell Avenue that would include an entrance kiosk, signage, and landscape features to create a visible, inviting gateway into the project site. The proposed entrance would be aligned slightly north of the Life Estate, offset from Kehoe Court, and would be accessible to bicyclists and pedestrians via new paved and unpaved multi-use trails along the project site's edge. Additional vehicular entrances would be provided for service and emergency vehicles. One of the service/emergency entrances would be located on Branham Lane, across from the Snell and Branham Plaza entrance, a second would be located on the western edge of the project site at Chynoweth Avenue, and two would be located along the southern edge of the project site along Chynoweth Avenue. These secondary entrances would also serve as exits during special events and festivals. Vehicular entrances are identified on Figure 3-5. There would ultimately be seven non-vehicular entrances from the perimeter of the project site to the multiple use trails leading to the Park and Recreation Zone. The locations of the non-vehicular entrances are shown in Figure 3-5 and are listed below:

- ◆ One entrance would be located at the northeast corner of the project site, at the corner of Snell Avenue and Branham Lane.
- ◆ One entrance would be located along the eastern edge of the project site, directly north of the Life Estate.
- ◆ One entrance would be located along the southern edge of the project site, on Chynoweth Avenue.
- ◆ Two entrances would be located along the western edge of the project site.
- ◆ One entrance would be located at the southeastern tip of the project site, to connect to the Blossom Hill VTA light rail station.
- ◆ Future entrance and undercrossing beneath Highway 85 to connect the project site to neighborhoods south of the project site near Blossom Hill Road.

b. Vehicular Circulation

Separate vehicular circulation systems for public access and service/emergency vehicle access would be provided to reduce the potential for conflicts between the general public, agricultural, and park operations circulation.

The public vehicular entrance would be located on Snell Avenue. An entry kiosk, queuing lanes, and a vehicular turn-around would be located near the entrance, far enough from Snell Avenue to provide adequate distance for queuing. Public access roads would provide access to parking areas within the site. Internal intersections would have stop signs and signage indicating access restrictions. Vehicular access past the main parking lot, including access to the Western Use Zone, would be restricted in order to limit traffic on-site when necessary.

As described above, four service and emergency vehicular entrances would be located in the project site. These entrances would include a gated service/emergency entrance on the project site's northern boundary along Branham Lane, a second one to the south along Chynoweth Avenue, and a third one to the west connecting to the western segment of Chynoweth Avenue. These entrances would provide daily access for farm vehicles and other service vehicles and provide multiple access points for emergency vehicles. A fourth service entrance along the eastern edge of Chynoweth Avenue would provide access for cooperative partner uses, such as community gardens. All service entrances could be used by the public during large events or utilized for specific program needs, such as the youth agriculture programs and demonstration gardens.

c. Non-Vehicular Circulation

Non-vehicular Park entrances would provide walk-in access for pedestrians, bicyclists, skateboarders, equestrians, and other non-motorized forms of transportation. These entrances would be strategically located around the project site's perimeter to provide convenient access from surrounding neighborhoods and to establish connections from the Blossom Hill light rail

station immediately south of the project site. The seven entrance points envisioned for the project site are listed above in Section C.2.a, Park Entrances, and are shown in Figure 3-5.

Park trails would be considered part of the Park and Recreation Management Zone. The project site's trail network would include multiple use trails around the perimeter of the project site and provide internal connections between key destinations. Multiple use trails could be utilized by pedestrians, dog-walkers, bicyclists, equestrians, and other non-motorized forms of transportation. Pedestrian-only trails would be located within the Main Park Complex, the Western Use Area, and the Habitat Enhancement Zone. Because the project site is essentially flat, it is expected that all trails would offer the same low level of difficulty. All Park trails have been designed to be consistent with the Countywide Trails Master Plan Update, Uniform Interjurisdictional Trail Use, Design and Management Guidelines, and Americans with Disabilities Act. In addition, sidewalks along the Park's frontage on Branham Lane and Snell Avenue have been designed to be consistent with the City of San Jose's requirement that park frontages have 12-foot wide sidewalks.

The project would include three new bridges: a new pedestrian/bicycle crossing along the western perimeter of the project site, over Canoas Creek; one to replace the existing vehicular bridge over Canoas Creek, near the on-site pump house; and a new pedestrian/bicycle crossing over Canoas Creek to the Blossom Hill light rail station.

d. Parking

Approximately 10 acres of vehicular parking would be provided at the project site. Public parking lots would consist of one primary lot located in proximity to the visitor center, several smaller lots in proximity to the Western Use Zone and other destinations, and an approximately 5-acre unpaved area near the main entrance designated for overflow parking. The paved public parking lots would be adequate to accommodate at least 532 vehicles. Additional smaller parking lots would be provided for the agricultural marketing

area, the Cooperative Management Zone, corporation yards, and other facilities as needed.

e. Off-Site Improvements

To accommodate project traffic volumes and circulation needs, the project would include the following off-site improvements to the City of San Jose roadways:

◆ **Snell Avenue:**

- A second northbound left-turn lane on Snell Avenue turning onto westbound Branham Lane would be provided. The second northbound left-turn lane would be designed to ensure that storage capacity is sufficient to accommodate future traffic at this intersection.
 - The existing southbound left-turn pocket on Snell Avenue turning onto eastbound Chynoweth Avenue would be extended by approximately 75 feet. A 75-foot extension would provide a total queue storage capacity of 300 feet, which would be sufficient to accommodate projected traffic volumes.
 - The County would monitor traffic volumes at the Park entrance and coordinate with the City of San Jose to install a new signal when signal warrants indicate the need for signalization.
 - The County would widen Snell Avenue to provide right- and left-turn lanes into the project site. The County work with the City of San Jose to ensure that future widening of Snell Avenue does not result in the loss of bicycle lanes on Snell Avenue.
- ◆ **Branham Lane.** County Parks would coordinate with the City of San Jose to extend the existing westbound left-turn pocket on Branham Lane turning onto southbound Snell Avenue by approximately 25 feet. A 25-foot extension would provide a total queue storage capacity of 250 feet, which would be sufficient to accommodate projected traffic volumes.

The County would work with the City of San Jose to design and implement these improvements in a manner that is consistent with City of San Jose standards and avoids impacts to bicycle, pedestrian, and transit facilities.

3. Projected Visitor Use

Estimated visitor use at the project site resulting from full buildout of the Plan is 2,683 people on a typical weekday, and 4,610 people on a typical weekend day during the high season.² These figures include visitor and user estimates for all recreational uses, including trail users, as well as use by cooperative partners in the Cooperative Management Zone at the project site. It is also estimated that, annually, there would be up to 52 medium-sized private events requiring facility rental, and two medium-sized public events held by cooperative partners. It is also assumed that two very large events, such as festivals for up to 6,000 visitors, would be held annually. Please refer to Appendix C for additional information on estimated visitor use.

4. Infrastructure

The project site does not currently have infrastructure for water, wastewater, and energy. Development under the project would require that these services are provided. Annexation may be necessary in order for the project site to connect to City infrastructure, and is therefore considered in some of the environmental evaluation sections of this Draft EIR. Other assumptions related to utility infrastructure include the following:

- ◆ **Water.** Groundwater would be pumped to meet irrigation demand for the Leased Agriculture Zone of the Plan. All other water needs would be met by municipal water supplied by the San Jose Water Company. Although no recycled water lines are within a feasible distance for use at the project site at this time, the project would prepare for potential connection in the future, by “double plumbing” the project site and installing the infrastructure needed to appropriately distribute recycled water within the site if a proximal supply line is constructed in the future.

² Estimates were based on use levels for comparable projects and facilities, including Ardenwood Historic Farm in Fremont, California.

- ◆ **Wastewater.** Wastewater generated by the project would be collected by the San Jose Sewer Collection System and treated at the San Jose/Santa Clara Wastewater Pollution Control Plant. Septic systems would not be used on the project site.
- ◆ **Stormwater.** Stormwater would follow natural drainages to the Canoas Creek Channel and would be retained on-site using stormwater management features like swales. Paved parking areas would also be designed with features to allow for stormwater infiltration.
- ◆ **Solid Waste.** Solid waste service would be provided by Allied Waste and the Newby Island Sanitary Landfill. Green waste would be composted and reused on-site. New infrastructure would not be required for service provision.
- ◆ **Energy.** Energy service would be provided by PG&E from external energy sources and also generated on-site. Policy UTIL 3 is to, “Maximize use of sustainable energy practices such as the use of solar, and wind, passive solar, and geothermal technologies.” Directive from the County Executive mandates regulated temperature for County facilities, and the new visitor center would comply with this mandate.

5. Structures

Full development of the project may include construction of the following buildings, although some structures may be constructed within Phase I of the park development (see Section D.1 for phasing of Park improvements):³

- ◆ **Park and Recreation Zone:** Entry kiosk, visitor center, multi-use outdoor pavilion, stand-alone restroom facility in the Western Use Area, Park corporation yard, and a caretaker’s residence or a site host facility.
- ◆ **Leased Agriculture:** Agriculture corporation yard; packaging/processing/storage facility, café, and produce stand. Processing and packaging facili-

³ This list includes buildings that “may” be constructed due to the tentative nature of Phase 2 of the Park’s development. Specific facilities will be dependent on future leases for agricultural activities, but will fall within the range of structures described in this EIR.

ties would be included in agricultural and commercial areas to provide opportunities for value-added marketing of farm produce and the distribution of farm produce to other locations.

- ◆ Cooperative Management Zone (Youth Agriculture): Shade houses, green houses, storage, kitchen, classrooms, and animal husbandry barns.
- ◆ Cooperative Management Zone (Urban Forestry Program): Shade houses, green houses, classrooms, and storage.
- ◆ Cooperative Management Zone (Other Areas): Small structures associated with a research area, demonstration gardens, community gardens, and native plant nursery.

6. Best Management Practices

The County Parks Departments best management practices (BMPs) for trail siting, trail construction, and trail maintenance are established by the *Countywide Trails Master Plan Update* (1995), and *Uniform Interjurisdictional Trail Use, Design and Management Guidelines* (1999). These BMPs are incorporated into the Plan in order to minimize impacts to natural resources. The Plan requires that all parking, trails, and facilities at Martial Cottle Park are consistent with these documents, as well as the Americans with Disabilities Act (ADA) guidelines. The Plan incorporates the guidelines and BMPs provided in these documents in order to minimize impacts to natural resources.

In addition, the Plan contains the following guidelines pertaining to soils and to hydrology that require the implementation of BMPs.

- ◆ Implement Best Management Practices (BMPs) for erosion and sediment control. (Guideline SOIL.6)
- ◆ Require the use of best management practices to reduce and control any dust created by agricultural activities. (Guideline SOIL.8)
- ◆ Adhere to County guidelines for use of pesticides and fertilizers in order to reduce potential adverse impacts to local and regional water resources. (Guideline HYDRO.5)

The Plan also includes the following design guidelines which require adherence to BMPs.

- ◆ All roads that will provide emergency access or are located near buildings should meet Santa Clara County Fire Marshal Office's standard requirements. (Roads)
- ◆ Parking areas should all be designed to comply with the October 2009 California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (C.3 requirements). (Parking)

D. Implementation

Each of the parcels that comprise the project site is currently under Williamson Act contracts, although non-renewal periods have been initiated for each parcel and the last of the contracts remaining on the three parcels of the Park will expire by 2019. Until the contracts expire, all project site development must meet the following requirements of the County's Williamson Act Program guidelines:

- ◆ Assuming the land is planted with standard-value crops, 60 percent of each parcel under contract is devoted to commercial agricultural production. If the land is planted in high-value crops, only 50 percent of the land must be in production. The market value of crops must reach a minimum of \$1,000 per acre to qualify as high value agriculture.
- ◆ No more than 10 percent (not to exceed 5 acres) of the parcel is developed with compatible uses such as barns and paved roads.

1. Phase 1

Phase 1 components are evaluated in this EIR at the project level, as described in Section 15161 of the CEQA Guidelines. Phase 1 would extend from 2010 to 2019, during the Williamson Act contract non-renewal period of the three parcels. Phase 1 would focus on establishing basic infrastructure and facilities to enable farming operations to be initiated during Phase 1, as well as neces-

sary improvements to allow for public access and limited recreational activities. The first part of Phase 1 would focus on improvements needed for the Park to open in the fiscal year of 2013. Design documents for the Park would be developed in 2011, with Park construction beginning in 2012. The remainder of Phase 1 would include project site improvements beyond the Park opening to 2019.

The following objectives identified in the Plan would guide project site development through Phase 1. While not all of these objectives may be achieved, they would guide the project site's development over the next ten years.

Parkwide Circulation and Access:

- ◆ Design and construct the Main Park Entrance, including entry sign, landscaping, entry kiosk, paved entry road, and the primary public parking area.
- ◆ Establish at least one service/emergency entrance and develop unpaved service roads. Signage, gates, and fencing would be included.
- ◆ Design and construct multi-use trails and non-vehicular access points, including buffer landscaping pedestrian gates, dog courtesy stations, and other support facilities.

Parkwide Utilities:

- ◆ Design and construct water, electricity, and gas infrastructure that includes meters and allows for flexibility in park leasing.
- ◆ Design and construct an underground electrical supply system that includes meters and allows for flexibility in park leasing.

Park and Recreation Areas:

- ◆ Establish utility connections that will be necessary to support Park uses.
- ◆ Design and construct the Visitor Center Complex, including gathering spaces, meeting rooms, staff offices, and restrooms.

- ◆ Develop approximately five (5) acres of developed open space in proximity to the Visitor Center. This area should provide opportunities for passive recreation, including picnicking.
- ◆ Develop a corporation yard to support Park activities. The corporation yard should include security fencing, security lighting, and temporary mobile trailer.
- ◆ Develop an interpretive program and signage program for the Park.
- ◆ Provide limited interpretive elements, such as panels, displays, and programs.
- ◆ Provide signage to orient Park visitors, including informational and directional signage, regulatory signage, and Park maps.
- ◆ Develop adequate restrooms to accommodate level of use.

Leased Agricultural Areas:

- ◆ Address the repair, maintenance, and upgrade of the well located on State Parks property to irrigate the agricultural areas.
- ◆ Develop and release Request for Proposals from farmers/lessees.
- ◆ Establish management structure for agricultural operations.
- ◆ Initiate soil improvement/preparation activities.
- ◆ Develop an agricultural corporation yard.
- ◆ Provide security fencing around areas to be farmed.

Cooperative Management Areas:

- ◆ Establish relationships with cooperative partners, such as the City of San Jose, University of California Cooperative Extension and a nongovernmental organization.
- ◆ Designate areas for agricultural research, youth agriculture, demonstration gardens, and urban forestry.

- ◆ Provide utility connections, gates, fencing, and other basic infrastructure to enable cooperative partners to occupy designated areas.

2. Subsequent Phases

Phase 1 components are evaluated in this EIR at the program level, as described in Section 15168 of the CEQA Guidelines. Subsequent development phases would extend approximately ten to fifteen years beyond Phase 1. Subsequent phases would be necessary to complete Park components initiated during Phase 1, such as interpretive programming and recreational open space, and to develop other components of the Plan that would not yet have been initiated, such as the seasonal wetland area, native plant nursery, and multi-use outdoor pavilion. The following objectives identified in the Plan would guide Park development through the subsequent phases.

Habitat Enhancement Areas:

- ◆ Retain enough undeveloped land to accommodate potential future improvements to the Canoas Creek channel that will connect to a created seasonal wetland feature.
- ◆ Initiate coordination with the SCVWD to identify opportunities and constraints for enhancing the vegetation and habitat along Canoas Creek channel and providing trail access along it.

Native Plant Nursery:

- ◆ Retain enough undeveloped land to accommodate potential future native plant nursery.
- ◆ Initiate coordination with the SCVWD, local native plant societies, and others to identify opportunities and constraints for developing a native plant nursery.

E. Required Permits and Approvals

Under the JPOA between California State Parks and County Parks, the County is the lead agency and is responsible for park development and operations. Since the County is the lead agency, this section identifies County permits and regulations, even though many do not apply to State Parks. Certain County regulations, such as Architectural and Site Approval guidelines and permits and approvals from County Land Development Services, do not apply to public development, and therefore do not apply to Martial Cottle Park. However, County Parks may consult with County Development Services when appropriate. Local building codes and ordinances are not included in this section because Government Codes 53090 and 53091 exempt the County from compliance. In the event that the project site is annexed by the City, these codes would continue to be exempt the project from local building codes and ordinances.

Permits and approvals that would be required for the project include those listed below. Under CEQA Section 15381, “Responsible Agencies” include all public agencies other than the Lead Agency which have discretionary approval over the project. Agencies that would be consulted through the approvals process are also listed below.

Agencies with Permitting and Approval Authority:

- ◆ U.S. Army Corps of Engineers:
 - Wetland Delineation
 - Permits for wetland enhancement
- ◆ California Department of Fish and Game:
 - Streambed Alteration Agreement
- ◆ California State Parks:
 - Consideration of the Findings of adopted EIR for the Martial Cottle Park State Park General Plan/County Park Master Plan
 - Approval of Martial Cottle Park General Plan

- ◆ San Francisco Regional Water Quality Control Board:
 - National Pollution Discharge Elimination System (NPDES) permit
 - Stormwater Pollution Prevention Plan (SWPPP) approval
- ◆ County of Santa Clara:
 - Certification of Water Supply Assessment
 - Consideration of Williamson Act Contract Compatible Use Determination (see Appendix D)
 - Certification of the EIR for the Martial Cottle Park State Park General Plan/County Park Master Plan
 - Approval of Martial Cottle Park Master Plan
 - County Development Services Office/ Building Inspection Office/ Land Development Engineering and Survey (consultation for professional plan checks, building inspection and building permits, when appropriate)⁴
 - County Planning Office (consultation)
 - County Fire Marshal Office (consultation and occupancy permits for structures)
 - County Department of Environmental Health (consultation and permits for proposed café and agricultural packaging and processing facilities)
 - County Division of Agriculture (consultation for future Farmers' Market, agricultural crops, and pest and weed management)
 - County Integrated Pest Management Program (permit and consultation for pest and weed management)
- ◆ Santa Clara Valley Water District:
 - Encroachment permit
 - Permit for development or abandonment of on-site wells
- ◆ City of San Jose:

⁴ Under Section 53090 of the California Government Code, local ordinances, including building permits, are not applicable to State projects. County Parks may consult with County Land Development Services for plan check, building inspections and building permits, when appropriate.

- Plan review for connections to adjacent roadways and the Blossom Hill VTA station
- Permits for connections to City utilities
- Encroachment permits
- Consultation/plan review for emergency response and services
- ◆ Valley Transportation Authority
- ◆ Caltrans
- ◆ Local Agency Formation Commission
 - Potential future approval of annexation into the City of San Jose

Reviewing Agencies to Consult:

- ◆ Bay Area Air Quality Management District
- ◆ Guadalupe Creek Resource Conservation District
- ◆ Native American Heritage Commission
- ◆ County of Santa Clara Vector Control District

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4 ENVIRONMENTAL EVALUATION

This chapter outlines the format for evaluating the direct, indirect, and cumulative environmental impacts of the proposed Park in examining the following environmental issue areas:

- ◆ Land Use, Plans, and Policies
- ◆ Aesthetics and Visual Quality
- ◆ Agricultural Resources
- ◆ Air Quality
- ◆ Biological Resources
- ◆ Climate Change
- ◆ Cultural and Archaeological Resources
- ◆ Geology and Soils
- ◆ Hazards and Hazardous Materials
- ◆ Hydrology, Floodplains, and Water Quality
- ◆ Noise
- ◆ Transportation and Circulation
- ◆ Utilities and Infrastructure
- ◆ Public Services and Recreation

A. *Chapter Organization*

This chapter consists of 14 sections that evaluate the environmental impacts of the proposed Park. Each issue area uses the same format and consists of the following subsections:

- ◆ The *Regulatory Setting* section describes local, State and/or federal regulations applicable to the proposed project.
- ◆ The *Existing Conditions* section describes current conditions with regard to the environmental factor reviewed.
- ◆ The *Standards of Significance* section describes how an impact is judged to be significant in this EIR. These standards are derived from CEQA Appendix G Guidelines unless stated otherwise.
- ◆ The *Impact Discussion* assesses potential impacts (direct and indirect), and tells why impacts were found to be less than significant, potentially sig-

nificant, or significant based on an evaluation of the project against each standard of significance. Impacts are identified as beneficial if the project is found to result in a positive environmental effect for a standard of significance.

- ◆ The *Cumulative Impacts Analysis* section analyzes impacts that the proposed project may have when considered in addition to other projects in the project site vicinity.
- ◆ The *Impacts and Mitigation Measures* section numbers and lists identified impacts, and presents measures that would mitigate each impact. In each case, the significance following mitigation is also explained.

B. Cumulative Impact Analysis

A cumulative impact consists of an impact created as a result of the combination of the project evaluated in the EIR, together with other reasonably foreseeable projects causing related impacts. Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is “cumulatively considerable.”

Where the incremental effect of a project is not “cumulatively considerable,” a Lead Agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. Where the cumulative impact caused by the project's incremental effect and the effects of other projects is not significant, the EIR must briefly indicate why the cumulative impact is not significant.

The cumulative discussions in Chapters 4.1 through 4.14 explain the geographic scope of the area affected by each cumulative effect (e.g. immediate vicinity, greater vicinity, watershed, or air basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing aesthetic impacts, only development within the vicinity of the Park would contribute to a cumulative visual effect because the Park site is only visible within the immediate vicinity of the site.

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In assessing macro-scale air quality impacts, on the other hand, all development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions is the best tool for determining the cumulative effect.

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4.1 LAND USE, PLANS, AND POLICIES

This chapter describes the existing land uses on the project site and the plans and policies applicable to the project, and evaluates the potential land use and planning impacts associated with the project. This chapter also includes a discussion of cumulative land use impacts.

A. Regulatory Framework

The following section discusses land use related policies from regulatory agencies that have jurisdiction over the project site. Although this section presents a comprehensive set of policies, California Government Code Sections 53090 and 53091 state that State and county agencies and their properties are not required to comply with local agency policies. However, the State and County would strive to meet consistencies with relevant local agency policies.

1. Public Park Preservation Act

The Public Park Preservation Act of 1971, California State Public Resources Code, Section 5400, et. seq, regulates public agencies involved in the acquisition of existing public parkland for non-park purpose. The act requires a public agency to provide compensation equal to the cost of an equivalent substitute parkland or to provide a substitute parkland of comparable characteristics.¹

2. County of Santa Clara Local Agency Formation Commission

The County of Santa Clara Local Agency Formation (LAFCO) is a State-mandated commission charged with overseeing boundaries of local jurisdictions and service districts to ensure that orderly growth and efficient public services are provided to residents of Santa Clara County and its incorporated jurisdictions. LAFCO is involved with jurisdictional boundary changes, the delineation of urban service areas, out-of-agency service agreements, sphere of influence studies, and special service review studies. In requiring orderly growth, LAFCO works to discourage urban sprawl and preserve agricultural

¹ California Department of Transportation, <http://www.dot.ca.gov/ser/vol1/sec1/ch2statelaw/chap2.htm>, accessed July 11, 2010.

land. In 2007, the Commission enacted the Agricultural Mitigation Policies to guide development proposals for sites that would potentially impact or result in the loss of agricultural land.

3. County of Santa Clara Charter and Park Charter Fund

The County of Santa Clara Charter (County Charter) provides the legislation defining the County's powers and privileges and facilitates the governing of the County. The County Charter describes the regulatory framework for a County park and the County's provision of recreational services. The County Charter Article VI. Section 604.11 describes the Park Charter Fund, which is replenished from monies set aside from the County's general fund and revenues generated from the operation of County parks. The purpose of the Park Charter Fund is for the acquisition, development, operation, and maintenance of County of Santa Clara parks.

4. Santa Clara Valley Guidelines & Standards for Land Use near Streams User Manual

In 2006, the Santa Clara Valley Water Resources Protection Collaborative adopted the Guidelines & Standards for Land Use near Streams. The Santa Clara Valley Water Resources Protection Collaborative published a User Manual containing tools, standards, and procedures for the protection of streams and streamside resources in the county. The guidelines and standards fall within the following activity headings:

- ◆ Riparian Corridor Protection
- ◆ Bank Stability/Streambed Conditions
- ◆ Encroachments between the Top of Bank
- ◆ Erosion Prevention and Repair
- ◆ Grading
- ◆ Outfalls, Pump Stations, and Site Drainage
- ◆ Channelization
- ◆ Utility Encroachments
- ◆ Trail Construction
- ◆ Septic Systems
- ◆ Trash Control and Removal

- ◆ Protection of Water Quality
- ◆ Groundwater Protection
- ◆ Flood Protection

In 2007, the County of Santa Clara Board of Supervisors adopted a resolution approving the Guidelines & Standards as a document to be used during development application review and during the design and construction of County projects.

5. Santa Clara County General Plan

Land use strategies and policies from the General Plan that are relevant to the Plan are listed in Table 4.1-1. Because the project site is located within the City of San Jose's Urban Service Area, the County General Plan does not classify allowable land uses or densities. Instead, the County General Plan designates the project site as "Urban Service Area." The County applies the Urban Service Area land use designation to unincorporated "pockets" or "islands" of land that are surrounded by incorporated lands and are within a city's Urban Service Area boundary. The County General Plan's growth management policies require that urban development occur only within cities' Urban Service Areas. The General Plan envisions that these lands will eventually be annexed by a City and seeks to ensure that development conforms with Cities' General Plans. To ensure that development permitted under the County's jurisdiction generally conforms with what would be permitted according to the City's General Plan, the County applies zoning districts and development regulations compatible with the City's General Plan designation.

6. County of Santa Clara Zoning Ordinance

The County's Zoning Ordinance is contained in Title C, Appendix I of the County Ordinance Code. The project site is zoned as Exclusive Agriculture. Under Section 2.20.010(A) of the Zoning Ordinance, the purpose of the Exclusive Agriculture district is "to preserve and encourage the long-term viability of agriculture and agricultural lands, recognizing the vital contributions agriculture makes to the economy and quality of life within the County."

TABLE 4.1-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO LAND USE

Strategy/Policy Number	Strategy/Policy Content
Parks and Recreation Chapter	
<u>Regional Parks and Public Open Space Lands</u>	
<i>Strategy #1</i>	<i>Develop parks and public open space lands.</i>
Policy C-PR 3	The County's regional park system should: a. utilize the county's finest natural resources in meeting park and open space needs; b. provide a balance of types of regional parks with a balanced geographical distribution; c. provide an integrated park system with maximum continuity and a clear relationship of elements, using scenic roads, bikeways, and trails as important linkages; and d. give structure and livability to the urban community.
Policy C-PR 4	The public open space lands system should: a. preserve visually and environmentally significant open space resources; and b. provide for recreation activities compatible with the enjoyment and preservation of each site's natural resources, with trail linkages to adjacent and nearby regional park lands.
<i>Strategy #2</i>	<i>Improve accessibility.</i>
Policy C-PR 7	Opportunities for access to regional parks and public open space lands via public transit, hiking, bicycling, and equestrian trails should be provided. Until public transit service is available, additional parking should be provided where needed.
<i>Strategy #3</i>	<i>Balance recreational and environmental objectives.</i>
Policy C-PR 9	The parks and recreation system should be designed and implemented to help attain open space and natural environment goals and policies.
Policy C-PR 11	Park planning and development should take into account and seek to minimize potential impacts on adjacent property owners.

TABLE 4.1-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO LAND USE (CONTINUED)

Strategy/Policy Number	Strategy/Policy Content
Resource Conservation Chapter	
<u>Overall Strategies</u>	
Policy C-RC 3	Multiple uses of lands intended for open space and conservation shall be encouraged so long as the uses are consistent with the objectives of resource management, conservation, and preservation, particularly habitat areas.
<u>Agriculture & Agricultural Resources</u>	
Policy C-RC 37	Agriculture should be encouraged and agricultural lands retained for their vital contributions to the overall economy, quality of life, and for their functional importance to Santa Clara County, in particular: <ol style="list-style-type: none"> a. local food production capability; b. productive use land not intended for urban development; and c. protection of public health and safety.
Strategy #2	<i>Maintain stable, long range land use patterns.</i>
Policy C-RC 40	Long term land use stability and dependability to preserve agriculture shall be maintained and enhanced by the following general means: <ol style="list-style-type: none"> a. limiting the loss of valuable farmland from unnecessary and/or premature urban expansion and development; b. regulating non-agricultural uses in agricultural areas, and their intensity and impacts on adjacent lands; c. maintaining agriculturally-viable parcel sizes; and d. minimizing conflicts between adjacent agricultural and non-agricultural land uses, through such means as right-to-farm legislation and mediation of nuisance claims.
Policy C-RC 41	In addition to general land use and development controls, agricultural areas of greatest potential long term viability should be identified and formally designated for permanent preservation.
Policy C-RC 42	Interjurisdictional coordination and cooperation necessary to achieve agricultural preservation goals and strategies should be encouraged. These goals should include: <ol style="list-style-type: none"> a. preservation of remaining areas of large and medium scale agriculture in South County; b. encouragement of retention of agricultural lands in San Benito County adjoining South County agricultural areas; and

TABLE 4.1-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO LAND USE (CONTINUED)

Strategy/Policy Number	Strategy/Policy Content
	c. discouragement of Urban Service Area (USA) expansions into agricultural areas when LAFCO determines that a city's USA contains more land than is needed to accommodate five years of projected growth and development.
Strategy #3	<i>Enhance the long term economic viability of agriculture.</i>
Policy C-RC 43	Long term economic viability of agricultural activities shall be maintained and enhanced by providing a. improved markets for locally-grown products; b. property tax relief; c. appropriate application of "renewable," organic agriculture and other innovative, cost-efficient growing techniques; and d. adequate agricultural worker housing supply.
General Land Use Management Chapter	
Strategy #1	<i>Promote eventual annexation.</i>
Policy U-LM 1	Urban unincorporated areas within city Urban Service Areas should eventually be annexed into the city.
Policy U-LM 2	The quality, integrity, and community identity of existing residential and commercial areas in urban unincorporated areas should be maintained and, where possible, enhanced.
Strategy #2	<i>Ensure conformity of development with Cities' General Plans.</i>
Policy U-LM 6	County land use and development regulations within a city Urban Service Area shall be generally compatible with the applicable city's general plan designations and accompanying policies.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

The intent of the district is "to reserve those lands most suitable for agricultural production for agricultural and appropriate related uses." Under Section 2.20.050(A) of the County Ordinance Code, new uses within the Exclusive Agriculture district must meet the following criteria:

- ◆ The use must be compatible with and not substantially interfere with the continuation of any on- or off-site agricultural operation.

- ◆ The use should not be of a sensitive nature that would itself be negatively impacted by any existing or future on-site or off-site agricultural use.
- ◆ The use will not require public urban services or infrastructure, or establishment of special districts or similar entities.
- ◆ The use should be consistent with the rural image of the agricultural area.
- ◆ Any new non-agricultural use should be sited to avoid taking the most viable agricultural lands out of active agricultural production.
- ◆ Any new use should not significantly inhibit the future development of adjacent parcels consistent with General Plan land use designations of nearby cities.
- ◆ The use must clearly enhance the long-term viability of local agriculture and agricultural lands.

7. City of San Jose

The City's General Plan designation attributed to the project site is Public Park and Open Space. The City applies the Public Park and Open Space designation to lands that are publicly owned and consist primarily of parks and open spaces, with some associated uses such as playgrounds, education/visitor's centers, parking, and restaurants. The Plan intends for the project site to remain publicly owned, and to maintain its open space and park setting with associated agricultural and recreational uses and facilities.

8. Deed Restrictions

The project site is subject to deed restrictions imposed by the Park Donor. Under the terms of the Joint Powers and Operating Agreement (JPOA) with the State, the County is the lead agency to develop and operate both the State and County-owned properties as a public historic agricultural park subject to certain deed stipulations.

The County of Santa Clara's Grant Deed, dated October 17, 2003, contains the following land use restrictions:

- ◆ “No part of the property shall be used for high intensity, organized recreational uses such as athletic fields, playgrounds, tot lots, swimming pools, play courts, amusement rides or similar uses, nor as a repository for historic structures that are relocated from other sites.”
- ◆ “Property shall be used exclusively as a public historical park that informs and educates the public about agricultural heritage of Santa Clara Valley, as exemplified by the Martial Cottle family, dating from the 1850s to the 20th century.”
- ◆ “Property may be used for passive recreational activities such as picnic facilities, trails and other low intensity uses that may be incidental to the primary historical and educational purposes of the park, and for interpretive, passive recreational, agricultural education and research and commercial uses that are reasonably related to the history of farming in the Santa Clara Valley.”
- ◆ “Commercial uses such as agricultural leases, produce stands, community gardens, farmer’s markets, interpretive programs or similar uses may be allowed if reasonably related to the primary historical purpose of the park.”

The State of California’s Grant Deed, dated September 10, 2003, contains the following general use restriction: “No part of the property shall be used for high intensity, organized recreational uses such as athletic fields, playgrounds, tot lots, swimming pools (other than private residential pools), play courts, amusement rides or similar uses, nor as a repository for historic structures that are relocated from other sites.” According to the deed, the following restrictions on the California State Parks lands are only applicable if the site is used as a public park:

- ◆ “If the property is to be used as a public park, it shall be used exclusively as a public historical park that informs and educates the public about the agricultural heritage of the Santa Clara Valley, as exemplified by the Martial Cottle family, dating from the 1850s to the 20th century.”

- ◆ “No part of the property shall be used for a swimming pool or any other of the prohibited uses” described above.
- ◆ “Property may be used for passive recreational activities such as picnic facilities, trails and other low intensity uses that may be incidental to the primary historical and educational purposes of the park, and for interpretive, passive recreational, agricultural education and research and commercial uses that are reasonably related to the history of farming in the Santa Clara Valley.”
- ◆ “Commercial uses such as agricultural leases, produce stands, community gardens, farmer’s markets, interpretive programs or similar uses may be allowed if reasonably related to the primary historical purpose of the park.”

B. Existing Conditions

1. Project Site Existing Land Use

The project site is largely vacant, and most of the site consists of fallow farm lands that continue to be dry farmed with hay and other grains. At the southeastern corner of the site, a Christmas tree farm remains in active use along Chynoweth Avenue. Existing land uses on the project site are shown in Figure 4.1-1.

2. Surrounding Existing Land Use

At the southeast corner of the site, the Life Estate remains in active use. The Park donor’s private residence is located on the Life Estate, as well as approximately 25 acres of actively-farmed land and buildings housing farm equipment and supplies. The fruits and vegetables grown on the Life Estate are sold at a produce stand located at the northwest corner of the Snell Avenue/Chynoweth Avenue intersection.²

² County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page V-47.



Source: LSA Associates, Inc., 2008 and DC&E, 2010. Aerial Imagery from the United States Department of Agriculture, NAIP, 2005.

FIGURE 4.1-1
 EXISTING LAND USE

The area surrounding the project site and Life Estate is located within the City of San Jose city limits. The surrounding area is urbanized, with residential land uses primarily comprised of single-family residential neighborhoods, with some attached housing located along Snell Avenue. Houses in these neighborhoods typically contain front and rear yards, although side yards typically do not extend further than the side setbacks, providing a relatively close-knit development pattern. Single-family homes along Barron Park Drive directly abut the project site on its western boundary.

Commercial uses in the project site vicinity include various retail shops, a bank, restaurant, and a gas station. The Branham Plaza shopping center is located on Branham Lane, across from the northeastern corner of the project site. Branham Plaza contains a Safeway grocery store and smaller retail stores, as well as a bank and fast food restaurant. Adjacent to the northwest corner of the project site, on the south side of Branham Lane, is the Carlton Plaza of San Jose, an assisted living center for senior citizens.

To the south the project site is bounded, from east to west, by Chynoweth Avenue and State Route 85. The Sunrise Plaza is located approximately one quarter-mile south of the site, and contains retail shops, dry cleaners, restaurants, and gas station.

C. Standards of Significance

Land use impacts associated with the project would be considered significant if the project would:

1. Physically divide an established community.
2. 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 plans, local coastal programs, or Zoning Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

3. Conflict with General Plan designation or zoning.
4. Conflict with City of San Jose policies.
5. Be incompatible with existing land uses in the vicinity.

D. Impact Discussion

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

1. Physically Divide an Established Community

The vicinity surrounding the project site consists of the Life Estate, established residential neighborhoods primarily comprised of single-family residential neighborhoods, with some attached housing located along Snell Avenue. The project site is located close to grocery and retail stores, a restaurant, a bank, and the Carlton Plaza senior living facility. Additional commercial uses are located in the greater vicinity, including the Sunrise Plaza. The Plan would result in a significant impact if it would create features that would physically divide these uses.

There is currently no public access to the project site and therefore the site is not integrated into the surrounding neighborhoods. Rather, because the site is currently fenced off from adjacent properties, it is separate from the neighborhoods surrounding the site. While the site is not currently accessible to nearby residents and visitors, the Plan proposes new entrances, trails, and internal roadways that would allow visitors to access the Park and travel through and across the site. As shown in Figure 3-5, the Plan proposes five vehicular entrances into the project site, and seven non-vehicular entrances. Thus, it can be expected that the Park would help to connect surrounding land uses that previously could not be accessed through and across the project site.

The Plan would not result in features that would divide adjacent land uses and neighborhoods, and would increase linkages between surrounding neighborhoods. Therefore, there would be *no impact*.

2. Conflict with Any Applicable Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect

The project site is prime agricultural land, among other agricultural designations, and is currently owned by the County of Santa Clara and California State Parks. As such, the proposed Plan would be subject to LAFCO policies, specifically the Agricultural Mitigation Policies. The Agricultural Mitigation policies require that proposals for development involving the conversion of prime agricultural land should provide agricultural mitigations at a ratio not less than 1 to 1. However, since the project site is County of Santa Clara property that is located inside the City of San Jose, the site is also within the City of San Jose's Urban Service Area and outside of LAFCO jurisdiction.³

As described in Chapter 4.5, Biological Resources, the project site falls within the Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP) study area, and development in the county is subject to guidelines set forth in the Guidelines & Standards for Land Use near Streams User Manual. Please see Chapter 4.5, Biological Resources, for a discussion of the project's conformance with the HCP/NCCP. As described in Chapter 4.5, the project would be consistent with the HCP/NCCP.

The Guidelines & Standards for Land Use near Streams User Manual contains measures to guide development near the county's streams. The Guidelines & Standards are aimed at reducing impacts associated with earth moving, construction, and structures within and near streams and riparian areas. The Guidelines & Standards also prohibit the use of non-native plants in riparian areas. As described in the guidelines above, the Plan proposes to enhance

³ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page VI-30.

Canoas Creek in a manner that is sensitive to its hydrologic function, riparian area, and sedimentation. In addition, the Plan would not propose any new structures within the riparian area. New uses near the creek would include a seasonal wetland, native plant nursery, and trails. The Guidelines & Standards for Land Use near Streams User Manual encourages trails along creeks, so long as they are sited to avoid impacts to creeks. Therefore, the project would not conflict with the Guidelines & Standards for Land Use near Streams.

Implementation of the Plan is expected to conform to the goals and standards of the HCP/HCCP and Guidelines & Standards for Land Use near Streams. In addition, approval of the Plan would be subject to review for conformance with both of these documents. Therefore, impacts would be *less than significant*.

3. Conflict with General Plan Designation or Zoning

The Santa Clara County General Plan does not classify allowable land uses or densities for the project site and instead designates the project site as “Urban Service Area.” The County’s Urban Service Area land use designation applies to unincorporated “pockets” of land that are surrounded by incorporated lands and are within a city’s Urban Service Area boundary. General Plan policies regarding Urban Service Areas call for development to conform to City policies and be compatible with adjacent neighborhoods. As discussed in detail under Threshold #4, below, the Plan is not expected to conflict with City policies. Issues of compatibility with adjacent neighborhoods are discussed below under Threshold #5. As described below, the Plan is not expected to result in uses that would be incompatible with adjacent neighborhoods. Therefore, the Plan is considered to be consistent with the County’s “Urban Service Area” General Plan designation.

In the County of Santa Clara Zoning Code, the project site is zoned as Exclusive Agriculture. The purpose of the Exclusive Agriculture district is “to preserve and encourage the long-term viability of agriculture and agricultural lands, recognizing the vital contributions agriculture makes to the economy

and quality of life within the County.” The intent of the district is “to reserve those lands most suitable for agricultural production for agricultural and appropriate related uses.” In addition, as described above in Section A.3, uses within the Exclusive Agriculture district must be compatible with ongoing agricultural uses, must not require new public urban services or infrastructure, or inhibit the development of adjacent parcels. Enhancement of the project site into a Park with complementary agricultural uses, with buffers between adjacent properties, would ensure the ongoing agricultural production of the site in a manner that does not preclude the development of adjacent properties.

The project site is within the City of San Jose’s Urban Service Area, and like the adjacent residential properties, the Park would be connected to existing utilities services and infrastructure. Infrastructure such as water pipes and electrical lines would need to be extended to hook-up individual structures proposed for the site, however, utilities service would not be needed beyond existing service area boundaries. Therefore, the Park would not conflict with the Exclusive Agriculture district.

As described above, the Park would not conflict with the County’s Urban Service Area General Plan land use designation or the requirements for the Exclusive Agriculture contained in the County Ordinance Code. Therefore, impacts would be *less than significant*.

4. Conflict with City of San Jose Policies

The City’s General Plan designation attributed to the project site is Public Park and Open Space. The Plan intends for the project site to remain publicly owned, and to maintain its open space and park setting with associated agricultural and recreational uses and facilities. Per Government Codes Section 53090 and 53091, the proposed project is exempt from compliance with local building codes and regulations and thus would not conflict with the City of San Jose’s policies regarding its Public Park and Open Space designation. Although the State and County are exempt from compliance with local

General Plan policies, the State and the County would strive to meet consistencies with relevant City policies.

5. Incompatibility with Existing Land Uses in the Vicinity

As described above, the vicinity surrounding the project site is urbanized, with residential land uses primarily comprised of single-family residential neighborhoods, with some attached housing located along Snell Avenue. The project site is adjacent to the Life Estate, and is located across the street from Branham Plaza, and Carlton Plaza of San Jose, an assisted living center for senior citizens. Additional commercial uses are located in the greater vicinity, including the Sunrise Plaza, which is located approximately one quarter-mile south of the site. Phase I of the project proposes some intensification of the agricultural activities in the context of the operation of a public recreational park and farm, with a variety of active agricultural uses and visitors' amenities. On-site agricultural activities, such as farming with farm equipment and farm animals, would have the potential to result in odor or noise nuisances, security concerns, or safety hazards with adjacent residents, passersby, or on-site visitors. On-site recreational uses, such as picnic areas and trails, could result in noise for adjacent residents, and construction activities could also pose noise conflicts with nearby land uses. Construction and ongoing farming activities could result in dust concerns for nearby land uses, and increased traffic due to Park activities could also pose land use conflicts.

The Plan includes several goals and guidelines intended to reduce these potential conflicts. For instance, Guidelines AG.7 and VIS.1 are to, "Minimize conflicts between agriculture and other adjacent uses by establishing buffers and using fencing as appropriate, and by broadly disseminating information about seasonal agricultural operations." Guideline REC.3 is to, "Locate and design recreational facilities to be compatible with adjacent uses." Guideline VIS.5 is to, "Create visual buffers or screens along the western edge of the Park to reduce the potential for privacy conflicts between park operations and adjacent residences." Land Use Compatibility Goals are to:

- ◆ Locate park elements with consideration to protecting the Park's natural resources and avoidance of potential conflicts with adjacent land uses.

- ◆ Keep local neighborhood organizations informed about programs, activities and development occurring within the Park.

Under these goals, Guideline LAND.1 is to, “Distribute agricultural, recreational, and maintenance uses sensitively and provide appropriate buffers as necessary to avoid conflicts with adjacent residences.” Guideline LAND.4 is, “Buffers shall be established between residential and park uses.”

In addition, mitigation measures identified in other chapters of this EIR would reduce the potential for land use impacts. Mitigation Measure AQ-1 would require actions during construction activities to reduce the generation of air pollution emissions. Mitigation Measure AQ-2 would require an odor impact minimization plan to be prepared prior to the implementation of any livestock operations. Mitigation Measure NOISE-1 would require a number of measures to reduce the potential for the exposure of persons to unacceptable noise levels.

The implementation of proposed guidelines would minimize potential adverse effects associated with siting construction activities and ongoing agricultural uses adjacent to residences and people. The use of buffers and trails along the perimeter of the site, as shown in Figure 3-3, would help to prevent conflicts between on-site agricultural uses and uses along adjacent sidewalks, roadways, and residential properties. In addition, Land Use Compatibility Guideline LAND.1 would ensure that uses are distributed in a manner that is sensitive to the need to avoid conflicts with adjacent residences. The Plan’s guidelines would ensure that impacts associated with incompatibility with nearby land uses would be *less than significant*.

E. Cumulative Impacts

The project is not expected to result in significant impacts to land use, and would provide land use benefits by connecting the existing neighborhoods surrounding the project site and enhancing the project site in a manner that is consistent with applicable plans and policies. Due to the unique nature of the

STATE OF CALIFORNIA / COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN /
COUNTY PARK MASTER PLAN EIR
LAND USE, PLANS, AND POLICIES

proposed project, the project is not expected to cumulatively contribute to any potential impacts of future development projects in the vicinity of the project site. Therefore, cumulative land use impacts would be *less than significant*.

4.2 AESTHETICS AND VISUAL QUALITY

This chapter describes the existing aesthetic character of the project site and evaluates the potential aesthetic impacts associated with the project. This chapter also includes a discussion of cumulative aesthetic impacts.

A. Regulatory Framework

The Parks and Recreation and Resource Conservation Chapters of the Santa Clara County General Plan (1995-2010) contain strategies and policies that are relevant to aesthetics and visual quality. Key strategies and policies from the General Plan are listed in Table 4.2-1.

The County's Regional Parks, Trails, and Scenic Highways map (October, 1981) is published separately from the General Plan but is adopted as an element of the County General Plan. This map identifies roads that have been identified as officially designated State scenic routes and that are proposed for future designation in the "California Master Plan of State Highways Eligible for Official Scenic Highway Designation."

B. Existing Conditions

1. Visual Character of the Project Site

Photographs of the existing project site and surrounding area are shown in Figures 4.2-2 through 4.2-5. Figure 4.2-1 identifies the locations where these photographs were taken. Much of the site's aesthetic value can be attributed to its openness and undeveloped character, which is a sharp contrast from the surrounding commercial and residential uses. The visual character of the site is currently rural and agricultural in nature. The majority of the project site is currently dry farmed with hay and other grains, offering a vast expanse of grassland in contrast to neighboring uses. The open character of the dry farmed area is interrupted occasionally by mature valley oak trees, which are dispersed in the open fields on the eastern half of the property or located around the perimeter of the Life Estate. Figure 4.2-2 shows some of the

TABLE 4.2-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO AESTHETICS AND VISUAL QUALITY

Strategy/Policy Number	Strategy/Policy Content
Resource Conservation Chapter	
<u>Scenic Resources</u>	
<i>Strategy #1</i>	<i>Manage growth and plan for open space.</i>
Policy C-RC 59	Scenic values of the natural resources of Santa Clara County should be maintained and enhanced through countywide growth management and open space planning.
<i>Strategy #2</i>	<i>Minimize development impacts on significant scenic resources.</i>
Policy C-RC 60	Hillsides, ridgelines, scenic transportation corridors, major county entryways, and other areas designated as being of special scenic significance should receive additional consideration and protections due to their prominence, visibility, or symbolic value.
<i>Strategy #3</i>	<i>Maintain and enhance the scenic values of urban settings.</i>
Program C-RC 62	Urban parks and open spaces, civic places, and public commons areas should be designed, developed and maintained such that the aesthetic qualities of urban settings are preserved and urban livability is enhanced. Natural resource features and functions within the urban environment should also be enhanced.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

mature oak trees located on the project site, with views of the hills to the south of the site visible in the background.

Canoas Creek bisects the panhandle in the southwest corner of the site and is the only significant topographic feature on the project site. The creek is an engineered flood control channel and is not prominently visible from most of the project site. The creek contains no vegetation along its creek bed that is



Source: Aerial Imagery from the United States Department of Agriculture, NAIP, 2005.

FIGURE 4.2-1
VIEWPOINT LOCATIONS



Source: DC&E, 2009.

FIGURE 4.2-2
**MATURE OAKS AND GRASSLANDS ON THE PROJECT SITE,
WITH VIEWS TO THE SOUTH**



Source: DC&E, 2008.

FIGURE 4.2-3
PUMPHOUSE ON THE PROJECT SITE



Source: DC&E, 2008.

FIGURE 4.2-4
BRIDGE ACROSS CANOAS CREEK ON THE PROJECT SITE



Source: DC&E, 2009.

FIGURE 4.2-5
**RESIDENTIAL PROPERTIES
ALONG THE WESTERN EDGE OF THE PROJECT SITE**

visible from a distance, and the most prominent feature along the creek is the cyclone fencing that runs parallel to both sides of the creek.¹

The project site is largely vacant, with the exception of scattered farm-related objects near the Life Estate area and a pumphouse located near the project site's eastern boundary at Chynoweth Avenue. The pumphouse is shown in Figure 4.2-3. Various infrastructure improvements associated with agricultural activities are located throughout the site, including water wells, and irrigation facilities.² A bridge over the Canoas Creek channel, shown in Figure 4.2-4, is located in the southern panhandle of the project site. The bridge is constructed of wooden planks that are currently deteriorating, and is lined by chainlink fencing. Chainlink fencing also lines the perimeter of the site and the Canoas Creek easement. Wood fencing traverses in a north – south direction from the southern boundary at Chynoweth Avenue to the State/County property line, and then follows the property line eastward to the edge of the Life Estate Area.³

2. Visual Character of the Surrounding Area

Adjacent to the southeast corner of the project site, the Life Estate Area remains in active use and includes the Park donor's private residence. The residence is a white, two-story home built in an Italianate Victorian farmhouse style. The residence is a later addition to a simpler original house that is located in the rear of the residence. The residence, an example of late 19th century residential architecture, serves as a signature visual feature upon entering the Life Estate. An assortment of oaks, redwoods, and other trees clustered around the residence provide a prominent visual feature within the Life Estate

¹ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page V-36.

² County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page VI-1.

³ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, Figure I-2.

and overall Park.⁴ The Life Estate also includes approximately 25 acres of actively farmed land, along with associated farm equipment and one-story outbuildings.⁵

Along its northern, eastern, and southern boundaries, the project site is bounded by Branham Lane, Snell Avenue, and Chynoweth Avenue, respectively. Along the western edge of the project site, residential properties face away from the project site, and most properties are screened by wooden privacy fences. Figure 4.2-5 shows the western edge of the project site, where a residential street dead-ends at the site's edge. The areas surrounding the project site are primarily comprised of single-family residential neighborhoods. Houses in these neighborhoods are typically one to two stories in height and are set back from the street by a front yard. Although residential properties in these neighborhoods contain front and rear yards, side yards typically do not extend farther than the side setbacks, providing a relatively close-knit development pattern. Many of the homes have been built in a Mediterranean style, with red tile roofing and light-colored exteriors.

For the majority of the length of Snell Avenue, one-story houses face the street, with front yards and driveways facing onto Snell Avenue. Toward the southern end of Snell Avenue, housing is characterized by two-story attached townhomes. The remaining residential properties along Branham Lane, Snell Avenue, and Chynoweth Avenue do not face the primary roadway, and are screened from the roadway by concrete walls or wooden privacy fences and vegetation.

At the eastern end of Branham Lane across from the property site, mature vegetation screens Branham Plaza from the roadway. Branham Plaza contains one-story stores set back from the roadway with a parking lot in the front of the lot, with the exception of the Wells Fargo and McDonald's build-

⁴ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page V-37.

⁵ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, pages V-47 and V-53.

ings, which are built toward the intersection of Branham Lane and Snell Avenue. The commercial buildings in the Branham Plaza shopping center are also characterized by red tile roofs in a Mediterranean style.

3. Scenic Vistas within and across the Project Site

The project site's flat topography and undeveloped state allow for largely unimpeded views across the site and outward from the site. Although glimpses of the mountains surrounding the Santa Clara Valley are visible from various locations within the project site, the two view corridors of the Diablo Range and Santa Cruz Mountains shown in Figure 4.2-6 provide the highest quality views.⁶ Along the edges of the site, views of the mountains are somewhat obstructed by development and mature vegetation in the foreground.

The Diablo Mountain Range is visible to the east and northeast of the project site. In this mountain range, Mount Hamilton, the tallest mountain overlooking Santa Clara Valley, is visible to the northeast. The Santa Cruz Mountains are visible to the south and southwest of the project site. The Santa Cruz Mountains are largely undeveloped, and provide a strong natural landscape feature as the western and southern backdrop of the project site. The most dramatic view of the Santa Cruz Mountains exists to the south, where Loma Prieta Peak, Mt. Umunhum, and El Sombroso create a skyline. The Santa Teresa Hills, an east – west ridgeline to the south of the project site, are also visible from the project site.

Oak Hill (or “Communications Hill”) and the Skyway Campus of Valley Christian High School are also visible from the project site, although neither provides a high scenic value. Communications Hill is part of the San Juan Bautista Hills, and is located northwest of the project site. Communications Hill is home to the County's Communications Center, and contains several microwave towers, a communications tower, and residential development. Valley Christian High School is located northeast of the project site on a

⁶ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, pages V-34 to V-35.



Source: LSA Associates, Inc., 2008. Aerial Imagery from the United States Department of Agriculture, NAIP, 2005.

FIGURE 4.2-6

PROJECT SITE LOCATIONS WITH VIEWS OF MOUNTAIN RANGES

ridgeline overlooking the project site. The school campus contains three- and four-story structures that are visually prominent from the project site.⁷

4. Views of the Project Site from the Surrounding Area

The project site is highly visible from the streets along its northern, eastern, and southern boundaries. The vehicular lanes, bicycle lanes, and sidewalks along Branham Lane, Snell Avenue, and Chynoweth Avenue all offer unobstructed views of the project site. The project site is also highly visible from surrounding neighborhoods to the north that are situated at higher elevations.⁸

The project site is visible from properties in the immediate vicinity, although neighboring residential development is generally not oriented to maximize views of the project site. As the neighborhoods surrounding the project site were developed over time, it was generally assumed that the project site would ultimately be built out in a similar suburban residential pattern if the property had not been donated and deeded as public parkland. Thus, rather than fronting onto the project site, residential properties are oriented along the streets on which they are located. Generally, residences abutting the project site have either their side or rear yards located along the project site boundary. Because residential properties adjacent to the project site have their side or rear yards along the project site, views from these properties into the project site are limited. An exception to this exists along the western edge of the project site, where some residential yards are not lined with solid fencing, and along the northern end of Snell Avenue, where these homes and their yards are oriented toward the project site.

⁷ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, pages V-35 to V-36.

⁸ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page V-38.

5. Views from Scenic Highways

The only officially designated State scenic highway in Santa Clara County is Route 9, from the Santa Cruz County line to the Los Gatos city limits.⁹ Therefore, there are no officially designated State scenic highways in the vicinity of the project site.

Portions of Interstate 280, Route 17, Route 35, and Route 152 are identified as eligible State scenic highways but are not officially designated.¹⁰ None of these roadways are within the vicinity of the project site.

The County's Regional Parks, Trails and Scenic Highways map designates Almaden Expressway as a roadway that should be designated by the State as an eligible scenic highway. However, the project site is not visible from Almaden Expressway, which is located approximately 1.5 miles to the west.

C. *Standards of Significance*

As per Appendix G of the CEQA Guidelines, visual changes associated with the Plan would be considered significant if the Plan would:

1. Create an aesthetically offensive site open to public view.
2. Obstruct scenic views from existing residential areas, public lands, public water bodies, or roads.
3. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

⁹ Caltrans, California State Highway Mapping System, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed on January 5, 2010.

¹⁰ Caltrans, California State Highway Mapping System, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed on January 5, 2010.

D. Impact Discussion

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

1. Creation of an Aesthetically Offensive Site Open to Public View

The project site is publicly visible from all sides from adjacent sidewalks and roadways, as well as from higher elevations in the vicinity of the site. The project would create an aesthetically offensive site open to public view if it would result in the development of structures or features that would clutter or impair public views of the site.

While the proposed Plan calls for the construction of a limited number of new structures and new internal trails and access roads, the majority of the project site would be maintained as open space and would continue to contribute to the existing visual environment of the surrounding area as an expansive open site. In addition, the project would result in the creation of buffer areas along the project site perimeter, and enhanced vegetation along Canoas Creek. Buffers and creekside vegetation could enhance existing views of the site from certain public locations, such as at the dead end of Chynoweth Avenue at the southeastern corner of the site, where current views of the site do not include prominent visual features.

Although the overall visual appearance of the project site would be that of an open space lined and internally divided by vegetation, the Plan also calls for construction of new built structures. New structures would include an entry kiosk; visitor center; visitor pavilion; restrooms; rain shelters; agriculture packaging, processing, and storage facilities; a café; catering facilities; produce stands; greenhouses; shade houses; classrooms; and miscellaneous small structures associated with ongoing agricultural and cooperative management activities. A caretaker's residence may also be constructed. Built structures could result in visual impacts to public views, and farm equipment and recreational facilities could clutter public views of the site if not properly designed, screened, and sited.

The main buildings proposed for the project site are the visitor center, pavilion, and caretaker's residence. Other proposed structures to be built would be dependent on the needs of future farmers and community partners, but would be limited to storage and processing facilities, green houses, shade houses, classrooms, barns, and other small related structures. As shown on Figure 3-3, the visitor center and pavilion would be set back from the project site perimeter by at least 500 feet and therefore would not contribute substantially to the public views along Snell Avenue. Potential adverse aesthetic impacts associated with views of these buildings would be avoided through the implementation of proposed Plan policies that would guide the design of the buildings. For instance, proposed Plan Guideline VIS.9 states, "Park structures and recreational facilities should be visually subordinate secondary to productive agriculture and the natural landscape." The Design Guidelines chapter of the Plan states, "All structures built on-site, and especially structures within the public areas, should utilize an architectural style that is consistent with the historic buildings in the Life Estate Area and barns and farmhouses in Santa Clara Valley. [...] Structures that will be used for agricultural or park operations, such as greenhouses and storage buildings, should be designed to complement the historic character of the property and use materials that blend with the landscape backdrop in order that visual impacts be minimized." These guidelines would help ensure that the visitor center and pavilion would contribute to the historical setting and ranch house style of the Life Estate structures, and would not detract from views of vegetation, natural features, open spaces, and agricultural uses.

In addition to the creation of new built structures, the project would also involve the ongoing use of farm equipment and picnic facilities, which could clutter public views of the project site. However, the proposed Plan includes guidelines that would prevent potential aesthetic impacts associated with agricultural and passive recreational uses. Guideline VIS.5 is to "Create visual buffers or screens along the western edge of the project site to reduce the potential for privacy conflicts between park operations and adjacent residences." Guideline VIS.7 is: "Through the use of vegetative plantings and/or buffers, visually screen views of maintenance facilities, storage yards, and other facili-

ties and structures that may detract from the park's scenic quality." In addition, Guideline VIS.9, discussed above, is intended to ensure that potential visual effects of agriculture and recreational facilities would not detract from the site's scenic quality.

Although the Plan's guidelines would ensure that new structures and ongoing recreational and agricultural uses would not result in significant visual impacts, the construction of structures, recreational trails, and internal roadways could create temporary adverse visual effects on public views. Construction of new structures would involve ground disturbance and the use of construction equipment, and construction of trails and internal roadways could involve the use of earth moving and paving equipment. Because public views of the site currently contain the farm equipment used on the Life Estate, it is not expected that construction equipment would pose a substantially adverse affect on public views of the site. In addition, due to the project site's expansive size relative to adjacent properties, the overall visual quality of the site would continue to be that of an open space site even during construction. In addition, construction activities would be temporary and would not result in the ongoing, long-term use of equipment that could negatively affect public views of the site.

As discussed above, the project would not result in aesthetically offensive uses or structures, and the project's proposed vegetative plantings and buffers could in some cases improve current public views of the project site. Therefore, impacts would be *less than significant*.

2. Obstruction of Scenic Views from Existing Residential Areas, Public Lands, Public Water Bodies, or Roads

The project site's flat topography and undeveloped state allow for largely unimpeded views from surrounding residential properties, roadways, and commercial properties. Viewpoints across the site from these adjacent areas include scenic views of the project site itself in the foreground, with the backdrop of mountains surrounding the Santa Clara Valley. The Diablo Mountain Range is visible to the east and northeast of the project site, the Santa

Cruz Mountains are visible to the south and southwest of the project site, and the Santa Teresa Hills are visible to the south of the project site. The Plan would have a significant effect on scenic views if it would result in new structures or features that would block views of the natural features from surrounding properties and roadways.

As discussed above, the proposed Plan would result in the construction of new structures, including a visitor center and pavilion, restrooms, rain shelters, storage buildings, and other agriculture related facilities. At a minimum, these structures would be set back 60 feet from the site's northern, eastern, and southern boundaries, and 55 feet from the western boundary. These setbacks would help conserve views. The proposed Plan does not describe maximum allowable building heights for the project site; however, it does include Guideline VIS.2, which requires that scenic views of distant ridgelines not be obstructed, and Guideline VIS.9, which requires that newly constructed structures and facilities on the project site remain subordinate to the natural landscape.

The proposed Plan would also result in new vegetative planting along the project site's perimeter. New vegetation along the perimeter would have the potential to obstruct scenic views from adjacent residential uses. However, the proposed Plan includes guidelines that would prevent potential adverse effects associated with the height of new vegetation. Guideline VIS.3 is: "Visually screen or buffer foreground views of adjacent residential development while preserving background views to distant mountains." Guideline VIS.4 calls for buffers to be provided in a way that preserves scenic views from surrounding neighborhoods.

As shown in Figure 3-4, the project would not propose fences or the planting of trees in the buffer along the western perimeter of the project site. Therefore, the western buffer area would not obstruct views from nearby residential properties. At the northern and eastern perimeters of the site, along Branham Lane and Snell Avenue, the Park would be separated from city streets by two strips of vegetated buffers, street trees, a service road, and an

unpaved multi-use trail. Intermittent views of the project site would be available between street trees. Figure 3-3 shows a similar planting style at the project site's southern perimeter, with street trees along Chynoweth Avenue.

The project site's flatness, and the proposed Plan's consideration of adjacent properties, would ensure that new vegetation and structures on the site would be designed to enhance views of and across the site without obstructing existing scenic views. Therefore, impacts would be *less than significant*.

3. Creation of a New Source of Substantial Light or Glare

The project would require new sources of interior lighting in the new visitor center and pavilion and in recreational and agricultural facilities, as well as new sources of exterior lighting in parking areas, outside of new buildings, in picnic areas, and along trails. New exterior lighting could result in visual impacts, particularly to adjacent residences. However, guidelines in the proposed Plan call for new lighting to be limited, and would prevent new lighting from leading to substantial adverse effects. Guideline UTIL.5 is: "Limit lighting in the Park and utilize fully-shielded solar-powered LED light standards." Guideline VIS.8 is to "Provide limited and fully shielded site lighting only as necessary for public safety to minimize potential impacts on park neighbors, the night sky, and wildlife habitat." In addition, the Design Guidelines chapter of the proposed Plan states that building design should employ natural lighting. Implementation of these guidelines would limit that amount of new lighting that would be needed for interior and exterior lighting throughout the project site, and would ensure that new lighting is designed to reduce potential adverse effects.

The project could result in glare if it brought new surfaces that reflect light to neighboring properties or properties on higher elevations with views of the site. As indicated previously, buildings allowed under the project would mimic the architectural style of the Life Estate and would not be designed in a modern style with any large reflective surfaces, particularly not made from glass or metal. As shown in Figure 3-3, numerous trees would be incorporated into parking lot design on the project site, which would reduce the po-

tential for reflections from windshields and roofs of parked cars. Street trees planted along perimeter and internal roadways around and within the Park would also reduce similar reflections from nearby vehicles and farm equipment. In addition, mitigating distances between likely sources of glare and residences or other uses that could potentially be affected, would reduce any potential impacts.

The proposed Plan would not allow any large reflective surfaces. Additionally, the potential for glare from vehicles and farm equipment would be reduced by on-site trees and the distance between the project site and uses that could potentially be affected. Therefore, the project would have a *less-than-significant* impact associated with glare.

E. Cumulative Impacts

The project site is in an existing urbanized area and is unique as an existing agricultural use. Implementation of the proposed Plan would result in some new on-site structures, but new structures would be designed in a way that is compatible with the existing structures on the adjacent Life Estate. No other development in the vicinity of the project includes new agricultural uses and structures. Overall, the project site would remain in its existing aesthetic condition, as a relatively large amount of open space in contrast to its surrounding residential neighborhoods and commercial developments. New development in the vicinity would be similar to these residential and commercial properties, and would not be similar to the proposed project. Since the proposed project would not introduce new structures or uses that would contribute to cumulative aesthetic changes in the surrounding vicinity, cumulative impacts would be *less than significant*.

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4.3 AGRICULTURAL RESOURCES

This chapter describes the existing agricultural resources on the project site and evaluates the potential impacts to agricultural resources associated with the Plan. This chapter also includes a discussion of cumulative impacts to agricultural resources. Unless otherwise noted, existing conditions information in this chapter is from the *Martial Cottle Park Final Resource Inventory* report prepared for the County of Santa Clara Parks and Recreation Department in July 2009 by Wallace, Roberts and Todd; LSA Associates; and Design, Community & Environment.

A. *Regulatory Framework*

The following section discusses agricultural resources related policies from regulatory agencies that have jurisdiction over the project site.

1. **California Land Conservation Act of 1965**

The California Land Conservation Act of 1965, or Williamson Act, allows local governments to enter into voluntary contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, restricted parcel property taxes are assessed at a rate consistent with their actual use rather than potential market value. The minimum length of Williamson Act contracts is ten years. Because the contract term automatically renews on each anniversary date of the contract, the actual contract length is essentially indefinite. The County of Santa Clara participates in the Williamson Act program and currently facilitates a contract for the Martial Cottle Park property. The Park property is under Williamson Act contract number 68.108.

2. **Public Park Preservation Act**

The Public Park Preservation Act of 1971, California State Public Resources Code, Section 5400 *et. seq.*, regulates public agencies involved in the acquisition of existing public parkland for non-park purpose. The act requires a public agency to provide compensation equal to the cost of an equivalent sub-

stitute parkland or to provide a substitute parkland of comparable characteristics.¹

3. County of Santa Clara Ordinance Code and Williamson Act Guidelines

The County of Santa Clara Ordinance Code Section C13 sets forth the requirements for agricultural preserves in Santa Clara County that operate under land conservation contracts pursuant to the Williamson Act. Section C13-5 states the following criteria for establishing, disestablishing, or altering agricultural preserves:

- ◆ Each agricultural preserve must contain at least 100 contiguous acres of land unless the Board of Supervisors finds that a smaller preserve is necessary due to the unique characteristics of the agricultural enterprises in the area and that such preserve is consistent with the County General Plan and zoning ordinance.
- ◆ The use of any land within an agricultural preserve must be restricted by zoning that is compatible with the agricultural use of the lands within the preserve that are subject to contracts. Such zoning restrictions include appropriate minimum parcel sizes consistent with the Williamson Act and this chapter.
- ◆ No agricultural preserve may be disestablished or altered to remove land from the agricultural preserve if removal of the land would cause or contribute to the premature or unnecessary conversion of agricultural land to urban uses or to significant encroachment of incompatible land uses into the immediate vicinity of contracted land.
- ◆ All agricultural preserves must comply with the County General Plan and zoning ordinance.

Ordinance C-13 also requires requests for establishing, disestablishing, or alternations to agricultural preserves to be filed with the Board of Supervisors,

¹ California Department of Transportation, <http://www.dot.ca.gov/ser/vol1/sec1/ch2statelaw/chap2.htm>, accessed July 11, 2010.

who will take action on the request at a noticed public hearing. Additionally, such changes to the boundary of an agricultural preserve must be updated in the county's map showing all agricultural preserves.

The Williamson Act Guidelines require that all uses or development of any Williamson Act-contracted land must be compatible with and not significantly compromise long-term productive agricultural capability of the land, significantly displace or impair current or reasonably foreseeable agricultural operations, or substantially interfere with the agricultural use of the land.

Section C13-15(b) of the County of Santa Clara Ordinance Code lists the following uses as presumptively compatible with agricultural use and contracted land for contracts executed prior to January 1, 2006:²

- ◆ Residential uses incidental to the agricultural use of the land, including:
 - Single-family homes for the property owner or lessee, which includes stockholders in family corporations, beneficiaries of family trusts and estates, owners of undivided partial interests in the fee, and joint tenants.
 - Dwellings for persons employed in the agricultural use of land or structures used to provide educational experiences or day-care facilities for their children, provided the use is nonprofit and not open to the general public.
 - Temporary farm labor camps incidental and necessary to the gathering of the crops grown on the land.
 - Residential care facilities for persons actively participating in agriculture as a prime component of their training or recreation.
 - Facilities to be used as bed and breakfast inns with a maximum of six guest rooms, kitchen and dining facilities for guests and small private events, all of which are totally contained within the existing residential structure.

² A Williamson Act contract covering the entire portion of the Martial Cottle Park property was recorded on February 25, 1969. County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page VI-24.

- ◆ Accessory structures necessary and incidental to the agricultural use of the land, including:
 - Facilities for the drying, packing or other processing of an agricultural commodity usually performed on the premises where it is produced, but not including slaughterhouses, fertilizer yards, bone yards, or plants for the reduction of animal or vegetable matter.
 - Stands or shelters for the sale of agricultural commodities produced on the land.
 - Farmer's markets, including an agricultural stand where agricultural commodities grown, raised or produced off the premises are offered for sale to the general public by the operator of the stand.
 - Limited sales of agricultural supplies, including hay, seed, veterinary supplies and horse tack. The sale of farm equipment or horse trailers as specifically excluded.
 - Aircraft landing strips.
 - Storage and maintenance facilities for trucks used exclusively for hauling agricultural produce, which must include produce grown on the property, as long as the remainder of the property can sustain an agricultural use.
 - Temporary wood recycling operations.
- ◆ The maintenance of land in its natural state for the purpose of preserving open space for recreation or plant or animal preserves, or the holding of nonproducing land for future agricultural use or future mineral extraction.
- ◆ Recreational uses:
 - Public or private fishing or hunting of wildlife, including structures associated with hunting or fishing clubs.
 - Public or private rifle and pistol practice ranges, trap or skeet fields, archery ranges, golf driving ranges or other similar uses.
 - Public or private riding or hiking trails.
 - Riding academies, stables, and boarding of horses or other livestock.
 - Large animal clinics primarily for horses or other livestock, including associated stables and pasture. (Small animal hospitals and kennels are excluded.)

- ◆ Utilities, resource extraction, and waste disposal facilities.
 - The erection, construction, alteration or maintenance of gas, electric, water, or communication utility facilities; small-scale facilities testing electronic products for electromagnetic emissions under applicable Federal Communications Commission regulations; radio, television or microwave antennas; and transmitters and related facilities.
 - Oil and gas well drilling, including the installation and use of such equipment, structures and facilities as are necessary or convenient for oil and gas drilling and producing operations customarily required or incidental to usual oil field practice, including the initial separation of oil, gas and water, and the storage, handling, recycling and transportation of such oil, gas and water from the premises.
 - Surface mining operations which have an approved land rehabilitation plan which returns the land to an agricultural or open space use upon completion.
 - Sanitary landfills which have a land rehabilitation plan which returns the land to an agricultural or open space use upon completion.
- ◆ Educational, cultural, and religious facilities.
 - Churches, including accessory structures, as long as such use does not substantially interfere with the primary agricultural use of the land within the preserve.
 - Educational and cultural uses not located on prime agricultural soils which do not require major road improvements, and where traffic to and from the subject use location does not hinder or impair the agricultural operations in the surrounding area. At least three-quarters of the parcel must remain in agricultural or open space uses, and the maximum coverage of the site where the educational and cultural uses are to occur is limited to 20 acres.
 - Seasonal and occasional social receptions at existing facilities and immediate surrounding grounds, which do not displace or interfere with agricultural and open space use of the parcel or any adjacent parcel.

4. County of Santa Clara Charter and Park Charter Fund

The County of Santa Clara Charter (County Charter) provides the legislation defining the County's powers and privileges and facilitates the governing of the County. The County Charter describes the regulatory framework for a County park and the County's provision of recreational services. The County Charter Article VI. Section 604.11 describes the Park Charter Fund, which is replenished from monies set aside from the County's general fund and revenues generated from the operation of County parks. The purpose of the Park Charter Fund is for the acquisition, development, operation, and maintenance of County of Santa Clara parks.

5. County of Santa Clara Policy on Farm Worker Exposure to Pesticides

Through its Policy on Farm Worker Exposure to Pesticides, the County Board of Supervisors supports legislation to limit the use of pesticides that are harmful to farm workers and consumers. The Board also supports efforts in the county and throughout the State to help educate and train farm workers on the use of pesticides.

6. Santa Clara County General Plan

The County's General Plan contains several goals and policies relevant to agricultural resources. Goals and policies relevant to the Plan are listed in Table 4.3-1.

B. Existing Conditions

Santa Clara County was once primarily associated with agriculture because of the Santa Clara Valley's highly fertile soils. Soils consist of clay in the low-lying areas, loam and gravelly loam in the upper portions of the valley, and eroded rocky clay loam in the hills. Clayey soils make up the majority of the valley floor, including the project site.³

³ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page II-6.

TABLE 4.3-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO AGRICULTURAL RESOURCES

Strategy/Policy Number	Strategy/Policy Content
Resource Conservation Chapter	
<u>Water Supply Resources</u>	
<i>Strategy #1</i>	<i>Conserve and Reclaim Water</i>
Policy C-RC 12	More efficient use of water for agricultural irrigation and industrial processes should be promoted through improved technology and practices.
<u>Agriculture & Agricultural Resources</u>	
Policy C-RC 37	Agriculture should be encouraged and agricultural lands retained for their vital contributions to the overall economy, quality of life, and for their functional importance to Santa Clara County, in particular: a. local food production capability; b. productive use land not intended for urban development; and c. protection of public health and safety.
Policy C-RC 38	General public awareness and understanding of the importance of agriculture and the goals of agricultural preservation should be encouraged countywide.
<i>Strategy #2</i>	<i>Maintain stable, long range land use patterns.</i>
Policy C-RC 40	Long term land use stability and dependability to preserve agriculture shall be maintained and enhanced by the following general means: a. limiting the loss of valuable farmland from unnecessary and/or premature urban expansion and development; b. regulating non-agricultural uses in agricultural areas, and their intensity and impacts on adjacent lands; c. maintaining agriculturally-viable parcel sizes; and d. minimizing conflicts between adjacent agricultural and non-agricultural land uses, through such means as right-to-farm legislation and mediation of nuisance claims.

TABLE 4.3-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO
 AGRICULTURAL RESOURCES (CONTINUED)

Strategy/Policy Number	Strategy/Policy Content
Policy C-RC 41	In addition to general land use and development controls, agricultural areas of greatest potential long term viability should be identified and formally designated for permanent preservation.
Policy C-RC 42	Interjurisdictional coordination and cooperation necessary to achieve agricultural preservation goals and strategies should be encouraged. These goals should include: a. preservation of remaining areas of large and medium scale agriculture in South County; b. encouragement of retention of agricultural lands in San Benito County adjoining South County agricultural areas; and c. discouragement of Urban Service Area (USA) expansions into agricultural areas when LAFCO determines that a city's USA contains more land than is needed to accommodate five years of projected growth and development.
Strategy #3	<i>Enhance the long term economic viability of agriculture.</i>
Policy C-RC 43	Long term economic viability of agricultural activities shall be maintained and enhanced by providing a. improved markets for locally-grown products; b. property tax relief; c. appropriate application of "renewable," organic agriculture and other innovative, cost-efficient growing techniques; and d. adequate agricultural worker housing supply.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

According to the California Department of Conservation's "Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance for Santa Clara County," the County's agricultural soils are some of the best in the world. Prime Farmland is located throughout the valley floor. According to data from the 2008 Farmland Mapping and Monitoring Program, the project site contains approximately 98 acres of Prime Farmland, 133 acres of Farmland of Local Importance, 64 acres of Grazing land, and 3.6 acres of Urban

land.⁴ Farmland Mapping and Monitoring Program designations of farmland for the project site are illustrated in Figure 4.3-1. This figure shows that Prime Farmland exists in the eastern portion of the site, Farmland of Local Importance exists in the central portion of the site, and Grazing Land exists in the project site's panhandle.

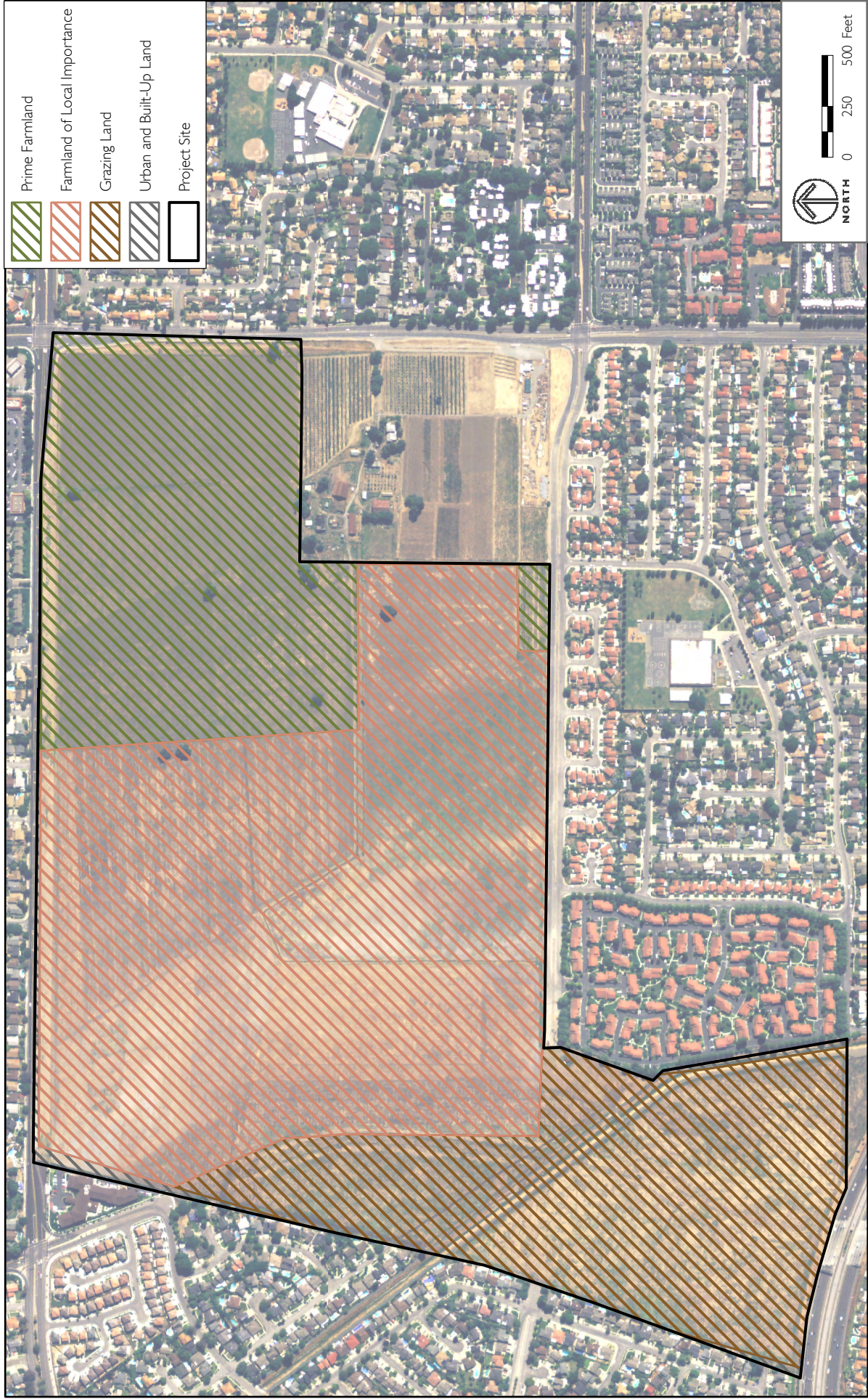
Today few pockets of agricultural land remain in northern Santa Clara Valley. Although high tech industry has surpassed agriculture's contribution to the County's economy, agricultural products remain a fundamental element of the region's economy. Specifically, agriculture contributes significantly to the economy of the South County area, including San Martin and the adjoining cities of Morgan Hill and Gilroy.⁵ Each year, the Santa Clara County Division of Agriculture releases a crop report describing production values and acreages for agricultural products grown in Santa Clara County. In 2009, the top three grossing products in the county were nursery crops, mushrooms, and bell peppers. Nursery crops include bedding plants, Christmas trees, ornamental trees, roses, shrubs, indoor decoratives, herbaceous perennials, turf, vegetable plants, and propagative materials. Santa Clara County also had 25 different fruit, vegetable, and field crops exceed \$1 million in sales; top sellers included cherries and lettuce. Overall, agricultural products are a \$260 million industry in Santa Clara County.⁶

A Williamson Act Contract, number 68.108, covers the entire project site. The contract was recorded on February 25, 1969 and includes a list of uses determined by the Board of Supervisors to be presumptively compatible with agricultural use of contracted land if the property is devoted to agricultural use and uses incidental to the agricultural production on the land. In accordance with the County of Santa Clara Ordinance Code, the County Parks

⁴ Design, Community & Environment (DC&E), 2010, Farmland Mapping and Monitoring Program GIS data (2008).

⁵ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page VI-5.

⁶ Santa Clara County Division of Agriculture, 2009, *Santa Clara County Agricultural Crop Report 2009*.



Source: DC&E, 2010. California Department of Conservation Farmland Mapping and Monitoring Program, 2008. Aerial imagery from the United States Department of Agriculture, NAIP, 2005.

Department filed with the Clerk of the Board of Supervisors a request to non-renew the Williamson Act Contract 68.108 covering the County-owned portion of the project site (APN 464-06-020 and APN 464-06-022). The notices of nonrenewal were recorded on April 9, 2007 (Document #19375805) and on April 16, 2009 (Document #20214786), and the Williamson Act Contract will terminate on January 1, 2017 and on January 1, 2019 for the County-owned portion of the project site.

In accordance with the County of Santa Clara Ordinance Code, California State Parks filed with the Clerk of the Board of Supervisors a request to non-renew the Williamson Act Contract for the State-owned portion of the project site (APN 464-06-019). The notice of the State's nonrenewal was recorded on October 31, 2008 (Document #20035030), and the Williamson Act Contract will terminate on January 1, 2018.

C. Standards of Significance

Per Appendix G of the CEQA guidelines, agricultural resource impacts associated with the Plan would be considered significant if the Plan would:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Natural Resources Agency, to non-agricultural use.
2. Conflict with existing zoning for agricultural use.
3. Conflict with an existing Williamson Act Contract or the County's Williamson Act Ordinance and Guidelines.
4. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use.

D. Impact Discussion

The following discussion provides an analysis of potential project and cumulative agriculture impacts that could occur as a result of implementation of the project.

1. Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to Non-Agricultural Use

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

As discussed above, the proposed project site consists of Prime Farmland, Farmland of Local Importance, and Grazing Land.⁷ As a State Park, these agricultural acres would be protected from development into perpetuity. Not all of these acres would go undeveloped since a minimal level of development would be needed to serve public visitors and to maintain park operations. The agricultural uses planned at the Park would be subordinate to the Park's recreational and educational uses. Overall, the creation of a State and County park on the Martial Cottle property would potentially convert some farmland to non-agricultural uses; however, the remaining farmland would be protected from urban development consistent with Williamson Act Guidelines, and the project site would retain its high agricultural value, into perpetuity.

Of the total 256.64 acres of the proposed Martial Cottle Park, 167 acres would be designated for active agricultural uses. The agricultural uses would take place in the Leased Agricultural Zone, which would comprise approximately 140 acres of the Park, and in the Cooperative Management Zone, which would comprise approximately 27 acres of the Park. The Park and Recreation Zone is designed to provide visitor services and park operations, and the Habitat Enhancement Zone is for maintaining creek and wetland habitat. Both the Park and Recreation Zone and the Habitat Enhancement

⁷ Design, Community & Environment (DC&E), 2010, Farmland Mapping and Monitoring Program GIS data (2008).

Zone allow for development to serve visitors and for park operations; approximately 27.8 acres of Prime Farmland could potentially be developed for such uses. Visitor services and park operations uses would include a visitor center and pavilion, interpretive exhibits, staff offices, a circulation system and parking lots, corporation yards and other maintenance facilities, and landscaped buffers. The Park and Recreation Zone would allow additional non-agricultural uses such as passive recreation and trails for walking and hiking.

Although these uses are non-agricultural, they would directly support the long-term viability of the Park as an agricultural preserve. This would be consistent with the County's General Plan Policy R-LU 11, which describes the allowable uses within the Agriculture designation as: (a) agriculture and ancillary uses; (b) uses necessary to directly support local agriculture; and (c) other uses compatible with agriculture which clearly enhance the long term viability of local agriculture and agricultural lands. The project affirms this policy with the Park Donor's deed restrictions and property transfer agreement and the following Fundamental Parkwide Goal: "The Park's focus will be education and commemoration of Santa Clara County's agricultural history. Portions of the Park will be under agricultural use, and portions under educational and cultural uses, all for the promotion of local agriculture. Research and commercial agricultural uses will be limited to those that are reasonably related to the history of farming in the Santa Clara Valley." These uses would also be consistent with Section C13-15(b) of the County of Santa Clara Ordinance Code, which lists uses considered to be compatible with land under Williamson Act contracts.

Long-term viability of the Park is in large part dependent on revenue generated from Park entrance fees and public support of the Park. Although amenities such as the visitor center, restrooms, and parking lots, may require the conversion of farmland, they are also necessary to encourage public involvement and support of the Park. Revenue generated for the Park resulting from public involvement and support would increase the likelihood that Martial Cottle Park is maintained as an agricultural preserve.

Therefore, the proposed project would have a *less-than-significant* impact related to the conversion of farmlands of concern under CEQA to non-agricultural uses.

2. Conflicts with Existing Zoning for Agricultural Use

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

The project site is zoned as Exclusive Agriculture. Under Section 2.20.010(A) of the Zoning Ordinance, the purpose of the Exclusive Agriculture district is “to preserve and encourage the long-term viability of agriculture and agricultural lands, recognizing the vital contributions agriculture makes to the economy and quality of life within the County.” As discussed under Standard of Significance #1, above, the proposed project allows for agriculture and agriculturally-supporting uses that are consistent with the County’s existing zoning ordinance.

Therefore, the proposed project would have a *less-than-significant* impact related to conflicts with existing zoning for agricultural use.

3. Conflicts with the Existing Williamson Act Contracts or the County’s Williamson Act Ordinance and Guidelines

a. Project-Level Components

Project-level components include Phase I of the Plan. Phase I would take place from 2010 to 2019, during the Williamson Act contract non-renewal period of the three parcels. During the period of the Williamson Act contracts, County will maintain agricultural uses on relevant parcels consistent with the deed restrictions on the operation of the Park. Before the contracts expire, all project site development would meet the following requirements of the County’s Williamson Act Program guidelines:

- ◆ Assuming the land is planted with standard-value crops, 60 percent of each parcel under contract is devoted to commercial agricultural production. If the land is planted in high-value crops, only 50 percent of the

land must be in production. The crops must generate at least \$1,000 per acre per year to qualify as high value agriculture.

- ◆ No more than 10 percent (not to exceed 5 acres) of the parcel is developed with compatible uses such as barns and paved roads.

Phase 1 would focus on types of development in the Park that would maintain compliance with the Williamson Act during the contract non-renewal phase. Such development activities would include establishing basic infrastructure and facilities to enable farming operations to be initiated during Phase 1. For a detailed list of development objectives identified for Phase I, refer to Chapter 3, Project Description, of this Draft EIR. Phase 1 would include the issuance of Requests for Proposals from farmers and lessees of the leased agricultural areas, which would enable the farming of the approximately 140 acres in the Leased Agriculture Zone of the project site. As described in Chapter 3, Project Description, Phase 1 components would be implemented to meet the following requirements of the County's Williamson Act Program guidelines. Therefore, project-level components of the project would not conflict with Williamson Act guidelines or contracts and the impact would be *less than significant*.

b. Program-Level Components

Program-level components include all development phases for Martial Cottle Park following the completion of Phase I. These phases would begin after termination of the property's Williamson Act contracts and would have *no impact* on the County's Williamson Act Ordinance or guidelines.

4. Changes in the Existing Environment Which Could Result in Conversion of Farmland to Non-Agricultural Use

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

No farmland exists in the project site vicinity, apart from the project site itself. Therefore, potential changes to the existing environment resulting from

the proposed project would affect only the existing agricultural land within the project site. The project would increase in the intensity of agricultural activities on the project site. Additionally, development would increase on the property, including new roads, buildings, and infrastructure, that would be necessary to serve recreational visitors to the Park. The project site would also experience a greater daytime human population, as compared to its current state, in which it is inaccessible to the public.

Changes to the environment resulting from a development project could potentially bring about land use conflicts, which often lead to the conversion of agricultural land to non-agricultural uses. The purpose of the proposed project, however, is to incorporate recreational, educational, interpretive and agricultural uses in a single park unit. The project includes guidelines and policies to reduce land use conflicts within the Park and between the Park and nearby uses, and to ensure compatibility between future recreational and agricultural uses. In developing these guidelines and policies, Park planners solicited input from numerous agricultural experts, including farmers, farm advisors, non-profit organizations that coordinate farming activities, and governmental entities that oversee farming operations, on key considerations for the establishment of a successful park design with agricultural uses. Agricultural experts agreed that a critical mass of agricultural land would enhance the success of the Park's agricultural program, and viable farm plots would be range in size from 0.5 acre to 150 acres. In response, Guideline REC.3 of the Plan consolidates and clusters visitor uses on the east end of the Park to maintain commercial agriculture in large, contiguous areas. The Plan provides large, rectangular agricultural plots that may be divided into subplots of various sizes, and retain access to service roads and utility infrastructure.

The Plan includes additional policies and guidelines to reduce the potential for land use conflicts between recreational and agricultural uses at the Park. Guidelines AG.7 and VIS.1 of the proposed Plan require buffers and fencing to serve as barriers and transition spaces to separate potentially conflicting land uses. The fences and buffers would provide a clear boundary between recreational uses and agricultural uses to protect agricultural operations from

displacement or impairment and to protect the commercial viability of the agricultural uses. The proposed Plan also requires the buffers to be vegetated and landscaped to minimize potential watershed contamination through runoff. Farm animal operations on the property would be required to minimize animal waste contamination through Guideline LAND.3 of the Plan, which requires that site planning, operations and practices follow all applicable regulations regarding food production and public health safety. Additionally, the potential for public health and food safety issues could be reduced by establishing a requirement that dogs be kept on leash while on the Park property, which would comply with the County of Santa Clara Ordinance related to Pets in Parks.

Together, the steps taken in the planning process to prevent conflict among various park uses, as well as the establishment of associated policies within the proposed Plan, would avoid changes to the agricultural environment that would result in the conversion of farmlands of concern under CEQA to non-agricultural uses, resulting in a *less-than-significant* impact.

E. Cumulative Impacts

The project site is situated in an urban environment and is the only agricultural resource of its size in the area. No other development in the vicinity of the project is sited on agricultural lands. Since the proposed project would not convert any additional acres of agricultural land to non-agricultural uses, the cumulative impact to agricultural resources would be *less than significant*.

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN/
COUNTY PARK MASTER PLAN EIR
AGRICULTURAL RESOURCES

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4.4 AIR QUALITY

This chapter describes existing air quality conditions and evaluates the potential air quality impacts associated with the project. This chapter also includes a discussion of cumulative air quality impacts.

A. Regulatory Framework

Air quality in Santa Clara County is regulated by federal, State, regional, and local agencies. This section describes relevant policies, regulations, and standards that pertain to air quality.

1. Policies and Regulations

a. Federal Clean Air Act

The 1970 federal Clean Air Act (CAA) authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The federal CAA Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the federal CAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans (SIPs) to demonstrate how they will achieve the national standards by specified dates.

The federal CAA requires that projects receiving federal funds demonstrate conformity to the approved SIP and local air quality attainment plan for the region.

b. California Clean Air Act

In 1988, the California CAA requires that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards for carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), and nitrogen dioxide (NO₂) by the earliest practical date. The California CAA provides districts with the authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each non-attainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged

over consecutive three-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan (CAP) shows how a district will reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

The California CAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the California Ambient Air Quality Standards (CAAQS). The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles.

c. United States Environmental Protection Agency (U.S. EPA)

The U.S. EPA is responsible for enforcing the federal CAA. The U.S. EPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 federal CAA and subsequent amendments. The U.S. EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g. beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California.

d. California Air Resources Board (ARB)

In California, the ARB, which is part of the California Environmental Protection Agency (Cal EPA), is responsible for meeting the State requirements of the Federal CAA, administering the California CAA, and establishing the CAAQS. The ARB regulates mobile air pollution sources, such as motor vehicles. Automobiles sold in California must meet the stricter emission standards established by the ARB. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. The ARB established passenger vehicle fuel specifications, which became effective on March 1996. The ARB oversees the functions of local air pollution control districts and air

quality management districts, which in turn administer air quality activities at the regional and county level.

The ARB has also developed an Air Quality and Land Use Handbook that is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.¹ The ARB handbook recommends that planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses, such as homes, medical facilities, daycare centers, schools, and playgrounds.

Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners and large gasoline service stations. Key recommendations in the Handbook include taking steps to avoid siting new, sensitive land uses (including residences, day care centers, playgrounds, or medical facilities):

- ◆ Within 500 feet of a freeway, urban roads with 100,000 vehicles per day or rural roads with 50,000 vehicles per day.
- ◆ Within 1,000 feet of a major service and maintenance rail yard.
- ◆ Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries.
- ◆ Within 300 feet of any dry cleaning operation (for operations with two or more machines, provide 500 feet).
- ◆ Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The Handbook specifically states that these recommendations are advisory and acknowledges that land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

¹ California Air Resources Board, 2005, *Air Quality and Land Use Handbook: A community Health Perspective*.

e. Bay Area Air Quality Management District (BAAQMD)

The BAAQMD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g. factories) and indirect sources (e.g. traffic associated with new development), as well as monitoring ambient pollutant concentrations. The BAAQMD jurisdiction encompasses seven counties—Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara —and portions of Solano and Sonoma counties. The ARB and the U.S. EPA regulate direct emissions from motor vehicles.

The BAAQMD reviews development proposals to ensure that air quality impacts are adequately assessed and mitigated in accordance with attainment planning efforts. Planning efforts are focused at preventing air quality degradation and violations of the California and National AAQS.

In 1998, the California Air Resources Board (CARB) identified diesel particulate matter (PM) as a toxic air contaminant (TAC). In order to reduce the public's exposure to diesel PM, CARB has approved a number of regulatory measures affecting the vast majority of diesel engines operating in California. The Bay Area Air Quality Management District (Air District) and other local air quality agencies throughout California are required to implement these regulations also known as Airborne Toxic Control Measures (ATCM). The ATCM for Stationary Compression Ignition (CI) Engines includes requirements for diesel-fueled engines used in agricultural operations.

The BAAQMD is responsible for developing a CAP that guides the region's air quality planning efforts. The BAAQMD's latest CAP is the 2010 CAP which contains district-wide control measures to reduce ozone precursor emissions (i.e. reactive organic gases (ROGs) and NO_x) and PM.

The Bay Area 2010 Clean Air Plan will:

- ◆ Update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement “all feasible measures” to reduce ozone.
- ◆ Provide a control strategy to reduce ozone, particulate matter (PM), air toxics, and greenhouse gases in a single, integrated plan.

- ◆ Review progress in improving air quality in recent years.
- ◆ Establish emission control measures to be adopted or implemented in the 2010-2012 timeframe.

f. Santa Clara County General Plan

The Health and Safety Element of the County General Plan contains several policies related to air quality. Policies relevant to the project are listed in Table 4.4-1.

2. Air Quality Standards

Both the NAAQS and CAAQS establish health-based ambient air quality standards for the following six air pollutants: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Federal standards include both primary and secondary standards. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.²

Additionally, the State has established a set of episode criteria for CO, O₃, NO₂, SO₂, and PM. These episode criteria refer to episode levels, ranging from Stage One to Stage Three, representing periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase from Stage One to Stage Three.

² U.S. Environmental Protection Agency, 2007, www.epa.gov/air/criteria.html.

TABLE 4.4-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO AIR QUALITY

Strategy/Policy Number	Strategy/Policy Content
Health and Safety Chapter	
Policy C-HS 1	Ambient air quality for Santa Clara County should comply with standards set by State and federal law.
Policy C-HS 2	The strategies for maintaining and improving air quality on a countywide basis, in addition to ongoing stationary source regulation, should include: <ul style="list-style-type: none"> a. augmented growth management, land use, and development policies that help achieve air quality standards; b. transit systems that provide feasible travel options; c. increased travel demand management and traffic congestion relief; and d. particulate and small scale emission controls.
Policy C-HS 3	Countywide or multi-jurisdictional planning by the cities and County should promote efforts to improve air quality and maximize the effectiveness of implementation efforts. Guidance and assistance from the BAAQMD shall be sought in the preparation of coordinated, multi-jurisdictional plans as well as in environmental review of projects that have potential for regionally significant air quality impacts.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

In addition to criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining and chrome plating operations; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust.

Standards under the CAAQS and NAAQS for the criteria air pollutants are listed in Table 4.4-2. Health effects of these criteria pollutants are described in Table 4.4-3.

TABLE 4.4-2 FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards ^a		Federal Standards ^b			
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g	
Ozone (O ₃)	1-Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	No federal standard	Same as Primary Standard	Ultraviolet Photometry	
	8-Hour	0.07 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)			
Respirable Particulate Matter (PM ₁₀)	24-Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m ³		-			
Fine Particulate Matter (PM _{2.5})	24-Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	15 µg/m ³			
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	None	Non-Dispersive Infrared Photometry (NDIR)	
	1-Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)			
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		-			
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.03 ppm (57 µg/m ³)	Gas Phase Chemilumi- nescence	0.053 ppm (100 µg/m ³)	Same as Primary Standard	Gas Phase Chemilumi- nescence	
	1-Hour	0.18 ppm (339 µg/m ³)		0.100 ppm ^h			
Lead (Pb) ⁱ	30-Day Avg	1.5 µg/m ³	Atomic Absorption	-	-	-	
	Calendar Quarter	-		1.5 µg/m ³			Same as Primary Standard
	Rolling 3-Month Avg ⁱ	-		0.15 µg/m ³			
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm (80 µg/m ³)	-	Spectro- photometry (Pararosaniline Method)	
	24-Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (365 µg/m ³)			
	3-Hour	-		-			0.5 ppm (1300 µg/m ³)
	1-Hour	0.25 ppm (655 µg/m ³)		-			-

TABLE 4.4-2 FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS (CONTINUED)

Pollutant	Average Time	California Standards ^a		Federal Standards ^b	
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}
Visibility-Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of 10 miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards	
Sulfates	24-Hour	25 $\mu\text{g}/\text{m}^3$	Ion Chromatography		
Hydrogen Sulfide	1-Hour	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	Ultraviolet Fluorescence		
Vinyl Chloride ⁱ	24-Hour	0.01 ppm (26 $\mu\text{g}/\text{m}^3$)	Gas Chromatography		

Note: ppm = parts per million, mg/m³ = milligrams of gaseous pollutant per cubic meter of ambient air

^a California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM₁₀, PM_{2.5}, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

^b National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu\text{g}/\text{m}^3$ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

Contact EPA for further clarification and current federal policies.

^c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

^d Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

^e National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

^f National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

^g Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.

^h To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor must not exceed 0.100 ppm (effective January 22, 2010)

ⁱ The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

^j National lead standard, rolling 3-month average: final rule signed October 15, 2008.

Source: California ARB, February 16, 2010.

TABLE 4.4-3 HEALTH EFFECTS OF AIR POLLUTANTS

Pollutant	Health Effects	Examples of Sources
Suspended Particulate Matter (PM _{2.5} and PM ₁₀)	<ul style="list-style-type: none"> • Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility. 	<ul style="list-style-type: none"> • Stationary combustion of solid fuels. • Construction activities. • Industrial and Agricultural processes. • Atmospheric chemical reactions.
Ozone (O ₃)	<ul style="list-style-type: none"> • Breathing difficulties • Lung damage 	<ul style="list-style-type: none"> • Formed by chemical reactions of air pollutants in the presence of sunlight; common sources are motor vehicles, industries, and consumer products
Carbon Monoxide (CO)	<ul style="list-style-type: none"> • Chest pain in heart patients • Headaches, nausea • Reduced mental alertness • Death at very high levels 	<ul style="list-style-type: none"> • Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Lead (Pb)	<ul style="list-style-type: none"> • Organ damage • Neurological and reproductive disorders • High blood pressure 	<ul style="list-style-type: none"> • Metals processing • Fuel combustion • Waste disposal
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> • Lung damage 	<ul style="list-style-type: none"> • See carbon monoxide sources
Toxic Air Contaminants (TACs)	<ul style="list-style-type: none"> • Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders 	<ul style="list-style-type: none"> • Cars and trucks, especially diesels • Industrial sources such as chrome platers • Neighborhood businesses such as dry cleaners and service stations • Building materials and products

Source: ARB and EPA, 2005.

3. Attainment Status Designations

The ARB is required to designate areas of the State as “attainment,” “non-attainment” or “unclassified” for any State standard. An “attainment” designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An “unclassified” designation signifies that data does not support either an attainment or nonattainment status. The California CCA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for O₃, CO, and NO₂ as “better than national standards,” “does not meet the primary standards,” or “cannot be classified.” For SO₂, areas are designated as “better than national standards,” “does not meet the primary standards,” “does not meet the secondary standards,” or “cannot be classified.” In 1991, new nonattainment designations were assigned to areas that had previously been classified as Group I, II, or III for PM₁₀ based on the likelihood that they would violate national PM₁₀ standards. All other areas are designated “unclassified.”

Table 4.4-4 provides a summary of the attainment status for the San Francisco Bay Area with respect to national and State ambient air quality standards.

B. Existing Conditions

The following discussion provides brief summaries of regional air quality, local climate and air quality, and air pollution climatology.

1. Regional Air Quality

Santa Clara County is located in the San Francisco Bay Area, a large shallow air basin ringed by hills that taper into a number of sheltered valleys around the perimeter. Two primary atmospheric outlets exist. One is through the

TABLE 4.4-4 BAY AREA ATTAINMENT STATUS

Pollutant	Average Time	California Standards ^a		National Standards ^b	
		Concentration	Attainment Status	Concentration	Attainment Status
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Attainment
	1-Hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Attainment
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	Attainment	0.053 ppm (100 µg/m ³)	Unclassified ^d
	1-Hour	0.25 ppm (470 µg/m ³)	Attainment	Not Applicable	Not Applicable
Ozone (O ₃)	8-Hour	0.07 ppm (137 µg/m ³)	Non-attainment ^e	0.075 ppm	Non-attainment ^f
	1-Hour	0.09 ppm (180 µg/m ³)	Non-attainment	Not Applicable	Not Applicable ^g
Suspended Particulate Matter (PM ₁₀)	Annual Mean	20 µg/m ³	Non-attainment	15 µg/m ³	Attainment
	24-Hour	50 µg/m ³	Non-attainment	150 µg/m ³	Unclassified
Suspended Particulate Matter (PM _{2.5})	Annual Mean	12 µg/m ³	Non-attainment	15 µg/m ³	Attainment
	24-Hour	Not Applicable	Not Applicable	35 µg/m ³	Non-attainment ^h
Lead (pb)	30-Day Average	1.5 µg/m	Attainment	Not Applicable	Not Applicable
	Calendar Quarter	Not Applicable	Not Applicable	1.5 µg/m ³	Attainment
Sulfur Dioxide (SO ₂)	Annual Mean	Not Applicable	Not Applicable	0.03 ppm (80 µg/m ³)	Attainment
	24-Hour	0.04 ppm (105 µg/m ³)	Attainment	0.14 ppm (365 µg/m ³)	Attainment
	1-Hour	0.25 ppm (655 µg/m ³)	Attainment	Not Applicable	Not Applicable

^a California standards for O₃, CO (except Lake Tahoe), SO₂ (1-hour and 24-hour), NO₂ and PM₁₀ are values that are not to be exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average, then some measurements may be excluded. In particular, measurements are excluded that ARB determines would occur less than once per year on average.

^b National standards other than for O₃ and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. For example, the O₃ 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 1.

^c In April 1998, the Bay Area was redesignated to Attainment for the national 8-hour CO standard.

^d 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)

^e The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005 and became effective on May 17, 2006.

^f In June 2004, the Bay Area was designated as a marginal nonattainment area of the national 8-hour ozone standard. US EPA lowered the national 8-hour ozone standard from 0.80 to 0.075 ppm effective May 27, 2008.

^g The National 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.

^h U.S. EPA lowered the 24-hour PM_{2.5} standard from 65 µg/m³ to 35 µg/m³ in 2006. The EPA designated the Bay Area as nonattainment for the 35 µg/m³ PM_{2.5} standard on October 8, 2009. The effective date of the designation is December 14, 2009, and the BAAQMD has three years to develop a plan called a State Implementation Plan (SIP) that demonstrates how the Bay Area will achieve the revised standard by 2014. The SIP for the new standard must be submitted to the EPA by December 14, 2012.

Source: BAAQMD, 2010

strait known as the Golden Gate, a direct outlet to the Pacific Ocean. The second extends to the northeast, along the west delta region of the Sacramento and San Joaquin Rivers.

As described above, Santa Clara County is within the jurisdiction of the BAAQMD. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen dramatically. Exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Ozone levels, measured by peak concentrations and the number of days over the State one-hour standard, have declined substantially as a result of aggressive programs by the BAAQMD and other regional, State, and federal agencies. The reduction of peak concentrations represents progress in improving public health; however, the Bay Area still exceeds the State standard for one-hour ozone.

Levels of PM₁₀ in the Bay Area have exceeded State standards at least three times per year the last three years. As such, the Bay Area is considered a non-attainment area for PM₁₀ relative to the State standards, but is considered an unclassified area according to the federal standard.

No exceedances of the State or federal CO standards have been recorded at any of the region's monitoring stations since 1991. The Bay Area is currently considered a maintenance area for State and federal CO standards.

2. Local Climate and Air Quality

Air quality is a function of both local climate and local sources of air pollution. Air quality is the balance of the natural dispersal capacity of the atmosphere and emissions of air pollutants from human uses of the environment. Northwesterly and northerly winds are most common in the project area,

reflecting the orientation of the Bay and the San Francisco Peninsula. Winds from these directions carry pollutants released by autos and factories from upwind areas of the Peninsula toward San Jose, particularly during the summer months. Winds are lightest on the average in fall and winter at which time local pollutants tend to build up in the atmosphere.

Pollutants can be diluted by mixing in the atmosphere both vertically and horizontally. Vertical mixing and dilution of pollutants are often suppressed by inversion conditions, when a warm layer of air traps cooler air close to the surface. During the summer, inversions are generally elevated above ground level, but are present over 90 percent of both the morning and afternoon hours. In winter, surface-based inversions dominate in the morning hours, but frequently dissipate by afternoon.

Topography can restrict horizontal dilution and mixing of pollutants by creating a barrier to air movement. The South Bay has significant terrain features that affect air quality. The Santa Cruz Mountains and Diablo Range on either side of the South Bay restrict horizontal dilution, and this alignment of the terrain also channels winds from the north to the south, carrying air pollution from the northern Peninsula toward San Jose.

The combined effects of moderate ventilation, frequent inversions that restrict vertical dilution, and terrain that restricts horizontal dilution give San Jose a relatively high atmospheric potential for air pollution compared to other parts of the San Francisco Bay Air Basin.

The closest air quality monitoring station to the project site is located approximately 10 miles to the north on Jackson Street in San Jose. Monitored air pollutants are regional in nature and therefore, pollution levels taken at the San Jose Jackson Street monitoring station would be similar to the levels in and around the project site. Pollutant monitoring results for the years 2004 to 2006 shown in Table 4.4-5 at the Jackson Street ambient air quality monitoring station in San Jose indicate that air quality in the project area has generally been good. As indicated in the monitoring results, there were four

TABLE 4.4-5 AMBIENT AIR QUALITY AT THE JACKSON STREET, SAN JOSE
MONITORING STATION

Pollutant	Standard	2004	2005	2006
Carbon Monoxide (CO)				
Maximum 1-hour concentration (ppm)		4.4	4.3	4.1
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8 hour concentration (ppm)		3.0	3.1	2.9
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Ozone (O₃)				
Maximum 1 hour concentration (ppm)		0.090	0.113	0.118
Number of days exceeded:	State: > 0.09 ppm	0	1	5
	Federal: > 0.07 ppm	ND	ND	ND
Maximum 8 hour concentration (ppm)		0.068	0.080	0.087
Number of days exceeded:	State: > 0.07 ppm	ND	ND	ND
	Federal: > 0.08 ppm	0	0	1
Coarse Particulates (PM₁₀)				
Maximum 24 hour concentration (µg/m ³)		55	50	69
Number of days exceeded:	State: > 50 µg/m ³	4	2	2
	Federal: > 150 µg/m ³	0	0	0
Annual arithmetic average concentration (µg/m ³)		22	22	20
Exceeded for the year:	State: > 20 µg/m ³	Yes	Yes	No
	Federal: > 50 µg/m ³	No	No	No
Fine Particulates (PM_{2.5})				
Maximum 24 hour concentration (µg/m ³)		52	55	64
Number of days exceeded:	Federal: > 65 µg/m ³	0	0	0
	State: > 12 µg/m ³	No	No	No
Annual arithmetic average concentration (µg/m ³)		11.6	11.8	10.8
Exceeded for the year:	Federal: > 15 µg/m ³	No	No	No
	State: > 12 µg/m ³	No	No	No
Nitrogen Dioxide (NO₂)				
Maximum 1 hour concentration (ppm)		0.073	0.074	0.074

TABLE 4.4-5 AMBIENT AIR QUALITY AT THE JACKSON STREET, SAN JOSE
MONITORING STATION (CONTINUED)

Pollutant	Standard	2004	2005	2006
Number of days exceeded:	State: > 0.25 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.019	0.019	0.018
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO₂)^a				
Maximum 1 hour concentration (ppm)		0.044	0.019	0.025
Number of days exceeded:	State: > 0.25 ppm	0	0	0
Maximum 3 hour concentration (ppm)		0.027	0.013	0.015
Number of days exceeded:	Federal: > 0.5 ppm	0	0	0
Maximum 24 hour concentration (ppm)		0.008	0.007	0.006
Number of days exceeded:	State: > 0.04 ppm	0	0	0
	Federal: > 0.14 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.002	0.002	0.002
Exceeded for the year:	Federal: > 0.030 ppm	No	No	No

Notes: ppm = parts per million

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

ND = No data. There was insufficient (or no) data to determine the value.

^a San Francisco-Arkansas Street was the closest monitoring station with SO₂ data.

Source: ARB and EPA Web sites. 2007.

recorded violations of the State PM₁₀ standard during 2004, and two violations in both 2005 and 2006; no violations of the federal PM₁₀ standard were recorded. No violations of the State and federal PM_{2.5} standards were recorded during the 3-year period. State 1-hour O₃ standards were exceeded up to five times in 2006 at this monitoring station. Federal O₃ concentration standards have not been exceeded within the 3-year period at this monitoring station. CO, NO₂, and SO₂ standards were not exceeded in this area during the three-year period. The closest monitoring station with recorded SO₂ concentration data for the three-year period was the monitoring station at Arkansas Street in San Francisco.

C. Standards of Significance

Air quality impacts associated with the project would be considered significant if the project would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Violate any ambient air quality standard, or contribute substantially to an existing or projected air quality violation.
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
4. Expose sensitive receptors to substantial pollutant concentrations.
5. Create objectionable dust or odors affecting a substantial number of people.
6. Alter air movement, moisture, or temperature, or cause any change in climate.

The BAAQMD established quantitative thresholds that define the above criteria. For ROG,³ NO_x, or PM_{2.5}, an operational net increase of 54 pounds per day would be considered significant, while a net increase of PM₁₀ of 82 pounds per day would be significant. CO concentrations would be significant if the project leads to or contributes to CO concentrations exceeding the CAAQS of 9 ppm averaged over 8 hours and 20 ppm for 1 hour (i.e. if it creates a “hot spot”). Generally, if a project results in an increase in ROG, NO_x, or PM that exceeds the standards of significance then it would also be considered to contribute considerably to a significant cumulative effect. For projects that would not lead to a significant increase of ROG, NO_x, or PM emissions,

³ Reactive Organic Gases (ROG) are classes of organic compounds that transform with heat and sunlight to form smog or ozone. SO₂ is a reactive organic gas.

the cumulative effect is evaluated based on a determination of the consistency of the project with the regional CAP.

D. Impact Discussion

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

1. Conflicts with or Obstructions to the Implementation of the Applicable Air Quality Plan

The Bay Area 2010 CAP discussed above is the relevant regional clean air plan. The BAAQMD uses the CAP to evaluate a project's potential cumulative air quality impacts. The BAAQMD CEQA Guidelines state that "for any project that does not individually have significant operational air quality impacts, the determination of significant cumulative impacts should be based on an evaluation of the consistency of the project with the local general plan and the general plan with the regional air quality plan." The BAAQMD CEQA Guidelines present the following elements for evaluation of consistency between the General Plan and the CAP:

- ◆ General plan population projections are consistent with CAP and the Association of Bay Area Governments (ABAG) projections.
- ◆ Rate of increase in vehicle miles traveled (VMT) does not exceed the rate of increase in population.
- ◆ General plan implements CAP transportation control measures.
- ◆ General plan provides buffer zones around sources of odors, toxics and accidental releases.

The project would not increase population and the associated VMT; therefore, the proposed project is consistent with ABAG projections for Santa Clara County and would also be consistent with the CAP. Therefore, impacts would be *less than significant*.

2. Violation of Ambient Air Quality Standards, or Substantial Contribution to an Air Quality Violation

a. Construction Impacts

During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment also are anticipated and would include CO, NO_x, volatile organic compounds (VOCs), directly-emitted particulate matter (PM_{2.5} and PM₁₀), and TACs such as diesel exhaust particulate matter.

Site preparation and project construction would involve clearing, grading, and building activities. Construction-related effects on air quality from this project would be greatest during the site preparation phase because most engine emissions are associated with the disturbance of soil and the use of construction vehicles. If not properly controlled, these activities would temporarily generate PM₁₀, PM_{2.5}, and small amounts of CO, SO₂, NO_x, and VOCs. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

The BAAQMD has established standard Best Management Practice (BMP) measures for reducing the fugitive dust emissions (PM₁₀ and PM_{2.5}). With the implementation of the standard construction measures such as frequent watering (e.g. a minimum of twice per day), fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂,

NO_x, VOCs, and some soot particulate (PM_{2.5} and PM₁₀) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction of the project would occur periodically through the year 2019. Construction emissions were estimated for the project using the URBEMIS model as recommended by the BAAQMD. The precise timing of each aspect of construction of the Park is unknown at this time. Therefore, in order to provide a conservative estimate of construction impacts the construction schedule was condensed into a 2-year construction period. Construction-related emissions are presented in Table 4.4-6.

The effects of construction activities would be increased dustfall and locally elevated levels of PM₁₀ downwind of construction activity and NO_x emissions that would exceed the BAAQMD's significance criteria. Construction dust would be generated at levels that would create an annoyance to nearby properties. Therefore, construction impacts could be *significant*.

Impact AQ-1: Construction activity during buildout of the proposed project would generate air pollutant emissions that could expose sensitive receptors to substantial pollutant concentration and would have a cumulatively considerable net increase of NO_x emissions. This is a *significant* impact.

Mitigation Measure AQ-1: Consistent with guidance from the BAAQMD, the following actions shall be required of construction contracts and specifications for the project.

- ◆ All exposed surfaces (e.g. parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- ◆ All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

- ◆ All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- ◆ All vehicle speeds on unpaved roads shall be limited to 15 mph.
- ◆ All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- ◆ Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- ◆ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 2 minutes (the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR] limits idling time to 5 minutes). Clear signage shall be provided for construction workers at all access points.
- ◆ All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- ◆ A publicly visible sign shall be posted with the telephone number and person to contact at the County of Santa Clara regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
- ◆ The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e. owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and a 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.

- ◆ All construction equipment, including diesel trucks and generators, shall be equipped with Best Available Control Technology (BACT) for emission reductions of NO_x and PM. The BACT requirement establishes maximum annual replacement and retrofit requirements for an equipment fleet. The NO_x BACT requires at most, 10 percent (8 percent prior to 2015) of the horsepower in the fleet would need to be upgraded through repower, retrofit, or replacement annually, until the fleet average requirement is met. Equipment is exempt if it is less than 10 years old, has been retrofitted in the past 6 years, or a used replacement or repower is unavailable. PM BACT requires at most, 20 percent of the horsepower in the fleet would need to be retrofitted with PM controls. Equipment is exempt if it is less than 5 years old or if a retrofit device is unavailable or deemed unsafe for use.
- ◆ All contractors shall use equipment that meets ARB's most recent certification standard for off-road heavy duty diesel engines.

Significance after Mitigation: Less than significant. With implementation of Mitigation Measure AQ-1, diesel emissions associated with construction equipment would be reduced and the impact would be reduced to a less-than-significant level. Construction emissions with mitigation are shown in Table 4.4-8.

b. Operational Impacts

i. *Regional Emissions*

Long-term air emission impacts would be those associated with development of the Plan and associated operational and area source emissions. Mobile source emissions result from vehicle trips associated with the proposed project, while area sources associated with maintenance activities would also occur. The Urban Emission Model (URBEMIS 2007 v. 9.2.4) computer program, which is the most current air quality model available in California for estimating emissions associated with land use development projects, was used to calculate long-term emissions associated with the proposed project. URBEMIS output sheets are included in Appendix E. Project-related long-term

TABLE 4.4-8 MITIGATED CONSTRUCTION EMISSIONS IN POUNDS PER DAY

Project Construction	ROG	NO _x	Exhaust PM _{2.5}	Fugitive	Exhaust PM ₁₀	Fugitive
				Dust PM _{2.5}		Dust PM ₁₀
Unmitigated Maximum Daily Emissions	10.7	59.8	2.6	118.0	2.8	565.0
Maximum Daily Emissions with Mitigation	10.7	50.8	1.3	8.2	1.4	39.4
BAAQMD Thresholds	54.0	54.0	54.0	BMP	82.0	BMP
Exceed Threshold After Mitigation?	No	No	No	No	No	No

Notes: BMP = Best Management Practices

Source: LSA Associates, 2010.

stationary emissions from natural gas and electricity use are also included in the calculation.

The daily emissions associated with operation of the project are identified in Table 4.4-7 for reactive organic gases (ROG) and nitrogen oxides (NO_x) (two precursors of ozone) and particle matter exhaust (PM₁₀ and PM_{2.5}). The BAAQMD has proposed thresholds of significance for ozone precursors and PM_{2.5} exhaust emissions of 54 pounds per day, and a threshold for exhaust emissions of PM₁₀ of 82 pounds per day.⁴ Project emissions shown in Table 4.4-7 do not exceed these thresholds of significance for ROG, NO_x, PM₁₀ or PM_{2.5}, and, therefore, operation of the project would not have a significant

⁴ The referenced Threshold of Significance levels are proposed by the BAAQMD as of their May, 2010 CEQA Guidelines, which replace those prepared in 1999. The significance criteria under the 1999 Guidelines was 80.0 pounds per day for ROG, NO_x and PM₁₀. Therefore, the more recent draft CEQA Guidelines are more restrictive and used for this analysis. Project impacts that would meet the draft thresholds would also meet the 1999 Guideline thresholds.

TABLE 4.4-6 PROJECT CONSTRUCTION EMISSIONS IN POUNDS PER DAY

Project Construction	ROG	NO _x	Fugitive Exhaust		Fugitive Dust	
			PM _{2.5}	PM _{2.5}	PM ₁₀	PM ₁₀
Maximum Daily Emissions	10.7	59.8	2.6	118.0	2.8	565.0
BAAQMD Thresholds	54.0	54.0	54.0	BMP	82.0	BMP
Exceed Threshold?	No	Yes	No	Yes	No	Yes

Notes: BMP = Best Management Practices
Source: LSA Associates, 2010.

TABLE 4.4-7 PROJECT OPERATION REGIONAL EMISSIONS IN POUNDS PER DAY

	Reactive Organic Gases	Nitrogen Oxides	PM ₁₀	PM _{2.5}
Regional Emissions	15.6	24.7	33.2	6.33
BAAQMD Significance Threshold	54.0	54.0	82.0	54.0
Exceed?	No	No	NA	NA

Source: LSA Associates, Inc., 2010.

effect on regional air quality. Results of the analysis indicate that the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

ii. Localized Emission

The BAAQMD has established a screening methodology that provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the BAAQMD's

CEQA Guidelines,⁵ the proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

- ◆ The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
- ◆ The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- ◆ The project would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g. tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The proposed project would not conflict with the Santa Clara County Congestion Management Agency for designated roads or highways, regional transportation plan or other agency plans. Additionally, traffic volumes on roadways in project vicinity are less than 44,000 vehicles per hour and the project is expected to generate a maximum of 2,660 peak hour trips. Therefore, the proposed project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour or more and would not result in localized CO concentrations that would exceed State or federal standards; operation impacts would be *less than significant*.

3. Cumulatively Considerable Net Increase of Criteria Pollutants for which the Project Region is Non-Attainment

The BAAQMD, in developing thresholds of significance for air pollutants, considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified sig-

⁵ The referenced Threshold of Significance levels are proposed by the BAAQMD as of their May, 2010 CEQA Guidelines, which replace those prepared in 1999.

nificance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As shown in Table 4.4-7 above, the proposed project would not result in emissions that would exceed the established project or cumulative impact level thresholds. Therefore, the proposed project would have a *less-than-significant* cumulative air quality impact.

4. Exposure of Sensitive Receptors to Substantial Pollutant Concentrations

Air quality sensitive receptors include schools, residences, apartments and hospitals. Sensitive receptors related to this project would be the residence within the Life Estate located adjacent to the project site, the elderly residing in the assisted living facility at Carlton Plaza at the northwest corner of the Park, residents along west-side of the Park, and residents at the south side of Chynoweth Avenue. These receptors would be sensitive to the health effects of air pollutants shown in Table 4.4-3.

Operation of the proposed project is not expected to generate substantial pollutant concentrations; however, construction of the project would require the use of diesel powered equipment which could result in the generation of concentrations of TACs.

Diesel PM from on-road haul trucks and off-road equipment exhaust emissions is of concern for construction-related activities associated with the project. Due to the variable nature of construction activity, the generation of TAC emissions would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. According to the ARB, concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet. Health risks for diesel exposure are typically associated with longer-term exposure periods of nine, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. Nevertheless, the impact would be *significant* and implementation of mitigation measures

would be required to minimize exposure of sensitive receptors to substantial pollutant concentrations from construction activities.

Impact AQ-2: Construction activities could expose sensitive receptors to substantial pollutant concentrations of toxic air contaminants. This would be a *potentially significant* impact.

Mitigation Measure AQ-2: Implement Mitigation Measure AQ-1.

Significance after Mitigation: Less than significant.

5. Creation of Objectionable Dust or Odors

Based on the project emission estimates shown in Table 4.4-7, the proposed project is not expected to generate significant dust (particulate matter) emissions. According to the BAAQMD, the threshold of significance for odor impacts is qualitative in nature. A project that would result in the siting of new odor sources or the exposure of a new receptor to existing odor sources should consider the odor parameters, screening distances, and complaint history. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g. irritation, anger, or anxiety) to physiological (e.g. circulatory and respiratory effects, nausea, vomiting, or headache.)

According to the BAAQMD, the ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Certain facilities are regulated for odors such as landfills and composting sites and are required to have odor impact minimization plans in place and have procedures that establish fence line odor detection thresholds. The BAAQMD has odor screening distances for certain land use types, such as

wastewater treatment plans, sanitary landfill, rendering plants, confined animal facilities or dairies, and coffee roasters. The odor screening distance for confined animal facilities or dairies is 1 mile.

The presence of an odor impact is dependent on a number of variables, including:

- ◆ Nature of the odor source (e.g. wastewater treatment plan, food processing plant).
- ◆ Frequency of the odor generation (e.g. daily, seasonal, activity-specific).
- ◆ Intensity of odor (e.g. concentration).
- ◆ Distance of the odor source to sensitive receptors (e.g. miles).
- ◆ Wind direction (e.g. upwind or downwind).
- ◆ Sensitivity of the receptor.

Packaging and processing activities associated with the Park would be used for agricultural products and would not produce odors. However, the proposed project could include livestock on the project site, which could result in odors. Specific details of potential livestock use are unknown at this time.

The project site is bordered by existing residential uses on all sides with the exception of the southwest corner which is adjacent to State Route 85. The predominant wind direction in the area is from the west. According to the BAAQMD, there are no known odor complaints for the existing park operations. (See Appendix E for the Public Records response from BAAQMD.)

As described above, the BAAQMD has established an odor impact screening distance for “confined animal facilities” and “dairies” of one-mile. The proposed project would include farm animals and livestock that could potentially be a source of odors. Because the project site is surrounded by residential units within a 1-mile radius, the proposed project would be considered to result in a potentially *significant* odor impact. Sensitive receptors most impacted by the project would be those homes located east of the project site due to the prevailing wind direction. The BAAQMD was contacted to ob-

tain odor complaints in the region for facilities similar in size and type; however, according to the BAAQMD, no such records exist.

During construction, the various diesel-powered vehicles and equipment in use on the project site could create localized odors. These odors would be temporary and would not be significant beyond the project site boundaries. Heavy-duty trucks traveling along Snell Avenue and Chynoweth Avenue and on other local roads would generate temporary odors. Impacts from diesel odors would be temporary, and their impact on air quality would be *less than significant*.

Impact AQ-3: Future agriculture operations associated with the project could include livestock which could present a source of odors that could result in odor complaints from residences adjacent to the project site. This would be a *potentially significant* impact.

Mitigation Measure AQ-3: Prior to implementation of any livestock operations, appropriate buffers between the livestock facility and existing residential uses shall be established. An odor impact minimization plan with fence line odor detection thresholds shall be implemented prior to developing livestock facilities. The odor impact minimization plan shall describe odor controls and procedures designed into the livestock operations along with contingencies to address potential odor complaints.

Significance after Mitigation: Less than significant. With adequate odor controls and operational features in place, objectionable odors are not expected to be generated by project operations and the impact would be reduced to a less-than-significant level.

6. Alteration of Air Movement, Moisture, or Temperature, or Change in Climate

The existing project site is currently used for agriculture operations and the proposed project would allow for educational opportunities in agriculture as well as recreational amenities for the Santa Clara County community. The

proposed project would not alter the landscape in such a way that would alter air movement, moisture, or temperatures on the project site or in the vicinity of the project; therefore, impacts would be *less than significant*. Project impacts related to climate change are discussed in Chapter 4.6, Climate Change, of this EIR.

E. Cumulative Impacts

As shown in Table 4.4-7 above, the proposed project would not result in emissions that would exceed the established project or cumulative impact level thresholds. The proposed project would implement BMPs and other measures to reduce construction impacts and would be consistent with the region's CAP. Therefore, the proposed project would have a *less-than-significant* cumulative air quality impact.

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN/
COUNTY PARK MASTER PLAN EIR
AIR QUALITY

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4.5 BIOLOGICAL RESOURCES

This chapter describes the existing biological resources on the project site and evaluates the potential impacts to biological resources associated with the project. This chapter also includes a discussion of cumulative impacts to biological resources. Unless otherwise noted, existing conditions information in this chapter is from the *Martial Cottle Park Final Resource Inventory* report prepared for the County of Santa Clara Parks and Recreation Department in July 2009 by Wallace, Roberts and Todd; LSA Associates; and Design, Community & Environment.

A. *Regulatory Framework*

This section summarizes existing federal, State, and local laws, policies, and regulations that pertain to biological resources.

1. **Federal Laws and Regulations**

a. Federal Endangered Species Act

The federal Endangered Species Act (FESA) protects listed animal species from harm or “take,” which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that results in death or injury to a listed species. An activity can be defined as “take” even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally-listed, threatened and endangered wildlife and plant species under the FESA.

b. Clean Water Act

Under Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (Corps) is responsible for regulating the discharge of fill material into waters of the United States. Waters of the U.S. and their lateral limits are defined in Title 33 of the Code of Federal Regulations Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the U.S. are termed

isolated wetlands and, depending on the circumstances, may also be subject to Corps jurisdiction.

In general, a Corps permit must be obtained before placing fill in wetlands or other waters of the U.S. The type of permit depends on the acreage involved and the purpose of the proposed fill. Minor amounts of fill can be covered by a Nationwide Permit. An Individual Permit is required for projects that result in more than a “minimal” impact on jurisdictional areas.

c. Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (16 U.S.C., Sec. 703, Supp. I, 1989) (MBTA) prohibits killing, possessing, or trading migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Most native bird species on the project site are covered by this Act. The California Fish and Game Code (Sections 3503 and 3505) prohibits the take, destruction, or possession of any bird, nest, or egg of any bird unless express authorization is obtained from the California Department of Fish and Game (CDFG).

2. State Laws and Regulations

a. California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with CESA, the CDFG has jurisdiction over State-listed species (California Fish and Game Code 2070). Additionally, the CDFG maintains lists of “Species of Special Concern” that are defined as species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats.

b. California Environmental Quality Act

Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines provides that a species not listed on the federal or State lists of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in FESA and CESA and the section of the California Fish

and Game Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFG.

c. California Water Quality and Waterbody Regulatory Programs

Pursuant to Section 401 of the federal CWA, projects that are regulated by the Corps must obtain water quality certification from the Regional Water Quality Control Board (RWQCB). This certification ensures that a project will meet State water quality standards. The RWQCB also has independent authority over discharges to waters of the State under the Porter-Cologne Act, known as waste discharge requirements (WDRs). The RWQCB has a policy of no-net-loss of wetlands and typically requires the identification of mitigation for all impacts to wetlands before it will issue water quality certification.

When reviewing applications for 401 certifications or WDRs, the RWQCB focuses on ensuring that projects do not adversely affect the “beneficial uses” associated with waters of the State. Generally, the RWQCB defines beneficial uses to include all of the resources, services, and qualities of aquatic ecosystems and underground aquifers that benefit the State. In most cases, the RWQCB seeks to protect these beneficial uses by requiring the integration of water quality control measures into projects that will result in discharge into waters of the State. For most construction projects, RWQCB seeks to protect these beneficial uses by requiring the integration of water quality control measures into projects that will result in discharge into waters of the State. For most projects, RWQCB requires the use of construction and post-construction Best Management Practices (BMPs).

d. California Fish and Game Code

CDFG is also responsible for enforcing the California Fish and Game Code, which contains several provisions potentially relevant to construction projects. For example, Section 1600 of the Fish and Game Code governs the issuance of Streambed Alteration Agreements. Streambed Alteration

Agreements are required whenever project activities substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated as such by CDFG.

The Fish and Game Code also lists animal species designated as Fully Protected or Protected, which may not be taken or possessed at any time. CDFG does not issue licenses or permits for take of these species except for necessary scientific research or live capture and relocation pursuant to a permit for the protection of livestock. Fully Protected species are listed in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the Fish and Game Code, while Protected amphibians and reptiles are listed in Chapter 5, Sections 41 and 42.

Section 3503 of the Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 specifically prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks and eagles) or Strigiformes (owls) and their nests. These provisions, along with the federal MBTA, essentially serve to protect nesting native birds. Non-native species, including European starling, house sparrow, and rock pigeon, are not afforded any protection under the MBTA or California Fish and Game Code.

e. California Native Plant Society Plant Species of Concern

The California Native Plant Society (CNPS), a non-governmental conservation organization, has developed lists of plant species of concern in California.¹ Vascular plants included on these lists are defined as follows:

- ◆ List 1A: Plants considered extinct.
- ◆ List 1B: Plants rare, threatened, or endangered in California and elsewhere.
- ◆ List 2: Plants rare, threatened, or endangered in California but more common elsewhere.

¹ California Native Plant Society, 2004, *Inventory of Rare and Endangered Plants* (online edition, v. 6-04c), Sacramento: California Native Plant Society. (<http://www.cnps.org/inventory>)

- ◆ List 3: Plants about which more information is needed – review list.
- ◆ List 4: Plants of limited distribution – watch list.

Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants appearing on List 1B or List 2 are, in general, considered to meet CEQA Section 15380 criteria or definition of rare, endangered or threatened, and adverse effects to these species are considered “significant.”

f. Department of Parks and Recreation Operations Manual

The State Parks Department Operations Manual (DOM) Chapter 0300, Natural Resources is the basic natural resource policy document for the State Park system. This document guides the management of natural resources (including air resources, water, geology, soils, paleontological resources, plants, animals, and aesthetics) under the jurisdiction of State Parks.

3. Local Regulations and Policies

a. Santa Clara County General Plan

The Santa Clara County General Plan (1995-2010) 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 biological resources. County General Plan policies relevant to the project are listed in Table 4.5-1.

b. County of Santa Clara Parks and Recreation Department Natural Resource Management Guidelines

The *Natural Resources Management Guidelines for the Santa Clara County Parks and Recreation Department* are intended to guide the County of Santa Clara Parks and Recreation Department (County Parks) in the management of the rich diversity of vegetation, wildlife, and landforms within the county. The guidelines contain general policies to influence natural resource management strategy decisions pertaining to physical resources (e.g. water, soil, air, and geologic features) and processes, biological resources (e.g. native plants, animals, and vegetation communities) and processes, ecosystems, and

TABLE 4.5-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO
BIOLOGICAL RESOURCES

Strategy/Policy Number	Strategy/Policy Content
Resource Conservation Chapter	
Policy C-RC 1	Natural and heritage resources shall be protected and conserved for their ecological, functional, economic, aesthetic, and recreational values.
Policy C-RC 2	The County shall provide leadership in efforts to protect or restore valuable natural resources, such as wetlands, riparian areas, and woodlands, and others: a. for County-owned lands; and b. through multi-jurisdictional endeavors.
Policy C-RC 3	Multiple uses of lands intended for open space and conservation shall be encouraged so long as the uses are consistent with the objectives of resource management, conservation, and preservation, particularly habitat areas.
Policy C-RC 4	On a countywide basis, the overall strategy for resource management, conservation, and preservation should include the following: a. improve and update current knowledge; b. emphasize pro-active, preventive measures; c. minimize or compensate for adverse human impacts; d. restore resources where possible; and e. monitor the effectiveness of mitigations
Water Quality & Watershed Management	
Policy C-RC 18	Water quality countywide should be maintained and improved where necessary to ensure the safety of water supply resources for the population and the preservation of important water environments and habitat areas.
Policy C-RC 19	The strategies for maintaining and improving water quality on a countywide basis, in addition to ongoing point source regulation, should include: a. effective non-point source pollution control; b. restoration of wetlands, riparian areas, and other habitats which serve to improve Bay water quality; and c. comprehensive Watershed Management Plans and “best management practices.”
Policy 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

TABLE 4.5-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO
BIOLOGICAL RESOURCES (CONTINUED)

Strategy/Policy Number	Strategy/Policy Content
	discharges; h. hazardous wastes; and i. non-point source pollution.
<u>Habitat & Biodiversity</u>	
Policy C-RC 27	Habitat types and biodiversity within Santa Clara County and the region should be maintained and enhanced for their ecological, functional, aesthetic, and recreational importance.
Policy C-RC 28	The general approach to preserving and enhancing habitat and biodiversity countywide should include the following strategies: 1. Improve current knowledge and awareness of habitats and natural areas. 2. Protect the biological integrity of critical habitat areas. 3. Encourage habitat restoration. 4. Evaluate the effectiveness of environmental mitigations.
Policy C-RC 29	Multi-jurisdictional coordination necessary to adequately identify, inventory, and map habitat types should be achieved at the local, regional, state, and federal levels.
Policy 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.
Policy 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.
Policy C-RC 32	Land uses permitted in resource conservation areas should not be allowed to degrade the integrity of natural habitat.
Policy 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.
Implementation Recommendation C-RC(i)13	Acquisition of areas of significance through the County's Open Space Authority, MROSD, County Parks, National Wildlife Refuge, and other agencies and non-profit organizations for permanent preservation.
Implementation Recommendation C-RC(i)14	Evaluate inventories of natural areas and habitat types to determine the need for linkages of various types, given the land use and development patterns, and other factors.
Policy C-RC 34	Restoration of habitats should be encouraged and utilized where feasible, especially in cases where habitat preservation and flood control, water quality, or other objectives can be successfully combined.

TABLE 4.5-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO
 BIOLOGICAL RESOURCES (CONTINUED)

Strategy/Policy Number	Strategy/Policy Content
Implementation Recommendation C-RC(i)15	Explore opportunities for restoration of habitat, particularly with respect to wetland, riparian, and other habitat types rich in diversity or needed to protect threatened and endangered species.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

park intrinsic values (e.g. visual aesthetics and interpretive opportunities). The goal of a Natural Resource Management Program (NRMP), as recommended by the guidelines, is to guide staff actions to ensure that County Park activities have the least possible impact on park natural resources. An NRMP typically contains general management concepts, methods of evaluating impacts on natural resources within parks, a monitoring strategy, recommended potential studies, and an Integrated Pest Management (IPM) ordinance. An NRMP addresses the specific actions that will be implemented to coordinate the management of natural resources with other uses in the park.

c. Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan

The *Santa Clara Valley Habitat Conservation Plan /Natural Community Conservation Plan* (HCP/NCCP), also known as the Santa Clara Valley Habitat Plan, 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. The County of Santa Clara, Cities of San Jose, Morgan Hill, and Gilroy, the Santa Clara Valley Water District, and the Santa Clara Valley Transportation Authority are the six Local Partners who have been involved in the preparation of the Draft Santa Clara Valley Habitat Plan with two Wildlife Agencies (CDFG and USFWS). The Santa Clara Valley Habitat Plan has not yet been adopted nor

implemented. At the time of publishing this EIR, the final Santa Clara Valley Habitat Plan is scheduled for adoption in 2011.

d. County of Santa Clara Ordinance Code

Division C16 of the County Ordinance Code is the Tree Preservation and Removal Ordinance. Protected trees within the County include both Heritage Trees and Ordinance Size Trees, among others (see Section C16-3 of the County of Santa Clara Ordinance Code). On property owned or leased by the County, Ordinance Size trees are designated by either having a main trunk diameter equal to or greater than 12 inches at 4.5 feet above ground level and/or exceeding 20 feet in height. According to Section C16-12 of the County Code, any tree that has been recommended by the Historical Heritage Commission (HHC) and found by the Board of Supervisors to have a special significance to the community shall be designated a Heritage Tree. Any person, including the property owner, as well as the Board of Supervisors and the HHC, may nominate a tree for inclusion on the heritage resource inventory. The County's tree protection ordinance requires a permit for the removal of any protected tree.

County Ordinance NS-517.70 is the Integrated Pest Management and Pesticide Use Ordinance that regulates the use of pesticides on County property. The intent of the ordinance is to "protect the health and safety of County employees and the general public, the environment, and water quality, as well as to provide sustainable solutions for pest control on County property." The ordinance emphasizes the use of non-pesticide alternatives where feasible. To enact this mission, the County established an Integrated Pest Management (IPM) program that relies on biological control, cultural practices, mechanical and physical tools, and chemicals to minimize pesticide usage. The IPM method uses the least hazardous pesticides available only as a last resort for controlling pests. Section B28-5 of the ordinance describes the role of the County IPM Coordinator in maintaining the list of approved pesticides that may be used on County property and outlines specific exemptions for use of products not on the approved list and emergency use of

pesticides. The ordinance contains a list of pesticide restrictions and the posting and the record keeping and reporting procedures for pesticide use.

County of Santa Clara Ordinance Section B14-23.1 is the Protection of Foliage Ordinance that protects vegetation within a park. The ordinance prohibits people from picking flowers, foliage, berries or fruit or any other natural object originating in a park without first having obtained a permit from the Director and prohibits people from mutilating or injuring any trees, shrub, plant, fern, grass, turf, or any other natural resource in any park area.

B. Existing Conditions

In addition to conducting document, map, and database review, LSA Associates, Inc. (LSA) staff conducted a reconnaissance-level survey of the project site on July 6, 2007. As the adjacent Life Estate is not available to the County to be considered as part of the project site, the Life Estate was not inspected during the plant and animal life reconnaissance-level survey.

Unless otherwise noted, existing conditions information in this chapter is from the *Martial Cottle Park Final Resource Inventory* report prepared in July 2009 by Wallace, Roberts and Todd; LSA Associates; and Design, Community & Environment.

1. Plant Life

a. Methods

The analysis of plant life on the project site is based on a review of existing information, interpretation of aerial photos, and surveys by LSA biologists.

Prior to fieldwork, LSA reviewed County geographical information systems (GIS) data and reports of previous studies pertaining to the project site area. In addition, the CDFG California Natural Diversity Data Base (CNDDDB)²

² California Department of Fish and Game, 2010, California Natural Diversity Data Base Computer printout of recorded occurrences of special-status

and the CNPS Electronic Inventory³ were searched for records of occurrence of special-status plant species in the region of the project site (see Special-Status Plants section below).

LSA staff conducted a reconnaissance-level survey of the project site on July 6, 2007 to describe the plant communities present, record characteristic plant species and invasive exotic species that were identifiable at the time of the survey, and assess the potential for special-status plant species to occur on the site. All portions of the project site were surveyed on foot by traversing meandering transects through representative areas in the interior of the site and by walking the perimeter of the project site. Pertinent features observed in the field were recorded in notes transcribed in this section and drawn on a base map (see Figure 4.5-1).

b. Vegetation Communities

The original native vegetation of the project site is limited to eight valley oak trees (*Quercus lobata*) located in the eastern portion of the project site. Prior to agricultural conversion, vegetation probably consisted of large scattered valley oaks and coast live oaks (*Quercus agrifolia*), with an understory of native forbs and grasses. A large portion of the site may have also supported alkaline, seasonal wetlands. This area generally runs on a southeast diagonal from the northwest corner of the site near Branham Lane and across the fallowed field to just north of Chynoweth Avenue (see Figure 4.5-1). Due to prolonged agricultural use, the natural plant communities once extant on the site no longer exist. Vegetation on the site prior to agricultural use would likely have been classified as a valley oak savanna, which is characterized by valley oaks and grasslands intermixed with shrubs and other oak and tree species. The following paragraphs describe these communities in greater detail.

species within 5 miles of the project site [computer program]. Sacramento: California Department of Fish and Game.

³ California Native Plant Society, 2010, On-line Inventory of Rare and Endangered plants version 7-10a January 19, 2010, <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>.



Source: LSA Associates, Inc., DC&E, 2010. Aerial imagery from the United States Department of Agriculture, NAIP, 2005.

FIGURE 4.5-1
 PROJECT SITE HABITAT

i. Trees

Eight mature valley oak trees are situated in the eastern half of the Park (Figure 4.5-1). Several other species of trees were observed in scattered locations within the outer boundaries of the site. These species consist of Italian cypress (*Cupressus sempervirens*), California black walnut (*Juglans californica*), maten (*Maytenus boaria*), olive (*Olea europea*), and valley oak. Other tree species, such as coast live oak and coast redwood (*Sequoia sempervirens*), were observed in the adjacent Life Estate.

ii. Fallowed Fields

The fallowed fields (Figure 4.5-1) had been ploughed approximately one month prior to the survey. At the time of survey, the most notable vegetation growing in the nearly barren fields was non-native field bindweed/morning glory (*Convolvulus arvensis*). Other plant species observed consisted of beets (*Beta vulgaris*), salt heliotrope (*Heliotropium curassavicum*), and sacred thornapple (*Datura wrightii*).

iii. Wetlands

A portion of the site contains Sunnyvale Series soils. These soils occur on a southeast-trending diagonal from the northwest corner of the site at Branham Lane and across the fallowed field to just north of Chynoweth Avenue. Sunnyvale soils consist of poorly drained, fine-textured soils, underlain by gleyed sedimentary alluvium.⁴ These soils formed on low-level positions in alluvial plains and, even in a drained condition, water may become ponded during winter months. Sunnyvale series soils exhibit hydric soil characteristics.⁵ Inclusions in Sunnyvale soils that seasonally pond water are classified as Hydric Soils by the Natural Resources Conservation Service (NRCS).

⁴ U.S. Soil Conservation Service, 1968, *Soils of Santa Clara County*, General Soils Map.

⁵ A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

Aerial photo interpretation, including NRCS soil survey maps from 1968,⁶ and the Park Donor's oral history given to the County – whose family has farmed the site since the mid 1800s – suggest that standing water may occasionally form across this western central portion of the project site during the wet season (see Figure 4.5-1). While recent disking and historic farming have eliminated much of the natural vegetation cover, one of the plants found growing in this area during the survey was salt heliotrope. This plant is not abundant on the project site, although it was found to occupy a linear zone roughly following the eastern edge of the Sunnyvale Series soils boundary (see Figure 4.5-1). Salt heliotrope is a native plant that is often associated with moist-to-dry, saline, or alkaline soils and is classified by the USFWS as an obligate wetland plant.^{7,8} Portions of the project site which seasonally pond water may be subject to regulation under Section 404 of the Federal CWA or the State of California's Porter-Cologne Act.

Canoas Creek (see Figure 4.5-1), a perennially wet flood protection channel that is tributary to the Guadalupe River, flows through the southwestern corner of the project site on its way to the Guadalupe River. Canoas Creek is a constructed drainage channel with a bottom that is lined with concrete. Sediment deposits have accumulated along this creek and provide habitat for aquatic and terrestrial vegetation. However, conditions within this creek provide only marginal habitat for native plants and animals. This constructed creek has altered the natural hydrology and seasonal flooding that likely occurred on the site in historic times, but still functions as a movement corridor for several aquatic and terrestrial animal species. This channel largely prevents water from flowing onto the project site. Water within the channel seems to have no influence on the site's vegetation. Canoas Creek is

⁶ U.S. Soil Conservation Service, 1968, *Soils of Santa Clara County*, General Soils Map.

⁷ Hickman, J.C. (editor), 1993, Third printing with corrections, 1996, *The Jepson manual: higher plants of California*, Berkeley: University of California Press.

⁸ Reed, P.B., Jr., 1988, *National List of Plant Species That Occur in Wetlands: California, Region 0, Biological Report 88 (26.01)*, Prepared for National Wetlands Inventory, Washington, DC: U.S. Fish and Wildlife Service Research Development.

also likely subject to regulation under Section 404 of the Federal CWA or the State of California's Porter-Cologne Act.

iv. Grassland Strip

A strip of grassland habitat between a pair of parallel fences, with posts that host several colonizing species of lichens, runs approximately 1,500 feet due west from its origin near the Life Estate to the middle of the fields. The dominant vegetation in this area is non-native intermediate wheatgrass (*Elytrigia intermedia* ssp. *intermedia*). Some native plants were also observed within this strip of land and nowhere else on the property. These natives include narrow-leaved milkweed (*Asclepias fascicularis*), California poppy (*Eschscholzia californica*), and California black walnut seedlings. Non-native plants observed here consist of wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), bachelor's button (*Centaurea cyanus*), yellow star-thistle (*Centaurea solstitialis*), perennial pepperweed (*Lepidium latifolia*), horehound (*Marubium vulgare*), Hardinggrass (*Phalaris aquatica*), and curly dock (*Rumex crispus*).

c. Special-Status Plant Species

This section discusses rare, threatened, endangered, and other special-status plant species that may occur on the project site. Special-status plant species are:

- ◆ Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the FESA.
- ◆ Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the CESA.
- ◆ Plant species on List 1A, List 1B, and List 2 in the CNPS Inventory of Rare and Endangered Vascular Plants of California.
- ◆ Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA Guidelines.
- ◆ Plants considered to be a taxon of special concern by local agencies.

Identifying the potential occurrence of special-status plant species is important because their presence may require avoidance, conservation and protection from potential impacts that might occur under the project.

Results of On-site Research and Surveys. Based on the results of the CDFG and CNPS database searches, records for 21 special-status plant species are documented in the region (Table 4.5-2 and Figure 4.5-2). Most of these species are unlikely to occur on the site because of the lack of suitable micro-habitat or substrates (e.g. serpentine) and the disturbance of the native vegetation as a result of the historic farming and ranching activity. Several of these species such as Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), Hairless popcorn-flower (*Plagiobothrys glaber*), and Contra Costa goldfields (*Lasthenia conjugens*) may have occurred on the project site, given the likely historic presence of alkaline wetlands on the project site as indicated by the soil types present. One of these species, Congdon's tarplant, can tolerate some disturbance and agricultural activities (Congdon's tarplant can be fairly common in hayfields). However, the level of farming activity present on the project site, except possibly for the abandoned service road, would likely preclude the presence of this species over much of the site.

Congdon's tarplant (CNPS List 1B.2) is a special-status plant species.⁹ CNPS List 1B species are typically considered by the CDFG and most lead agencies to meet threatened or endangered species criteria under Section 15380 subdivision (b) of the CEQA Guidelines. Congdon's tarplant, a member of the Sunflower family (*Asteraceae*), blooms from May through November. This plant grows to approximately 2 feet in height, has yellow flower-heads, and yellowish linear or lobed leaves with dense glandular hairs.

⁹ The CNPS Threat Rank is an extension added onto the CNPS List and designates the level of endangerment by a 1 to 3 ranking, with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all List 1B's, List 2's and the majority of List 3's and List 4's. The 0.2 extension refers to plants "fairly threatened in California (moderate degree/immediacy of threat)."

TABLE 4.5-2 SPECIAL-STATUS PLANT SPECIES IN THE PROJECT SITE VICINITY

Species	Status ^a (Fed/ State/ CNPS)	Habitat Requirement ^b Blooming Period	Potential for Occurrence Within Project Site
Benet-flowered fiddleneck <i>Amsinckia lunaris</i>	FE/CE/List 1B	Annual grasslands April-May	Not expected to occur, habitat severely disturbed. Closest known occurrence is east of San Jose on Kincaid Road, approximately 10 miles from the site.
Big-scale balsamroot <i>Balsamorhiza macrolepis</i> <i>var. macrolepis</i>	-/-/List 1B	Found in Chaparral (Chprl), Cismontane woodland (CmWld), and Valley and foothill grassland (VFGrs)/sometimes serpentine habitat. March-June	Not expected to occur, habitat severely disturbed. Closest known occurrence is of extirpated population is approximately 2.3 miles of site.
Round-leaved filaree <i>California macrophylla</i>	-/-/List 1B	Found in Cismontane woodland (CmWld), and Valley and foothill grassland (VFGrs)/clay habitat. March-May	Not expected to occur, habitat severely disturbed. Closest known extant occurrence is approximately 1.5 miles from site.
Congdon's tarplant <i>Centromadia parryi</i> <i>ssp.</i> <i>congonii</i>	-/-/List 1B	Found in Valley and foothill grassland (VFGrs)(alkaline) habitat. May-October (November) ^c	Unlikely to occur, habitat severely disturbed. Location of historic occurrence is within the general East San Jose Area. Species is assumed to be extirpated from San Jose area. Tolerates some disturbance and agricultural activity.
Robust spineflower <i>Chorizanthe robusta</i> <i>var.</i> <i>robusta</i>	FE/-/List 1B	Found in Chaparral (Chprl) (maritime), Cismontane woodland (CmWld)(openings), Coastal dunes (CoDns), and Coastal scrub (CoScr)/sandy or gravelly habitat. April-September	No suitable habitat on site. Closest known occurrence is of extirpated population is approximately 0.6 miles from the site.
Mt. Hamilton thistle <i>Cirsium fontinale</i> <i>var.</i> <i>campylon</i>	-/-/List 1B	Found in Chaparral (Chprl), Cismontane woodland (CmWld), and Valley and foothill grassland (VFGrs)/serpentine seeps. (February) April-October	Not expected to occur, habitat severely disturbed. Closest known presumed extant occurrence is approximately 2.0 miles from the site.
San Francisco collinsia <i>Collinsia multicolor</i>	-/-/List 1B	Found in closed-cone coniferous forest (CCFRs), and Coastal scrub (CoScr)/sometimes serpentine habitat. March-May	No suitable habitat on site. Location of occurrence is unspecified within the general East San Jose Area.
Santa Clara Valley dudleya <i>Dudleya setchellii</i>	FE/-/List 1B	Found in Cismontane woodland (CmWld), and Valley and foothill grassland (VFGrs)/serpentine, rocky habitat. April-October	No suitable habitat on site. Closest known presumed extant occurrence is approximately 0.6 miles from the site.

TABLE 4.5-2 SPECIAL-STATUS PLANT SPECIES IN THE PROJECT SITE VICINITY (CONTINUED)

Species	Status ^a (Fed/ State/ CNPS)	Habitat Requirement ^b Blooming Period	Potential for Occurrence Within Project Site
Fragrant fritillary <i>Fritillaria liliacea</i>	-/-/List 1B	Found in Cismontane woodland (CmWld), Coastal prairie (CoPrr), Coastal scrub (CoScr), and Valley and foothill grassland (VFGrs)/often serpentine habitat.	Not expected to occur, habitat severely disturbed. Closest known presumed extant occurrence is approximately 2.6 miles from the site.
Loma Prieta hoita <i>Hoita strobilina</i>	-/-/List 1B	February-April Found in Chaparral (Chprl), Cismontane woodland (CmWld), and Riparian woodland (RpWld)/ usually serpentine, mesic habitat. May-July (August-October)	No suitable habitat on site. Closest known presumed extant occurrence is approximately 3.7 miles from the site.
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE/-/List 1B	Found in Cismontane woodland (CmWld), Playas (Playas) (alkaline), Valley and foothill grassland (VFGrs), and Vernal pools (VnPls)/mesic. March-June	Not expected to occur, habitat severely disturbed. Closest known occurrence is of extirpated population is approximately 5.3 miles from site. Closest known presumed extant occurrence is approximately 16.6 miles from site.
Smooth lessingia <i>Lessingia micradenia var. glabrata</i>	-/-/List 1B	Found in Chaparral (Chprl), Cismontane woodland (CmWld)/ serpentine habitat, often roadsides. July-November	No suitable habitat on site. Closest known presumed extant occurrence is approximately 3.5 miles from the site.
Showy madia <i>Madia radiata</i>	■/■/List 1B	Valley and foothill grassland	Not expected to occur, habitat severely disturbed. Closest known occurrence is east of San Jose on Kincaid Road, approximately 10 miles from the site.
Arcuate bush mallow <i>Malacothamnus arcuatus</i>	-/-/List 1B	Found in Chaparral (Chprl), and Cismontane woodland (CmWld) habitat. April-September	No suitable habitat on site. Closest known presumed extant occurrence is approximately 4.7 miles from the site.
Hall's bush mallow <i>Malacothamnus hallii</i>	-/-/List 1B	Found in Chaparral (Chprl) and Coastal scrub (CoScr) habitat. May-September (October)	No suitable habitat on site. Closest known presumed extant occurrence is approximately 1.8 miles from the site.
Robust monardella <i>Monardella villosa ssp. globosa</i>	-/-/List 1B	Found in Broadleafed upland forest (BUFRs) (openings), Chaparral (Chprl) (openings), Cismontane woodland (CmWld), Coastal scrub (CoScr), and Valley and foothill grassland (VFGrs). June-July(August)	Not expected to occur, habitat severely disturbed. Closest known presumed extant occurrence is approximately 4.3 miles from the site.

TABLE 4.5-2 SPECIAL-STATUS PLANT SPECIES IN THE PROJECT SITE VICINITY (CONTINUED)

Species	Status ^a (Fed/ State/ CNPS)	Habitat Requirement ^b Blooming Period	Potential for Occurrence Within Project Site
Santa Cruz Mountains beardtongue <i>Penstemon rattanii</i> var. <i>kleei</i>	--/--/List 1B	Found in Chaparral (Chprl), Lower montane coniferous forest (LCFr), and North Coast coniferous forest (NCFrs) habitat. May-June	No suitable habitat on site. Closest known presumed extant occurrence is approximately 8.9 miles from the site.
Hairless popcorn-flower <i>Plagiobothrys glaber</i>	--/--/List 1A	Found in Meadows and seeps (Medws)(alkaline), and Marshes and swamps (MshSw)(coastal salt). March-May	Not expected to occur, habitat severely disturbed by past agricultural activity. Closest known presumed extirpated occurrence is approximately 3.9 miles from the site.
Metcalf Canyon jewel-flower <i>Sireptanthus albidus</i> ssp. <i>albidus</i>	FE/--/List 1B	Found in Valley and foothill grassland (VFGrs)(serpentine). April-July	No suitable habitat on site. Closest known presumed extant occurrence is approximately 0.7 miles from the site.
Most beautiful jewel-flower <i>Sireptanthus albidus</i> ssp. <i>peramoenus</i>	--/--/List 1B	Found in Chaparral (Chprl), Gismontane woodland (CmWld), and Valley and foothill grassland (VFGrs)/serpentine habitat. April-September (March -October)	No suitable habitat on site. Closest known presumed extant occurrence is approximately 2.8 miles from the site.
Caper-fruited tropidocarpum <i>Tropidocarpum apparideum</i>	--/--/List 1B	Found in Valley and foothill grassland (VFGrs) (alkaline hills). March-April	Not expected to occur, habitat severely disturbed. Closest known presumed extant occurrence is approximately 4.2 miles from the site.

^aStatus

FE = Federally-listed as endangered

FT = Federally-listed as threatened

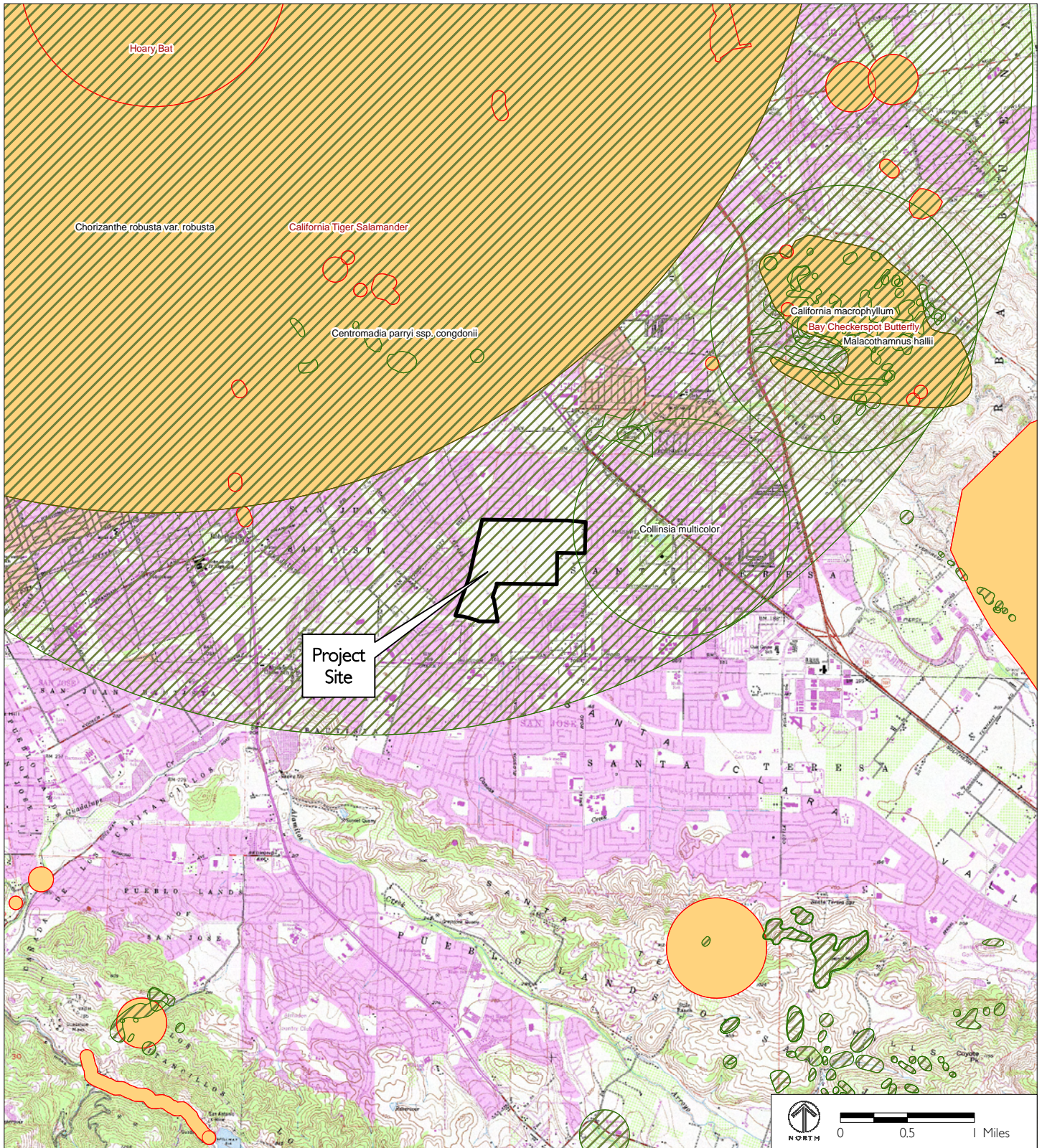
CE = State-listed as endangered

List 1B = California Native Plant Society (CNPS) – Plant considered rare, threatened, or endangered in California and elsewhere.

List 2 = CNPS – Plant considered rare, threatened, or endangered in California but more common elsewhere.

^bInformation obtained from the California Natural Diversity Database (CNDDB) (CDFG 2010).

^cMonths in parentheses are uncommon.



Source: LSA Associates, Inc., DC&E, 2010. USGS 7.5' Quads; Los Gatos, San Jose East, San Jose West, and Santa Teresa Hills and the California Natural Diversity Database (CNDDDB).




-  Project Site
-  CNDDDB Plant Occurrences
-  CNDDDB Animal Occurrences

FIGURE 4.5-2

CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDDB) OCCURRENCES

Historically, this species has occurred on alkaline soils in grassland from Solano County to San Luis Obispo County. The tarplant is believed to be nearly extirpated from the San Francisco Bay Area. The last recorded occurrence of this species in the vicinity of the project site is in 1908. The CDFG record lacks specific locality information and places the occurrence in the general location of East San Jose. The soils survey shows that Orestimba and Sunnyvale soils, which favor the growth of salt tolerant (alkaline) species such as the Congdon's tarplant, are prevalent throughout the project site.¹⁰

The reconnaissance-level survey did not find any evidence of Congdon's tarplant, and the survey was conducted during a time when non-blooming rosettes would have been noticeable. This species is easily recognizable with or without flowers.

Other regionally-occurring species documented in CDFG and CNPS records that are unlikely to occur on the site are: bent-flowered fiddleneck (*Amsinckia lunaris*), big scale balsam root (*Balsamorhiza macrolepis* var. *macrolepis*), round-leaved filaree (*California macrophyllum*), robust spineflower (*Chorizanthe robusta* var. *robusta*), Mt. Hamilton thistle (*Cirsium fontinale* var. *campylon*), San Francisco collinsia (*Collinsia multicolor*), Santa Clara Valley dudleya (*Dudleya setchellii*), fragrant fritillary (*Fritillaria liliacea*), showy madia (*Madia radiata*), Hall's bush mallow (*Malacothamnus hallii*), and Metcalf Canyon jewel-flower (*Streptanthus albidus* ssp. *albidus*).

d. Non-Native Plants

Invasive non-native, weedy plant species are those that displace native plants and animals, increase wildfire and flood danger, consume valuable water, degrade recreational opportunities, and destroy productive range and timber lands.¹¹ The California Invasive Plant Council maintains lists of exotic plants that have or can become invasive into natural communities. Non-native

¹⁰ U.S. Soil Conservation Service, 1968, *Soils of Santa Clara County*, General Soils Map.

¹¹ California Invasive Plant Council (Cal-IPC), 2006, *California Invasive Plant Inventory*, Berkeley: California Invasive Plant Council. (www.cal-ipc.org)

invasive plant species observed on the project site include wild oats, Italian thistle (*Carduus pycnocephalus*), yellow star-thistle, perennial pepperweed, Hardinggrass, and Himalayan blackberry (*Rubus discolor*).

2. Animal Life

a. Methods

Prior to fieldwork, LSA biologists reviewed County GIS data and reports of previous studies pertaining to the project site. The CNDDB was also searched for records of occurrence of special-status animal species in the region of the site (see Special-Status Species section below).¹² LSA staff conducted a reconnaissance-level survey of the project site on July 6, 2007. The primary purpose of this survey was to identify the major wildlife habitat types and inventory the wildlife resources within and adjacent to the site. The site was surveyed by walking through most of the project site. Animal species observed during the reconnaissance-level survey in July are discussed in this assessment, but represent only a portion of the total number of species that may inhabit the project site throughout a given year. Additional animal species that may occur on the site on a seasonal or occasional basis, but were not observed during the July survey, are also discussed. The information presented in this section is based on a review of *A Checklist of the Birds of Santa Clara County* and the professional experience and observations of LSA biologists.¹³

b. Wildlife Habitat

The habitat within the project site is typical of rural areas with fallowed fields and scattered mature oak trees (see Figure 4.5-1). The diversity of animal species present on site is limited due to the project site's location, which is

¹² California Department of Fish and Game, 2010, California Natural Diversity Data Base Computer printout of recorded occurrences of special-status species within 5 miles of the project site [computer program]. Sacramento: California Department of Fish and Game.

¹³ Bousman, W.G., 2005, *A Checklist of the Birds of Santa Clara County*, <http://www.scvas.org/pdf/checklist.pdf>.

surrounded by commercial and residential development that isolate the project site from larger tracts of open space. However, the trees and fallowed fields on site provide foraging and/or breeding habitat for many species. Additionally, Canoas Creek provides a suitable habitat corridor for aquatic animal species, such as fish and amphibians, and terrestrial animal species, such as birds and small mammals, that forage and/or move along creeks.

c. Habitat Types

A diversity of animal species inhabit the site, but some species may prefer or occupy one habitat type and not the others. The habitat types on site consist of trees, fallowed fields, the Canoas Creek channel, and buildings. The following paragraphs describe of these habitat types and the animal species associated with them.

i. Trees

The valley oaks and other trees on-site provide nesting, foraging, or roosting habitat for many animal species. An active red-tailed hawk (*Buteo jamaicensis*) nest was observed in one of the mature valley oaks on the project site during LSA's survey. Other animal species observed in the oak trees during the survey consisted of white-breasted nuthatch (*Sitta carolinensis*), American kestrel (*Falco sparverius*), house finch (*Carpodacus mexicanus*), great egret (*Casmerodius albus*), and hooded oriole (*Icterus cucullatus*). Additionally, woodpecker holes and large cavities were observed in the branches and trunks of some of the oaks. Birds could nest in these holes and cavities and bats could roost in the larger cavities in the oaks. Non-native red foxes (*Vulpes vulpes*) were observed resting under the canopies of the oaks. In addition to the animal species observed in valley oaks, three white-tailed kites (*Elanus leucurus*) were observed in an Italian cypress tree along the western boundary of the site. Some of the more common animal species that were not observed in the trees during the reconnaissance-level survey, but could utilize and/or nest the trees on-site, include Anna's hummingbird (*Calypte anna*), Nuttall's woodpecker (*Picoides nuttallii*), downy woodpecker (*Picoides pubescens*), northern flicker (*Colaptes auratus*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), Hutton's vireo (*Vireo huttoni*), oak titmouse (*Baeolophus inornatus*), chestnut-backed chickadee (*Poecile rufescens*),

bush-tit (*Psaltriparus minimus*), brown creeper (*Certhia americana*), Bewick's wren (*Thryomanes bewickii*), ruby-crowned kinglet (*Regulus calendula*), western bluebird (*Sialia mexicana*), yellow-rumped warbler (*Dendroica coronata*), cedar waxwing (*Bombycilla cedrorum*), dark-eyed junco (*Junco hyemalis*), Bullock's oriole (*Icterus bullockii*), lesser goldfinch (*Carduelis psaltria*), American goldfinch (*Carduelis tristis*), and the non-native house sparrow (*Passer domesticus*) and eastern gray squirrel (*Sciurus carolinensis*).

ii. *Fallowed Fields*

The fallowed fields on-site provide foraging habitat for several species that are commonly found in rural areas. The LSA biologist observed California ground squirrels (*Citellus beecheyi*), Botta's pocket gophers (*Thomomys bottae*), California meadow voles (*Microtus californica*), and/or their burrows during the reconnaissance-level survey. These rodents provide a prey base for red foxes and several birds-of-prey that were observed on-site. The fallowed fields provide foraging habitat for several species that are commonly found in rural areas. Shallow depressions within these fields provide marginal or potentially restorable wetland habitat for wetland-associated invertebrates, amphibians, reptiles, birds, and mammals. Other animal species seen on or near the fallowed fields during the survey consist of American kestrel, great egret, turkey vulture (*Cathartes aura*), peregrine falcon (*Falco peregrinus*), cliff swallow (*Petrochelidon pyrrhonota*), and barn swallow (*Hirundo rustica*). Portions of the fallowed fields may pond water during the rainy season and provide a seasonal water source for animals such as Sierran treefrog (*Pseudacris sierra*), greater yellowlegs (*Tringa melanoleuca*), killdeer (*Charadrius vociferus*), great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), Canada goose (*Branta canadensis*), and mallard (*Anas platyrhynchos*). Some of the other animal species that were not observed in the fallowed fields during the reconnaissance-level survey, but could also inhabit the fallowed fields include:

- ◆ house mouse (*Mus musculus*) (non-native)
- ◆ deer mouse (*Peromyscus maniculatus*)
- ◆ striped skunk (*Mephitis mephitis*)
- ◆ Virginia opossum (*Didelphis virginiana*) (non-native)

- ◆ California slender salamander (*Batrachoseps attenuatus*)
- ◆ arboreal salamander (*Aneides lugubris*)
- ◆ gopher snake (*Pituophis catenifer*)
- ◆ barn owl (*Tyto alba*)
- ◆ great horned owl (*Bubo virginianus*)
- ◆ Say's phoebe (*Sayornis saya*)
- ◆ western kingbird (*Tyrannus verticalis*)
- ◆ loggerhead shrike (*Lanius ludovicianus*)
- ◆ northern rough-winged swallow (*Stelgidopteryx serripennis*)
- ◆ violet-green swallow (*Tachycineta thalassina*)
- ◆ cliff swallow (*Petrochelidon pyrrhonota*)
- ◆ mourning dove (*Zenaida macroura*)
- ◆ rock pigeon (*Columbia livia*)
- ◆ European starling (*Sturnus vulgaris*) (non-native)
- ◆ American pipit (*Anthus rubescens*)
- ◆ savannah sparrow (*Passerculus sandwichensis*)
- ◆ golden-crowned sparrow (*Zonotrichia atricapilla*)
- ◆ white-crowned sparrow (*Zonotrichia leucophrys*)
- ◆ red-winged blackbird (*Agelaius phoeniceus*)
- ◆ Brewer's blackbird (*Euphagus cyanocephalus*)

iii. Canoas Creek

Animal species observed during the reconnaissance-level survey near Canoas Creek consisted of western fence lizard (*Sceloporus occidentalis*), red fox, mourning dove, California towhee (*Pipilo crissalis*), American robin, lesser goldfinch, Anna's hummingbird, northern mockingbird, house sparrow, mallard, and red-shouldered hawk (*Buteo lineatus*). Western pond turtles (*Actinemys marmorata*), a California species of special concern, occur in the vicinity and may also inhabit Canoas Creek. The federally threatened California red-legged frog (*Rana draytonii*), chinook salmon (*Oncorhynchus tshawytscha*), and steelhead (*Oncorhynchus mykiss*), although present in other creeks or rivers within the County, are unlikely to occur in the on-site

portions of Canoas Creek due to the marginal habitat conditions present.^{14,15} Some of the other animal species that were not observed along the creek during the reconnaissance-level survey, but could occur in or near Canoas Creek include numerous freshwater fish species, Sierran treefrog, raccoon (*Procyon lotor*), belted kingfisher (*Ceryle alcyon*), great blue heron, great egret, snowy egret, red-winged blackbird, black phoebe (*Sayornis nigricans*), song sparrow (*Melospiza melodia*), and American goldfinch.

iv. Buildings

Bats, black phoebes, mourning doves, swallows, and/or other birds could nest and/or roost in the pump house and ranch outbuildings within the Life Estate (outside of the project site). Non-native roof rats (*Rattus rattus*) and house mice could also inhabit the pump house and buildings within the Life Estate. A black phoebe was observed perched at the pump house structure (see Figure 4.5-1) north of Canoas Creek near the southwestern corner of the project site.

d. Special-Status Animal Species

For the purpose of this analysis, special-status species are defined as follows:

- ◆ Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the FESA.
- ◆ Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the CESA.
- ◆ Wildlife species listed by CDFG as Species of Special Concern, or as Fully Protected species.

¹⁴ Leidy, R.A., G.S. Becker, and B.N. Harvey, 2005, *Historical Distribution and Current Status of Steelhead/Rainbow Trout (Oncorhynchus mykiss) in streams of the San Francisco Estuary, California*, Oakland: Center for Ecosystem Management and Restoration.

¹⁵ Leidy, R.A. 2007, *Ecology, Assemblage Structure, Distribution, and Status of Fishes in Streams Tributary to the San Francisco Estuary, California*, SFEI Contribution #530, Oakland: San Francisco Estuary Institute.

- ◆ Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA Guidelines.
- ◆ Wildlife considered to be a taxon of special concern by local agencies.

Based on the habitat types present within the project site, a preliminary review of the available literature, and a search of the CNDDDB, 19 special-status animal species have been identified that are known to occur, or have the potential to occur in the habitats described above (see Figure 4.5-2).¹⁶ Brief accounts of these species are provided in the following paragraphs, while Table 4.5-3 summarizes the status and potential for occurrence of these species within the study area and the surrounding region.

i. Western Pond Turtle

The western pond turtle, a California species of special concern, could inhabit Canoas Creek. Although the bottom of the creek is concrete-lined, sediment deposits and vegetation within the creek channel and banks provide marginal habitat for this species. The closest known occurrences of pond turtles are approximately 1.5 miles northeast of the project site in Coyote Creek, and approximately 1.7 miles west of the site in the Guadalupe River.¹⁷ Canoas Creek is a tributary to the Guadalupe River that connects to the Guadalupe River approximately 2.7 miles northwest of the Park. Coyote Creek is a creek in San Jose that flows parallel and northeast to the Guadalupe River.

ii. White-Tailed Kite

Three white-tailed kites, including at least one immature kite, were observed during the reconnaissance-level survey at an Italian cypress tree along the

¹⁶ California Department of Fish and Game, 2010, California Natural Diversity Data Base Computer printout of recorded occurrences of special-status species within 5 miles of the project site [computer program], Sacramento: California Department of Fish and Game.

¹⁷ California Department of Fish and Game, 2010, California Natural Diversity Data Base Computer printout of recorded occurrences of special-status species within 5 miles of the project site [computer program], Sacramento: California Department of Fish and Game.

TABLE 4.5-3 SPECIAL-STATUS ANIMAL SPECIES IN THE PROJECT SITE VICINITY

Species	Status (Federal/State)	Habitat	Potential for Occurrence Within Project Site ^a
Invertebrates			
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT/-	Found in serpentine habitat where its host plant, California plantain (<i>Plantago erecta</i>) is present.	No serpentine habitat present on-site. Host species, California plantain, not observed during reconnaissance-level survey.
Fishes			
Steelhead – Central California Coast ESU <i>Oncorhynchus mykiss</i>	FT/-	Requires clear cool riffles with gravel or cobble substrate for spawning and clear, cool riffles and pools as rearing habitat.	Not expected to occur due to marginal habitat conditions present in Canoas Creek. This species is known to occur within the Guadalupe River Watershed, but has not been recorded in the project site's portion of Canoas Creek. ^{b,c}
Chinook salmon – California Coastal ESU <i>Oncorhynchus tshawytscha</i>	FT/-	Requires clear, cool streams with pools and riffles, with coarse gravel beds for spawning.	Not expected to occur due to marginal habitat conditions present in Canoas Creek. This species is known to occur within the Guadalupe River Watershed, but has not been recorded in the project site's portion of Canoas Creek. ^c
Amphibians			
California tiger salamander <i>Ambystoma californiense</i>	FT/CSC	Breeds in vernal pools, ponds, and stock ponds. Spends summer and early Fall in uplands surrounding breeding sites, taking refuge in small mammal burrows or other underground cover.	No suitable vernal pools are present on-site. The site's isolation from areas with suitable habitat precludes this species from occurring on-site. The closest known occurrence is approximately 1.7 miles northwest of the project site on the other side of adjacent development.
California red-legged frog <i>Rana aurora draytonii</i>	FT/CSC	Found in lowlands and foothills in or near permanent ponds and streams with dense, shrubby, or emergent riparian vegetation.	No breeding habitat on-site. Not expected to occur in Canoas Creek due to marginal habitat conditions present. This species is known to occur within the Guadalupe River Watershed, but has not been recorded in the project site's portion of Canoas Creek.

TABLE 4.5-3 SPECIAL-STATUS ANIMAL SPECIES IN THE PROJECT SITE VICINITY (CONTINUED)

Species	Status (Federal/State)	Habitat	Potential for Occurrence Within Project Site ^a
Reptiles			
Western pond turtle <i>Actinemys marmorata</i>	-/CSC	Found in ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and adjacent grasslands or other open habitat for egg-laying.	May inhabit the site's portion of Canoas Creek. The closest known occurrence is approximately 1.5 miles northeast of the site in Coyote Creek.
Birds			
White-tailed kite (nesting) <i>Elanus leucurus</i>	-/CFP	Forages over open landscapes, such as grasslands, pastures, and fields with good populations of voles and other small rodents. Nests in isolated trees and along the edges or woodlands near open areas.	Three were observed during LSA's reconnaissance-level survey at a tree along the western boundary of the project site. Likely nests in close proximity to the site.
Peregrine falcon <i>Falco peregrinus</i>	Delisted/CE (nesting)	Forages in open country, mountains, and sea coasts. Nests on high cliffs, bridges, and buildings.	Observed flying over site during LSA's reconnaissance-level survey. May forage on-site. No suitable nesting habitat present.
Burrowing owl <i>Athene cucularia</i>	-/CSC	Nests in burrows in grasslands and woodlands; often associated with ground squirrels. Will also nest in artificial structures (culverts, concrete debris piles, etc.).	May forage and nest on-site. Suitable nesting burrows (i.e. California ground squirrel and red fox burrows) observed on-site during LSA's reconnaissance-level survey.
Long-eared owl <i>Asio otus</i>	-/CSC	Inhabits woodlands and forests that are open or adjacent to grasslands, meadows, or shrublands.	Not expected to occur on-site due to lack of woodland habitat.
Vaux's swift <i>Chaetura vauxi</i>	-/CSC	Occurs in grasslands and agricultural fields; nests in dense vegetation in large hollow trees near open water; forages in most habitats but prefers rivers and lakes.	May forage over the fallowed fields on-site as a migrant.
Olive-sided flycatcher <i>Contopus cooperi</i>	-/CSC	Occurs in coniferous forests with open canopies.	Not expected to occur on-site due to the lack of suitable coniferous forest habitat.
Loggerhead shrike <i>Lanius ludovicianus</i>	-/CSC	Found in grasslands and open shrub or woodland communities. Nests in dense shrubs or trees and forages in scrub, open woodlands, grasslands, and croplands. Frequently uses fences, posts, and utility lines as hunting perches.	May nest in the trees and forage in the fallowed fields on-site.

TABLE 4.5-3 SPECIAL-STATUS ANIMAL SPECIES IN THE PROJECT SITE VICINITY (CONTINUED)

Species	Status (Federal/State)	Habitat	Potential for Occurrence Within Project Site ^a
Purple martin <i>Progne subis</i>	-/CSC	Occurs in woodlands; nests in tree snags and abandoned woodpecker cavities and human-made structures.	Not expected to occur on-site due to lack of dense woodland habitat.
Grasshopper sparrow <i>Ammodramus sacannarum</i>	-/CSC	Occurs in grasslands with scattered shrubs.	Not expected to occur on-site due to marginal grassland habitat in the fallowed fields.
Mammals			
Pallid bat <i>Antrozous pallidus</i>	-/CSC	Roosts in crevices in rock outcrops, in the expansion joints under bridges and occasionally in old buildings; forages on large terrestrial insects in open habitats.	May forage and roost on-site. Roosting habitat may be present in the trees and pump house on-site or in the trees and buildings at the adjacent Life Estate.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	-/CSC	Roosts in caves, mines, and old buildings. Forages for insects in riparian woodlands, wetlands, forest edges, and open woodlands.	May forage and roost on-site. Roosting habitat may be present in the pump house on-site or in the buildings at the adjacent Life Estate.
Western mastiff bat <i>Eumops perotis californicus</i>	-/CSC	Roosts in crevices in cliff faces, tunnels, and high buildings.	May forage high over the site. Could roost in the higher, more open structures at the adjacent Life Estate.
San Joaquin kit fox <i>Vulpes macrotis munita</i>	FT/CE	Found in open grasslands and arid areas with ground squirrel and/or kangaroo rat populations. Dens in rodent burrows.	Not expected to occur on the site due to the site's location within a primarily developed area. Considered rare in Santa Clara County.

Status Codes:

FT = Federally-listed as a threatened species.

CE = State-listed as an endangered species.

CFP = State-listed as a fully protected.

CSC = State listed as a species of special concern.

^a Nearest records are based on CNDDB (2010) occurrences unless otherwise noted.

^b Leidy, R.A., G.S. Becker, and B.N. Harvey, 2005, *Historical Distribution and Current Status of Steelhead/Rainbow Trout (Oncorhynchus mykiss) in streams of the San Francisco Estuary, California*, Oakland: Center for Ecosystem Management and Restoration.

^c Leidy, R.A., 2007, *Ecology, Assemblage Structure, Distribution, and Status of Fishes in Streams Tributary to the San Francisco Estuary, California*, SFEI Contribution #530, Oakland: San Francisco Estuary Institute.

Source: LSA Associates, Inc., 2010.

western boundary of the project site near the northern bank of Canoas Creek. The trunk of the cypress tree is situated off site, but portions of its canopy protrude onto the site. No nest was observed during the survey, but a nest is likely present in the cypress or in another tree in the vicinity. The white-tailed kite is a State fully-protected species.

iii. Peregrine Falcon

A peregrine falcon, a State endangered and fully protected species, was observed flying over the project site during the reconnaissance-level survey. No suitable nesting habitat occurs on the site, but this falcon may forage here.

iv. Burrowing Owl

The burrowing owl (*Athene cunicularia*) is a California species of special concern that usually lives underground in burrows that have been dug by mammals, but will also inhabit artificial structures such as culverts, pipes, and rock structures. California ground squirrel burrows were observed in the grasslands along the western boundary north of Canoas Creek and along the abandoned agricultural service road. Larger canid-sized burrows, most likely dug by red foxes, were also observed along this road. Burrowing owls could forage on the site and could use the on-site burrows as breeding and/or non-breeding habitat. The closest known occurrence of the burrowing owl is approximately 1.9 miles from the site near the intersection of Monterey Road and Curtner Road.¹⁸

v. Loggerhead Shrike

The loggerhead shrike is a California species of special concern. Suitable nesting sites exist in trees on or adjacent to the site. Shrikes may forage within the fallowed fields on the site.

¹⁸ California Department of Fish and Game, 2010, California Natural Diversity Data Base Computer printout of recorded occurrences of special-status species within 5 miles of the project site [computer program], Sacramento: California Department of Fish and Game.

vi. Vaux's Swift

The Vaux's swift (*Chaetura vauxi*) is a California species of special concern. This bird may occasionally forage over the fallowed fields on the site during migration. They are unlikely to nest on the site due to the lack of high quality suitable habitat.

vii. Other Special-Status Birds

The long-eared owl (*Asio otus*), olive-sided flycatcher (*Contopus cooperi*), purple martin (*Progne subis*), and grasshopper sparrow (*Ammodramus savannarum*) are California Species of Special Concern. These species are not expected to occur on the site due to the lack of suitable or high quality habitat.

viii. Special-Status Bats

Trees and/or buildings potentially provide roosting and foraging habitat for pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis californicus*), and other bat species. With the exception of pallid bat, there are no CNDDDB occurrences of special-status bats within 5 miles of the project site. However, bats can be difficult to detect and are probably under-reported in the CNDDDB. Two of the three CNDDDB occurrences of pallid bats were recorded in the 1940s and are situated at unspecified locations within the vicinity of the project site. The other occurrence was recorded in 2004 as a single bat roosting in a barn, approximately 3.9 miles from the site. Many bat species in California roost in trees, bridges, caves, mines, buildings, and other man-made structures. Old buildings are used by bats as day roosts for resting or night roosts. No bats were observed on-site during the reconnaissance-level survey, but the structures adjacent to the project site on the Life Estate were not inspected since the County does not have access to this property during the planning process.

Other special-status animal species occur in the region (see Figure 4.5-2), but are not likely to inhabit the project site due to the lack of suitable habitat

and/or the site's isolation from larger areas of undeveloped lands.¹⁹ These species consist of the California tiger salamander (*Ambystoma californiense*), California red-legged frog, Bay checkerspot butterfly (*Euphydryas editha bayensis*), San Joaquin kit fox (*Vulpes macrotis mutica*), chinook salmon, and the Central California coast steelhead evolutionary significant unit.

e. Non-Native Species

Non-native animal species observed or expected on-site consist of the red fox, Virginia opossum, house mouse, roof rat, house sparrow, rock pigeon, and European starling. A host of other non-native fish and invertebrate species may also be present. Non-native species are typically of concern in that they often displace and/or prey upon many native species.

3. Biological Resource Planning Considerations

a. Tree Preservation Ordinance

The County of Santa Clara Tree Protection Ordinance, Division C16 of the County Ordinance Code, provides protective status for certain trees found by the County to have significance to the community based upon history, girth, height, species or unique qualities. Protected trees within the County include both Heritage Trees and Ordinance Size Trees. On property owned or leased by the County, Ordinance Size trees are designated by either having a main trunk diameter equal to or greater than 12 inches at 4.5 feet above ground level and/or exceeding 20 feet in height. The mature valley oaks on the site have a main trunk diameter greater than 12 inches and are therefore considered Ordinance Size Trees.

b. Non-Native Species

Non-native plant and animal species are present on the site and could impact the occurrence or potential occurrence of native species. For example, burrowing owls and other native ground nesting birds may be more likely to

¹⁹ California Department of Fish and Game, 2010, California Natural Diversity Data Base Computer printout of recorded occurrences of special-status species within 5 miles of the project site [computer program], Sacramento: California Department of Fish and Game.

inhabit the site if red foxes were not present. Invasive plant species, such as Italian thistle, yellow star thistle, and Himalayan blackberry, could also inhibit the presence of native and/or special-status species.

c. Nesting Birds

A pair of red-tailed hawks has nested in one of the mature valley oaks on the project site, and white-tailed kites may have nested along the project site boundary. Future construction could disturb these or other active nests on the site. Removal of trees and/or construction activities adjacent to preserved trees (i.e. demolition of existing buildings, construction of new facilities) could disturb nesting pairs, causing nest abandonment, loss of young, or reduced nesting success. All native birds and their nests are protected under the federal Migratory Bird Treaty Act (16 USC 703) and California Fish and Game Code. Raptor nests are given additional protection by Fish and Game Code Section 3503.5. CDFG typically requires exclusion zones around active nests during construction.

d. Wetland Regulatory Considerations

Soils on the site exhibit hydric field indicators and obligate hydrophytic plant species were observed during the reconnaissance-level survey. These areas may be subject to Corps and/or California RWQCB jurisdiction. The Corps is the federal agency with primary responsibility for regulating activities in wetlands under the federal CWA. The RWQCB is the State agency that issues water quality certification in accordance with Section 401 of the CWA (33 U.S.C. Section 1341) and regulates the discharge of waste that could affect waters of the State in accordance with the State Porter-Cologne Water Quality Control Act (Water Code Section 13000 *et seq.*).

C. Standards of Significance

Appendix G of the CEQA Guidelines provide that biological resource impacts associated with the project site would be considered significant if the project would:

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN/
COUNTY PARK MASTER PLAN EIR
BIOLOGICAL RESOURCES

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.
3. 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.) or tributary to an already impaired water body, as defined by Section 303(d) of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.
4. Have a substantial adverse effect on oak woodland habitat as defined by Oak Woodlands Conservation Law (conversion/loss of oak woodlands) – Public Resource Code 21083.4.
5. 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.
6. Conflict with the provisions of any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.
7. Impact a local natural community, such as a fresh water marsh, oak forest, or salt water tide land.
8. Impact a watercourse, aquatic, wetland, or riparian area or habitat.
9. Adversely impact unique or heritage trees or a large number of trees over 12 inches in diameter.

10. Conflict with any local policies or ordinances protecting biological resources:

- ◆ Tree Preservation Ordinance
- ◆ Wetland Habitat
- ◆ Riparian Habitat

D. Impact Discussion

1. Direct or Indirect Substantial Adverse Effect on Any Species Identified As a Candidate, Sensitive, or Special Status Species

Potential impacts described below would be the same for Phase I and subsequent phases. As such, project-level and program-level components are not distinguished below.

The peregrine falcon and white-tailed kite were the only special-status species observed during the reconnaissance-level survey. The peregrine falcon was observed flying over the site, but is not expected to nest on the site due to the lack of suitable nest sites. Juvenile white-tailed kites were observed near a Italian cypress tree along the western boundary of the site. Although no stick nest was observed in the tree, white-tailed kites may have nested in this or another tree or large shrub in the vicinity. White-tailed kites could nest in any of the trees on or adjacent to the site, and red-tailed hawks could nest in the mature valley oak trees on the site. Native bird species and their nests, regardless of their regulatory status, are protected by the federal MBTA and California Fish and Game Code. Since the proposed project would involve construction within a few feet of suitable nesting habitat on the site, nesting birds, if present, could be adversely impacted, which would be a *significant* impact.

There is a low potential for the presence of other special-status species, such as the western pond turtle, loggerhead shrike, and bat species. Although Western pond turtles could potentially occur in Canoas Creek, the likelihood of this occurrence is very low due to the sparse emergent vegetation along the creek channel. If Western pond turtles are detected, enhancements and

construction adjacent to the creek could impact western pond turtle nest sites. Although pre-construction surveys for western pond turtle, active bird nests, and roosting bats would reduce impacts to special-status species on the site, the potential for impacts to these animal species would be *significant*.

Approximately 250 acres of the project site is located within lands used as fallowed fields. Although ruderal habitats generally have limited wildlife value and tend to support few species of native wildlife, when compared to more natural communities, the fallowed fields present on the project site can support substantial prey populations for raptors such as the white-tailed kite, red-tailed hawk as well as habitat for a variety of other birds, amphibians, reptiles, and small mammals. Impacts to foraging or breeding habitat for the red fox would not be considered significant since the red fox is a non-native species in the region and is considered a pest species that would not be protected under CEQA. Approximately 143 acres of the fallowed fields would be leased for agriculture; 80.64 acres would be used for park and recreation; 24 acres for gardens, youth agriculture programs, and parking; and 4 acres for habitat enhancements around Canoas Creek. Approximately 143 acres of the fallowed fields would be used as leased agricultural land and may continue to provide foraging habitat for some species under certain conditions and crop uses. Because the type of agriculture within the leased agricultural land has not been determined and will likely change during the Phase 1 period, the impacts to foraging habitat on the site is uncertain. For example, agricultural uses such as orchards and vineyards provide limited foraging habitat while alfalfa fields provide good foraging habitat for raptors and small mammals. A management plan should be prepared in order to promote the use of wildlife-compatible crops. Portions of the Park and Recreation Zone, Cooperative Management Zones with its gardens and native plant nursery, and the Canoas Creek enhancements and the associated created seasonal wetland may also provide foraging habitat for a variety of species. The loss of approximately 250 acres of potential foraging habitat would be considered a *significant* impact.

As stated above, approximately 250 acres of the project site is located within lands used as fallowed fields. The potential impact to plants in these areas would likely be considered less than significant because the fallowed fields contain mostly weedy non-native vegetation supporting very few native plants. However, the project site provides potential habitat for one special-status plant, the Congdon's tarplant, that could potentially be impacted by development activities. Undeveloped portions of the project site could support populations of Congdon's tarplant and if found in the Park, would require mitigation under CEQA. Impacts to this plant species, if present, would therefore be *significant*.

Implementation of mitigation measures BIO-1a, BIO-1b, BIO-2, BIO-3a, BIO-3b, BIO-4a, and BIO-4b would reduce impacts to Candidate, Sensitive, or Special Status Species to a less-than-significant level.

Impact BIO-1: The proposed project could result in the disturbance of an active white-tailed kite nest, red-tailed hawk nest, or other native bird nests. This would be a *significant* impact to special-status species and a *potentially significant* impact to a nesting site.

Mitigation Measure BIO-1a: Project-related construction activities shall ideally occur during the non-breeding season (September 1 to January 31) to avoid potential impacts to nesting birds, if present. If construction activities cannot occur in the non-breeding season, then a pre-construction survey for active bird nests shall be required within 500 feet of an area proposed for development.

During the breeding season (February to August), surveys to determine the presence of nesting birds shall be conducted by a qualified wildlife biologist (i.e. approved by CDFG) no more than 30 days prior to the initiation of any construction activities. If birds (excluding non-native species) are observed nesting on or adjacent to the site during these surveys, construction buffers shall be established around all active nests. The size of the nest buffer shall be determined by the biologist in

consultation with CDFG and would be based to a large extent on the nesting species and its sensitivity to disturbance. All project-related activity shall occur outside of the exclusion area until a qualified biologist has determined that the young have fledged from the nest.

Mitigation Measure BIO-1b: The County shall annually monitor raptor nesting activity within the Park and establish appropriate human exclusion zones around the active nest(s). The size of the nest buffer shall be determined by a qualified biologist in consultation with CDFG and would be based to a large extent on the bird's sensitivity to disturbance. All human activity shall occur outside of the exclusion area until a qualified biologist has determined that the young have fledged from the nest or the raptor nesting has ceased for the year.

Significance after Mitigation: Less than significant.

Impact BIO-2: Construction of the proposed project could result in impacts to western pond turtle eggs and/or young turtles in nest chambers in upland areas. This would be a *significant* impact.

Mitigation Measure BIO-2: Construction within potential pond turtle nesting areas should be delayed until after the eggs have hatched and the young have become independent; most likely on a date after August 15 in which impacts to eggs and young turtles would be unlikely. Young western pond turtles, however, are known to over-winter in their nest chambers and construction activities within pond turtle nesting areas after August 15 could still result in impacts to young turtles in nests.²⁰

²⁰ Reese, D.A., and H.H. Welsh, 1996, *Use of Terrestrial Habitat by Western Pond Turtles Clemmys marmorata: Implications for Managements*, in J. Van Addema (ed.) *Conservation, Restoration, and Management of Turtles and Tortoises-An International Conference*, Purchase, New York: WCW Turtle Recovery Program and the New York Turtle and Tortoise Society.

Western pond turtle nests sites are difficult to detect because turtles lay their eggs underground and surveying for nest sites after female turtles have laid their eggs is not feasible; it is thus not practicable to attempt to locate nests and move turtle nests or young prior to construction activities. Pond turtles could nest up to 50 feet from Canoas Creek in the fallowed fields on both sides of the creek. After the construction of Park facilities is complete, western pond turtles may nest on the site, but normal Park activities should not have a significant impact on these turtles.

In areas adjacent to Canoas Creek, the project contractor shall place a fence between the proposed grading areas and the creek to discourage adult female turtles from entering and nesting in these areas. Installation of the fence shall be supervised by a qualified biologist. The fence mesh shall be of a size to allow hatchling turtles to pass through, but exclude adult females (approximately 3 by 3 inches). The fence shall be in place prior to April 1 and grading within the fenced-off areas shall be delayed until July 1. This would allow hatching turtles that have over-wintered in the proposed grading area to leave the nest and return to aquatic habitat in the creek. After the first year of grading, construction within the fenced areas can be conducted throughout the year because nesting females would have been excluded from these areas and nests would not be present. After project construction is complete, the turtle exclusion fence may be removed.

Significance after Mitigation: Less than significant.

Impact BIO-3: The proposed project could result in the loss of approximately 250 acres of foraging habitat within the fallowed fields. This would be a *significant* impact.

Mitigation Measure BIO-3a: Develop and implement an agricultural management plan for the Leased Agriculture Zone that will promote crop rotation, harvesting techniques, establishment of cover strips, and

other agricultural practices to support wildlife values while maintaining viable agricultural operations. The agricultural management plan shall be approved by Santa Clara County Parks.

Mitigation Measure BIO-3b: The application of rodenticides shall be eliminated or reduced in order to increase prey abundance.

Significance after Mitigation: Less than significant.

Impact BIO-4: Development on the project site may impact the special-status Congdon's tarplant, if present. This would be a *significant* impact.

Mitigation Measure BIO-4a: Prior to construction of the project, a rare plant survey according to CNPS, CDFG, and USFWS protocols shall be conducted for Congdon's tarplant in areas where development is proposed to determine if any rare plants are present. The survey shall be conducted by a qualified biologist approved by CDFG, familiar with the flora of the San Jose area, and with expertise in the identification of Congdon's tarplant. Surveys shall be conducted during the peak of Congdon's tarplant's growing season within the summer months to ensure that they are observed, if present. If no Congdon's tarplant populations are found on-site, then the qualified biologist shall prepare and submit a report to the County documenting the negative findings of the survey. At a minimum, the report shall include dates of surveys, names of surveyors, and a list of all plants observed. No additional mitigation shall be required if Congdon's tarplant are not found during the protocol-level surveys. According to the standard protocols, the results of a negative-findings plant surveys would be considered valid for two years. Thereafter, additional protocol-level surveys would be required.

Mitigation Measure BIO-4b: If Congdon's tarplant populations are observed on-site, then a mitigation and monitoring plan shall be developed by the County to avoid and or compensate for the loss of

special-status plant populations. Significant adverse impacts to this plant shall be mitigated either by avoidance or through compensatory mitigation in accordance with the following standards.

1. Whenever feasible, Congdon's tarplant populations shall be avoided and the populations protected in place. Avoidance measures may include fencing the existing plants with Environmentally Sensitive Area (ESA) fencing prior to construction, establishing a buffer zone of at least 20 feet around rare plant populations, and implementing a training program for construction personnel to ensure avoidance of the preserved plant populations.
2. If impacts to Congdon's tarplant populations are unavoidable, the project sponsor shall mitigate for the impact by preserving existing plant populations of the same species at an offsite mitigation site at a minimum 2:1 ratio (2 acres of occupied habitat preserved for each acre of occupied habitat impacted). The project sponsor shall develop a mitigation and monitoring plan for the plants that are impacted and submit the plan to the County and CDFG for approval.

Significance after Mitigation: Less than significant.

2. Substantial Adverse Effect on Any Riparian Habitat or Other Sensitive Natural Community

a. Project-Level Components

Canoas Creek cuts through the southwestern portion of the project site. The creek is concrete-lined, but has accumulated sediment that supports limited riparian vegetation and habitat. The proposed project would not impact the existing concrete-lined channel and banks. The existing creek crossing would be modified to allow improved access over Canoas Creek, but these modifications are not expected to impact the creek since the footings and width of the crossing is not expected to be significantly altered. In addition, the project would include two new bridges: a new pedestrian/bicycle crossing along the western perimeter of the project site, and a new pedestrian/bicycle crossing over Canoas Creek to the Blossom Hill light rail station. Any work that would occur around Canoas Creek below the Ordinary High Water

Mark (OHWM) would require a Corps permit and associated RWQCB certification. Work along the creek bed and banks would also require a Streambed Alteration Agreement from the CDFG. The creation of new bridges across Canoas Creek could create a *less-than-significant* impact on riparian habitat.

b. Program-Level Components

A proposed Canoas Creek-seasonal wetland connection that would connect Canoas Creek to the created seasonal wetlands is being considered during the Subsequent Phases of the Park Plan implementation. The design and engineering drawings for the created seasonal wetland connection have not been developed, and proposed improvements and enhancements to the Canoas Creek channel would be considered a subsequent phase improvement. Depending on the proposed improvements, impacts to Canoas Creek could create a *significant* impact on the limited riparian habitat present in the creek channel.

Impact BIO-5: Improvements to Canoas Creek would temporarily impact the limited riparian habitat within the Canoas Creek channel. This would be a *significant* impact.

Mitigation Measure BIO-5: Prior to initiating construction or enhancements to Canoas Creek, the applicant shall contact the Corps and RWQCB to determine what type of permit is required and if any mitigation is necessary. If BMPs are employed, impacts to Corps jurisdiction would be short-term and temporary, and mitigation may not be required. However, both agencies shall be contacted before any construction activity below the OHWM occurs.

Significance after Mitigation: Less than significant.

Santa Clara County General Plan Policies C-RC 27, 28, and 34 and Implementation Recommendation C-RC(i)15 would also serve to minimize any potential impacts to Canoas Creek.

3. Substantial Adverse Effect on Federally Protected Wetlands or a Tributary to an Already Impaired Water Body

a. Project-Level Components

Any work that would occur around Canoas Creek below the Ordinary High Water Mark (OHWM) would require a Corps permit and associated RWQCB certification. Work along the creek bed and banks would also require a Streambed Alteration Agreement from the CDFG. Canoas Creek and areas with soils that exhibit hydric field indicators and obligate hydrophytic plant species (i.e. salt heliotrope) occur within portions of the fallowed fields on the project site. Phase 1 of the proposed project would not impact Canoas Creek but would impact portions of the areas with the soils that exhibit hydric field indicators and obligate hydrophytic plants. Construction of roads and facilities and the introduction of recreational and intensive agricultural uses at the site would likely impact these areas. The proposed creation of a seasonal wetland near Canoas Creek could mitigate for all or some of the potential impacts to these areas, depending on the results of a wetland delineation and the acreage of the impacted wetlands and created seasonal wetland and if the wetland is created prior to or concurrent with Phase 1 project development. The created seasonal wetland, however, is currently proposed for the subsequent phases of the project, and therefore would not be able to mitigate impacts to wetlands, if present. If a formal delineation results show that wetlands are present and cannot be avoided and that the acreage of the created seasonal wetland does not fully mitigate for the acreage of impacted wetlands and the created seasonal wetland is created during subsequent phases of the project and not prior to or concurrently with Phase 1 impacts as proposed, the fill of waters of the U.S. or waters of the State would be considered a *significant* impact.

Impact BIO-6: Development of the project site may result in the fill of jurisdictional wetlands that are subject to jurisdiction as waters of the United States under Section 404 of the Clean Water Act and/or are waters of the State subject to jurisdiction under the Porter-Cologne Act. Impacts to these waters, if present, would be a *significant* impact. Implementation of

Mitigation Measures BIO-6a, BIO-6b, BIO-6c, BIO-6d, and BIO-6e will reduce this impact to *less than significant*.

Mitigation Measure BIO-6a: Prior to implementing any development projects on the project site, a formal wetland delineation shall be conducted to determine the extent of jurisdictional waters of the U.S. and waters of the State on the site. Potential impacts to jurisdictional waters shall be avoided if feasible, and unavoidable impacts shall be minimized to the extent that is feasible.

Mitigation Measure BIO-6b: The applicant shall obtain the appropriate federal and State permits authorizing the fill of jurisdictional wetlands and other waters including waters of the State. All work in jurisdictional areas shall be in compliance with the terms and conditions of the federal and state permits.

Mitigation Measure BIO-6c: All waters of the United States or waters of the State, if present, that are filled as a result of project development shall be mitigated at a minimum 1:1 ratio or the higher of the ratios stipulated in the federal or State permit authorizing fill of the wetlands or non-wetland waters. Mitigation for impacts to wetlands or other waters may be accomplished by on- or off-site creation of wetlands or non-wetland waters at an appropriate mitigation site on parkland within the County parks system.

Mitigation Measure BIO-6d: If the wetland delineation results determine that wetlands are present and cannot be avoided, and may be impacted by the Park, the County shall implement a wetland mitigation and monitoring plan as mitigation for impacts to jurisdictional wetlands and waters. The plan shall detail the mitigation design, wetland planting design, maintenance and monitoring requirements, reporting requirements, and success criteria. The mitigation wetlands shall be monitored for a minimum of five years. This plan shall be approved by the Corps, RWQCB, and the County prior to implementation.

Mitigation Measure BIO-6e: During project construction, no material shall be allowed to enter or be stored in any wetlands, if present, that are to be preserved. Project related dirt and other material shall be kept sufficiently far away from preserved wetlands and drainages to prevent material from entering these features. If earthmoving activities or material stockpiling occur upslope from a preserved wetland or drainage, silt fencing shall be installed around the preserved feature to prevent soil from entering the wetland. Silt fencing shall be installed at the least 5 feet from the edges of preserved wetlands. Silt fencing shall also be installed around preserved features whenever earthmoving activities or material stockpiling occurs within 20 feet of a preserved feature. All equipment washing shall occur downslope from preserved wetlands to prevent the runoff from entering the preserved wetlands. Berms or other barriers shall be constructed outside of preserved wetlands to prevent wash water runoff from entering the preserved wetlands.

Significance after Mitigation: Less than significant.

b. Program-Level Components

A proposed Canoas Creek-seasonal wetland connection that would connect Canoas Creek to the created seasonal wetlands is being considered during the subsequent phases of the Park. The design and engineering drawings for the created seasonal wetland connection have not been developed and proposed improvements and enhancements to the Canoas Creek channel and the created wetland would be considered a Subsequent Phase improvement. Improvements to Canoas Creek would temporarily impact jurisdictional waters under Section 404 of the Clean Water Act. This would be a *significant* impact.

Impact BIO-7: Improvements to Canoas Creek would temporarily impact jurisdictional waters under Section 404 of the Clean Water Act. This would be a *significant* impact.

Mitigation Measure BIO-7: Implement Mitigation Measure BIO-5.

Significance after Mitigation: Less than significant.

Santa Clara County General Plan Policies C-RC 27, 28, and 34 and Implementation Recommendation C-RC(i)15 would also serve to minimize any potential impacts to Canoas Creek.

4. Substantial Adverse Effect on Oak Woodland Habitat

The potential impacts described below would be the same for Phase I and subsequent phases. As such, project-level and program-level components are not distinguished below.

No oak woodland habitat occurs on the project site. The scattered valley oak trees on the project site are isolated and surrounded by disturbed habitat and would not be considered an oak woodland. The proposed project would not remove these oak trees. The *Santa Clara County Guidelines for Tree Protection and Preservation for Land Use Applications* (revised March 8, 2010) would be implemented to avoid impacts to these oak trees. Implementation of Santa Clara County General Plan Policy C-RC 1, which protects and conserves natural and heritage resources for their ecological, functional, economic, aesthetic, and recreational values, would serve to minimize any potential impacts to these mature oaks by natural. The project would have *no impact* on oak woodland habitat.

5. Substantial Interference with the Movement of Species or with Established Wildlife Corridors, or Impedance of the Use of Native Wildlife Nursery Sites

a. Project-Level Components

The proposed project would not have a substantial interference with the movement of species or with established wildlife corridors since the site is largely surrounded by development and supports mostly urban species that can tolerate development of the project. The project would have *less-than-significant* impacts on movement of species or established wildlife corridors.

A pair of red-tailed hawks has nested in one of the mature valley oak trees on site and white-tailed kites may have nested along the project site boundary. Future construction proposed for Phase 1 could disturb these or other active native bird nests on the site. Removal of trees and/or construction activities adjacent to preserved trees (i.e. construction of new facilities) could disturb nesting pairs, causing nest abandonment, loss of young, or reduced nesting success. Although the mature valley oak that supports the nesting red-tailed hawks would not be removed, the habitat surrounding the tree would be compromised by development of park and recreation facilities. The hawks may no longer nest in this tree. The pair may move to another mature valley oak on the site, but all of the other trees would be in close proximity to residential development or proposed Park facilities. Construction of park facilities may disrupt nesting white-tailed kites, if present. Both species as well as other raptors may continue to use the site for foraging or nesting; however, the increased level of development and increased use of the property could cause these species to abandon the site as a regular breeding site. This would be a *potentially significant* impact.

Impact BIO-8: Increased level of development and increased use of the property could cause red-tailed hawks and white-tailed kites, as well as other raptors, to abandon the site if used as a regular breeding site. This would be a *potentially significant* impact on nesting habitat sites.

Mitigation Measure BIO-8: Implement Mitigation Measures BIO-1a and BIO-1b.

Significance after Mitigation: Less than significant.

b. Program-Level Components

Completed enhancements near Canoas Creek are expected to improve the current habitat value of the creek as a wildlife corridor for migratory birds and other wildlife species. Enhancements to Canoas Creek may require a temporary water diversion to maintain creek flows during the enhancement activities. Western pond turtles, Sierran treefrogs, and other species, if

present would likely be able to pass through the site, either through the water diversion pipes or by traversing over coffer dams (or the equivalent temporary construction equipment) during construction activities. Conditions within the regulatory permits that would be obtained through the implementation of Mitigation Measure BIO-5 above would mitigate for potential temporary impacts. The project would have *less-than-significant* impacts on movement of species or established wildlife corridors.

Enhancements to Canoas Creek and the creation of a seasonal wetland may disrupt nesting white-tailed kites and other native bird nests, if present. The project could have a *potentially significant* impact on nesting sites.

Impact BIO-9: Construction of the enhancements to Canoas Creek and the creation of a seasonal wetland may temporarily disrupt nesting white-tailed kites and other native bird nests, if present. This would be a *potentially significant* impact on nesting sites.

Mitigation Measure BIO-9: Implement Mitigation Measures BIO-1a and BIO-1b.

Significance after Mitigation: Less than significant.

Santa Clara County General Plan Policies C-RC 27, 28, and 34 and Implementation Recommendation C-RC(i)15 would also serve to minimize any potential impacts to Canoas Creek.

6. Conflicts with Habitat Conservation Plans

The potential impacts described below would be the same for Phase I and subsequent phases. As such, project-level and program-level components are not distinguished below.

The HCP/NCCP, known as the Santa Clara Valley Habitat Plan, is intended to provide an effective framework to protect, enhance, and restore natural resources in specific areas of the county, while improving and streamlining

the environmental permitting process for impacts on threatened and endangered species.

The Santa Clara Valley Habitat Plan is intended to cover 24 special-status species and habitats, including 13 special-status plant and 11 special-status wildlife species. The covered species within the Santa Clara Valley Habitat Plan do not include the white-tailed kite, which has been observed at the project site, and Congdon's tarplant, which is a special-status plant that may but is unlikely to occur at the project site. The Santa Clara Valley Habitat Plan does cover some of the other species that may occur at the project site, such as the western pond turtle.

Although the project site is located within the study area for the Santa Clara Valley Habitat Plan, future development of the project site would be considered a covered activity with other County Parks projects in the Santa Clara Valley Habitat Plan. As a covered activity, the project would be consistent with the conservation strategies of the Santa Clara Valley Habitat Plan.

At the time of publishing this EIR, the preparation of a Draft Santa Clara Valley Habitat Plan is underway. The project site does not affect nor conflict with the future Santa Clara Valley Habitat Plan reserve system nor preclude the ability to implement aspects of the Santa Clara Valley Habitat Plan conservation strategies. Therefore, impacts would be *less than significant*.

7. Impact to a Local Natural Community

The potential impacts described below would be the same for Phase I and subsequent phases. As such, project-level and program-level components are not distinguished below.

No local natural communities occur at the project site due to the high level of human disturbance. The Canoas Creek channel is concrete-lined and unnatural in state. The native, mature valley oaks are remnant from a natural oak woodland that likely occurred at the site. The remainder of the project

site consists of mostly highly disturbed fallowed fields. The project would therefore have *no impact* to a local natural community.

8. Impact to a Watercourse, Aquatic, Wetland, or Riparian Area or Habitat

a. Project-Level Components

The proposed new bridges across Canoas Creek would cause a *less-than-significant* impact to riparian areas or habitat.

Soils on the project site exhibit hydric field indicators and obligate hydrophytic plant species were observed during the reconnaissance-level survey. These areas may be subject to Corps and/or RWQCB jurisdiction. Construction of roads and facilities and the introduction of recreational and intensive agricultural uses at the site would likely impact these areas. Impacts to these wetlands, if determined to be present, would be considered *significant*.

Impact BIO-10: The proposed project could impact wetlands on the site, if present. This would be a *significant* impact.

Mitigation Measure BIO-10: Implement Mitigation Measures BIO-6a, BIO-6b, BIO-6c, BIO-6d, and BIO-6e.

Significance after Mitigation: Less than significant.

b. Program-Level Components

A proposed Canoas Creek-seasonal wetland connection that would connect Canoas Creek to the created seasonal wetlands is being considered during the Subsequent Phases of the Park. The design and engineering drawings for the created seasonal wetland connection have not been developed and proposed improvements and enhancements to the Canoas Creek channel and the created wetland would be considered a subsequent phase improvement. Improvements to Canoas Creek would temporarily impact a watercourse and limited riparian habitat. This would be a *significant* impact.

Impact BIO-11: Improvements to Canoas Creek would temporarily impact a watercourse and limited riparian habitat. This would be a *significant* impact.

Mitigation Measure BIO-11: Implement Mitigation Measure BIO-5.

Significance after Mitigation: Less than significant.

Santa Clara County General Plan Policies C-RC 27, 28, and 34 and Implementation Recommendation C-RC(i)15 would also serve to minimize any potential impacts to Canoas Creek.

9. Adverse Impact to Unique or Heritage Trees or a Large Number of Trees Over 12 Inches in Diameter

The potential impacts described below would be the same for Phase I and subsequent phases. As such, project-level and program-level components are not distinguished below.

The proposed project would not impact the mature valley oak trees, all of which are over 12 inches in diameter, at the project site. The *Santa Clara County Guidelines for Tree Protection and Preservation for Land Use Applications* (revised March 8, 2010) would be implemented to avoid impacts to these oak trees. Implementation of Santa Clara County General Plan Policy C-RC 1, which protects and conserves natural and heritage resources for their ecological, functional, economic, aesthetic, and recreational values, would serve to minimize any potential impacts to these mature oaks by natural. Additionally, during construction, fenced enclosures will be erected around on-site oak trees at a distance of five times the diameter at breast height to protect tree roots, in accordance with County BMPs. Tree fencing would be established before any demolition, grading or construction begins and remain in place until the construction has ceased. No other heritage trees or trees over 12 inches in diameter are proposed for removal as part of the

project. The project would have *no impact* to unique or heritage trees or trees over 12 inches in diameter.

10. Conflicts with Local Policies or Ordinances Protecting Biological Resources

The potential impacts described below would be the same for Phase I and subsequent phases. As such, project-level and program-level components are not distinguished below.

i. Tree Preservation Ordinance

The mature valley oaks on the site are considered Ordinance Size Trees by the County of Santa Clara Ordinance Code. These trees would be preserved. The *Santa Clara County Guidelines for Tree Protection and Preservation for Land Use Applications* (revised March 8, 2010) would be implemented to avoid impacts to these oak trees. Implementation of Santa Clara County General Plan Policy C-RC 1, which protects and conserves natural and heritage resources for their ecological, functional, economic, aesthetic, and recreational values, would serve to minimize any potential impacts to these mature oaks by natural. No other heritage trees or trees over 12 inches in diameter are proposed for removal as part of the project. Therefore, the project would have a *less-than-significant* impact to trees protected by the Tree Preservation Ordinance.

ii. Wetland Habitat

Soils on the site exhibit hydric field indicators and obligate hydrophytic plant species were observed during the reconnaissance-level survey. Construction of roads and facilities and the introduction of recreational and intensive agricultural uses at the site would likely impact these areas. These areas do not support significant wetland habitat. Creation of seasonal wetland habitat near Canoas Creek may self-mitigate for the loss of wetland habitat, if present on the site. If the acreage of wetlands at the project site is determined to be greater than that of the created seasonal wetland, additional mitigation may be required by the Corps and/or RWQCB. The potential impacts to the marginal wetland habitat on the site would not conflict with any local

policies or ordinances that protect wetland habitat, therefore, impacts would be *less than significant*.

iii. Riparian Habitat

The proposed enhancements to Canoas Creek would not impact the bed or banks of Canoas Creek since the enhancements would occur above the top of the banks of the creek. In addition, the construction of three creek crossings would not significantly impact any riparian habitat. Therefore, the project would not conflict with local policies or ordinances that protect riparian habitat and impacts would be *less than significant*.

E. Cumulative Impacts

Cumulative impacts from the project are not expected to be significant because most of the site is already extensively disturbed by agricultural uses and the lands surrounding the site are largely developed. Wildlife on the site has already become habituated to human disturbance, and the project is not expected to impact wildlife movement. The area near Canoas Creek would be enhanced as part of the project, serving to fully mitigate any project-related direct impacts. Enhancements near Canoas Creek and the creation of a seasonal wetland north of the creek would mitigate some or all project-related direct impacts and therefore the project would result in a *less-than-significant* cumulative impact to biological resources.

4.6 CLIMATE CHANGE

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended period of time. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities that have led to increased amounts of carbon dioxide (CO₂) and other greenhouse gases (GHGs) in the atmosphere.

This chapter describes the existing GHG emissions in the project site vicinity and evaluates the potential climate change impacts associated with the project. This chapter also includes a discussion of cumulative impacts associated with climate change.

A. Existing Conditions

The information and analysis provided in this report rely primarily on the Climate Action Team 2006 Final Report, Intergovernmental Panel on Climate Change (IPCC) Assessment Reports, various California Air Resources Board (ARB) staff reports, and other related global climate change documents that provide background information on the impacts of GHG emissions.

1. Global Climate Change Setting and Background

The term “global climate change” is often used interchangeably with the term “global warming,” but “global climate change” is preferred to “global warming” because it conveys that other changes exist in addition to rising temperatures. Global surface temperatures have risen by 1.33 degrees Fahrenheit (°F) ±0.32°F over the last 100 years (1906 to 2005). The rate of warming over the last 50 years is almost double that over the last 100 years.¹ The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased

¹ Intergovernmental Panel on Climate Change (IPCC), 2007, *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC*.

amounts of CO₂ and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.²

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- ◆ Carbon dioxide (CO₂)
- ◆ Methane (CH₄)
- ◆ Nitrous oxide (N₂O)
- ◆ Hydrofluorocarbons (HFCs)
- ◆ Perfluorocarbons (PFCs)
- ◆ Sulfur Hexafluoride (SF₆)³

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While man-made GHGs include naturally-occurring GHGs such as CO₂, CH₄, and N₂O, some gases, like HFCs, PFCs, and SF₆ are completely new to the atmosphere. Water vapor also has heat trapping properties but is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic

² The temperature on Earth is regulated by a system commonly known as the “greenhouse effect.” Just as the glass in a greenhouse lets heat from sunlight in and reduces the amount of heat that escapes, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

³ The greenhouse gases listed are consistent with the definition in Assembly Bill (AB) 32 (Government Code 38505), as discussed later in this chapter.

evaporation. For the purposes of this EIR, the term “GHGs” will refer collectively only to the gases listed above.

GHGs vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). As noted in Table 4.6-1, certain gases are short-lived in the atmosphere, while others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. The GWP of each gas is measured relative to CO₂, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂eq). Table 4.6-1 shows the GWPs for each GHG. For example, SF₆ is 22,800 times more potent at contributing to global warming than CO₂. The following discussion summarizes the characteristics of the six primary GHGs.

a. Carbon Dioxide (CO₂)

In the atmosphere, carbon generally exists in its oxidized form, as CO₂. Natural sources of CO₂ include the respiration (breathing) of humans, animals and plants, volcanic outgassing, decomposition of organic matter and evaporation from the oceans. Human-caused sources of CO₂ include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. The Earth maintains a natural carbon balance, and when concentrations of CO₂ are upset, the system gradually returns to its natural state through natural processes. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO₂ to the atmosphere. Natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO₂ and, consequently, the gas is building up in the

TABLE 4.6-1 GLOBAL WARMING POTENTIAL OF GREENHOUSE GASES

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide (CO ₂)	50 to 200	1
Methane (CH ₄)	12	25
Nitrous Oxide (N ₂ O)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF ₄)	50,000	7,390
PFC: Hexafluoromethane (C ₂ F ₆)	10,000	12,200
Sulfur Hexafluoride (SF ₆)	3,200	22,800

Source: IPCC, 2007, *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

atmosphere. The concentration of CO₂ in the atmosphere has risen about 30 percent since the late 1800s.⁴ In 2002, CO₂ emissions from fossil fuel combustion accounted for approximately 98 percent of man-made CO₂ emissions.

b. Methane (CH₄)

CH₄ is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (burning of coal, oil,

⁴ California Environmental Protection Agency, 2006, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*.

natural gas, etc.). Decomposition occurring in landfills accounts for the majority of human-generated CH₄ emissions in California, followed by enteric fermentation (emissions from the digestive processes of livestock).⁵ Agricultural processes such as manure management and rice cultivation are also significant sources of human-generated CH₄ in California. It is estimated that over 60 percent of global CH₄ emissions arise from human-related activities.⁶

c. Nitrous Oxide (N₂O)

N₂O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N₂O is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N₂O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N₂O emissions in California.

d. Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF₆)

HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.⁷ PFCs and SF₆ are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the

⁵ California Air Resources Board, 2008, Greenhouse Gas Inventory Data - 1990 to 2004, <http://www.arb.ca.gov/cc/inventory/data/data.htm>, accessed May 25, 2010.

⁶ IPCC, 2007, *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC*.

⁷ The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

rapid growth in the semiconductor industry, which is active in California, leads to greater use of PFCs.

2. Emissions Sources and Inventories

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, California, and local GHG emission inventories.

a. Global Emissions

Worldwide emissions of GHGs in 2004 were 27 billion metric tons of CO₂eq per year.⁸ Global estimates are based on country inventories developed as part of programs of the United Nations Framework Convention on Climate Change.

b. United States Emissions

In 2004, the United States emitted about 7.3 billion metric tons of CO₂eq, or about 25 tons/year/person. Of the four major sectors nationwide – residential, commercial, industrial, and transportation – transportation accounts for the highest amount of GHG emissions (approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion. Between 1990 and 2006, total United States GHG emissions rose approximately 14.7 percent.⁹

⁸ Combined total of Annex I and Non-Annex I Country CO₂eq emissions. United Nations Framework Convention on Climate Change (UNFCCC), 2007, *Greenhouse Gas Inventory Data*. Information available at http://unfccc.int/ghg_data/ghg_data_unfccc/time_series_annex_i/items/3814.php and http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf.

⁹ U.S. Environmental Protection Agency (EPA), 2008, *The U.S. Greenhouse Gas Emissions and Sinks: Fast Facts*. http://www.epa.gov/climatechange/emissions/downloads/2008_GHG_Fast_Facts.pdf.

c. California Emissions

According to the ARB emission inventory estimates, California emitted approximately 480 million metric tons (MMT) of CO₂eq emissions in 2004.¹⁰ Although this is a large number, due primarily to the sheer size of California as compared to other States, California has the fourth lowest per capita CO₂ emission rate from fossil fuel combustion in the country. The low per capita emission rate is due to the success of California's energy efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than half of what it would have been otherwise.¹¹

The California EPA Climate Action Team stated in its March 2006 report that the composition of gross climate change pollutant emissions in California in 2002 (expressed in terms of CO₂eq) was as follows:

- ◆ CO₂ accounted for 83.3 percent
- ◆ CH₄ accounted for 6.4 percent
- ◆ N₂O accounted for 6.8 percent
- ◆ HFCs, PFC, and SF₆ accounted for 3.5 percent¹²

The ARB estimates that transportation was the source of approximately 38 percent of the State's GHG emissions in 2004, followed by electricity generation (both in-State and out-of-State) at 23 percent, and industrial sources at 20 percent. The remaining sources of GHG emissions are residential and com-

¹⁰ California Air Resources Board, Greenhouse Gas Inventory Data - 1990 to 2004, <http://www.arb.ca.gov/cc/inventory/data/data.htm>, accessed November 2008.

¹¹ California Energy Commission (CEC), 2007, Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007 update to that report.

¹² California Environmental Protection Agency, 2006, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*.

mercial activities at 9 percent, agriculture at 6 percent, high global warming potential gases at 3 percent, and recycling and waste at 1 percent.¹³

ARB is responsible for developing the California GHG Emission Inventory. This inventory estimates the amount of GHGs emitted to and removed from the atmosphere by human activities within California and supports the Assembly Bill (AB) 32 Climate Change Program. ARB's current GHG emission inventory covers the years 1990 to 2004 and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g. housing, landfill activity, agricultural lands, etc.). The emission inventory estimates are based on the actual amount of all fuels combusted in the State, which accounts for over 85 percent of the GHG emissions within California.

ARB staff has projected 2020 unregulated GHG emissions, which represent the emissions that would be expected to occur in the absence of any GHG reduction actions. ARB staff estimates the statewide 2020 unregulated GHG emissions will be 596 MMT of CO₂eq. GHG emissions in 2020 from the transportation and electricity sectors as a whole are expected to increase, but remain at approximately 38 percent and 23 percent of total CO₂eq emissions, respectively. The industrial sector consists of large stationary sources of GHG emissions and the percentage of the total 2020 emissions is projected to be 17 percent of total CO₂eq emissions. The remaining sources of GHG emissions in 2020 are high global warming potential gases at 8 percent, residential and commercial activities at 8 percent, agriculture at 5 percent, and recycling and waste at 1 percent.¹⁴

d. Bay Area Emissions

The Bay Area Air Quality Management District (BAAQMD) established a climate protection program in 2005 to acknowledge the link between climate change and air quality. The BAAQMD regularly prepares inventories of cri-

¹³ California Air Resources Board (ARB), 2008, <http://www.climatechange.ca.gov/inventory/index.html>.

¹⁴ California Air Resources Board (ARB), 2008, <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>.

teria and toxic air pollutants to support planning, regulatory and other programs. The most recent BAAQMD inventory also estimates GHG emissions produced by the San Francisco Bay Area in 2007.¹⁵ The inventory updates BAAQMD's previous GHG emission inventory for base year 2002, which was published November 2006.

In 2007, the San Francisco Bay Area emitted 102.6 MMT of CO₂eq. Fossil fuel consumption in the transportation sector was the single largest source of the San Francisco Bay Area's GHG emissions. The transportation sector, including on-road motor vehicles, locomotives, ships and boats, and aircraft, contributed over 40 percent of GHG emissions in the Bay Area. The industrial and commercial sector (excluding electricity and agriculture) was the second largest contributor with 34 percent of total GHG emissions. Energy production activities such as electricity generation and co-generation were the third largest contributor with approximately 15 percent of the total GHG emissions. Off-road equipment such as construction, industrial, commercial, and lawn and garden equipment contributed 3 percent of GHG emissions.

e. Santa Clara County

As discussed later in this chapter, the Santa Clara County Climate Action Plan focuses on County operations, facilities, and employee actions. The Baseline Inventory for 2005 attributed 133,459 metric tons of GHG to County operations and facilities. The GHG reduction target for 2015 is 13,346 metric tons. The Climate Action Plan identifies over 30,000 metric tons of potential reductions.

B. Regulatory Framework

This section discusses the regulatory framework and other governmental activities addressing GHG emissions and global climate change.

¹⁵ Bay Area Air Quality Management District, 2008, *Source Inventory of Bay Area Greenhouse Gas Emissions*.

1. Federal Regulations

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the Environmental Protection Agency (EPA) has the authority to regulate CO₂ emissions under the federal Clean Air Act (CAA). While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the EPA commenced several actions in 2009 that are required to implement a regulatory approach to global climate change.

On December 7, 2009, the EPA Administrator signed a final action under the CAA, finding that six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change. This EPA action does not impose any requirements on industry or other entities. However, the findings are a prerequisite to finalizing the GHG emission standards for light-duty vehicles mentioned below. The EPA received ten petitions challenging this determination. On July 29, 2010, EPA denied these petitions.

In February 2010, the White House Council of Environmental Quality released a document titled “Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions.” The draft guidance recognizes that many federal actions will result, directly or indirectly, in the GHG emissions. The draft guidance encourages agencies to quantify cumulative emissions over the life of the project in project analysis; to discuss measures to reduce emissions, including the consideration of reasonable alternatives; and to discuss from a qualitative perspective the link between the project’s emissions and climate change. The guidance recognizes scientific limits on the ability to predict climate change effects, and therefore cautions the use of speculative analyses or attempting to link a particular project to specific climatological changes.

On April 1, 2010, the EPA and the Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) announced a final joint

rule to establish a national program consisting of new standards for model year 2012 through 2016 light-duty vehicles that will reduce GHG emissions and improve fuel economy. The EPA is finalizing the first national GHG emissions standards under the CAA, and NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. The EPA GHG standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile in model year 2016, equivalent to 35.5 miles per gallon (mpg).

On May 13, 2010, the EPA issued a final rule to address GHG emissions from stationary sources under the CAA permitting programs. This final rule sets thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration (PSD) and title V Operating Permit programs are required for new and existing industrial facilities.

2. State Regulations

In June 2005, Governor Arnold Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals for the State of California:

- ◆ GHG emissions should be reduced to 2000 levels by 2010
- ◆ GHG emissions should be reduced to 1990 levels by 2020
- ◆ GHG emissions should be reduced to 80 percent below 1990 levels by 2050

California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. AB 32 aims to reduce GHG emissions to 1990 levels by 2020. The ARB has established the level of GHG emissions in 1990 at 427 MMT of CO₂eq. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires ARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by ARB on December 11, 2008, and includes measures to address GHG emission

reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures.

The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until they are adopted through the normal rulemaking process. The ARB rulemaking process includes preparation and release of each of the draft measures, and public input through workshops and a public comment period, followed by an ARB Board hearing and rule adoption.

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed ARB and the newly created Climate Action Team (CAT) to identify a list of “discrete early action GHG reduction measures” that can be adopted and made enforceable by January 1, 2010. The measures that would result in a reduction of GHG emissions associated with the proposed project include the Low Carbon Fuel Standard (LCFS), limitation of high GWP use in consumer products, aerodynamic efficiency in heavy-duty vehicles, and a tire pressure program. The combination of all early action measures is estimated to reduce statewide GHG emissions by nearly 16 MMT.

To assist public agencies in the mitigation of GHG emissions or analyzing the effects of GHGs under CEQA, including the effects associated with transportation and energy consumption, Senate Bill (SB) 97 requires the Governor’s Office of Planning and Research (OPR) to develop CEQA guidelines on how to minimize and mitigate a project’s GHG emissions. On April 13, 2009, OPR submitted proposed CEQA guideline amendments to the California Natural Resources Agency. On December 30, 2009, the Natural Resources Agency adopted CEQA Guidelines Amendments related to Climate Change. These amendments became effective on March 18, 2010.

SB 375, signed into law on October 1, 2008, is intended to enhance ARB's ability to reach AB 32 goals by directing ARB to develop regional GHG emissions reduction targets to be achieved within the automobile and light truck sectors for 2020 and 2035. ARB must provide emission reduction targets to the State's 18 metropolitan planning organizations (MPOs) by September 30, 2010. ARB will work with the MPOs, including the San Francisco Bay Area's Metropolitan Transportation Commission (MTC), to align their regional transportation, housing, and land use plans and prepare a "Sustainable Communities Strategy" to reduce the number of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its GHG reduction targets. MTC will address the requirements of SB 375 in the next scheduled update of the Regional Transportation Plan in 2013.

3. County Policies

The Santa Clara County General Plan contains several goals and policies related to the proposed project that would reduce GHG emissions and address global climate change. Relevant goals and policies from the County's General Plan are listed in Table 4.6-2.

The County of Santa Clara has adopted a Green Building Policy. It is the policy of the Board of Supervisors that all county facility projects incorporate green building standards, as defined by the USGBC in their Leadership in Energy and Environmental Design (LEED) program. County facility projects affected by this policy include new buildings, renovations, and adaptive re-use of an existing facility, whether owned or leased. The proposed project would comply with the Green Building Policy and would meet appropriate LEED program goals for design and construction of all new Park buildings.

In 2007, the County of Santa Clara Board of Supervisors signed the Cool Counties Climate Stabilization Declaration and established a set of aggressive goals for GHG emission reductions for the County:

- ◆ Stop increasing the amount of emissions by 2010
- ◆ Decrease emissions by 10 percent every 5 years from 2010 – 2050
- ◆ Reach an 80 percent reduction by 2050

TABLE 4.6-2 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO CLIMATE CHANGE

Policy Number	Policy Content
C-HS 13	Emissions from small scale sources such as gasoline-powered lawn equipment, consumer products, barbeque grills, and other sources should be reduced through public education, product replacement, and regulation where appropriate.
C-RC 9	Conservation should continue to be considered an integral component of local water “supply” resources, effectively minimizing the amount of supplemental supplies which must be obtained from other sources.
C-RC 12	More efficient use of water for agricultural irrigation and industrial processes should be promoted through improved technology and practices.
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.
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 reducing transportation energy demand and oil-dependency; conserving energy in residential, commercial, agricultural, and industrial sectors; and 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: growth management policies and implementation to minimize increases in the extent of the urbanized area and to promote balanced, compact urban development; land use and development standards which support alternative transportation modes; travel demand management, TDM, and transportation system operational efficiency; expanded transit service; and increased availability and use of alternative fuels.
C-RC 80	Sub-regional/countywide planning for Santa Clara County should place major emphasis on the inter-related goals, strategies and policies for improving energy efficiency in transportation, air quality, and reducing traffic congestion.
C-RC 81	Energy conservation in existing buildings and homes, particularly those pre-dating adoption of energy-efficiency building code standards, should be improved and encouraged.

Policy Number	Policy Content
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.
C-RC 83	Industrial and agricultural processes should be modified wherever feasible to take advantage of energy savings, to reduce operational costs, and to enhance competitiveness.
C-RC 84	Countywide efforts to promote energy efficiency and conservation awareness should be continued and coordinated through public utilities, community organizations, the educational system, industries, and government. Direction and assistance of local gas and electric utilities should be sought in the development of education programs.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

The Santa Clara County Climate Change and Sustainability Program was formed in July 2008. The initial focus of the program was to reduce GHG emissions in the County's facilities and operations and the community. The County of Santa Clara signed the Bay Area Climate Change Compact in March 2009. The Compact addresses green building, transportation, renewable energy, energy efficiency, green jobs, water, climate adaptation plans, public information campaign, waste diversion, and green municipal fleets. By signing the Compact, the County of Santa Clara committed to collaborating with regional partners to meeting goals outlined in the Compact. County policies that contribute to this effort include the green building ordinance, adopted in 2008. Although not applicable to the proposed project, the Green Building ordinance applies minimum green building standards to single-family homes located in the unincorporated parts of the County.

More recently, in April of 2010 the County of Santa Clara adopted Policies on Sustainability which recognize the County's commitment to "building and maintaining a healthy and safe community for current and future generations through preserving natural resources and the environment, fostering a healthy economy and meeting the needs of all residents with respect and cul-

tural awareness.” The policies on sustainability develop public policy and programs that support and provide balance between a vibrant economy, healthy environment, and social equity. The County has also adopted a new Environmentally Preferable Purchasing Policy which is introducing new, greener products that aim to minimize the release of GHG emissions and maximize energy efficiency. The County’s Final Comprehensive Vehicle Policy also reduces GHG emissions by implementing an anti-idling policy which requires all County drivers turn off vehicle engines upon stopping at their destination. Under the policy, County drivers may not allow an engine to idle at any location for more than 1 minute consecutively or periods of more than 5 minutes.

As previously noted, the Climate Action Plan developed by the County of Santa Clara in 2009 focuses on County operations, facilities, and employee actions that will reduce not only GHG emissions but also energy and water consumption, solid waste, and fuel consumption. The Climate Action Plan focuses primarily on steps needed to reach the 10 percent reduction goal by 2015, but also identifies policies and actions that are needed for reductions past 2015.

Other County actions related to the proposed project include a County Executive directive which mandates regulated temperature for County facilities, which the new Visitor Center at Martial Cottle Park would comply with. Therefore, the project will follow LEED building design goals, but would include air conditioning as a backup in the event additional temperature regulation is needed.

C. Standards of Significance

The California Environmental Quality Act (CEQA) requires that lead agencies consider the reasonably foreseeable adverse environmental effects of projects considered for approval, including cumulative impacts. Cumulative impacts are the collective impacts of one or more past, present, or future projects that, when combined, result in adverse changes to the environment.

Global climate change is considered an “effect on the environment” and an individual project’s incremental contribution to global climate change, although small, can have a cumulatively significant impact when considered collectively with past present and future projects. Therefore, climate change is addressed primarily as a cumulative impact for purposes of CEQA. On December 30, 2009, the California Natural Resources Agency adopted CEQA Guidelines Amendments related to Climate Change. These amendments became effective on March 18, 2010, and state:

a) The determination of the significance of GHG emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- 1) Use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
- 2) Rely on a qualitative analysis or performance based standards.

b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment:

- 1) The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;
- 2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
- 3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be

adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Consistent with the CEQA Guidelines Amendments, climate change impacts associated with the project would be considered significant if the project would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.
3. Increase GHG emissions that hinder or delay the State's ability to meet the reduction target (25 percent reduction by 2020) contained in CA Global Warming Solutions Act of 2006 (AB 32).

D. Impact Discussion

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

1. Direct or Indirect Generation of Greenhouse Gas Emissions That May Have a Significant Impact on the Environment

The BAAQMD adopted revised CEQA Guidelines on June 2, 2010. The BAAQMD CEQA Guidelines include thresholds of significance for GHG emissions. The BAAQMD does not have a quantitative threshold of significance for construction-related GHG emissions. However, BAAQMD recommends that the Lead Agency quantify and disclose GHG emissions that would occur during construction, and make a determination on the signifi-

cance of these construction generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals. Lead Agencies are encouraged to incorporate best management practices, such as recycling at least 50 percent of construction waste or demolition materials, to reduce GHG emissions during construction, as applicable.

For land use development projects (i.e. residential, commercial, industrial, and public land uses and facilities), the proposed threshold of significance for GHG emissions is: (1) compliance with a qualified climate action plan or qualified general plan, (2) annual GHG emissions less than 1,100 metric tons per year, or (3) annual GHG emissions less than 4.6 metric tons per service population (residents plus employees).

a. Construction Emissions

Construction activities, such as site preparation, site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the sites, and motor vehicles transporting the construction crew would produce combustion emissions from various sources. During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The only GHG with well-studied emissions characteristics and published emissions factors for construction equipment is CO₂. The following construction estimates are presented for informational purposes only, as development of the project includes a number of components (e.g. roadways, utilities, agricultural components, etc.) that would be difficult to estimate without a detailed schedule. Using the URBEMIS 2007 model, as recommended by BAAQMD, it is estimated that the maximum annual construction emissions would be approximately 174 metric tons of CO₂, or a total of 1,566 metric

tons over the life of the Plan. Model output sheets are included in Appendix F.

b. Operational GHG Emissions

Long-term operation of the project would generate GHG emissions from area and mobile sources, and indirect emissions from sources associated with energy consumption, water use, and solid waste disposal. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with staff, visitors and delivery vehicle trips to the project sites. Estimated visitor use at the project site resulting from the implementation of the project is 2,683 people on a typical weekday and 4,610 people on a typical weekend day during the high season. Area-source emissions would be associated with activities such as landscaping and maintenance of proposed land uses, agricultural uses, and other sources. Increases in emissions would also occur at off-site utility providers as a result of demand for electricity, and water by the proposed uses.

Operational emissions estimates for the project are discussed below and were calculated consistent with the methodology recommended in the BAAQMD's CEQA Air Quality Guidelines. Estimates of future GHG emissions do not account for all changes in technology that may reduce such emissions; therefore, the estimates are based on past performance and represent a scenario that is believed to be worse than that which is likely to be encountered (i.e. after energy-efficient technologies have been implemented).

The methodology and/or qualitative description of the sources of GHG emissions related to transportation, electricity, water use, solid waste disposal and carbon sequestration are described below. GHG emissions were estimated using URBEMIS 2007 and the BAAQMD GHG Model (BGM).

i. Transportation

Transportation associated with the project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips. Transportation is the largest source of GHG emissions in California and

represents approximately 38 percent of annual CO₂ emissions generated in the State. Vehicle miles traveled (VMT) and vehicle trips are the most direct indicators of GHG emissions associated with the project. A Traffic Impact Analysis was prepared to identify the traffic impacts of the proposed project (see Appendix F).¹⁶ The project is anticipated to generate 308 AM peak-hour trips, 296 PM peak-hour trips and approximately 2,960 trips per day.¹⁷ CO₂ emissions were estimated using URBEMIS 2007 and the BGM. The trips generated by the proposed project would be associated with recreation visitors and staff traveling to the site, as well as those traveling to the site to purchase food grown on the site. Although the total reduction in regional VMT from locally produced products is difficult to quantify for this project, the availability of locally produced products is assumed to result in a reduction in global GHG emissions when compared to conventionally bought items. Due to the lack of specific information available at this time for potential VMT reductions associated with the project's food stand, emission reductions associated with the purchase of locally grown food were not accounted for in this analysis.

ii. Electricity

Buildings represent 39 percent of United States primary energy use and 70 percent of electricity consumption. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. The project is not anticipated to increase the use of natural gas apart from some minimal demand, but would increase the demand for electricity with the addition of the visitor center, park support facilities, agricultural support facilities (e.g. processing and packaging facilities), and commercial sale operations (e.g. farmers market and café). The visitor center would serve as the base for Park operations and could ultimately include interpretive exhibits, a gift store, classrooms, staff offices, and restrooms. Electricity emissions were estimated using the BGM.

¹⁶ Hexagon Transportation Consultants, Inc., 2009, Martial Cottle Master Plan Traffic Impact Analysis.

¹⁷ Daily transportation estimates were estimated based on standard methodology that total daily trips are approximately 10 times the PM peak hour trips.

iii. Water Use

Energy use and related GHG emissions are based on water supply and conveyance, water treatment, water distribution, and wastewater treatment. Water is provided by existing on-site wells that are used primarily for agricultural irrigation. Water usage estimates were calculated based on irrigation demand for production agriculture, gardens, and landscaping and demand for buildings, restrooms, and other facilities. The project is anticipated to use approximately 561 acre-feet of water per year.

iv. Solid Waste Disposal

Farm and green waste generated by the project would be composted on-site. Other solid waste generated by the project could contribute to GHG emissions in a variety of ways. On-site waste disposal, including composting of organic waste, and landfilling and other methods of disposal use energy for transporting and managing the waste and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH₄ from the anaerobic decomposition of organic materials. Solid waste emissions were estimated using the BGM.

v. Agricultural Activities

Approximately 143 acres of the total area within the Park would be dedicated to production agriculture. Agricultural fields are consolidated into large, contiguous blocks in order to promote efficient agricultural activities. It would be possible to produce most of the crops and other agricultural products that historically were produced in Santa Clara Valley, including fruits, nuts and vegetables; grains; legumes; animal feed and forage crops; rangeland and pasture for livestock production; seed crops; oilseed crops; nursery stock; livestock; and poultry.

Agricultural activities contribute to emissions of GHGs through a variety of processes, including direct emissions from the field (e.g. manure and soil management) in the form of nitrous oxide and methane, and carbon emissions from agricultural equipment and water-pumping systems. Estimates of GHG

emissions related to agricultural activities are typically based on emissions from equipment exhaust, including harvesting equipment, emissions from fertilizer application, and water use.

Emissions from the agricultural production facilities and commercial sales facilities are included in the electricity and water use estimates discussed earlier. The crop types that are grown would likely be determined by the producer or producers involved, by the demands of their target markets, and by conditions of their lease agreement. As the equipment necessary for harvesting, as well as crop schedules, are not available at the time the Plan was developed, it is difficult to provide an accurate assessment of agricultural equipment emissions. Therefore, specific estimates of off-road equipment emissions are not provided in this analysis. In addition, emissions from agricultural and other off-road equipment are controlled by the federal and State government.

vi. Carbon Sequestration

Vegetation is important to global climate change, as it absorbs CO₂ from the atmosphere as part of the growing process. Forests, grasslands, and other natural areas build up a carbon store in their trees, shrubs and soil, creating carbon “sinks.” When cleared, much of the stored carbon is rapidly converted back into CO₂ and released to the atmosphere.

Since above-ground vegetation in most agricultural systems is annual crops or does not accumulate large standing stocks (e.g. grazed pastures), soil carbon stock changes are the primary focus for agricultural land. Over the past decade, agricultural soils in the United States have acted as a small net sink of approximately 12 million metric tons of carbon per year, mainly due to improved soil management practices. Concerns over rapidly increasing atmospheric CO₂ levels have prompted interest in soil carbon sequestration. However, the ability of conservation tillage systems to sequester carbon is still being debated. Changes to carbon sequestration are not required to be modeled as part of the BAAQMD CEQA Guidelines, but are sometimes presented for informational purposes. Agricultural sinks are difficult to account and meas-

ure due to spatial variability, variation over time, the slow rate at which carbon might be sequestered and issues of how permanently carbon can be stored; therefore, no detailed estimates of changes in carbon sequestration are presented as part of the analysis of the project.

c. Project Emissions

When calculating project GHG emissions to compare to the thresholds of significance, BAAQMD recommends that the lead agency consider project design features, attributes, and local development requirements as part of the project as proposed and not as mitigation measures. Table 4.6-3 shows the calculated GHG emissions for the proposed project. Motor vehicle emissions are the largest source of project GHG emissions, at approximately 77 percent of the total. Electricity production is the next largest category, at 15 percent of the GHG emissions. Solid waste generation and disposal comprises 7 percent of CO₂eq emissions. Other area sources, including landscape equipment, are the remaining source of GHG emissions and comprise less than 1 percent of the total emissions for the project. Additional calculation details are provided in Appendix F.

The proposed project would generate up to 2,777 metric tons of CO₂eq per year of emissions, as shown in Table 4.6-3. Annual emissions of operational-related GHGs for the project would exceed the significance threshold of 1,100 metric tons of CO₂eq per year. The draft BAAQMD CEQA Guidelines allow for an analysis of project emissions compared to a threshold of 4.6 metric tons of CO₂e per service population (residents plus employees) per year. On a typical weekday, there would be approximately 86 staff (County and non-County staff) employed at the project site. This would result in emissions of 32.3 metric tons of CO₂eq per year, which would exceed the threshold of significance of 4.6 metric tons. Since the project would generate GHG emissions that would exceed the BAAQMD draft threshold of 1,100 metric tons per year and 4.6 metric tons per service population per year, it would generate GHG emissions that may have a *significant* impact on the environment.

TABLE 4.6-3 PROJECT GHG EMISSIONS

Emission Source	Emissions (Metric Tons Per Year)				Percent of Total
	CO ₂	CH ₄	N ₂ O	CO ₂ eq	
Transportation	--	--	--	2,143.86	77.19
Area Source	0.23	0.00	0.00	0.23	0.01
Electricity	430.38	0.00	0.00	431.07	15.52
Water & Wastewater	9.48	0.00	0.00	9.49	0.34
Solid Waste	1.33	9.11	N/A	192.69	6.94
Total Annual Emissions	--	--	--	2,777.34	100.00

Note: Column totals may vary slightly due to independent rounding of input data.

"--" = Estimates not available for this pollutant and/or category.

Source: LSA Associates, Inc., July 2010.

Impact CC-1: Construction and operation of the project would result in GHG emissions that would have a *significant* physical adverse impact and cumulatively contribute to global climate change.

Mitigation Measure CC-1a: The following construction practices shall be implemented at the project site during the construction and pre-construction phases of the project:

- ◆ Implement Mitigation Measure AQ-1 to reduce exhaust emissions.
- ◆ Use local building materials when feasible and to the extent that materials are available.
- ◆ Recycle or reuse at least 50 percent of construction waste or demolition materials.
- ◆ For all building construction projects with a defined footprint, the County shall establish a construction limit of work area and install

fencing around the limit of work. (This measure shall not apply to other park improvements such as trail construction.)

Mitigation Measure CC-1b: The following measures shall be incorporated into the design and construction of the project:

Energy Efficiency Measures:

- ◆ Design, construct and operate all newly constructed and renovated commercial structures to meet the County of Santa Clara's green building standards.
- ◆ Design buildings to facilitate use of solar energy for electricity, water heating, and/or space heating/cooling within parameters of historical design.
- ◆ Provide a landscape and development plan for the project that takes advantage of shade, prevailing winds, and landscaping.
- ◆ Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems.
- ◆ Install light colored "cool" roofs and cool pavements (e.g. porous pavement).
- ◆ Install energy efficient heating and cooling systems, appliances and equipment, and control systems.
- ◆ Install energy-efficient, solar or light emitting diodes (LEDs) for outdoor lighting, as appropriate.

Water Conservation and Efficiency Measures:

- ◆ Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include the following, plus other innovative measures that might be appropriate:
 - Create water-efficient landscapes within the development, including climate-appropriate and drought-tolerant species in non-agricultural areas.

- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Design buildings to be water-efficient. Install water-efficient fixtures and appliances, including low-flow faucets, dual-flush toilets and waterless urinals.
- Restrict watering methods (e.g. prohibit systems that apply water to non-vegetated surfaces) and control runoff.
- Install a separate, non-potable distribution system (i.e. “purple pipe”) to accommodate the use of recycled water or grey water for landscape irrigation needs of non-agricultural areas with irrigated landscaping, where feasible and where the supply infrastructure exists and/or as reclaimed water sources become available for the site.
- Utilize rainwater harvesting techniques to collect rainwater and store in on-site cisterns to allow use of reclaimed water for landscape irrigation needs of non-agricultural areas with irrigated landscaping.

Agriculture:

- ◆ Require that agricultural and animal operations, managed by the Master Farmer and/or lessees, implement best management and sustainable farming practices to reduce emissions conserve energy and water, and utilize alternative energy sources.
- ◆ When feasible, implement best management practices for crop rotation and weed control in agricultural areas.

Solid Waste:

- ◆ Establish and implement target reduction goals for recycling, composting, and other on-site solid waste reduction measures to achieve a 75 percent diversion rate consistent with the policies in the Santa Clara County Climate Action Plan.

Transportation and Motor Vehicle Measures:

- ◆ Develop a transportation demand management (TDM) program that includes trip reduction components such as free transit passes, a dedicated employee transportation coordinator, and carpool matching program.
- ◆ Provide transit facilities (e.g. bus bulbs/turnouts, benches, shelters).
- ◆ Provide bicycle lanes and/or paths, incorporated into the proposed street systems and connected to a community-wide network (such as bikeways along Branham Lane).
- ◆ Provide sidewalks and/or paths, connected to adjacent land uses, transit stops (such as the existing VTA bus stops on Snell Avenue), and/or a community-wide network.

Significance after Mitigation: Significant and unavoidable. Despite proposed features and implementation of the mitigation measures listed above, the project would result in GHG emissions that would have a significant physical adverse impact and cumulatively contribute to global climate change.

2. Conflicts with Applicable Greenhouse Gas Reduction Plans, Policies, or Regulations

The draft Climate Action Plan developed by the County of Santa Clara focuses on steps needed to reach the 10 percent GHG reduction goal by 2015. The applicable policy from the Climate Action Plan includes a goal for solid waste diversion to reach a 75 percent diversion rate by the end of 2015. The characteristics, goals, and guidelines contained in the proposed Plan are consistent with the policies in the Climate Action Plan.

ARB has developed several reports to achieve the Governor's GHG targets that rely on voluntary actions of California businesses, local government and community groups, and State incentive and regulatory programs. These include the CAT's 2006 "Report to Governor Schwarzenegger and the Legislature," ARB's 2007 "Expanded List of Early Action Measures to Reduce

Greenhouse Gas Emissions in California,” and ARB’s “Climate Change Scoping Plan: a Framework for Change.” The reports identify strategies to reduce California’s emissions to the levels proposed in Executive Order S-3-05 and AB 32.

The adopted Scoping Plan includes proposed GHG reductions from direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as cap-and-trade systems. State measures include emission reductions assumed as part of the Scoping Plan, including light-duty vehicle GHG standards (“Pavley standards”), low carbon fuel standard, and energy efficiency measures.

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed ARB to identify a list of early action GHG reduction measures. ARB’s focus in identifying the 44 early action items was to recommend measures that ARB staff concluded were “expected to yield significant GHG emission reductions, are likely to be cost-effective and technologically feasible.” The combination of early action measures is estimated to reduce statewide GHG emissions by nearly 16 MMT. Accordingly, the 44 early action items focus on industrial production processes, agriculture, and transportation sectors. Early action items associated with industrial production do not apply to the proposed project. The transportation sector early action items such as truck efficiency, low carbon fuel standard, proper tire inflation, truck stop electrification and strengthening light duty vehicle standards are either not specifically applicable to the proposed project or would result in a reduction of GHG emissions associated with the project. The agricultural sector early action items focus on research in reducing GHG emissions from nitrogen application and outreach regarding electrification of stationary agricultural engines.

The Park would include a number of features that are consistent with statewide goals to reduce transportation, energy, and agricultural emissions. The Santa Clara Valley Transportation Authority (VTA) and Caltrain would provide transit service to the project site. Bicycle corridors, pedestrian trails, and

service road connections would facilitate walk-in access to the Park. The Plan identifies adequate park entrances to facilitate access for transit users and local residents, while minimizing impacts on Park resources.

Environmental problems from agricultural activities can be related to inefficient use of resources. For example, more efficient nitrogen fertilizer use can reduce emissions and impacts on global climate change. Policy AG.8 of the Plan could reduce GHG emissions related to agricultural production by supporting carbon efficient farming methods and other climate change strategies.

The project's GHG emissions generated during construction and operation would be minimized by virtue of the following guidelines contained in the Plan:

- ◆ RESOURCES.1: Preserve and establish locally native vegetation communities and wildlife habitat within the Park to the extent possible while allowing for primary development of agricultural, educational and recreational uses.
- ◆ PLANT.5: Incorporate climate-appropriate and drought-tolerant species to reduce the amount of water used for irrigation in the nonagricultural areas of the Park.
- ◆ HYDRO.1: Employ high-efficiency irrigation systems in agricultural, recreational and other areas of the Park requiring irrigation.
- ◆ HYDRO.2: Minimize irrigation in non-agricultural areas through water conservation techniques.
- ◆ AG.8: Utilize sustainable farming practices that integrate natural biological cycles and controls; protect and enhance soil fertility and the natural resource base; and minimize adverse impacts on public health, safety, wildlife, water quality and the environment.
- ◆ CIRC.5: Develop strategies for facilitating travel to and from the Park via alternative, non-automobile modes, such as bus, light rail, Caltrain, bicycle, and walking.

- ◆ CIRC.6: Provide bicycle parking according to VTA Countywide Bicycle Plan Technical Guidelines.
- ◆ CIRC.7: Work with the City of San José and the Santa Clara Valley Transportation Authority (VTA) to provide safe and convenient pedestrian and bicycle connections from nearby transit nodes that include bus stops, light rail, and Caltrain stations to the Park.
- ◆ CIRC.8: Work with the City of San Jose and the VTA to provide multiple points of walk-in entry and crosswalks for pedestrians and bicyclists to facilitate access to the Park from surrounding neighborhoods and regional transit.
- ◆ CIRC.9: Work with the VTA to develop safe and attractive designs for area bus stops serving park visitors that is in keeping with its historic farming nature, to promote public transit as a preferred means of travel to the Park.
- ◆ CIRC.12: Establish trail connections throughout the Park to provide convenient connections between Park destinations.
- ◆ CIRC.13: Provide trails around the perimeter as well as through the Park that are designed to accommodate safe and compatible use by multiple trail user groups, including pedestrians, joggers, rollerbladers, bicyclists, and equestrians.
- ◆ CIRC.17: Work with the City of San Jose to provide safe and comfortable pedestrian and bicycle crossings at all intersections leading to the Park.
- ◆ UTIL.2: Encourage use of recycled/reclaimed water where appropriate, and harvest rainwater and greywater for use in non-agricultural irrigation where feasible.
- ◆ UTIL.3: Maximize use of sustainable energy practices such as the use of solar, and wind, passive solar, and geothermal technologies.
- ◆ UTIL.5: Limit lighting in the Park and utilize fully-shielded solar-powered LED light standards.

- ◆ UTIL.6: Utilize passive cooling techniques where possible.
- ◆ UTIL.9: Encourage recycling services and the means and methods for collecting and separating each type of debris deemed reusable or recyclable. Encourage on-site composting, mulching or reuse of plant debris.
- ◆ UTIL.10: Require concessionaires to use recyclable and/or compostable materials.
- ◆ UTIL.11: Work with the City of San José to establish a program that minimizes the amount of waste sent to landfills from the Park. The program should include strategies adopted from the City of San Jose's Zero Waste Event Program.

The guidelines of the Plan would not conflict with the Santa Clara Climate Action Plan, the AB 32 Scoping Plan, or the early action measures; therefore, the project would have a *less-than-significant* impact.

3. Increased Greenhouse Gas Emissions that Hinder or Delay the State's Ability to Meet the AB 32 Reduction Target

BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. Therefore, if the project generates GHG emissions above the proposed threshold level of 1,100 metric tons, it would be considered to contribute substantially to a cumulative impact, and would be considered significant. If mitigation can be applied to lessen the emissions such that the project meets its share of emission reductions needed to address the cumulative impact, the project's impact would be considered less than significant.

The project would generate greenhouse GHG emissions that may hinder or delay the State's ability to meet the AB 32 reduction target. This would be a *significant* impact.

Impact CC-2: The project would generate increased GHG emissions that hinder or delay the State's ability to meet the AB 32 reduction target. This would be a *significant* impact.

Mitigation Measure CC-2: The applicant shall implement Mitigation Measures CC-1a and CC-1b.

Significance after Mitigation: Significant and unavoidable.

E. Cumulative Impacts

The analysis above considers project impacts in relation to both existing conditions and background conditions, which includes recently approved but not yet constructed development projects in the project site vicinity. Because the evaluation in this impact discussion compared project conditions to existing and background conditions, no separate cumulative impact discussion is needed. As discussed in Section D, Impact Discussion, above, the project would result in two significant and unavoidable climate change impacts.

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4.7 CULTURAL, HISTORIC, AND ARCHAEOLOGICAL RESOURCES

This chapter describes the existing cultural resources on the project site and evaluates the potential impacts to such resources associated with the project. This chapter also includes a discussion of cumulative impacts to cultural resources. The findings were developed through background research, including a records search at the Northwest Information Center at Sonoma State University, and field surveys of the project site.

A. Regulatory Framework

1. State Laws and Regulations

a. California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that effects to cultural resources be considered in the planning process for discretionary projects. Under the provisions of CEQA, a “project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.”¹ CEQA Section 15064.5(a) defines a “historical resource” as a resource which meets one or more of the following criteria:

- ◆ Listed in, or eligible for listing in, the California Register of Historical Resources
- ◆ Listed in a local register of historical resources (as defined at PRC Section 5020.1(k))
- ◆ Identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code
- ◆ Determined to be a historical resource by a project's lead agency (California Code of Regulations Title 14(3) Section 15064.5(a))

¹ California Code of Regulations, Title 14, Chapter 3, Section 15064.5(b): Determining the Significance of Impacts to Archeological and Historical Resources

A historical resource consists of:

“Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California...Generally, a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing on the California Register of Historical Resources.”²

In accordance with *CEQA Guidelines* California Code of Regulations (CCR) Section 15064.5(b), a substantial adverse change in the significance of a historical resource is a significant effect on the environment.

CEQA requires a Lead Agency to determine if an archaeological cultural resource meets the definition of a historical resource, a unique archaeological resource, or neither.³ Prior to considering potential impacts, the Lead Agency must determine whether an archaeological cultural resource meets the definition of a historical resource in CCR Section 15064.5(c)(1). If the archaeological cultural resource meets the definition of a historical resource, then it is treated like any other type of historical resource in accordance with CCR Section 15126.4. If the archaeological cultural resource does not meet the definition of a historical resource, then the lead agency determines if it meets the definition of a unique archaeological resource as defined at CEQA Section 21083.2(g). In practice, however, most archaeological sites that meet the definition of a unique archaeological resource will also meet the definition of a historical resource.⁴ Should the archaeological cultural resource meet the

² California Code of Regulations, Title 14, Chapter 3, Section 15064.5(a): Determining the Significance of Impacts to Archeological and Historical Resources.

³ California Code of Regulations, Title 14, Chapter 3, Section 15064.5(c): Determining the Significance of Impacts to Archeological and Historical Resources.

⁴ Bass, Ronald E., Albert I. Herson, and Kenneth M. Bogdan, 1999, *CEQA Deskbook: A Step-by-Step Guide on how to Comply with the California Environmental Quality Act*, Point Arena, California: Solano Press Books, page 105.

definition of a unique archaeological resource, then it must be treated in accordance with CEQA Section 21083.2. If the archaeological cultural resource does not meet the definition of a historical resource or an archaeological resource, then effects to the resource are not considered significant effects on the environment.⁵

b. California Public Resources Code

California Public Resources Code Section 5097.5 prohibits excavation or removal of any “vertebrate paleontological site [...] or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands.” Public lands are defined to include lands owned by or under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor.

c. California Health and Safety Code

California Health and Safety Code Section 7050.5 states that in the event of the discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner’s authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission must identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

⁵California Code of Regulations, Title 14, Chapter 3, Section 15064.5(c)(4): Determining the Significance of Impacts to Archeological and Historical Resources.

2. Local Regulations and Policies

The Santa Clara County General Plan (1995-2010) 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

County General Plan policies relevant to the current project are presented in Table 4.7-1.

B. Existing Conditions

This section describes the cultural setting for the project site and its vicinity. The existing conditions were determined from a literature review, a records search at the Northwest Information Center, and field surveys.

1. Cultural History: Prehistory/Ethnography

The Paleo-Archaic-Emergent cultural sequence is commonly used to interpret the prehistoric occupation of Central California.⁶ The sequence is divided into three broad periods: the Paleoindian Period (10000-6000 B.C.); the three-staged Archaic Period, consisting of the Lower Archaic (6000-3000 B.C.), Middle Archaic (3000-1000 B.C.), and Upper Archaic (1000 B.C.-A.D. 500); and the Emergent Period (A.D. 500-1800).

⁶ Fredrickson, David A., 1974, "Cultural Diversity in Early Central California: A View from the North Coast Ranges," *Journal of California Anthropology* 1(1), pages 41-53.

TABLE 4.7-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO CULTURAL RESOURCES

Policy Number	Policy Content
C-RC 51	Inventories of heritage resources should be maintained as the basis for local decision-making regarding such resources.
C-RC 53	Cities should balance plans for urban redevelopment with the objectives of heritage resource preservation in such cases where potential conflicting interest may arise. Care should be taken to integrate heritage resources with new development wherever possible.
C-RC 54	Heritage resources should be restored, enhanced, and commemorated as appropriate to the value and significance of the resource.
C-RC 55	Public awareness and appreciation of existing heritage resources and their significance should be enhanced through community organizations, neighborhood associations, the educational system, and governmental programs.
C-RC 56	Heritage resource acquisition, preservation, restoration, and interpretation projects eligible for funding with County Parks Charter Funds are identified in the "Santa Clara County Heritage Resources Inventory" adopted by the Board of Supervisors.
R-RC 81	Heritage resources within the rural unincorporated areas of Santa Clara County shall be preserved, restored wherever possible, and commemorated as appropriate for their scientific, cultural, historic and place values.
R-RC 83	The County's heritage resource data base shall be maintained and used to review private development projects and guide the design of public projects.
R-RC 85	No heritage resource shall knowingly be allowed to be destroyed or lost through a discretionary action...of the County unless: (a) the site has been reviewed by experts and the County Heritage Commission and has been found to be of insignificant value; or (b) there is an overriding public benefit from the project and compensating mitigation to offset the loss is made part of the project.
R-RC 88	For projects receiving environmental assessment, expert opinions and field reconnaissance may be required if needed at the applicant's expense to determine the presence, extent, and condition of suspected heritage resources and the likely impact of the project upon the resources.
R-RC 93	Heritage resources should be restored, enhanced, and commemorated as appropriate to the value and significance of the resource. All historic rehabilitation activities should comply with the Secretary of the Interior's Standards for Rehabilitation.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

The Paleoindian Period began with the first entry of people into California. The people subsisted mainly on big game and minimally processed plant foods, and had limited trade networks. The Archaic Period is characterized by the increased use of plant foods, the elaboration of burial and grave goods, and increasingly complex trade networks.⁷ The Emergent Period is marked by the introduction of the bow and arrow, the ascendance of wealth-linked social status, and the elaboration and expansion of trade networks, signified in part by the appearance of clam disk bead money.⁸

Recent excavations at archaeological site CA-SCL-869, located south of the project site near what was once Canoas Marsh, yielded five radiocarbon dates ranging from A.D. 260 to A.D. 465.⁹ Native American occupation of the region, however, dates much earlier, with Penutian peoples migrating into central California around 4,500 years ago. The descendants of the native groups who lived between the Carquinez Strait and the Monterey area prefer to be called Ohlone, although they are often referred to by the name of their linguistic group, Costanoan. San Jose is located within the ethnographic territory of the Tamyen Ohlone, who occupied a large area in the South Bay, with San Jose area settlement dating roughly 12,000 to 6,000 years ago. The Tamyen spoke Tamyen, or Santa Clara Costanoan, one of eight Costanoan

⁷ Bennyhoff, James A. and David A. Fredrickson, 1994, "A Proposed Integrative Taxonomic System for Central California Framework for Central California Archaeology," in *Toward A New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson*, pages 15-24.

⁸ Bennyhoff, James A. and David A. Fredrickson, 1994, "A Proposed Integrative Taxonomic System for Central California Framework for Central California Archaeology," in *Toward A New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson*, pages 15-24.

⁹ Leventhal, Alan, et al., 2009, *Final Report on the Burial and Archaeological Data Recovery Program Conducted on a Portion of a Middle Period Ohlone Cemetery, Katwas Ketneyma Wareptak (The Four Matriarchs Site) CA-SCL-869*, Muwekma Ohlone Tribe of the San Francisco Bay Area, Ohlone Families Consulting Services.

languages.¹⁰ At the time of European contact, three distinct Tamyen “village districts” were located in the vicinity.¹¹

The basic Ohlone social unit was the family household, which was extended patrilineally. A household was made up of about 15 individuals.¹² Households grouped together to form villages. In the San Jose area, many of these villages were located along waterways. According to Kroeber, the ethnographic villages of Ulis-tak and Tamie-n were both in the Coyote Creek drainage.¹³ Villages combined to form tribelets: “an aggregate of villages in the largest of which lived the tribelet chief.”¹⁴ 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. “The Ohlones,” writes Malcolm Margolin, “were not forty independent, isolated tribelets jealously guarding their frontiers. Rather, each tribelet was involved in a network of feasting, trading, and gift-giving.”¹⁵

¹⁰ Levy, Richard, 1978, “Costanoan” in *Handbook of North American Indians, Volume 8 (California)*, Washington, D.C.: Smithsonian Institution, pages 485-495.

¹¹ Leventhal, Alan, et al., 2009, *Final Report on the Burial and Archaeological Data Recovery Program Conducted on a Portion of a Middle Period Ohlone Cemetery, Katwas Ketneyma Wareptak (The Four Matriarchs Site) CA-SCL-869*, Muwekma Ohlone Tribe of the San Francisco Bay Area, Ohlone Families Consulting Services.

¹² Broadbent, Sylvia, 1972, *The Rumsen of Monterey: An Ethnography from Historical Resources*.

¹³ Kroeber, Alfred L., 1925, “Handbook of the Indians of California,” *Bulletin of American Ethnology* Bulletin 78, reprinted 1976 in New York, NY: Dover.

¹⁴ Elsasser, Albert B, 1978, “Development of Regional Prehistoric Cultures,” in *Handbook of North American Indians, Volume 8 (California)*, Washington, D.C.: Smithsonian Institution, pages 485-495.

¹⁵ Margolin, Malcolm, 1978, *The Ohlone Way: Indian Life in the San Francisco-Monterey Bay Area*, Berkeley, California: Heyday Books, page 101.

For the Ohlone, like 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. The Ohlone used a range of other plant resources, including buckeye, California laurel, elderberries, strawberries, manzanita berries, goose berries, toyon berries, wild grapes, wild onion, cattail, amole, wild carrots, clover, and an herb called chuchupate. Animals eaten by the Ohlone and their neighbors included large fauna such as black-tailed deer, Roosevelt elk, antelope, and marine mammals; smaller mammals such as dog, skunk, raccoon, rabbit, and squirrel; birds, including geese and ducks; and fish such as salmon, sturgeon, and mollusks. Archaeological data indicates that Canoas Creek/Marsh provided ample food resources for the local Ohlone.¹⁶

Besides providing sustenance, the Bay Area's flora and fauna provided the Ohlone with raw materials. For example, the Ohlone built dome-shaped shelters that they thatched with ferns, tule, grass, and carrizo. Besides homes, the Ohlone also built small sweathouses, 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.¹⁷ Plants, particularly sedge, were also woven into baskets. Basket making was generally done by women, who crafted containers for cooking and storage, fish traps, and trays for leaching acorns. Tightly woven baskets, decorated with feathers or shell, were valued exchange items.¹⁸ Animal bones, teeth, beaks, and claws were made into awls, pins, knives, and scrapers. Pelts and feathers became clothing and bedding, while sinew was used for cordage and

¹⁶ Leventhal, Alan, et al., 2009, *Final Report on the Burial and Archaeological Data Recovery Program Conducted on a Portion of a Middle Period Ohlone Cemetery, Katwas Ketneyma Wareeptak (The Four Matriarchs Site) CA-SCL-869*, Muwekma Ohlone Tribe of the San Francisco Bay Area, Ohlone Families Consulting Services.

¹⁷ Levy, Richard, 1978, "Costanoan" in *Handbook of North American Indians, Volume 8 (California)*, Washington, D.C.: Smithsonian Institution, pages 485-495.

¹⁸ Levy, Richard, 1978, "Costanoan" in *Handbook of North American Indians, Volume 8 (California)*, Washington, D.C.: Smithsonian Institution, pages 485-495.

bow strings. Feathers, bone, and shells were crafted into ornaments. Intensive Hispanic exploration of the Bay Area that began in the late eighteenth century radically transformed Ohlone culture. These settlers set up the mission system and, perhaps more damaging, exposed the Ohlone to diseases to which they had no immunity.

2. History of Santa Clara Valley Land Use

The history of Santa Clara Valley land use can be easily divided into two parts, agricultural and urban, with World War II being the pivotal event between the two.¹⁹

In 1777, King Charles III of Spain made California a province of the Spanish Empire and appointed Philip de Neve as Governor. The Spanish implemented a familiar three-pronged program to colonize California: missions, presidios, and civic pueblos. The missions, a semi-feudal organization, would Christianize indigenous populations who would in turn provide labor in growing crops, raising cattle, and manufacturing goods for sale to presidial troops who then in turn would protect missions and pueblos from Indian attacks and foreign excursions and provide a stable underpinning for economic growth in the provincial pueblos through military payrolls. The pueblos would be the center of specialized goods and services, seats of civil authority and justice, and be an option for retired presidial troops to settle. Theoretically, this arrangement was to harmoniously unite the community of missions, presidios, pueblos, and the later ranchos around shared interests of safety and cooperative economic growth. In reality, power was fragmented in a triadic arrangement between the Church, the secular state, and indigenous groups. Individually, each branch was too weak to impose its own will and could not stand against the other two. Yet such were their respective wills, pride, and passions that none could tolerate any semblance of subordination to another. Perhaps not realizing their

¹⁹ Walker, Richard A. and Matthew J. Williams, 1982, "Water from Power: Water Supply and Regional Growth in the Santa Clara Valley" in *Economic Geography*, Volume 58(2), page 96.

underlying fragile position on an outer fringe of a failing empire, they undermined each other to collective ruin.²⁰

Of the three formally recognized pueblos—San José, Los Angeles, and Branciforte near Mission Santa Cruz—El Pueblo San José de Guadalupe, founded by Lieutenant José Joaquín Moraga in November 1777, is the oldest. Moraga’s party began building on the banks of the Guadalupe River at what is now the corner of Hobson and Vendome streets.²¹ In addition to the pueblo, three major Mexican-era land grants were established after the mission secularization in 1834 in the project site vicinity. The Rancho de Santa Teresa was originally granted to Joaquín Bernal in 1834 by Mexican Governor Figueroa. The Rancho el Potrero de Santa Clara, originally part of the pasturelands of the Mission Santa Clara, was granted by Mexican Governor Manuel Micheltorena in 1844 after mission secularization to British vice-consul for California James Alexander Forbes. The third, Rancho Los Coches was granted in 1844 by Micheltorena to Roberto, a Christianized Indian of Mission Santa Clara, who sold it to a partnership between the Sunol family and Henry M. Naglee.²²

After the Gold Rush, the Santa Clara Valley joined in the expansion statewide of dry-wheat farming with the growing towns of San Jose and Santa Clara serving as key trading centers for the region.²³ In 1850, San Jose served briefly as California’s first capital. The building that housed the first legislature was a two-story hybrid, with an adobe first floor supporting a wooden framed

²⁰ Walton, John, 2001, *Storied Land: Community and Memory in Monterey*, Berkeley, California: University of California Press.

²¹ Hoover, Mildred Brooke et al, 1990, *Historic Spots in California*, Fourth Edition, revised by Douglas E. Kyle, Stanford, California: Stanford University Press.

²² Hoover, Mildred Brooke et al, 1990, *Historic Spots in California*, Fourth Edition, revised by Douglas E. Kyle, Stanford, California: Stanford University Press.

²³ Walker, Richard A. and Matthew J. Williams, 1982, “Water from Power: Water Supply and Regional Growth in the Santa Clara Valley.” in *Economic Geography*, Volume 58(2), page 96.

second story. The building was destroyed by fire in 1853.²⁴ The city was judged too damp and in following years the legislature met at Vallejo, Benicia, and finally in Sacramento. Despite losing the state capital, San Jose continued to grow. The Santa Clara Valley became renowned for its orchards and fruit drying and packing plants.

The French prune, introduced to the region by Louis Pellier at his nursery, City Gardens, on St. James Street, became an important regional crop.²⁵ The San Francisco and San Jose Railroad connected the two cities in 1864 and primarily transported agricultural products. In the 1880s, orchards and vineyards took root in the valley with peak land use in the 1930s with over 110,000 total acres in production. Roughly 85,000 acres were devoted to prune cultivation, which at the time comprised one-third of global production.²⁶ The American Can Company, a major local producer, was churning out over ten million cans by 1919.²⁷ Other major crops grown in the Santa Clara Valley included tomatoes, grains, onions, carrots, pumpkins, cherries, walnuts, raspberries, loganberries, and strawberries. Fruit production and processing was a mainstay of San Jose's economy until the 1960s.

San Jose is known for being on the cutting edge of developments in electronics and also as the site of some notorious technical failures. In 1881, J.J. Owen, then-editor of the San Jose Mercury, convinced the City to install

²⁴ Hoover, Mildred Brooke et al, 1990, *Historic Spots in California*, Fourth Edition, revised by Douglas E. Kyle, Stanford, California: Stanford University Press.

²⁵ Hoover, Mildred Brooke et al, 1990, *Historic Spots in California*, Fourth Edition, revised by Douglas E. Kyle, Stanford, California: Stanford University Press.

²⁶ Walker, Richard A. and Matthew J. Williams, 1982, "Water from Power: Water Supply and Regional Growth in the Santa Clara Valley," in *Economic Geography*, Volume 58(2), page 96.

²⁷ Friedman, Lawrence M. and Paul Tabor, 1992, "A Pacific Rim: Crime and Punishment in Santa Clara County, 1922" in *Law and History Review*, Volume 10(1), page 132.

a 237-foot-tall light tower which would, he claimed, make night become day in downtown San Jose. The tower, straddling the intersection of Santa Clara and Market streets, failed to illuminate the city as claimed. The tower was badly damaged in a 1915 windstorm and collapsed later that year. In 1909, the City was the site of a more successful technical endeavor. The world's first radio broadcast station was established by Dr. Charles Herrold at the corner of First and San Fernando Streets.

In the years following World War II, the Santa Clara Valley experienced tremendous growth. Electronics, aviation, and semiconductor companies opened offices and factories in “Silicon Valley,” creating thousands of jobs for returning military personnel, defense workers, and their families. Between 1960 and 1990, companies started in the South Bay by graduates of Stanford University created thousands of jobs. These workers needed housing, and the valley’s orchards soon gave way to housing developments. San Jose was transformed from a market town with an agricultural economic base to a city known for high-technology engineering.

3. Project Site History²⁸

The vicinity of the project site is within Rancho de Santa Teresa, a 9,647-acre area of land granted in 1834 by Mexican Governor José Figueroa to José Joaquin Bernal, a *pobladore* (settler) who came to California in 1776 with the Anza expedition.²⁹ He settled in San Jose in 1805 with his wife and children. Rancho de Santa Teresa, located in the southeastern part of modern San Jose, ten miles south of Pueblo San José, centered on the year-round artesian Santa Teresa spring. Today, over 1,000 acres of the rancho surrounding the Santa Teresa spring are within Santa Teresa County Park.

²⁸ Portions of the study area history are adapted from L. Dill & C. Duval, 2004, “Urban Edge Agricultural Parks Feasibility Study, Final Report Phase 1: February 2006,” by Sustainable Agriculture Education (SAGE), and Cartier, 1999, *The Fruit Industry of the Santa Clara Valley*.

²⁹ Robinson, W.W, 1948, *Land In California*, Berkeley, California: University of California Press.

In 1864, a portion of the rancho was purchased by Vermont native Edward Cottle, who came to San Jose on October 11, 1854 via wagon train from Missouri with 600 head of cattle. Edward and his family settled along Coyote Creek, soon purchased and farmed a portion of Rancho Santa Teresa, and in turn gave 350 acres to his son Martial. Martial used the parcel for growing grain and row crops and raising cattle. Ensuing generations of the Cottle family continued to farm and add acreage to Martial's parcel. By 1876, the total aggregate ranch acreage was over 640 acres. Martial ran a dairy operation until 1885. By 1888, the home ranch grew roughly 150 acres for growing grain, the rest of which was pasture for cattle and horses. A small parcel was given over to a family orchard that included quince, plum, apricot, and apple trees. The project site is located within the parcel that formed part of Martial's portion of the ranch.

Martial and Edith Cottle had five children, Leora E. (1879-1965), who married Samuel Cobb; Maybella (1881 -1960); Martial Jr. (1883-1936); William Henry Mortimer (1886-1943); and Ethel Edith (1891-1977). Martial Sr. died in January 1909 and by 1910 his widow was living with Maybella, Martial, Mortimer, and Ethel, who married Henry W. Lester in July 1914. Henry owned 130 acres on the opposite side of Snell Road, which he had purchased from the Hayes estate in 1912. During World War II, he leased some of the property to a Japanese itinerant farmer, who grew sugar beets, onions, and carrots for the Braslan Seed Company. By 1920, Martial Jr.'s wife Florence joined the Lesters, Mortimer, and Maybella at the Cottle Ranch. By 1930, the Cottle Ranch was home to Edith and Maybella Cottle and the Lesters with their two children Edith Ethel (1915-1999) and Walter Cottle Lester (1925-).^{30,31,32}

³⁰ Dill, L. and C. Duvall, 2004, *Archives and Architecture: Santa Clara County Heritage Resource Inventory Update - Phase II*, County of Santa Clara Planning Office, County of Santa Clara, California.

³¹ Guerra & McBane, LLC, 2007, *Martial Cottle Ranch Oral History Project*, Transcripts, County of Santa Clara Parks and Recreation Department and California State Parks, San José, California.

In the 1920s and 1930s, portions of the property were again leased to Japanese itinerant farmers. One farmer, Hirata, whose residence is presently used by the Park Donor as an office, replaced the family orchard with crops of sugar beets, pickling peppers, and strawberries. He also grew carrots and onions for seed sellers Ferry-Morse. Martial Jr. died in 1936 and Mortimer followed in 1943. Henry Lester, Walter's father, was one of the area's largest prune growers, with over 860 acres in production at various parts of southern Santa Clara Valley. Henry and Walter formed a partnership in 1944. In the 1950s they opened a cattle venture on the Cottle property. In the spring and summer months, the cattle grazed on irrigated pasture land. In the winter they were kept in corrals and given feed. Displaying a streak of self-sufficiency, the Lesters milled their own feed on site in the pole barn within ten years of starting the cattle operations. Henry Lester died in 1960 followed by Leora Cobb in 1965. In 1977 when Ethel Lester died, the ranch went to her children Edith and Walter; neither married and both continued to live on the ranch. Edith Lester died in 1999, leaving Walter as the sole owner. He continued to keep the ranch in production, raising hay, barley, and other crops. A small orchard was planted near the house. Today, the ranch is comprised of a Life Estate, which includes 25 acres in active agricultural production, and over 287 acres of broad, inactive farmland dotted with several mature oak trees and crossed by Canoas Creek. Produce raised on the farm is sold at a produce stand located at the corner of Snell and Chynoweth Avenues. The ranch lands and built environment are significant in history for its constant association with agriculture in the Santa Clara Valley by the Cottle and Lester families for nearly 150 years. In accordance with the wishes of Ethel Lester, Walter Cottle Lester (Martial's heir and Ethel's son) transferred the land to the State and County in 2003 to create an historic agricultural park to promote, educate, and sustain farming traditions in the Santa Clara Valley.

³² Olmstead, Ron, 2003, *Chronology of the Lester Family coming to California*, San Jose, California: Olmstead.

4. Records Searches

LSA Associates, Inc. conducted a records search (#07-348) of the project site on August 31, 2007, at the Northwest Information Center (NWIC) of the California Historical Resources Information System, Sonoma State University, Rohnert Park. The NWIC, an affiliate of the State of California Office of Historic Preservation, is the official State repository of cultural resource records and reports for Santa Clara County.

Two recorded cultural resources, prehistoric archaeological site CA-SCL-295 and the historic Cottle Ranch, are adjacent to the project site. The most recent record of CA-SCL-295 describes this site as a “scatter of Franciscan and Monterey chert flakes, thermally fractured rock and ground stone.”³³ Three pestle fragments, a mano, an obsidian flake, two chert bifaces, and one bone fragment (possibly human) were observed by Weigel.³⁴ The vertical and horizontal extent of the prehistoric site is not known.³⁵ Please see Appendix G for further information on CA-SCL-295. The Cottle Ranch, situated within the Life Estate area adjacent to the southeast corner of the project site, consists of a circa 1880 to 1950s historic-era ranch, comprised of a two-story residence, barns, and sheds. The Martial Cottle Ranch is listed in both the City of San Jose Historic Resources Inventory and the Santa Clara County Heritage Resources Inventory.

As part of the records search, LSA also reviewed the following State of California and local inventories for cultural resources in and adjacent to the study area:

³³ Weigel, L., 1984, Archaeological site record for CA-SCL-295, on file, Northwest Information Center, Sonoma State University, Rohnert Park, California.

³⁴ Weigel, L., 1984, Archaeological site record for CA-SCL-295, on file, Northwest Information Center, Sonoma State University, Rohnert Park, California.

³⁵ Anastasio, Rebecca L., 1984, *Notes on Guadalupe Corridor Site CA-SCL-295*, on file, Northwest Information Center, Sonoma State University, Rohnert Park, California.

- ◆ *California Inventory of Historic Resources* (California Department of Parks and Recreation 1976).
- ◆ *Five Views: An Ethnic Site Survey for California* (California Office of Historic Preservation 1988).
- ◆ *California Historical Landmarks* (California Office of Historic Preservation 1996).
- ◆ *California Points of Historical Interest* (California Office of Historic Preservation 1992).
- ◆ *Directory of Properties in the Historic Property Data File* (California Office of Historic Preservation, June 11, 2007). The directory includes the listings of the National Register of Historic Places, National Historic Landmarks, the California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest.
- ◆ *City of San José Historic Resources Inventory* (City of San Jose 2003).
- ◆ *Santa Clara County Heritage Resources Inventory* (County of Santa Clara Planning Office 1999).

5. Field Survey

Two cultural resources surveys have been conducted for the proposed project. Archaeologists with California State Parks surveyed an approximately 77-acre area at the southwest corner and western boundary of the project site.³⁶ This survey involved walking parallel transects spaced 20 to 40 meters apart and two auger excavations to a maximum depth of one meter below surface in the southwest corner of the site in the general vicinity of CA-SCL-295. No cultural resources were identified during the survey or excavation. Archaeologists with LSA, and California State Parks conducted a subsequent cultural resources survey of an approximately 192-acre portion of the project

³⁶ Schwaderer, Rae, 2008, *Archaeological Reconnaissance of Martial Cottle Park, Santa Clara County, California*.

area.³⁷ That survey involved walking 30-meter wide transects. Two chert flakes, which may have been culturally modified, were identified as a result of that survey.

In total, both of the aforementioned cultural resources surveys covered the entire area considered by the proposed project.

C. Standards of Significance

Cultural resource impacts associated with the project would be considered significant if the project would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines, or the County's Historic Preservation Ordinance (i.e. relocation, alterations or demolition of historic resources).
2. Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the CEQA Guidelines.
3. Disturb any human remains, including those interred outside of formal cemeteries.
4. Disturb a historic resource or cause a physical change which would affect unique ethnic cultural values or restrict existing religious or sacred uses within the potential impact area.
5. Disturb potential archaeological resources.

³⁷ Merritt-Smith, Alex, 2009, *Martial Cottle Park Archaeological Survey*. Memorandum report to Jane Mark, Senior Planner, Santa Clara County Parks and Recreation Department.

D. Impact Discussion

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

1. Substantial Adverse Change in the Significance of a Historical Resource

The Martial Cottle Ranch, located in the Life Estate area adjacent to the project site, is listed in both the City of San Jose Historic Resources Inventory and the Santa Clara County Heritage Resources Inventory. Due to its local significance and listings in local registers of historical resources, the Martial Cottle Ranch is a “historical resource” for purposes of CEQA.³⁸ Under CEQA, a project may cause a substantial adverse change in the significance of a historical resource through demolition, destruction, relocation, or alteration of a resource or its immediate surroundings. While new construction would occur in the vicinity of the Martial Cottle Ranch under the project, including a Visitor Center, pavilion, and parking area, agricultural production would remain a supporting land use to the Park uses, which is consistent with the historical land use associated with the Martial Cottle Ranch. While construction of the Main Park Complex and associated park amenities would introduce new visual elements in the vicinity of Martial Cottle Ranch, these visual elements will be buffered from the Life Estate with landscaping. None of the proposed constructions and plantings are anticipated to substantially alter the immediate surroundings of the Martial Cottle Ranch, which would be used primarily for passive recreational activities. Therefore, impacts would be *less than significant*.

No other historical resources have been identified within the vicinity of the project site, although the general area of Canoas Creek/Marsh and along the Highway 85 corridor has the potential for containing subsurface archaeological deposits, which may qualify as historical resources under

³⁸ California Code of Regulations, Title 14, Chapter 3, Section 15064.5(a): Determining the Significance of Impacts to Archeological and Historical Resources.

CEQA. Please see standard of significance for a discussion of potential impacts related to archeological resources.

2. Substantial Adverse Change in the Significance of an Archaeological Resource

Background research, archaeological field surveys, and limited subsurface testing conducted within the project area did not identify an archaeological resource as defined under Public Resources Code Section 21083.2(g). Prehistoric archaeological site CA-SCL-295, however, is recorded adjacent to the project site and the potential for subsurface archaeological deposits associated with CA-SCL-295 to extend into the project site cannot be ruled out (see also Standard of Significance #5 below).

Project ground-disturbing activities, including construction of secondary service roads, unpaved multi-use trails, pedestrian trails, bridges, and habitat enhancements along Canoas Creek have the potential to result in a *significant* impact on archaeological deposits that qualify as “historical resources” or “unique archaeological resources.”

Impact CULT-1: Project ground-disturbing activities, including construction of secondary service roads, unpaved multi-use trails, pedestrian trails, bridges, and habitat enhancements along Canoas Creek have the potential to result in a *significant* impact on archaeological deposits that qualify as “historical resources” or “unique archaeological resources.”

Mitigation Measure CULT-1a: Prior to project construction or ecological enhancement within 1,000 feet to the east of Canoas Creek and southwest of Canoas Creek to the park boundary to the southwest, a qualified archaeologist³⁹ shall undertake a presence/absence subsurface archaeological testing program. The testing shall determine if prehistoric archaeological deposits, human remains, and/or buried paleosols suitable

³⁹ For purposes of this project, a “qualified archaeologist” is an individual who meets the Secretary of the Interior’s Professional Qualification Standards for archaeology, as described at 36 CFR Part 61.

for occupation by prehistoric peoples are within areas slated for development in the vicinity of Canoas Creek and CA-SCL-295. The County shall consult with an appropriate Native American consultant included on a list of local tribal representatives maintained by the Native American Heritage Commission prior to any archaeological excavations. The consultation shall identify concerns that local tribal representatives may have regarding the excavations, and the appropriate agency shall make a good-faith effort to address such concerns.

Upon completion of the subsurface testing, the archeologist shall prepare a report documenting the methods and results of the excavation and provide recommendations regarding the treatment of archaeological deposits or human remains and any associated cultural materials, as appropriate. Pursuant to California Code of Regulations Section 15126.4(b)(3), preservation of archaeological sites in place shall be the preferred manner of mitigating impacts to archaeological sites. The report shall be submitted to the appropriate Lead Agency and the Northwest Information Center at Sonoma State University.

Mitigation Measure CULT-1b: In the event that archaeological materials are discovered during project activities and an archaeologist is not on site, the County shall inform its contractor(s) of the archaeological sensitivity of the project site by including the following measures in contract documents:

“If prehistoric or historical archaeological deposits are discovered during project activities, all work within 25 feet of the discovery shall be redirected and a qualified archaeologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Project personnel should not collect or move any archaeological materials or human remains and associated materials. Archaeological resources can include flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite toolmaking debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal

bones, and cultural materials); and stone-milling equipment (e.g., mortars, pestles, handstones). Prehistoric archaeological sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse.”

Significance after Mitigation: Less than significant. If an archaeological deposit is identified during project implementation that is considered sacred by a local Native American tribe, and cannot be preserved in place, a potentially significant unavoidable impact may occur. However, the County shall verify that the above language has been included in the appropriate contract documents before commencement of project ground-disturbing activities. Upon such verification, impacts would be less than significant.

3. Disturbance of Human Remains

Human remains have not been identified in the project site. Native American skeletal remains, however, are commonly associated with archaeological sites in the Santa Clara Valley and the possibility of buried remains in the project site cannot be discounted. Human skeletal remains have been found at archaeological sites in the vicinity of the project site, including possibly at CA-SCL-295 adjacent to the project site. Disturbance of human remains would be a *significant* impact.

Impact CULT-2: Although human remains have not been identified in the project site, the possibility of buried remains in the project site cannot be discounted. Disturbance of human remains would be a *significant* impact.

Mitigation Measure CULT-2: If human remains are encountered during the project, these shall be treated in accordance with California Health and Safety Code Section 7050.5. The County shall inform its contractor(s) associated with project ground-disturbing activities of the sensitivity of the project site for human remains by including the following measures in contract documents:

“If human remains are uncovered, work within 25 feet of the discovery shall be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted—if one is not already on site—to assess the situation and consult with agencies as appropriate. Project personnel shall not collect or move any human remains or associated materials. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.”

The County shall verify that the above language has been included in the appropriate contract documents before commencement of project ground-disturbing activities.

Upon completion of the assessment, the archeologist shall prepare a report documenting the methods and results and provide recommendations regarding the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the Most Likely Descendent. The report shall be submitted to the appropriate Lead Agency and the Northwest Information Center at Sonoma State University.

Significance after Mitigation: Less than significant. If human remains are identified during project implementation that are considered sacred by a local Native American tribe, and such remains cannot be preserved in place, a potentially significant unavoidable impact may occur. However, the County shall verify that the above language has been included in the appropriate contract documents before commencement of project ground-disturbing activities. Upon such verification, impacts would be less than significant.

4. Disturbance of a Historic Resource or Physical Change That Would Affect Unique Ethnic Cultural Values or Restrict Existing Religious or Sacred Uses

The project site does not include an identified historical resource or other cultural resource that has unique ethnic, religious, or sacred values or uses. The project site, however, has the potential to contain buried archaeological deposits and human remains, which, in addition to their archaeological value, may have profound sacred significance to members of the local Native American community. Disturbance of such remains would constitute a *significant* impact.

Impact CULT-3: The project site has the potential to contain buried archaeological deposits and human remains, which, in addition to their archaeological value, may have profound sacred significance to members of the local Native American community. Disturbance of such remains would constitute a *significant* impact.

Mitigation Measure CULT-3: Implement Mitigation Measures CULT-1a, CULT-1b, and CULT-2.

Significance after Mitigation: Less than significant.

5. Disturbance of Potential Archaeological Resources

Prior to its channelization in the late-nineteenth century, Canoas Creek flowed within, or in proximity to, the project site. Prior to its confluence with the Guadalupe River, Canoas Creek likely flowed through several marshy areas, which would have included botanical and faunal resources used by Native American groups. The presence of CA-SCL-295 and other prehistoric archaeological sites in the vicinity, therefore, is largely attributable to the abundant resources of Canoas Creek/Marsh, and the Guadalupe watershed as a whole.

Although no archaeological sites have been identified within the project site, prehistoric sites in the Santa Clara Valley are frequently buried under

alluvium, with little or no surface manifestation. Based on the project site's location within an area that likely included resources important to Native American populations and an adjacent prehistoric archaeological site, the project has the potential to have a *significant* impact on buried archaeological sites.

Impact CULT-4: Although no archaeological sites have been identified within the project site, prehistoric sites in the Santa Clara Valley are frequently buried under alluvium, with little or no surface manifestation. The project has the potential to have a *significant* impact on buried archaeological sites.

Mitigation Measure CULT-4: Implement Mitigation Measure CULT-1a.

Significance after Mitigation: Less than significant.

E. Cumulative Impacts

Neither the proposed project nor other cumulative development projects are expected to result in significant impacts to cultural resources, provided that appropriate evaluations are conducted on a case-by-case basis to determine whether the resources are "historical resources" or "unique archaeological resources," and appropriate mitigation measures, including but not limited to preservation in place, capping, or data recovery, are implemented prior to development. In addition, because the proposed project would not impact any known significant resources and potential impacts to unknown buried resources can be reduced to below a level of significance, the proposed project would not contribute to a cumulatively significant impact to cultural resources. Therefore, implementation of project mitigation measures and mitigation measures relevant to other projects in the County reduce any potential cumulative impacts related to cultural resources to a *less-than-significant* level.

4.8 GEOLOGY AND SOILS

This chapter describes the existing geologic and soil conditions of the project site and evaluates the potential impacts to geology and soils associated with the project. This chapter also includes a discussion of cumulative impacts to geology and soils. Unless otherwise noted, existing conditions information in this chapter is from the *Martial Cottle Park Final Resource Inventory* report prepared in July 2009 by Wallace, Roberts and Todd; LSA Associates; and Design, Community & Environment.

A. Regulatory Framework

The following section discusses geology and soils policies from regulatory agencies that have jurisdiction over the project site.

1. State Policies and Regulations

a. Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed by the California Legislature in 1972 to mitigate the hazard of surface faulting to structures. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. According to the Act, local agencies must regulate most development in fault zones established by the State Geologist. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, the city or county with jurisdiction must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.¹

b. California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act of 1990 (California Public Resources Code Sections 2690 through 2699.6) addresses seismic hazards other than surface fault rupture, such as liquefaction and seismically-induced land-

¹ California Department of Conservation's website, <http://www.consrv.ca.gov/cgs/rghm/ap/Pages/index.aspx>, accessed on March 31, 2010.

slides. The Seismic Hazards Mapping Act specifies that the Lead Agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into project plans to reduce hazards associated with seismicity and unstable soils.²

c. California Building Code

The California Code of Regulations (CCR), Title 24, is also known as the California Building Standards Code. The California Building Standards Code combines three types of building standards from three different origins:

- ◆ Building standards that have been adopted by State agencies without change from building standards contained in the International Building Code.
- ◆ Building standards that have been adopted and adapted from the national model code standards to meet California conditions.
- ◆ Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns.

Part 2 of Title 24 is the California Building Code (CBC), which is based on the 2006 International Building Code. The International Building Code was developed by the International Conference of Building Officials to provide a set of consistent standards for building structures. The Code requires strict building standards for essential facilities and structures on soft soil where shaking intensity from a potential earthquake is high.

Section C3-1 of the County of Santa Clara Ordinance Code adopts the 2007 CBC as the building code of the County.

² California Department of Conservation's website, <http://www.consrv.ca.gov/CGS/shzp/Pages/article10.aspx>, accessed on March 31, 2010.

d. California Public Resources Code

California Public Resources Code Section 5097.5 prohibits excavation or removal of any “vertebrate paleontological site [...] or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands.” Public lands are defined to include lands owned by or under the jurisdiction of the State or any city, county, district, authority, or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor.

2. Local Policies and Regulations

a. Santa Clara County General Plan

The County’s General Plan contains several goals and policies relevant to geology and soils. Goals and policies relevant to the project are listed in Table 4.8-1.

b. County of Santa Clara Grading Ordinance

The County’s Grading Ordinance is contained in Title C, Chapter III of Division C12, Subdivisions and Land Development, of the County Ordinance Code. The Grading Ordinance establishes minimum requirements for grading work within the county and outlines procedures to enforce these requirements. The purpose of this Ordinance is to protect surface water quality by preventing grading that would cause soil erosion and soil sediment transport.

B. Existing Conditions

The project site is located within a region of significant seismic activity and geotechnical instability. This area is included in the Coast Ranges Geomorphic Province, which extends from south of the Oregon border to central coastal California. Santa Clara County and the City of San Jose are located in the southern coastal ranges within the Santa Clara Valley. The project site is located approximately 1 mile to the west from the Guadalupe River, and

TABLE 4.8-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO GEOLOGY AND SOILS

Strategy/Policy	
Number	Strategy/Policy Content
Health and Safety Chapter/Natural Hazards	
Policy 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.
<i>Strategy #1</i>	<i>Inventory Hazards and Monitor Changing Conditions</i>
Policy C-HS 29	Inventories and mapping of natural hazards should be adequately maintained for use in planning and decision-making.
<i>Strategy #2</i>	<i>Minimize the Resident Population Within High Hazard Areas</i>
Policy 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.
Policy C-HS 31	Cities should not expand Urban Service Areas into undeveloped areas of significant hazards.
Policy 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.
<i>Strategy #3</i>	<i>Design, Locate and Regulate Development to Avoid or Withstand Hazards</i>
Policy 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.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

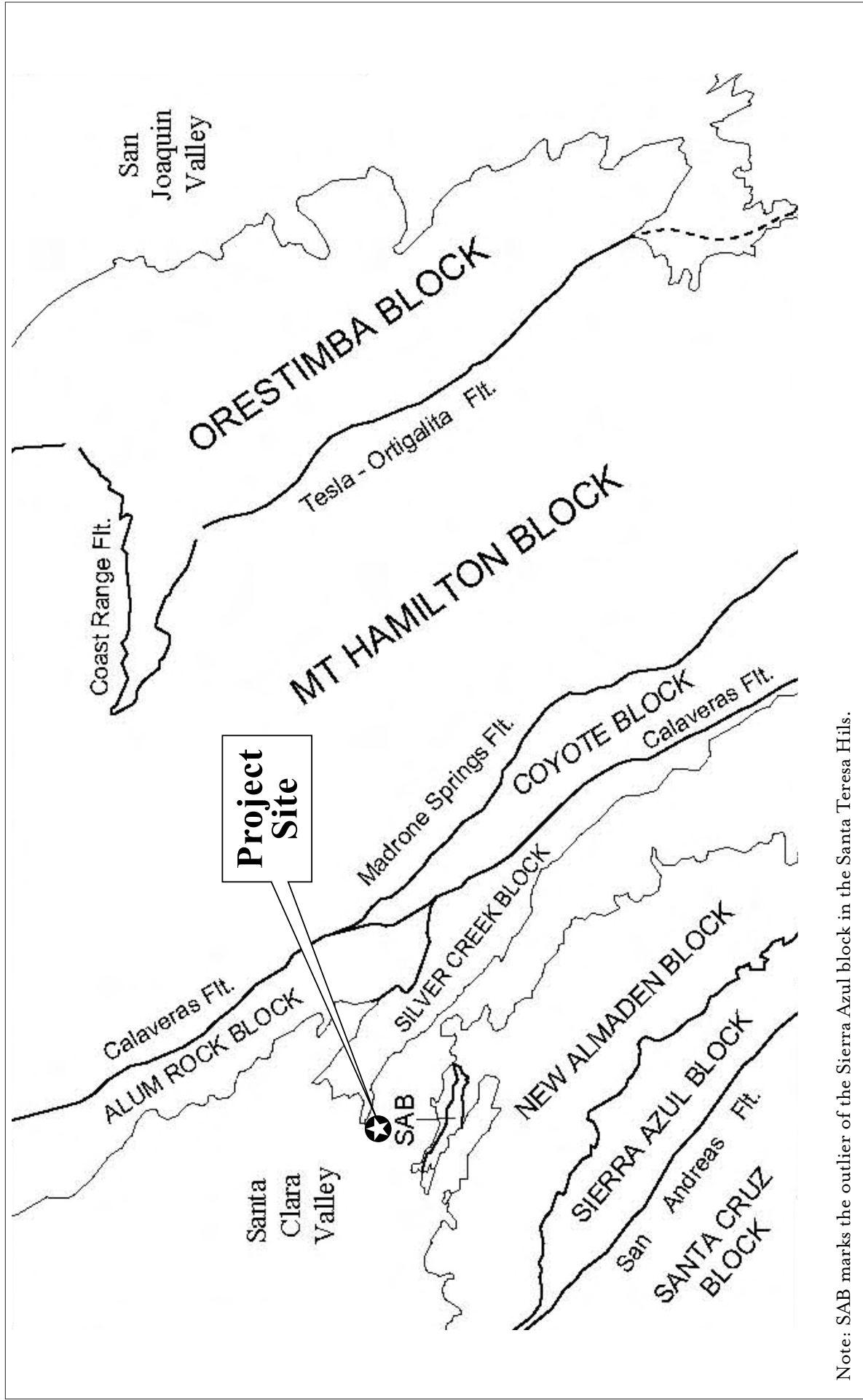
1 mile to the northeast of Coyote Creek. These two fluvial systems are the source of alluvial deposits at the project site.

1. Fault Zones

The major faults in the project region trend northwest/southeast. Within the vicinity of the project site the major faults are the San Andreas Fault, a right-lateral strike-slip fault near the crest of the Santa Cruz Mountains to the west, and the Hayward and Calaveras faults, both right-lateral strike-slip faults in the Diablo Range to the east. These faults have exhibited significant tectonic motion in recent times and in the distant geological past. In 1979, the Calaveras Fault produced a 5.9-magnitude earthquake yielding a rupture of 1 centimeter along a 39 kilometer long fault scarp within Santa Clara and San Benito Counties. In 1984, the Calaveras Fault ruptured again at a magnitude of 6.1, resulting in a surface rupture of 20 centimeter along a 1.2 kilometer-long fault scarp. This second rupture triggered an afterslip in a 15 kilometer-long creep-zone to the south. In 1989, the Loma Prieta earthquake occurred along the San Andreas Fault near the Loma Prieta Peak in the Santa Cruz Mountains at a magnitude of 6.9. The average strike-slip displacement of this rupture was 1.2 meters while the average reverse-slip displacement was 1.6 meters. The Loma Prieta was the largest earthquake to occur on the San Andreas Fault since the San Francisco earthquake in April 1906. Numerous other faults are located in the surrounding hills and throughout the Santa Clara Valley. The 1972 Quaternary Geologic Map of San Jose East Quadrangle locates the Piercy and Silver Creek faults just north of the project site in the adjacent hills. These faults run parallel to the San Andreas Fault and have the potential to produce seismic activity. Geologic formations are shown in Figure 4.8-1.

2. Liquefaction

Because the project is situated in a region of significant seismic activity and geotechnical instability, there is the potential for earthquakes to occur and produce severe ground shaking and result in ground failure or damage to structures.



Note: SAB marks the outlier of the Sierra Azul block in the Santa Teresa Hills.

Source: USGS PRELIMINARY GEOLOGIC DESCRIPTION OF THE SAN JOSE 30x60 MINUTE QUADRANGLE (1999)

FIGURE 4.8-1

GEOLOGIC FORMATIONS

As shown in Figure 4.8-2, the project site is located within a liquefaction hazard zone. Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other rapid loading. The poorly drained soils associated with the project site are prone to liquefaction.

3. Soils

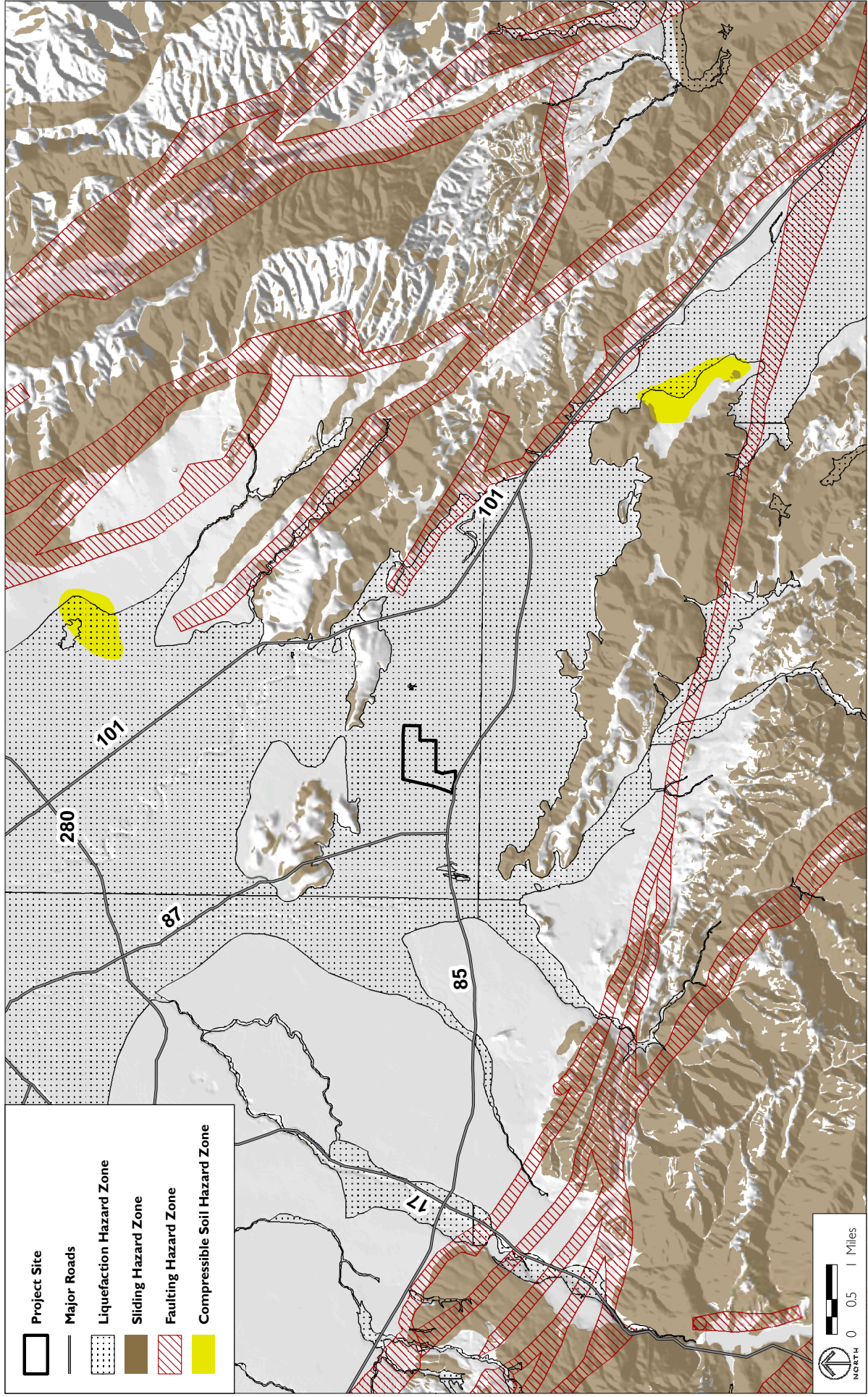
Soils in the Santa Clara Valley primarily consist of clay in the low-lying areas, loam and gravelly loam in the upper portions of the valley, and eroded rocky clay loam in the hills. The clayey soils that make up the majority of the valley floor, including the project site, are derived from alluvial deposits from the surrounding and upstream geological formations. The valley is filled by as much as 1,950 feet of primarily alluvial sediment largely accumulated within the last 780,000 years. These deposits are essentially flat-lying. Prime farmland is located throughout the valley floor, including the project site. See Chapter 4.3, Agricultural Resources, for more information on soils as they pertain to agriculture. Figure 4.8-3 shows the soil types existing on the project site.

4. Other Geologic Hazards

Other hazards associated with earthquakes include surface rupture, differential settlement, seismically-induced landslides, and seismically-induced inundation. Additional hazards related to soil and geologic conditions include compressible soils (subject to shrink and swell behavior), weak soils (subject to failure), lateral spreading, and liquefaction or collapse.

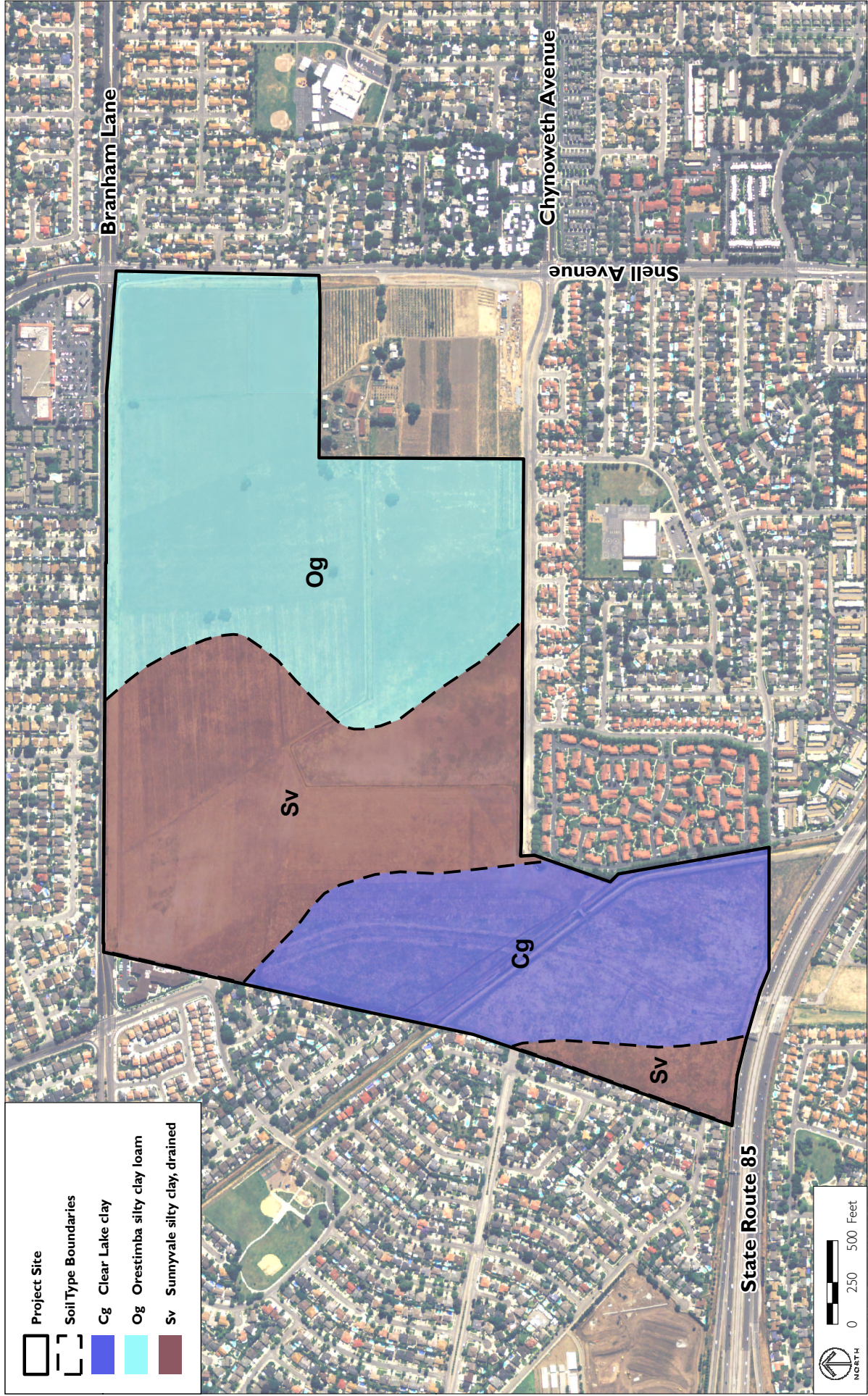
5. Paleontological Resources

A fossil locality search was conducted by the University of the California Museum of Paleontology (UCMP), Berkeley, for a previous study that included the San Jose metropolitan area. No fossil localities are recorded within or adjacent to the project site.



Source: United States Geological Survey and Santa Clara County Planning Office

FIGURE 4.8-2
GEOLOGIC HAZARDS



Source: Aerial Imagery from the United States Department of Agriculture, NAIP (2005) and Soils of Santa Clara County (U.S. Soil Conservation Service 1968).

C. Standards of Significance

Geology and soils impacts associated with the project would be considered significant if the project would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - a. Strong seismic ground shaking.
 - b. Seismic-related ground failure, including liquefaction.
2. Result in substantial soil erosion or siltation or the loss of topsoil.
3. 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, collapse, shrink/ swell potential, soil creep or soil erosion.
4. Be located on expansive soil, as defined in the report, *Soils of Santa Clara County*, or the California Building Code, creating substantial risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.
6. Cause substantial compaction or over-covering of soil either on-site or off-site.
7. Cause substantial change in topography or unstable soil conditions from excavation, grading, or fill.
8. Be located in an area designated as having a potential for major geological hazard.
9. Be located on, or adjacent to, a known earthquake fault.
10. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

D. Impact Discussion

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

1. Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving:

a. Strong Seismic Ground Shaking

Large earthquakes could generate strong to violent ground shaking at the project site and could cause damage to structures and threaten public safety. The project site lies within a seismically active region that includes much of western California. Several active faults are present in the region, including the San Andreas, Hayward, and Calaveras faults. These faults are capable of generating large earthquakes that could produce strong to violent ground shaking at the project site. The United States Geological Survey (USGS) has estimated that there is a 70 percent chance of a large earthquake (magnitude 7 or greater) in the Bay Area by the year 2030.³ At present, it is not possible to predict precisely when or where earthquakes will occur on these faults.

During an earthquake, seismic risk to a structure would depend on the distance to the earthquake epicenter, the characteristics of the earthquake, the subsurface conditions underlying the structure and its immediate vicinity, and the characteristics of the structure. The project site is located approximately 7 miles from the Hayward Fault, 9 miles from the Calaveras Fault, and 14.5 miles from the San Andreas Fault.⁴ Additionally, the project site is on relatively thick, clayey alluvial deposits that could cause amplification of ground shaking.

³ Working Group on California Earthquake Probabilities, 2003, *Earthquake Probabilities in the San Francisco Bay Region 2002 – 2031: A summary of Findings*, U. S. Geological Survey Open File Report 03-214.

⁴ USGS Google Earth Fault Mapper, <http://earthquake.usgs.gov/regional/nca/haywardfault/>, accessed March 22, 2010.

Like most parks, development under the project would be minimal. Facilities allowed under the project would be limited to:

- ◆ Entry kiosk
- ◆ Visitor center
- ◆ Visitor pavilion
- ◆ Restrooms
- ◆ Rain shelters
- ◆ Agriculture packaging, processing, and storage facilities
- ◆ Café
- ◆ Catering facilities
- ◆ Caretaker residence or site host
- ◆ Produce stands
- ◆ Greenhouses
- ◆ Shade houses
- ◆ Classrooms
- ◆ Miscellaneous small structures associated with ongoing agricultural and cooperative management activities

As required by the County of Santa Clara, these buildings would be required to meet the CBC regulations for seismic safety (i.e. reinforcing perimeter and/or load bearing walls, bracing parapets, etc.). In addition, all project-related grading, trenching, backfilling and compaction operations would be conducted in accordance with the CBC, and conform to regulations for seismic safety contained therein. Compliance with the CBC for development at the project site would reduce potential impacts associated with strong seismic ground shaking to a *less-than-significant* level.

b. Seismic-Related Ground Failure, Including Liquefaction

During large earthquakes, ground failure can occur along fault traces. Ground failure associated with earthquakes generally occurs along faults that have been recently active. Active faults are not known to be present at the site. Therefore, ground failure associated with fault movement is considered very unlikely at the site.

The project site is located within a liquefaction hazard zone.⁵ Soils at the project site are considered to be poorly drained, with potential to lose strength and stiffness resulting from earthquake shaking or other rapid loading. Modern geotechnical engineering procedures such as soil testing, proper design, and quality construction controls can identify and mitigate for liquefiable soils during site development. By applying knowledge about the kinds of soils, their strengths, and groundwater conditions, and by properly designing and constructing fills and foundations, modern soil engineering practices have improved greatly. These standards reduce the potential for liquefaction to levels that are generally considered acceptable. Since the project would allow only a limited amount of development, and any constructed buildings would be subject to standard geotechnical engineering, the risk of liquefaction is low.

The impact related to seismic ground failure and liquefaction is considered to be *less than significant*.

2. Substantial Soil Erosion or Siltation or the Loss of Topsoil

Soil erosion, siltation, and the loss of topsoil could result from a variety of activities. These impacts commonly occur during construction, when vegetation is removed from a building site and the soil is left out to dry. However, development at the project site would be minimal. The only buildings allowed for under the project would be minimal, as noted in Section D.1. Construction of buildings on the site would be subject to the County of Santa Clara Grading Ordinance, which includes standards for erosion control such as adequate slope protection with constructed dikes, swales, and ditches.⁶ The minimal amount of development expected on the project site would not produce substantial soil erosion, siltation, or contribute to the loss of topsoil.

The ongoing agricultural activities on the project site do have the potential to create long-term, substantial soil erosion, siltation, and contribute to the loss of topsoil. In an agricultural setting, these issues commonly occur when soils

⁵ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resources Inventory*, page II-6.

lack proper nutrient and water management. Conditions in most California soils do not favor the buildup of organic matter; therefore, they require regular additions of organic matter or the use of cover crops to increase soil aggregate stability, soil tilth, and diversity of soil microbial life.⁷ Without proper management, soil particles become dry and are easily swept up with the wind or loaded into stormwater runoff.

The project incorporates guidelines that focus on building soil health to prevent erosion, siltation, and topsoil loss. Guideline SOIL.3 requires agricultural land lessors at the project site to employ sustainable soil practices for building soil health, such as using cover crops, maintaining vegetated soils, mulching, and composting. Additionally, Guideline SOIL.5 requires that farmers receive education on reducing soil erosion and Guideline SOIL.6 requires that specific erosion limiting Best Management Practices (BMPs) are utilized.

The proposed project guidelines, in combination with the County Grading Ordinance, would reduce potential erosion impacts to a *less-than-significant* level.

3. Location on a Geologic Unit or Unstable Soil that Could Result in On- or Off-Site Landslides, Lateral Spreading, Subsidence, Liquefaction, Collapse, Shrink/Swell Potential, Soil Creep, or Erosion

As discussed previously, soils on the project site are considered to be poorly drained. These unstable soils would be subject to potential landslides, lateral spreading, subsidence, liquefaction, collapse, shrink/swell, soil creep, and erosion. The limited amount of development allowed under the project could occur in such hazard areas. However, new construction would be required to comply with the CBC, which contains building criteria and standards that are designed to reduce geologic risks to acceptable levels, and the County of Santa

⁶ County of Santa Clara Grading Ordinance, 2001, page 24.

⁷ University of California Agriculture Research and Education Program, *What is Sustainable Agriculture?* <http://www.sarep.ucdavis.edu/Concept.htm>, accessed March 23, 2010.

Clara Grading Ordinance, which establishes requirements for grading work that reduces the potential for soil erosion and soil sediment transport.

Development under the project would be subject to the CBC and the County Grading Ordinance, which would ensure that potential unstable soil impacts would be *less than significant*.

4. Location on Expansive Soil, Creating Substantial Risks to Life or Property

As previously discussed, soils on the project site are considered to be poorly drained. The project site also has expansive soils. These unstable, poorly drained soils, and expansive soil, are a potential hazard. Modern geotechnical engineering procedures including soil testing, proper design, and quality construction controls can identify and mitigate for expansive soil during site development. These standards reduce the potential risk of expansive soil to levels that are generally considered acceptable. Since the project would allow only a limited amount of development, and any constructed buildings would be subject to standard geotechnical engineering, the risk to life or property from expansive soil is low. Impacts related to expansive soil are therefore considered to be *less than significant*.

5. Soils Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Wastewater Disposal Systems

The project would not employ septic tanks or alternative wastewater disposal systems, as described in Chapter 3, Project Description. Thus, there would be *no impact* related to soils incapable of adequately supporting such facilities.

6. Substantial Compaction or Over-Covering of Soil either On- or Off-Site

There are few development projects that do not result in some form of compaction and/or over-covering of soil. The development allowed for under the project would be entirely on-site and limited to roads and trails that would require soil over-covering as well as constructing several new buildings, as noted in Section D.1, above.

The amount of soil that would be over-covered in this project is insubstantial in comparison to the amount of farmland that would be preserved. The proposed project would not impact any soils off-site.

Therefore, the impact related to substantial compaction or over-cover of soil either on- or off-site would be *less than significant*.

7. Substantial Change in Topography or Unstable Soil Conditions from Excavation, Grading, or Fill

As previously discussed, the project site has unstable soils. However, the instability results from the type of soil that exists on the project site and its characteristics. Unstable soils on-site do not result from a substantial change in topography, excavation, grading, or fill. The project would not involve changes in topography due to excavation, grading, or fill.

Therefore, the impact related substantial change in topography, excavation, grading, or fill is considered to be *less than significant*.

8. Location in an Area Designated as Having a Potential for Major Geological Hazard

The project site, as discussed previously, is not at risk of seismic-related ground failure; however, the site may experience strong seismic ground shaking. Additionally, the existing soil on-site is known to be unstable and is located in an area with a potential risk for liquefaction.⁸

The limited amount of development allowed under the project could be impacted by such a geologic hazard; however, development would be required to adhere to the CBC and the County Grading Ordinance. The CBC and the Grading Ordinance are designed to reduce the risks of geologic hazards to acceptable levels. Therefore, impacts would be *less than significant*.

⁸ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page II-6.

9. Location On, or Adjacent To, a Known Earthquake Fault

As previously mentioned, there are no known earthquake faults on the project site. The project site is located approximately 7 miles from the Hayward Fault, 9 miles from the Calaveras Fault, and 14.5 miles from the San Andreas Fault.⁹ The likely risks associated with proximity of these faults to the project site are limited to strong seismic ground shaking since surface rupture at the project site is considered very unlikely. The impact related to proximity to a known earthquake fault is considered to be *less than significant*.

10. Direct or Indirect Destruction of a Unique Paleontological Resource or Site or Unique Geologic Feature

The entire project site is composed of Holocene (10,000 years B.P. to present) alluvial deposits. The depth of these Holocene deposits in the project site is unknown, but these may extend 25 to 35 feet below the ground surface.¹⁰ Holocene deposits are too recent to contain paleontological resources (fossils), and it is not anticipated that ground-disturbing project activities in the project site will impact buried paleontological resources. Therefore, impacts would be *less than significant*.

E. Cumulative Impacts

Because impacts related to geology and soils tend to be site-specific, this section analyzes potential impacts relating to geology and soils that could occur from a combination of the proposed project with other reasonably foreseeable projects in the project vicinity.

The proposed project would bring Park visitors and staff into a zone of high seismic hazard than would have been the case without the project or other development projects in the vicinity of the site. However, application of

⁹ USGS Google Earth Fault Mapper, <http://earthquake.usgs.gov/regional/nca/haywardfault/>, accessed March 22, 2010.

¹⁰ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page II-7.

relevant engineering standards is considered sufficient to reduce risks to visitors and staff to *less-than-significant* levels. The proposed project in combination with other development projects in the site's vicinity would therefore not cause any significant cumulative impacts.

4.9 HAZARDS AND HAZARDOUS MATERIALS

This chapter describes the existing conditions and evaluates the potential impacts associated with hazardous materials, emergency response plans, and wildland fires. This chapter also includes a discussion of cumulative impacts under the project.

A. Regulatory Framework

The following section discusses hazards and hazardous materials policies from regulatory agencies that have jurisdiction over the project site.

1. Federal Agencies

a. Environmental Protection Agency (EPA)

The EPA is the federal agency responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Legislation enforced by the EPA includes the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (commonly referred to as “Superfund”), the Superfund Amendments and Reauthorization Acts of 1986, and the Resource Conservation and Recovery Act of 1986 (RCRA). The EPA provides oversight and supervision for site investigations and remediation projects, and has developed land disposal restrictions and treatment standards for the disposal of certain hazardous wastes.

b. United States Department of Transportation (DOT)

The DOT regulates the transportation of hazardous materials by truck and rail. The DOT also establishes criteria for safe handling procedures of hazardous materials, including the types of containers, labeling, and other restrictions to be used in the movement of such material on interstate highways.

c. Occupational Safety and Health Administration (OSHA)

Enacted in 1970, the Occupational Safety and Health Act established this administration to ensure healthy working conditions in the United State. There are approximately 2,100 OSHA inspectors, who along with other experts and support staff, establish and enforce protective standards in the workplace. California, under an agreement with OSHA, operates an occupational safety

and health program in accordance with Section 18 of the Occupational Safety and Health Act of 1970. The program applies to all public and private sector places of employment in the State, with the exception of federal employees, the United States Postal Service (USPS), private sector employers on Native American lands, maritime activities on the navigable waterways of the United States, private contractors working on land designated as exclusive Federal jurisdiction, and employers that require Federal security clearances.

2. State Agencies and Regulations

a. California Environmental Protection Agency (Cal/EPA)

Within the State of California, Cal/EPA serves as the umbrella agency for six boards and departments: the California Air Resources Board (CARB), the California Integrated Waste Management Board (CIWMB), the Department of Pesticide Regulation (DPR), the Department of Toxic Substance Control (DTSC), the California Integrated Waste Management Board, the Office of Environmental Health Hazard Assessment (OEHHA), and the State Water Resources Control Board (SWRCB) and its associated regional Water Boards. Each of these agencies is described below.

- ◆ **California Air Resources Board.** CARB has the responsibility for developing and enforcing regulations to achieve and maintain ambient air quality standards in the district. CARB is responsible for enforcing the Clean Air Act and California's State Ambient Air Quality Standards.
- ◆ **California Integrated Waste Management Board.** The CIWMB provides grants and funds to help California municipalities and private companies meet the State's waste reduction, reuse, and recycling goals. Funds are also allocated to clean up solid waste disposal sites, and promote alternatives to the illegal disposal of used oil.
- ◆ **Department of Pesticide Regulation.** The DPR has the primary responsibility for regulating all aspects of pesticide sales and use to protect public health and the environment. The DPR's mission is to evaluate and mitigate impacts of pesticide use, maintain the safety of the pesticide workplace, ensure product effectiveness, and encourage the development

and use of reduced-risk pest control practices while recognizing the need for pest management in a healthy economy.

- ◆ **Department of Toxic Substance Control.** The DTSC works in conjunction with the EPA to enforce and implement specific laws and regulations pertaining to hazardous wastes. California legislation, for which the DTSC has primary enforcement authority, includes the Hazardous Waste Control Act and the Hazardous Substance Account Act. Most State hazardous waste regulations are contained in the California Code of Regulations, Title 27. The DTSC generally acts as the lead agency for soil and groundwater cleanup projects, and establishes cleanup and action levels for subsurface contamination that are equal to, or more restrictive than, federal levels.
- ◆ **Office of Environmental Health Hazard Assessment.** The mission of the OEHHA is to protect and enhance public health and the environment by objective scientific evaluation of risks posed by hazardous substances. OEHHA is the State entity for the assessment of health risks posed by chemical contaminants in the environment. OEHHA is responsible for implementing Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986. OEHHA develops public health goals for contaminants in drinking water and probes potential health risks created by pesticides including the risk of pesticide poisoning.
- ◆ **State Water Resource Control Board.** The SWRCB, through its regional boards, regulates discharge of potentially hazardous materials to waterways and aquifers and administers basin plans for groundwater resources in various regions of the State. The SWRCB provides oversight for sites at which the quality of groundwater or surface waters is threatened, and has the authority to require investigations and remedial actions. The San Francisco Bay Regional Water Quality Control Board is the regional board that has jurisdiction over the project site.

b. The California Department of Transportation (Caltrans)

Caltrans manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use

airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first-responder for hazardous material spills and releases that occur on those highway and freeway lanes and inter-city rail services.

c. California Building Code

The California Building Code (CBC) is Part 2 of California Code of Regulations Title 24. The 2007 CBC is based upon the 2006 International Building Code and contains building requirements to minimize risks to life safety. Section C3-1 of the County Ordinance Code adopts the 2007 CBC as the building code of the County.

3. Local Policies, Regulations, and Regulatory Agencies

a. Santa Clara County General Plan

The County's General Plan contains several goals and policies relevant to hazards and hazardous materials which are included in Table 4.9-1.

b. County of Santa Clara Policy on Farm Worker Exposure to Pesticides

The County of Santa Clara Board of Supervisors supports legislation to limit the use of pesticides that are harmful to farm workers and consumers. The Board also supports efforts in the County and throughout the State to help educate and train farm workers on the use of pesticides.

c. County Ordinance Code

Chapters XIII, Hazardous materials Storage, and XV, Unified Program, in Division B11, Environmental Health, of the County Ordinance Code pertain to hazardous materials. Chapter XIII states that no person may store hazardous materials in a manner that violates any applicable local, State, or federal regulations or in a manner that poses risk of unauthorized discharge. Section B11-272 requires a hazardous materials storage permit for anyone storing hazardous materials, subject to certain exemptions. Animal feed is exempt from these permitting requirements.

Chapter XV states that the County's Department of Environmental Health is the Unified Program Agency for the county. The functions of the Department of Environmental Health are described in further detail below.

**TABLE 4.9-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO
HAZARDS AND HAZARDOUS MATERIALS**

Strategy/Policy Number	Strategy/Policy Content
Health and Safety Chapter	
<u>Hazardous Materials</u>	
<i>Strategy #1</i>	<i>Manage Hazardous Materials Safely and Efficiently.</i>
Policy C-HS 14	All feasible measures to safely and effectively manage hazardous materials and site hazardous materials treatment facilities should be used, including complying with all federal and State mandates.
Policy C-HS 15	To achieve a more effective, efficient and economical regulatory environment, all feasible means to simplify and coordinate locally implemented hazardous materials management regulations should be considered.
<u>Waste Water Disposal</u>	
<i>Strategy #2</i>	<i>Prevent Waste Water Contamination of Groundwater Supplies.</i>
Policy C-HS 46	Hazardous materials, whether commercial, industrial, agricultural, or residential in character, should not be disposed of in any wastewater or septic system.
<u>Emergency Preparedness</u>	
<i>Strategy #1</i>	<i>Plan for Immediate Disaster Response.</i>
Policy C-HS 17	Local governments should comply with all federal and State regulations regarding emergency planning and preparedness.
Policy C-HS 18	Local government, business, and community organizations should cooperate in preparing the most effective emergency response plans and procedures feasible.
Policy C-HS 19	The County and cities should comply with federal and State hazardous materials regulations and planning activities, including the Countywide Hazardous Waste Management Plan, the Hazardous Materials Area Plan, and the Operations Section of the County Emergency Plan regarding a hazardous materials incident.
Policy C-HS 20	All proposals to site a hazardous waste facility shall be compatible with neighboring land uses and be consistent with the permitting jurisdiction's General Plan and the Countywide Hazardous Waste Management Plan.

TABLE 4.9-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO HAZARDS AND HAZARDOUS MATERIALS (CONTINUED)

Strategy/Policy Number	Strategy/Policy Content
<i>Strategy #2</i>	<i>Plan for Post-Disaster Recovery.</i>
Policy C-HS 23	Local governments and hazardous materials users should work jointly to identify the most effective and economically feasible measures to prevent hazardous materials incidents and ensure the swift post-incident recovery of all effected [sic].
<u>Natural Hazards</u>	
Policy 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.
<i>Strategy #1</i>	<i>Inventory Hazards and Monitor Changing Conditions.</i>
Policy C-HS 29	Inventories and mapping of natural hazards should be adequately maintained for use in planning and decision-making.
<i>Strategy #2</i>	<i>Minimize the Resident Population Within High Hazard Areas.</i>
Policy 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.
Policy C-HS 31	Cities should not expand Urban Service Areas into undeveloped areas of significant hazards.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

County Ordinance NS-517.70 (May 2002) regulates the use of pesticides on County property. The intent of the ordinance is to “protect the health and safety of County employees and the general public, the environment, and water quality, as well as to provide sustainable solutions for pest control on County property.” The ordinance emphasizes the use of non-pesticide alter-

natives where feasible. To enact this mission, the County established an Integrated Pest Management (IPM) program that relies on biological control, cultural practices, mechanical and physical tools, and chemicals to minimize pesticide usage. The IPM method uses the least hazardous pesticides available only as a last resort for controlling pests. Section B28-5 of the ordinance describes the role of the County IPM Coordinator in maintaining the list of approved pesticides that may be used on County property and outlines specific exemptions for use of products not on the approved list and for emergency use of pesticides. The ordinance contains a list of pesticide restrictions and the posting and the record keeping and reporting procedures for pesticide use.

d. County of Santa Clara Office of Emergency Services

SEMS regulations authorize each Board of Supervisors in California to designate an Operational Area lead agency. The County of Santa Clara Office of Emergency Services (OES) is the County of Santa Clara lead agency. The OES administers an Emergency Operations Center, which is activated by an on-call County OES Coordinator in the event of an emergency. In the event of an emergency, EOC staff work to meet the County's immediate needs, work toward the temporary restoration of facilities, and meet the rehabilitative needs of people.¹

In March 2008, the County of Santa Clara Board of Supervisors adopted the Operational Area Emergency Operations Plan. The Plan is an extension of the State's California Emergency Plan, and provides tasks, policies, and procedures for handling emergency operations. The Plan identifies the release of hazardous materials as having the potential for adverse effects on human health, the environment, and property. The Plan identifies wildland/urban interface fires as one of the threats facing the county. The Plan describes wildland fires as those consisting primarily of vegetation and agriculture. Wildland fires, if unabated, can spread to residential or commercial structures.

¹ Santa Clara County Office of Emergency Services website, <http://www.sccgov.org/portal/site/oes/>, accessed on February 22, 2010.

Wildland/urban interface fire hazards are especially high in areas where high structure densities exist adjacent to undeveloped open space areas with dense vegetation.²

e. County of Santa Clara Department of Environmental Health, Hazardous Materials Compliance Division

The County Santa Clara's Hazardous Materials Compliance Division (HMCD) of the Department of Environmental Health is the County's Certified Unified Program Agency (CUPA). As the County's CUPA, the HMCD administers the following State-mandated programs:

- ◆ Hazardous Waste Generator and Tiered Permitting
- ◆ Aboveground Storage Tanks
- ◆ Underground Storage Tanks
- ◆ Hazardous Materials Release Response Plans and Inventories
- ◆ California Accidental Release Program
- ◆ Hazardous Materials Management Plans and Inventories

The HMCD serves as a consolidated permitting agency for these six programs. Under the HMCD's Hazardous Materials Storage Permit program, any facility storing a hazardous material is required to obtain and keep a current hazardous materials storage permit. Facilities handling any individual hazardous material must submit a Hazardous Materials Registration Form or a Hazardous Materials Business Plan, depending on the amount of hazardous materials stored. Any facilities with aboveground hazardous materials storage must also submit an Aboveground Separation, Containment, and Monitoring Plan.

f. County of Santa Clara Best Management Practices

In the planning phases of a development project in Santa Clara County, contractors reference a County-maintained list of best management practices (BMPs), *Construction Site BMPs Consideration Checklist*, to determine required

² Santa Clara County, 2008, *Operational Area Emergency Operations Plan*, available at http://www.sccgov.org/SCC/docs%2FEmergency%20Services,20Office%20of%20%28DEP%29%2Fattachments%2FEOP_Complete.pdf, page 22.

and recommended BMPs for project implement. This checklist includes BMPs to control sediment, erosion, tracking, non-stormwater, waste management, and materials pollution.³

g. City of San Jose

i. *Hazardous Incident Team*

The City of San Jose Fire Department operates a Hazardous Incident Team (HIT) consisting of 11 civilian hazardous materials personnel. This team operates from Fire Station 29 at 199 Innovation Drive in San Jose, which is approximately 13 miles north from the project site. In the case of a hazardous materials incident on the project site, the HIT would be the responder.

ii. *City of San Jose General Plan*

The City of San Jose General Plan includes the following goal and policies related to hazards and hazardous materials:

- ◆ Hazardous Materials Goal: Protect City residents from the risks inherent in the transport, distribution, use and storage of hazardous materials, recognizing that the use of these materials is integral to many aspects of society.
- Policy 1: The City should require proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fires, or the escape of harmful gases, and to prevent individually innocuous materials from combining to form hazardous substances, especially at the time of disposal.
- Policy 4: Development located within areas containing naturally occurring asbestos should be required to mitigate any potential impacts associated with grading or other subsurface excavation.

³ County of Santa Clara Park & Recreation Department, 2009, Stormwater Pollution Prevention Program for the Casa Grande Rehabilitation project, Attachment C.

- Policy 7: Land uses in close proximity to water retention levees or dams should be restricted unless such facilities have been determined to incorporate adequate seismic stability.
- Policy 8: Responsible local, regional, State, and Federal agencies should be strongly encouraged to monitor and improve the seismic resistance of dams in the San Jose area.

The City of San Jose Bureau of Fire Prevention regulates the handling, storage, and use of hazardous materials in the city.⁴

B. Existing Conditions

Unless otherwise noted, the information in this section is based on the *Phase I Environmental Assessment for the Lester Property at 5285 Snell Avenue* and the *Limited Phase II Environmental Site Assessment Report for 5285 Snell Avenue* by Ninyo & Moore. The following information reports the conditions of the site at the time of reconnaissance. In addition, while not analyzed in this EIR, the existing site conditions of the Life Estate are also presented for future planning and additional environmental review that would be needed to address these issues when the County has access to the Life Estate.

1. Project Site Conditions

No underground storage tanks (USTs) were used for farming activities on the project site at the time of the reconnaissance survey, and no aboveground storage tanks (ASTs) were located on the project site at the time of the survey.

In January, February, and June 2004, Ninyo & Moore collected soil and groundwater samples on the project site. Toluene was detected in the Canoas Creek above the United States EPA Preliminary Remedial Goals (PRGs). Oil and grease were detected above the San Francisco Bay Regional Water Qual-

⁴ City of San Jose website, <http://www.sanjoseca.gov/prns/ts.asp#fire>, accessed on May 11, 2010.

ity Board Environmental Screening Levels (ESLs) for residual fuels in surface soils where groundwater is a source of drinking water.

On September 22, 2009, Balance Hydrologics sampled Canoas Creek during low flow conditions. Both total coliforms and E. coli were detectable in the sample, likely from waterfowl in the creek or from other sources typical of urban streams, but overall water quality was found to be favorable.

One property adjacent to the project site, the Tosco/76 gasoline station at 151 Branham Lane, has an open Leaking Underground Storage Tank (LUST). Because this LUST is located upgradient of the site, there is a low to moderate likelihood that the project site has been adversely affected. Reported methyl tertiary butyl ether (MTBE) concentrations in a monitoring well on the southeastern corner of Branham Lane and Snell Avenue corroborate this conclusion. While other properties in the vicinity of the project site have handled hazardous materials or wastes, Ninyo & Moore concluded that there is a low likelihood that the environmental integrity of the site has been adversely affected by these off-site sources.

In addition to the aforementioned potential hazards, the project site contains rodents. The fallowed fields contain rodents such as California ground squirrels, Botta's pocket gophers, and California meadow vole.⁵ Nearby residents have commented on the occasional influx of rodents during ground-disturbing activities on the project site.

No transmission lines exist in the immediate vicinity of the project site.

2. Life Estate Conditions

Although the Life Estate is not part of the project site, existing conditions on the Life Estate are presented here to disclose potential environmental concerns associated with this property that is adjacent to the project site. Ninyo & Moore noted hazardous substances and petroleum products in the Life Es-

⁵ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*, page III-8.

tate. Petroleum products were also noted on the southern portion of the Life Estate in the vicinity of the produce stand at the corner of Chynoweth Avenue and Snell Avenue. An old oil storage shed, built circa 1900, is located on the western portion of the Life Estate. This shed contains the majority of bulk oil on the site: six 35-gallon capacity drums, one 55-gallon drum containing oil, and four empty drums. These containers are stored on the concrete floor or metal shelving. Containers of varying capacities have also been noted on wooden pallets or in unpaved areas in the maintenance building.

Hazardous waste storage is evident throughout the Life Estate. Waste oil has been collected in 55-gallon drums next to the horse barn. Other unlabeled containers with varying amounts of unknown liquids and solids have been observed inside of the maintenance building, various sheds, and next to building areas.

Three USTs were formerly located on the Life Estate, one removed in the 1940s and the others in the 1980s. There are seven gasoline and diesel ASTs on the Life Estate. Five of the seven 500-gallon ASTs are actively used in farming. Four of these of active ASTs were observed near the main residence and the fifth is located on a wooden pallet on the produce stand portion of the site. One of the two remaining tanks is west of the residence and inactive. The last AST is located in the old storage shed and is of unknown capacity containing an unknown amount of oil.

No USTs were used for farming activities on the Life Estate at the time of reconnaissance. There are six former USTs stored aboveground in the Life Estate; four of these former USTs were brought to the Life Estate for storage, and two were empty containers that were never used in farming operations.

An area used for spraying livestock with insecticide-related chemicals, primarily toxaphene, was located next to the north exterior of the horse barn. Four samples where toxaphene was detected exceeded EPA PRGs. A portion of the Life Estate was used for burning waste vegetation and weeds. There were also excess asphalt grinds in piles next to the maintenance building.

Roundup and simazine are used to control weeds. These herbicides are typically used around fence lines and buildings on the Life Estate. Other insecticides, including Asana® and sulphur, are used for agricultural operations.

Asbestos-containing materials were observed in some of the buildings in the Life Estate. In addition, lead-based paint and wood preservatives were observed on most of the buildings.

Total petroleum hydrocarbons as motor oil (TPH-MO) were reported above ESLs inside the maintenance building on the Life Estate.

3. Wildland Fires

The California Department of Forestry and Fire Protection (CALFIRE) publishes maps indicating levels of wildland fire hazard risk, as well as areas within State Responsibility Areas (SRAs) versus Local Responsibility Areas (LRAs). The project site is classified as being within an LRA. The project site is not identified as a moderate, high, or very high Fire Hazard Severity Zone.⁶ However, the general risk of fires in the vicinity of the project site is moderate according to the State of California Fire Threat map.⁷

C. Standards of Significance

Hazards and hazardous materials impacts associated with the project would be considered significant if the project would:

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

⁶ California Department of Forestry and Fire Protection, California Fire Hazard Severity Map Update Project, http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_statewide.php, accessed on March 26, 2010. See also: http://www.fire.ca.gov/fire_prevention/fhsz_maps/fhsz_maps_santaclara.php.

⁷ California Department of Forestry and Fire Protection, FRAP Maps, <http://frap.cdf.ca.gov/data/frapgismaps/download.asp>, accessed on March 26, 2010.

2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
4. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
5. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.
6. Involve risk of explosion or release of hazardous substances (including pesticides, herbicides, toxic substances, oil, chemicals or radioactive materials).
7. Provide breeding grounds for vectors.
8. Propose a site plan that would result in a safety hazard (i.e., parking layout, access, closed community, etc.).
9. Be located within 200 feet of a 230 kilovolts (KV) or above electrical transmission line.
10. Create any health hazard.
11. Expose people to existing sources of potential health hazards.

D. Impact Discussion

The Life Estate will become part of the Park in the future but is not included in the Plan that is the project evaluated in this Draft EIR. Therefore, the following discussion pertains to the project site only.

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

1. Creation of Significant Hazards to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials

Implementation of the project could increase the routine transport, use or disposal of hazardous materials used for and during construction, as well as during operation. Construction of new structures on the project site during Phase I and subsequent phases could involve the use of hazardous materials. In addition, since agricultural production would be a land use within the Park, hazardous materials, such as pesticides, could create a significant hazard to the public or the environment during the ongoing operation of the project.

The Santa Clara County General Plan contains policies that would ensure that the public and the environment are not needlessly exposed to hazardous materials. Strategy #1 under the Hazardous Materials section of the Santa Clara County General Plan, for example, is to manage hazardous materials safely and efficiently. Policy C-HS 14 says that all feasible measures should be used to safely and effectively manage hazardous materials and site hazardous materials treatment facilities including complying with all federal and State mandates. Policy C-HS 15 calls for the simplification and coordination of locally-implemented hazardous materials management regulations. Policy C-HS 15.2 stipulates that the cities and the County of Santa Clara shall ensure that all relevant discretionary land use and development decisions are consistent with the intent and provisions of the Countywide Hazardous Waste Management Plan (CHWMP). Finally, County Ordinance Number NS-517.70 calls for the reduction of pesticides for pest control.

In addition, the proposed Plan calls for sustainable farming practices⁸ that would reduce the amount of harmful pesticides. The Martial Cottle Park would be subject to the county's IPM Ordinance, which would require the use of natural biological cycles and controls, and other sustainable practices. Proposed Guideline SOIL.3 states that sustainable agriculture practices should be employed for building soil health in agricultural areas, including tilling, soil conservation, cover crops, crop rotation, mulching, and composting. Guideline AG.8 also calls for using sustainable farming practices that integrate natural biological cycles and controls; protect and enhance soil fertility and the natural resource base; and minimize adverse impacts on public health, safety, wildlife, water quality and the environment. Guideline PLANT.4 states that the Plan and Park should adhere to Ordinance Number NS-517.70, 5-21-02 of the County of Santa Clara Ordinance Code, which requires the elimination or reduction of pesticide application on County property to the maximum extent feasible. Finally, Guideline HYDRO.5 states that the Plan should adhere to County guidelines for use of pesticides and fertilizers in order to reduce potential adverse impacts to local and regional water resources.

Transport of hazardous materials to and from the project site would involve travel through San Jose city limits because the project site is bounded by land within the City of San Jose. The City of San Jose General Plan also contains a policy that would address this standard of significance. Under the Hazardous Materials Goal, which is to protect City residents from the risks inherent in the transport, distribution, use, and storage of hazardous materials, Policy 1 would require proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fires, or the escape of harmful gases and to prevent individually innocuous materials from combining to form hazardous substances, especially at the time of disposal.

⁸ Sustainable farming practices integrate natural biological cycles and controls; protect and conserve water, air, soil, and energy resources; and minimize adverse impacts on health, safety, wildlife, water quality and the environment.

With the implementation of the County and City policies and regulations, as well as proposed Plan policies, the impacts associated with the use and transport of hazardous materials would be *less than significant*.

2. Creation of Significant Hazards to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment

While unlikely, project construction could result in the creation of significant hazards through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. In the accidental release of hazardous materials, the City of San Jose's HIT would be a responder.

The Santa Clara County General Plan Strategy #1 under the Emergency Preparedness section is to plan for immediate disaster response. Policy C-HS 17 says that local governments should comply with all federal and State regulations regarding emergency planning and preparedness. Policy C-HS 19 states that the County and Cities should comply with federal and State hazardous materials regulations and planning activities, including the CHWMP, the Hazardous Materials Area Plan, and the Operations Section of the County Emergency Plan regarding a hazardous materials incident. Policy C-HS 23 dictates that local governments and hazardous materials users should work jointly to identify the most effective and economically feasible measures to prevent hazardous materials incidents and ensure the swift post-incident recovery of all affected.

Ongoing project operation could involve the use of pesticides or the creation of hazardous materials due to the potential for farming involving livestock and other animal husbandry activities. The potential for such materials to be released into the environment is analyzed in Chapter 4.4, Air Quality, and Chapter 4.10, Hydrology, Floodplains, and Water Quality. As described in Chapter 4.4, livestock operations could present a source of odors, which could be mitigated through an odor impact minimization plan. As described in Chapter 4.10, implementation of the Best Management Practices (BMPs) included in the proposed Plan, as well as compliance with National Pollution Discharge Elimination System (NPDES) and Santa Clara Valley Urban Run-

off Pollution Prevention Program (SCVURPPP) procedures, would avoid significant impacts associated with polluted runoff.

With policy implementation, the impacts associated with the accidental release of hazardous materials would be *less than significant*.

3. Emission of Hazardous Emissions or Handling of Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School

The following schools are located less than 0.5 mile of the site: Parkview Elementary School (located approximately 0.5 mile to the north), Gunderson High School (approximately 0.5 mile west), Hayes Elementary School (approximately 0.25 mile east), and Del Roble Elementary School (approximately 0.25 mile south). While the likelihood is low, implementation of the project could result in hazardous emissions or handling of hazardous materials, substances, or waste that could adversely affect these schools. The Santa Clara County General Plan contains policies that would ensure that the public is not needlessly exposed to hazardous materials. Strategy #1 under the Hazardous Materials section of the Santa Clara County General Plan, for example, is to manage hazardous materials safely and efficiently. Policy C-HS 14 says that all feasible measures should be used to safely and effectively manage hazardous materials and site hazardous materials treatment facilities including complying with all federal and State mandates. Policy C-HS 15 calls for the simplification and coordination of locally-implemented hazardous materials management regulations. Policy C-HS 15.2 stipulates that the Cities and County of Santa Clara shall ensure that all relevant discretionary land use and development decisions are consistent with the intent and provisions of the CHWMP.

The schools in the vicinity of the project site are located within San Jose city limits. The City of San Jose General Plan also contains a policy that would address this standard of significance. Under the Hazardous Materials Goal, which is to protect City residents from the risks inherent in the transport, distribution, use and storage of hazardous materials, Policy 1 would require proper storage and disposal of hazardous materials to prevent leakage, poten-

tial explosions, fires, or the escape of harmful gases and to prevent individually innocuous materials from combining to form hazardous substances, especially at the time of disposal.

With policy implementation, the impacts to schools from hazardous emissions would be *less than significant*.

4. Impairment of Implementation of or Physical Interference with an Adopted Emergency Response Plan or Emergency Evacuation Plan

Implementation of the project would result in the impairment or interference of an adopted emergency response plan if Park-related activities interfered with emergency response procedures. Santa Clara County General Plan contains policies to ensure that emergency plans are followed. Strategy #1 under Emergency Preparedness is to plan for immediate disaster response. Policy C-HS 17 states that local governments should comply with all federal and State regulations regarding emergency planning and preparedness. Policy C-HS 19 states that the County and cities should comply with federal and State hazardous materials regulations and planning activities, including the Operations Section of the County Emergency Plan regarding a hazardous materials incident.

The Plan also proposes guidelines that would assure that the Park can be properly accessed in the event of an emergency. Guideline CIRC.2, for example, states that emergency access roads shall be designed and maintained to meet Santa Clara County Fire Marshal Office's standards. In addition, during Phase 1 of the Plan, at least one service/emergency entrance shall be established to allow for public access. As shown in Figure 3-5, full buildout of the project would include service roads around the perimeter of the project site as well as through the project site in both a north-south and east-west direction. Figure 3-5 also shows the four emergency access entrances to the project site that would be created by the project. These new access points and roads would allow for emergency vehicles to access the site in the event of an emergency, and the project would not be expected to interfere with emergency response activities.

With policy implementation and site design features incorporated into the project, there would be a *less-than-significant* impact on emergency response or evacuation plans.

5. Exposure of People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildland Fires

Although the general risk of fires in the project site vicinity is moderate according to the State of California Fire Threat map, the project site itself is not identified as a moderate, high, or very high Fire Hazard Severity Zone, as defined by CALFIRE. Therefore, wildland fire risks are expected to be low on the project site. However, as described above, the proposed Plan includes guidelines and site design features to allow for adequate emergency access into and through the project site. Guideline CIRC.2 of the proposed Plan states that emergency access roads shall be designed and maintained to meet Santa Clara County Fire Marshal Office's standards. As shown in Figure 3-5, the project would include four emergency access entrances to the project site, as well as service roads around and through the project site.

Risk of wildland fire is considered to be low on the project site, and the project includes site design features to allow for adequate emergency response in the event of a fire emergency. The western buffer of the project site would contain low-growing, fire resistant landscaping, which would provide defensible space for residential properties along the western edge of the project site. Therefore, there would be a *less-than-significant* impact from wildland fires on people or structures.

6. Risk of Explosion or Release of Hazardous Substances

According to project site and Life Estate evaluation conducted by Ninyo & Moore, many of the residential pesticides from the historic agricultural uses on the site are immobile and do not readily leach downward to groundwater. Surface water samples collected in 2004 from Canoas Creek showed levels of oil and grease, arsenic, volatile organic compounds, and pesticides to be below reporting limits, although no constituents were reported above laboratory

reporting limits from the well samples collected.⁹ Residual hazardous substances may remain in the sediment. However, as described in Chapter 4.10, Hydrology, Floodplains, and Water Quality, implementation of the Best Management Practices (BMPs) included in the proposed Plan, as well as compliance with National Pollution Discharge Elimination System (NPDES) and SCVURPPP procedures would avoid significant impacts associated with polluted runoff. Therefore, on-site hazardous materials used in past and future agricultural practices are not expected to be released in such a way that would result in adverse effects to water quality.

As described above in Section B.2, Life Estate Conditions, the Life Estate currently contains six former USTs and seven ASTs. However, the public would not have access to the Life Estate until it becomes part of the County-owner property in the future. In addition, as described above in Section B.1, Project Site Conditions, the project site itself does not contain any ASTs or USTs. Therefore, the project would not have the potential to result in the release of any hazardous substances currently stored on-site.

Hazardous materials used in future agricultural activities are not expected to be released into groundwater, and the project site does not contain any aboveground or underground storage tanks. Therefore, impacts associated with the release of hazardous materials would be *less than significant*.

7. Breeding Grounds for Vectors

Vectors are carriers of infectious agents. For example, in Santa Clara County mosquitoes can be a vector for Malaria, West Nile Virus, and St. Louis encephalitis. Rodents and other wildlife can also serve as vectors. Water quality BMPs aimed at reducing contaminant runoff can contribute to mosquito problems in receiving creeks. The project site could experience problems associated with vectors if Canoas Creek becomes a breeding ground for mosquitoes, or if rodent populations breed on the project site and carry diseases to nearby residential areas. As described below in regards to standard of sig-

⁹ Balance Hydrologics, Inc., 2009, Existing Conditions of Hydrology Draft Report for Martial Cottle Park.

nificance #11, the project could result in a significant impact associated with rodents. Coordination with the County of Santa Clara Vector Control District (the Vector Control District) would reduce the potential for the project site to become a breeding ground for vectors. The Vector Control District provides mosquito and general vector control pursuant to California Health and Safety and California Government Codes.¹⁰ The Vector Control District would have reviewing authority for the proposed project and would be consulted throughout phases of project implementation, including the design phase for a future wetland. In addition, the Plan's Guideline AG.11 calls for the implementation of best management practices to minimize potential impacts of animal husbandry within the Park, such as vectors, dust, and erosion. Therefore, the impact from mosquitoes from implementation of the project would be *less than significant*. Impacts associated with potential rodent issues are described in detail under Standard of Significance #10, below.

8. Proposal of a Site Plan that Would Result in a Safety Hazard

The project could result in a safety hazard if the site plan included features or new uses that would create safety risks for Park users or people in the vicinity of the project site. As discussed above, the site plan for the Park includes appropriate public and emergency access. One of the goals of the proposed Plan is to provide safe and convenient access to the Park for a wide range of users. Under that goal, Guideline CIRC.1 calls for a single public vehicular entry to the Park that minimizes potential traffic and parking impacts on surrounding neighborhoods. Guideline CIRC.2 calls for the design and maintenance of emergency access roads to meet Santa Clara County Fire Marshal Office standards. Guideline CIRC.3 calls for adequate parking on site to minimize parking on adjacent residential streets. Guideline CIRC.4 would locate adequate visitor parking to reduce potential for circulation, parking, and visual impacts on adjacent neighborhoods. Guideline CIRC.13 would provide trails around the perimeter as well as through the Park that are designed to accommodate

¹⁰ Santa Clara County Vector Control District, About the District, [http://www.sccvector.org/portal/site/vector/agencychp?path=%2Fv7%2FVector%20Control%20District%20\(DIV\)%2FAbout%20the%20District](http://www.sccvector.org/portal/site/vector/agencychp?path=%2Fv7%2FVector%20Control%20District%20(DIV)%2FAbout%20the%20District), accessed on March 26, 2010.

safe and compatible use by multiple trail user groups, including pedestrians, joggers, rollerbladers, bicyclists, and equestrians. Guideline CIRC.17 calls for cooperation with the City of San Jose to provide safe and comfortable pedestrian and bicycle crossings at all intersections leading to the park. Finally, Guideline CIRC.18 calls for the development of coordinated facilities use and parking strategy for special events that optimizes the beneficial use of parkland during non-event periods, avoids visual impacts associated with large parking lots, and minimizes parking impacts on adjacent residential neighborhoods. Implementation of policies proposed in the Plan, along with the creation of site design features to enhance public safety, would ensure that there would be a *less-than-significant impact* from the project's site plan.

9. Location within 200 Feet of a 230KV or Above Electrical Transmission Line

The project site is not located within 200 feet of a PG&E transmission line.¹¹ Therefore there would be *no impact*.

10. Creation of any Health Hazard

Implementation of the Plan would not introduce any new health hazards above and beyond those previously mentioned in this chapter. The Park property has been farmed for many years, thus, implementing agriculture under the Plan would represent a continuation of this use. With the long history of farming practices at the site, the presence and movement of rodents would be considered an existing occurrence rather than a new potential hazard created by implementation of the Plan. Mosquitoes associated with Canoas Creek channel have been an existing concern dating back to 2005, which has involved reports of West Nile Virus in the area. The Vector Control District has received reports regarding a large variety of existing pests in the neighborhood surrounding the project site. The following pests have been reported to the Vector Control District as occurring in the project site vicinity: cockroaches, flies, dead birds, insects, lice, mosquitoes, mosquito

¹¹ Gilbreath, Jacque. California Energy Commission, Siting Transmission & Environmental Protection Division Cartography Unit. Correspondence with DC&E. April 5, 2010.

fish, opossums, raccoons, roof rats, skunks, wasps, and yellow jackets.¹² This EIR does not find that any new hazards would be created under implementation of the proposed Plan, beyond those previously mentioned in this chapter; therefore, there would be *no impact*.

11. Exposure of People to Existing Sources of Potential Health Hazards

The project site is currently vacant open space and contains rodents. Some adjacent residents have noted an occasional influx of rodents during site disturbing activities on the project site. With more gardens and food crops proposed in the project site, an increase in rodents may be a potential management issue. In addition, future ground disturbance from site preparation and continuing agricultural activities could cause the rodents to leave the site onto nearby neighborhoods. The County's IPM Ordinance would be applicable to the Martial Cottle Park property and could potentially mitigate such impacts. Nevertheless, this potential hazard would result in a *significant* impact.

Impact HAZ-1: The project would result in ground disturbances that could potentially cause rodents to leave the site into nearby neighborhoods, causing a *significant* impact.

Mitigation Measure HAZ-1: Prior to ground disturbance, a representative from the County of Santa Clara Vector Control District shall be contacted to survey the property and make recommendations for pest control at the site. Additionally, if vector displacement is noted during any phase of the project, the Vector Control District shall be contacted to provide recommendations.

Mitigations to the Park property would involve the installation of buried welded wire extending below and above ground, and along the perimeter of the project site in areas adjacent to existing residential development to provide a barrier to movement by rodents. The fence shall be maintained until all vegetation is removed from the areas to be developed on the pro-

¹² Tietze, Noor, Santa Clara County Vector Control District. Email communication with Lisa Katz, DC&E, July 14 through July 22, 2010.

ject site. Ground clearing and vegetation removal shall be started adjacent to the existing residences and move toward the preserved open spaces onsite. By moving from the existing development toward the open space, suitable cover in which rodents may seek shelter would be located away from the residences. Animals seeking such cover could then move to vegetated areas instead of to adjacent residences. The specific design of this mitigation, such as the size, height, and depth of the mesh, shall be determined in consultation with the Vector Control District.

Significance after Mitigation: *Less than significant.*

E. Cumulative Impacts

Implementation of the project would result in development that could increase the potential for exposure to hazards and hazardous materials. Development in surrounding cities throughout the region could induce similar exposure to hazardous materials and other hazards. In addition, as noted above in Section B.2, Life Estate Conditions, the Life Estate currently contains six former USTs and seven ASTs. Although the Life Estate is not part of the project site, the Life Estate is expected to become part of the County-owned property in the future. Future activities and development on the Life Estate would be required to properly dispose, remove, closure, and clean regulated tanks and materials thus reducing the chances for release long term. Policies and programs mentioned above in Section A, Regulatory Framework, would ensure that any storage or transport of hazardous materials is conducted in a safe manner so as to protect public health and the environment and mitigate possible future impacts by promoting the proper disposal of hazardous waste. In addition, the project, along with the County of Santa Clara and City of San Jose General Plans, includes policies to ensure that all hazards and hazardous materials are managed appropriately and according to California and local regulations in order to ensure public safety. The development of this project would have a localized effect on the exposure of residents to these hazards and this type of exposure would not be compounded by additional exposure in other parts of the region. Consequently, the implementation of

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COUNTY PARK MASTER PLAN EIR
HAZARDS AND HAZARDOUS MATERIALS

the proposed project would have a *less-than-significant* cumulative impact on hazards and hazardous materials.

4.10 HYDROLOGY, FLOODPLAINS, AND WATER QUALITY

This chapter outlines the regulatory framework, describes the existing hydrological conditions of the project site, and evaluates the potential impacts associated with the project. This chapter also includes a discussion of cumulative impacts to hydrology and water quality. The Water Supply Assessment (WSA) prepared for the project¹ is included in this EIR as Appendix G. The WSA discusses the broader potential for water system and basin-scale impacts due to the proposed water use at the project site, as required by Section 10910 of the California Water Code (and as revised by Senate Bill 610).

A. Regulatory Framework

The following section discusses hydrology, floodplains, and water quality related policies from regulatory agencies that have jurisdiction over the Park site. Although this section presents a comprehensive set of policies, California Government Code Section 53091 states that State and county agencies and their properties are not required to comply with local agency policies. However, in the best interest of the project, State and county agencies strive to meet consistencies with relevant local agency policies.

1. Federal and State Regulations

The California State Water Resources Control Board (State Board) and the nine Regional Water Quality Control Boards (RWQCBs) have the authority in California to protect and enhance water quality, both through their designation as the lead agencies in implementing the Section 319 non-point source program of the Federal Clean Water Act and from the State's primary water-pollution control legislation, the Porter-Cologne Act. The San Francisco Bay RWQCB (Region 2) office guides and regulates water quality in streams and aquifers within portions of the nine counties surrounding the San Francisco Bay through designation of beneficial uses, establishment of water-quality objectives, administration of the National Pollution Discharge Elimination System (NPDES) permit program for stormwater and construction site

¹ Balance Hydrologics, 2010, *Water Supply Assessment for the Proposal Martial Cottle Park, San Jose, California*.

runoff, and Clean Water Act Section 404 water-quality certification where development results in fill of jurisdictional wetlands or waters of the U.S.

a. Clean Water Act

The United States Environmental Protection Agency (U.S. EPA) is responsible for water quality management and administers the federal Water Pollution Control Act Amendments of 1972 and 1987, known as the Clean Water Act (CWA). The 1972 amendment established regulations for discharge of pollutants to waters of the U.S. from point sources.² The 1987 amendment added Section 402(p), which established a framework for regulating non-point source stormwater discharges under the NPDES.³ The EPA is authorized to delegate implementation of these regulations to state agencies.

Under Section 404 of the Clean Water Act the U.S. Army Corps of Engineers (Corps) has jurisdiction to issue permits regulating the placement of dredged or fill material into waters of the U.S. The Corps determines whether a project applicant requires a nationwide permit or an individual permit. An individual permit is required if the impacts are more than minimal or if the project does not act in accordance with the nationwide permit conditions. Before the Corps issues a permit a project must comply with the guidelines established in Section 404(b) (1) of the Clean Water Act. The first step to this process is to receive a Section 401 water quality certification or a waiver from the RWCQB. The conditions of the Section 401 permit must be included in the 404 permit.

² The term "point source" means any discernible, confined and discrete conveyance of discharge, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

³ Non-point source pollution generally results from land runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification. The term "non-point source" is defined to mean any source of water pollution that does not meet the legal definition of "point source" in section 502(14) of the Clean Water Act, as described above.

The 1987 amendments to the CWA established the Section 319 Non-point Source Management Program. Section 319 addresses the need for greater federal leadership to help focus State and local non-point source efforts. Under Section 319, states, territories and tribes receive grant money that supports a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects and monitoring to assess the success of specific non-point source implementation projects.

The State of California is required by Section 303(d) of the federal CWA to provide the U.S. EPA with a list of water bodies considered by the State to be impaired (i.e., not meeting water quality standards and not supporting their beneficial uses). The list also identifies the pollutant or stressor causing impairment, and establishes a schedule for developing a control plan to address the impairment, typically a Total Maximum Daily Load (TMDL). The TMDL specifies the amount of the target pollutant that the water body can sustain on a daily or annual basis and is established by amending the water quality control plan (Basin Plan). TMDLs are prepared by the RWQCBs and result in amendments to the Basin Plan which must be approved by the EPA.

The Guadalupe Reservoir and the Guadalupe River are included in the 303(d) list due to impaired water quality for mercury and diazinon. The San Francisco Basin Plan was amended on November 16, 2005 by Board Resolution R2-2005-0063 to establish a TMDL to reduce diazinon and pesticide-related toxicity in Bay Area urban creeks, including Coyote Creek, Guadalupe River, Los Gatos Creek, and Stevens Creek.⁴ The TMDL will become effective upon U.S. EPA approval. The Guadalupe River Watershed mercury TMDL was adopted by the San Francisco Bay RWQCB on October 8, 2008 and has been approved by the State Water Board, the Office of Administrative Law, and the U.S. EPA. The proposed TMDL consists of concentration- and mass-based allocations which will be achieved by both reducing mercury inputs from waste generated from former mining operations and urban runoff and minimiz-

⁴ California Environmental Protection Agency, Diazinon and Pesticide-Related Toxicity in the San Francisco Bay Area Urban Creeks: TMDL Incorporated in Basin Plan, http://www.swrcb.ca.gov/rwqcb2/water_issues/programs/TMDLs/urbancrksdiazinontmdl.shtml, accessed on June 2, 2010.

ing the transformation of mercury to methylmercury in impoundments and reservoirs.

b. Rivers and Harbors Appropriation Act

The Rivers and Harbors Appropriation Act of 1899 also gives the Corps authority to regulate activities including dredging, disposal of dredged or fill material, or any other activity that could effect the extent of reach of traditionally navigable waters of the U.S.

c. Porter-Cologne Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) of 1969 is California's statutory authority for the protection of water quality. Under the act, the State must adopt water quality policies, plans, and objectives that protect the State's waters for the use and enjoyment of the people. The act sets forth the obligations of the State Board and the RWQCB to adopt and periodically update water quality control plans (Basin Plans). Basin Plans are the regional water quality control plans required by both the Clean Water Act and the Porter-Cologne Act in which beneficial uses, water quality objectives and implementation programs are established for each of the nine regions in California. The project area falls under the Basin Plan for the San Francisco Bay Basin. The Porter-Cologne Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of Reports of Waste Discharge (RWD) and authorizes the State Board and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals.

d. National Pollutant Discharge Elimination System

The EPA has delegated management of California's NPDES Municipal Stormwater Permit program to the State Board and the nine RWQCB offices. For San Jose, the county NPDES Municipal Stormwater Permit regulates urban runoff discharges based on the 1987 amendments to the Section 402 (p) of the CWA. Since the first five-year permit was issued in 1990, the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) has successively implemented a series of comprehensive stormwater management plans for urban runoff management meeting RWQCB standards. When the permit was renewed in 2001, the RWQCB included new design standards for runoff treatment control measures from new development

and significant redevelopment. The reissued permit also requires development of a Hydrograph Modification Management Plan (HMP) to manage increased peak runoff flows and volumes (hydromodification) and avoid erosion of stream channels and degradation of water quality caused by new and redevelopment projects. The permit was issued to cover “surface runoff generated from various land uses in all the hydrologic sub basins in the basin which discharge into watercourses, which in turn flow into South San Francisco Bay.” The permit is a non-point source discharge permit.

The RWQCB has conveyed responsibility for implementation of stormwater regulations in the vicinity of the project site to the member agencies of SCVURPPP. SCVURPPP is an association of thirteen cities and towns in the Santa Clara Valley, together with the County of Santa Clara and the Santa Clara Valley Water District (SCVWD). SCVURPPP incorporates regulatory, monitoring, and outreach measures aimed at improving the water quality of South San Francisco Bay and the streams of the Santa Clara Valley to reduce pollution in urban runoff to the “maximum extent practicable.” SCVURPPP maintains compliance with the NPDES Permit and promotes stormwater pollution prevention within that context. Compliance with the NPDES Permit is mandated by State and federal statutes and regulations. Participating agencies (including the City of San Jose) must meet the provisions of the County permit by ensuring that new development and redevelopment mitigate water quality impacts to stormwater runoff both during the construction and operation of projects.⁵

Projects modifying more than 1 acre of land (in aggregate) are required to submit a Notice of Intent to the State Board and apply for coverage under the NPDES Construction General Permit. Administration of these permits has not been delegated to cities, counties, or RWQCBs and remains with the State Board. Enforcement of permit conditions, however, is the responsibility of RWQCB staff, assisted by local municipal or county staff. The County of Santa Clara requires applicants to prepare a Storm Water Pollution Prevention Plan (SWPPP) and submit it for review prior to commencing construction. Once construction begins, the SWPPP must be kept on-site and updated as needed while construction progresses. The SWPPP details site-specific best management practices (BMPs) to control erosion and sedimentation and

⁵ City of San Jose, 2007, City of San Jose 2020 General Plan, adopted 1994.

maintain water quality during the construction phase. The SWPPP also contains a summary of the structural and non-structural BMPs to be implemented during the post-construction period, pursuant to the non-point source practices and procedures encouraged by SCVURPPP and the RWQCB.

e. Beneficial Uses

The RWQCBs guide and regulate water quality in streams and aquifers through designation of beneficial uses and establishment of water-quality objectives that must be met to protect these uses. Beneficial uses and objectives for each region are described in the Basin Plan for that region. The Project is within Region 2, the San Francisco Bay region. Beneficial uses are not listed for Canoas Creek or Guadalupe River but are listed for Guadalupe Reservoir which is upstream of the project site; beneficial uses include municipal and domestic supply (MUN), groundwater recharge (GWR), cold freshwater habitat (COLD), fish spawning (SPWN), warm freshwater habitat (WARM), wildlife habitat (WILD), and contact and non-contact recreation (REC-1, REC-2).

The San Francisco RWQCB Basin Plan has set groundwater objectives to “maintain high quality groundwater (i.e. background levels)” so that groundwater does not contain concentrations of chemical constituents in amounts that adversely affect beneficial uses.⁶

2. Local Policies

a. The Santa Clara Basin Watershed Management Initiative

In 1996, the State Board and the EPA initiated a broad stakeholder effort to encourage local stewardship in the Santa Clara Basin as part of the statewide Water Management Initiative (WMI). The Santa Clara Basin WMI is a broad based stakeholder group of 32 signatories from local, State, and federal public agencies, business and trade associations, and civic and environmental groups and programs. The declared purpose of the WMI is “to develop and implement a comprehensive watershed management program – one that recognizes that healthy watersheds mean addressing water quality problems and quality of life issues for the people, animals and plants that

⁶ California Regional Water Quality Control Board: San Francisco Bay Region, 2007, Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin (Region 2), page 294.

live in the watershed.” The WMI first established a mission statement, goals, planning objectives for development of a watershed action plan, implementation objectives, and a framework for conducting a watershed assessment. The most outstanding successes of the WMI have been in sustaining organizational continuity, providing a forum for stakeholder input on regulatory actions, and producing a variety of outreach materials for the general public to assist in natural resource protection. The WMI has continued to develop its foundation by producing watershed assessments (2002), and a watershed action plan (2003), and by further developing its priorities for implementation to protect and improve water quality (2005).

b. Fisheries and Aquatic Habitat Collaborative Effort (FAHCE)

FAHCE is a cooperative, multi-party stakeholder process for resolving a water rights complaint against SCVWD. The complaint was filed before the State Board for alleged violations relative to cumulative impacts on salmon and steelhead and their habitats within the Guadalupe River, Coyote Creek, and Stevens Creek. The FAHCE participants are collecting existing information and undertaking a series of studies to provide the technical basis to address the water rights challenge regarding fisheries and aquatic habitat management as they relate to the SCVWD's water supply operations in the north county. Participants include the SCVWD, CDFG, the Natural Heritage Institute (on behalf of Guadalupe-Coyote Resource Conservation District, and others), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and the City of San Jose.

c. County of Santa Clara, Division of Agriculture

The County of Santa Clara, Division of Agriculture's (Division) primary enforcement mission is to: (1) ensure the safe, responsible, and judicious use of pesticides by farmers, pest control companies, government, industry, and the general public; (2) ensure a wholesome and healthful food supply; (3) prevent the introduction, establishment, and spread of destructive insects, plant diseases and weeds into the County's urban and agricultural areas. They regulate the use, storage and disposal of all pesticides used in Santa Clara County. Use of federally registered pesticides must be documented through the Division by submitting a permit application, and attending annual training to ensure the user is properly educated in safe use of the pesticide.

d. Santa Clara County General Plan

The Santa Clara County General Plan contains the goals, strategies, policies, and implementing actions that guide in the overall land use development of the county. Many cities within the county, including the City of San Jose, have general plans that contain similar policies to the County's plan. The goals and policies relevant to the hydrology and water quality components of the project are listed in Table 4.10-1.

e. Water Resources Protection Ordinance (Ordinance 06-1).

On October 24, 2006, the SCVWD adopted the Water Resources Protection Ordinance (Ordinance 06-1).⁷ This ordinance established the policy through which, beginning on February 28, 2007, the SCVWD issues permits for modifications, entry, use, or access to SCVWD facilities or easements to a person or entity. This ordinance was adopted following the creation of the guidelines and standards for land use near streams by the Santa Clara Valley Water Resources Protection Collaborative (Collaborative). The Collaborative was formed in 2003 and includes the SCVWD and representatives from the County of Santa Clara, the cities within the County, the Guadalupe-Coyote Resource Conservation District, the San Francisco Bay RWQCB, and representatives of various community interests.⁸ The Collaborative members share the water and watershed resources protection goals of flood management, drinking water quality and adequate quantity, surface and groundwater quality and quantity, and habitat protection and enhancement throughout the County.⁹

f. Flood Protection

The SCVWD is responsible for balancing flood protection needs with the protection of natural water courses and habitat in the Santa Clara Valley. SCVWD holds an easement on the segment of Canoas Creek located on the project site and for the

⁷ Santa Clara Valley Water District, 2006, Water Resource Protection Ordinance 06-1, <http://ww.valleywater.org/Programs/WaterResourcesProtectionOrdinance.aspx>, accessed on June 2, 2010.

⁸ Santa Clara Valley Water District, 2007, Water Resources Protection Collaboration, <http://www.valleywater.org/index.htm>, accessed on June 2, 2010.

⁹ Santa Clara Valley Water District, 2006, Water Resource Protection Ordinance 06-1, <http://ww.valleywater.org/Programs/WaterResourcesProtectionOrdinance.aspx>, accessed on June 2, 2010.

TABLE 4.10-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO
HYDROLOGY, FLOODPLAINS, AND WATER QUALITY

Strategy/Policy Number	Strategy/Policy Content
Water Quality and Watershed Management	
Policy C-RC 18	Water quality countywide should be maintained and improved where necessary to ensure the safety of water supply resources for the population and the preservation of important water environments and habitat areas.
Policy 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.
Strategy #1	Reduce non-point source pollution.
Policy C-RC 22	Countywide, compliance should be achieved with the requirements of the National Pollution Discharge Elimination System (NPDES) permit for discharges into S.F. Bay, and to that end, the Countywide Nonpoint Source Pollution Control Program should receive the full support and participation of each member jurisdiction.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

Snell Pipeline (a water distribution main located on the eastern portion of the project site along Snell Avenue) and holds sufficient rights to provide maintenance on the two areas. Any work that occurs within the SCVWD easements or that will directly impact these facilities requires an SCVWD permit.

The SCVWD has the primary responsibility for flood protection capital projects on stream channels. Though the proposed project is located within City of San Jose's

Urban Service Area, it is on State/County-owned land and is therefore not directly subject to City stream and floodplain policies. However, given the proximity of the project to areas of City jurisdiction, some coordination may be necessary to maintain consistency and proper function of floodplain areas.

B. Existing Conditions

The hydrologic, drainage, and water quality assessment of the project site in this section is based upon:

- ◆ Prior hydrologic analysis in the project area^{10,11}
- ◆ Site observations
- ◆ Water quality samples collected for this EIR from Canoas Creek and two on-site wells at the Life Estate
- ◆ Historical data obtained from Department of Water Resources, Santa Clara Valley Water District and other local and federal agencies.

1. Climate

The project site is located within a Mediterranean-type climate zone, with almost all precipitation falling between the months of October and May. Annual average rainfall amounts in the region vary significantly due to topography. Higher elevations in the Santa Cruz Mountains can receive 40 to 60 inches per year, while the Valley floor in the vicinity of downtown San Jose receives on average about 15 inches annually. Annual average rainfall for San Jose is similar to that at the Park, with the last 100 years showing variability in total rainfall. Periods of abundant winter precipitation and prolonged periods of drought are both frequent in the historical record. For example, the average annual rainfall for San Jose is approximately 15 inches per year but annual rainfall has ranged less than 5 to over 30 inches between 1875 and 2005. Potential evapotranspiration rates are relatively constant from year to year, with an

¹⁰ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*.

annual average value of 50 inches in San Jose between 1987 and 2002. Rates rise in response to warm summer temperatures and are typically higher than precipitation on an annual basis. It is estimated that between 16 and 34 percent of the precipitation that falls in various portions of the Santa Clara Basin becomes runoff.¹² Monthly rainfall and evapotranspirative demand data is presented in Table 4.10-2.

Temperatures in the Santa Clara Basin tend to be fairly mild, and rarely drop far below freezing in the valley floor. Over the past decade, temperatures at the San Jose International Airport ranged between 28 to 104 degrees Fahrenheit, with mean annual temperature at 60 degrees Fahrenheit.

2. Soils

The soils in the project site are dominantly fine-grained and poorly drained soils developed on alluvium. The soil types include Clear Lake clay, Orestimba silty clay loam, and Sunnyvale silty clay. These soils are rated as Hydrologic Soil Group D, which indicates high runoff potential (low infiltration rates).¹³ Although ponding is described to occur in these types of soils, the Donor's lessee explained that ponding occasionally occurs within the western central portion of the Project site, but rarely occurs in other portions of the property. The soil description of the Donor and Donor's lessee indicates more sand and gravel is present on-site than would be expected based on the Natural Resources Conservation Service descriptions, which would increase the infiltration rates compared to the mapped soil types. The sand and gravel referred to is likely the alluvium beneath the developed soil profile (see Figure 4.8-3, Project Site Soils, in Chapter 4.8, Geology and Soils).

¹¹ Ninyo & Moore Geotechnical and Environmental Sciences Consultants, 2003, Phase I Environmental Site Assessment for the Lester Property – 5285 Snell Avenue.

¹² Foster, E. and Hecht, B., 1999, Regional setting for the SCVURPP watershed planning process.

¹³ U.S. Department of Agriculture, 1968, Soil Conservation Service, Soils of Santa Clara County.

TABLE 4.10-2 MEAN MONTHLY RAINFALL AND EVAPOTRANSPIRATIVE DEMAND

Month	Mean Monthly Precipitation ^a (Inches)	Mean Monthly Reference (ET _o) Evaporation ^b (Inches)	Soil Moisture Deficit ^c (Inches)
October	0.71	3.61	2.90
November	1.51	1.8	0.29
December	2.48	1.36	-1.12
January	2.85	1.35	-1.50
February	2.55	1.87	-0.68
March	2.37	3.45	1.08
April	1.13	5.03	3.90
May	0.47	5.93	5.46
June	0.10	6.71	6.61
July	0.02	7.11	7.09
August	0.05	6.29	6.24
September	0.23	4.84	4.61
Annual Total	14.47	49.35	34.88

Notes: Water Year Basis: October-September

^a Mean monthly precipitation based on historical records of several different NCDC stations located in downtown San Jose from 1875 through 2005. The current station is located near the San Jose Airport at 37 22'N and 121 55'W at 51 feet above mean sea level.

^b Mean monthly reference evapotranspiration (ET_o) is defined as the evapotranspiration of a broad expanse of well watered 4- to 6-inch-tall cool-season grass. Monthly ET_o values are based on CIMIS Station #69, San Jose, CA data from June, 1987 through November, 2002.

^c Wetting of dry soils early in the wet season must satisfy the soil moisture deficit before percolating rainfall passes beneath the rooting depth and reaches the water table.

3. Hydrology and Surface Water Drainage

The topography of the Santa Clara Valley, a northwest-southeast trending structural depression, largely reflects active tectonics associated with the fault system of the San Andreas plate boundary. The valley floor is nearly flat along the San Francisco Bay, with gentle undulations and local, low hills to the south extending upward approximately 350 feet above mean sea level (msl) at the valley's narrowest point, north of the City of Morgan Hill. The valley is bounded in the southwest and east by Santa Cruz Mountains and Diablo Range, respectively.

Situated slightly east of the valley axis at an elevation of approximately 160 feet msl, the entire project site is relatively flat, with an elevation difference no greater than 10 feet within the property. Stormwater runoff from the project site currently drains to Canoas Creek. Canoas Creek is part of the surface water system in the Santa Clara Valley which includes streams, fourteen dams, and a system of aqueducts, pipelines, and storm drains. Canoas Creek was realigned and straightened in the late 1890s or early 1900s, then subsequently converted to a trapezoidal channel with a concrete bottom in the late 1960s by the SCVWD.¹⁴ This design is common in the urban areas of Santa Clara County, implemented to control flooding.¹⁵

The bed of Canoas Creek located at the project site is 12 feet wide and the walls, which are both concrete and earthen, angle upward to an approximate width of 30 feet from bank to bank at the top of the channel. The creek channel is about 12 feet deep. Canoas Creek transports flows into the main channel of the Guadalupe River located north of the site. The SCVWD Flood Alert System has operated a gage on Canoas Creek at Almaden Expressway (north of the project site, where the drainage area is 18.61 square miles) since October 1, 1977. Mean daily flow has not exceeded 800 cubic feet per second (cfs) at that station during this record. Elevated levels in the creek occurred in the 1980s due to diversions from the IBM Corporation, which aberrantly increases the historical mean daily flow to 8.2 cfs; without this augmented flow the historical mean daily flow is 5.1 cfs. The creek does not go dry in the sum-

¹⁴ Ninyo & Moore Geotechnical and Environmental Sciences Consultants, 2003, Phase I Environmental Site Assessment for the Lester Property - 5285 Snell Avenue.

¹⁵ Santa Clara Valley Water District, 2007, <http://www.valleywater.org/in-dex.htm>, accessed on June 2, 2010.

mer, likely due to “nuisance flows” from the surrounding urban areas¹⁶ (see Figure 4.10-1).

The project site and Canoas Creek are located within the Guadalupe River Watershed, which encompasses approximately 170 square miles.¹⁷ The river’s headwaters are located in the eastern Santa Cruz Mountains and drain to the Bay through Alviso Slough. The Guadalupe River begins at the confluence of Guadalupe Creek and Alamitos Creek (to which Calero Creek is a tributary). Downstream from this point the watershed is heavily urbanized. Important tributaries include Ross Creek, Canoas Creek, and Los Gatos Creek. The lower segments of the creek convey high volumes of treated effluent from wastewater treatment facilities to San Francisco Bay; the flow regime and quality of water in these segments is dominated by the treated-effluent releases.

Since 1866, the Guadalupe River and its tributaries have been the focus of several drainage and flood-control modification projects. Approximately 21 percent of the channels in the watershed have been converted to concrete or rock-lined channels, 38 percent are manmade earthen channels, and only 40 percent have been left unmodified.¹⁸ During the 73-year period of record (1930 to 2003) at the former United States Geological Survey (USGS) gage just below the confluence with Los Gatos Creek (USGS Station 11169000), flows in the Guadalupe River were seasonal, with a maximum peak flow of 11,000 cfs recorded in 1995 and typically no flow recorded for several days during August or September. Flows are partially regulated by the SCVWD which operates major reservoirs in the watershed, including Guadalupe Reservoir on Guadalupe Creek. The SCVWD augments dry season flows in the Guadalupe River and its tributaries for the purposes of groundwater recharge. Flows are also diverted to several groundwater percolation ponds along Guadalupe Creek, the Guadalupe River and Los Gatos Creek.

¹⁶ Nuisance flows are flow events not derived from stormwater, they usually occur in the dry weather as a result of urban runoff, such as car washing.

¹⁷ Santa Clara Valley Water District, 2007, <http://www.valleywater.org/index.htm>, accessed on June 2, 2010.

¹⁸ Santa Clara Basin Watershed Management Initiative, 2000, Volume One, Watershed Characteristics Report.

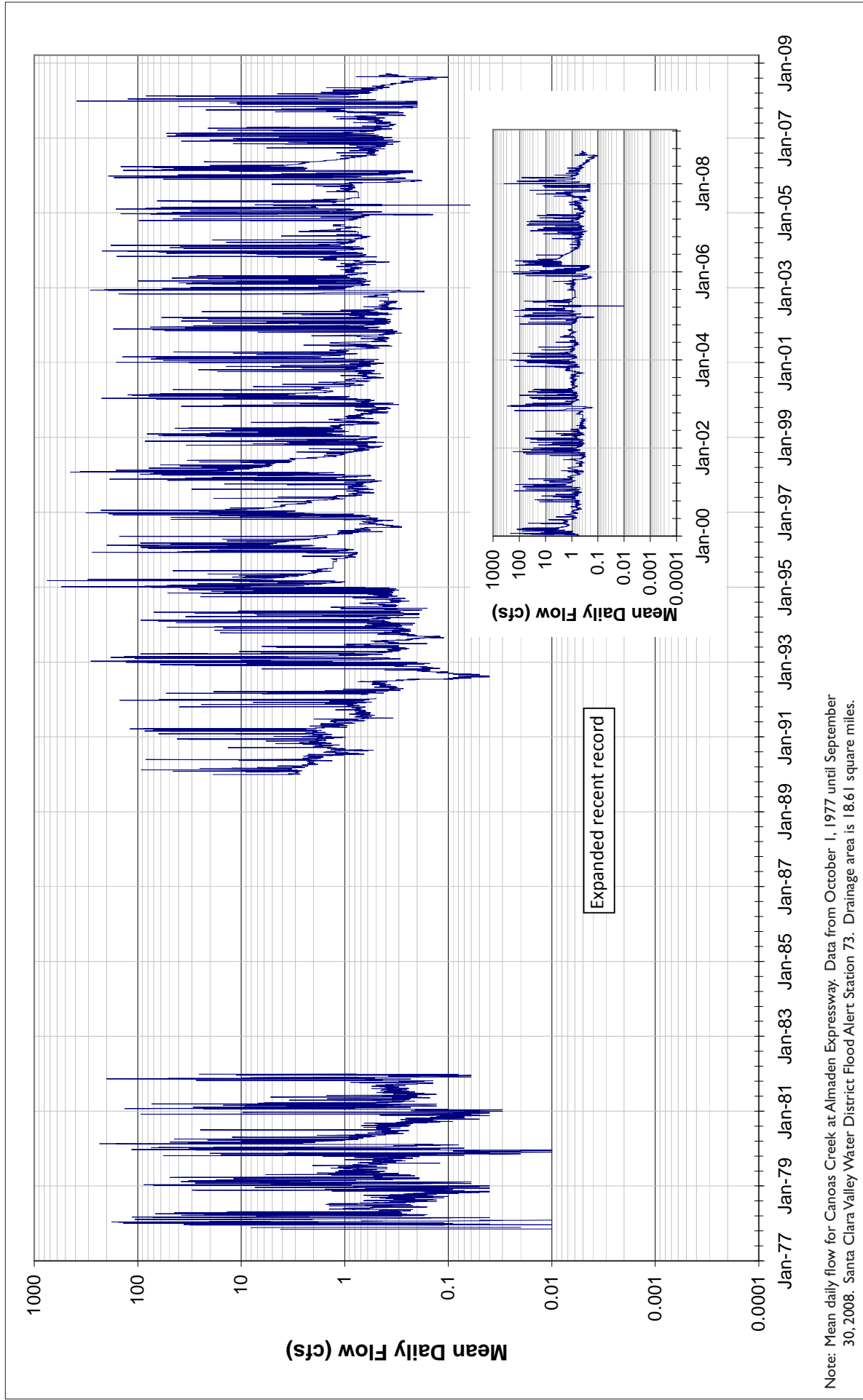


FIGURE 4.10-1
 MEAN DAILY FLOW FOR CANOAS CREEK

4. Flooding

Flooding can be common in Santa Clara County, with a basin-wide increase over the last 20 to 30 years in the frequency of flooding associated with increasing intensity of urbanization and an increase in the incidence of large storms.¹⁹ Engineering channel geomorphology to control floods, such as constructing levees or lining channels with concrete, has grown over this same time period. Despite efforts to provide adequate flood control, nearly 40 percent of the County's streams, creeks and rivers are incapable of carrying flows from a "100-year flood," with approximately 60 square miles of the 300-square mile Valley floor being flood prone.²⁰ Over the past several decades, major floods have occurred in 1967, 1978, 1980, 1982, 1983, 1986, 1995, 1996 to 1997, and 1998.

Flood Insurance Rate Maps (FIRMs) have been prepared in conjunction with the Federal Flood Insurance Program showing areas projected to be flooded to a depth of one foot or more in the event of a "1 percent" or "100-year" flood occurrence. The project site is located within Zone D, which is an area of "undetermined, but possible, flood hazard."²¹ The FIRM map currently indicates the 100-year flood event would likely be contained in Canoas Creek. However, staff at the SCVWD have stated that "Canoas Creek is not adequate to convey flood flows."²² Thus careful planning is needed to reduce increased flow to the creek. During the January 9 to 10, 1995 storm, then considered to be a 44-year storm event, flow reportedly overtopped the banks of Canoas Creek at four locations in San Jose, none of which were at the project site. Canoas Creek was also mentioned in the 1978 SCVWD Flood Report,

¹⁹ Santa Clara Valley Water District, 2007, <http://www.valleywater.org/index.htm>, accessed on June 2, 2010.

²⁰ Santa Clara County, 1994, Santa Clara County General Plan – 1995-2010, adopted December 20, 1994.

²¹ Federal Emergency Management Agency (FEMA), 1982, Flood Insurance Rate Maps, Santa Clara County, California, Unincorporated Areas, Community Panels 06085C0263H and 06085C0264H, Effective Date May 18, 2009.

²² Haggerty, C., 2010, Notice of Preparation of the Martial Cottle Park State Park General Plan/County Master Plan Draft Environmental Impact Report (DEIR), letter dated February 24, 2010 addressed to Jane Mark of the County of Santa Clara Parks and Recreation Department, page 3.

which assessed the results of the 3- to 7-year storm event in 1978, with severe damage occurring upstream of the Capitol Expressway. Canoas Creek was not mentioned in the other flood reports.²³ The high percentage of impervious surface in the watershed contributes to rapid rising and falling of streamflow, which has historically resulted in flooding of the lower Guadalupe River.²⁴

The City of San Jose designs most storm drains to withstand a 3-year storm, with storm drains designed before 1989 designed to withstand a 10-year storm. However, the roads neighboring the project site are graded such that they are not likely to overflow into the project site (see Figure 4.10-2).

5. Groundwater

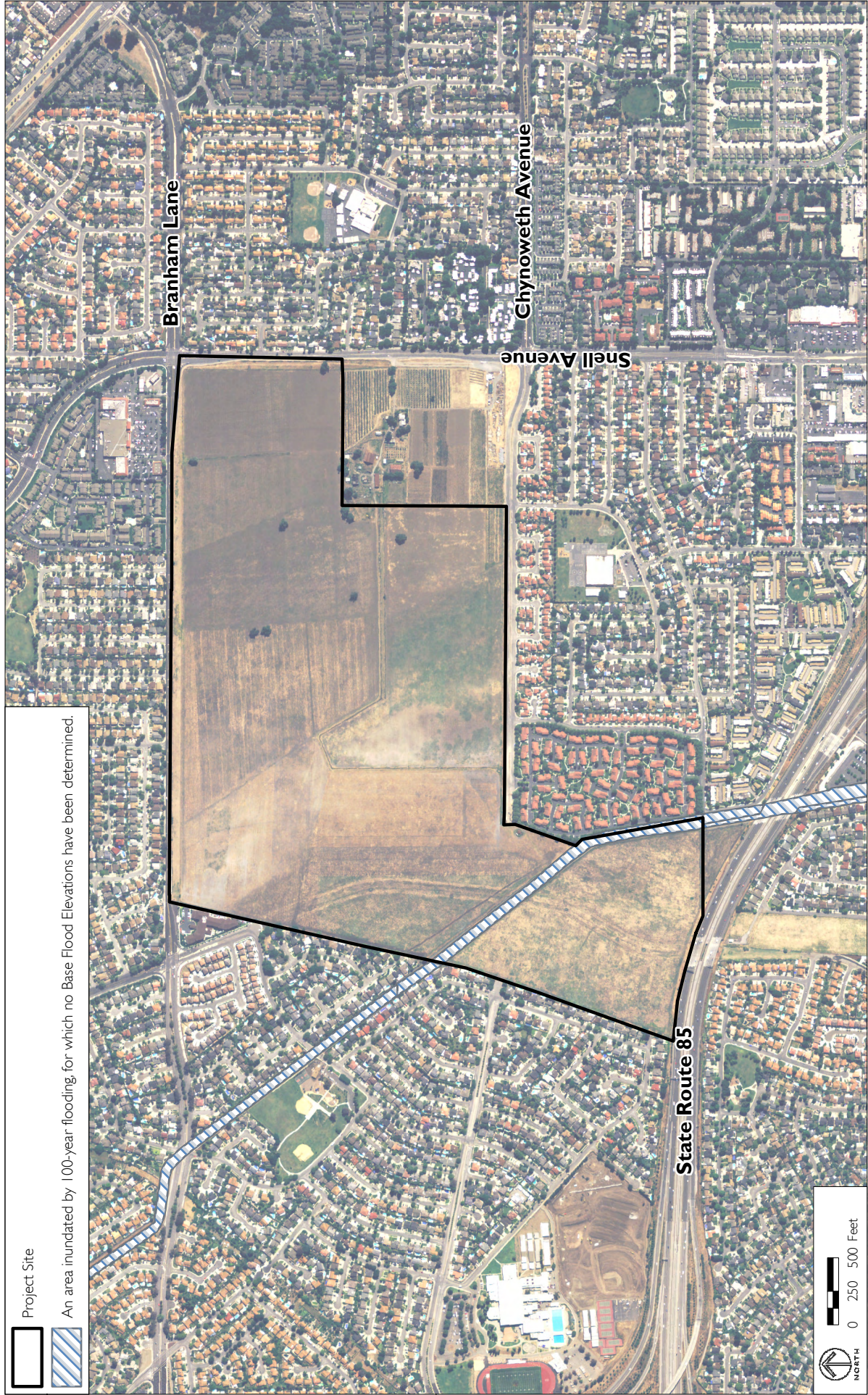
The project site is within the Santa Clara Groundwater Basin, which is underlain by three major, interconnected groundwater sub-basins: Santa Clara Valley, Coyote, and Llagas, from north to south. The geologic materials that have filled the Santa Clara Valley over the last several million years are comprised of gravels, sands, and silty sands. These types of deposits are generally very permeable (i.e., transmit water easily) and have the capability to yield large flows to wells.²⁵ The main production unit in the Santa Clara Valley, and the area where the project site is located, is the Santa Clara sub-basin. The water-bearing formations of the Santa Clara sub-basin include non-marine deposits of unconsolidated to semi-consolidated gravel, sand, silt, and clay.

The Santa Clara Formation, the oldest such deposits, are exposed only on the west and east sides of the Santa Clara Valley, where they are composed of poorly sorted

²³ Santa Clara Valley Water District, 2009, Flood Reports from 1998 through 1967, Santa Clara Valley Water District Website, <http://valleywater.org/Services/FloodReports.aspx>, accessed on June 2, 2010.

²⁴ Santa Clara Valley Water District, 2009, Flood Reports from 1998 through 1967, Santa Clara Valley Water District Website, <http://valleywater.org/Services/FloodReports.aspx>, accessed on June 2, 2010.

²⁵ Wilson, L.D. and Iwamura, T.I., 1989, Standards for the construction and destruction of wells and other deep excavations in Santa Clara County. Santa Clara Valley Water District, SCVWD-IM890, various pages.



Source: LSA Associates, Inc.; DC&E, 2010. Aerial Imagery from the United States Department of Agriculture, NAIP (2005).

FIGURE 4.10-2
FLOOD ZONES

deposits ranging in grain size from boulders to silt. Well logs indicate that permeability increases from west to east and that in the central part of the valley permeability and grain size decrease with depth.²⁶

Younger, Pleistocene to Holocene, alluvium is the most important water-bearing unit in the Santa Clara sub-basin. The permeability of the valley alluvium is generally high and principally all large production wells derive their water from it. Comprised generally of unconsolidated gravel, sand, silt, and clay, the alluvium was deposited principally as a series of convergent alluvial fans. It becomes progressively finer-grained at the central portions of the valley, such as beneath the project site. A confined zone is present north of Highway 280, where overlain by a clay layer (referred to as Bay Mud and Old Bay Mud) of low permeability.²⁷ The southern portion of the sub-basin is generally unconfined and contains no thick clay layers. The project site overlies the southern portion of this sub-basin, and therefore the Bay Mud cap is not present.

Groundwater supplies nearly half of Santa Clara County's total water supply. In 2003, approximately 146,900 acre-feet of groundwater were extracted for beneficial use, with almost 70 percent pumped from the Santa Clara sub-basin.²⁸ In and adjoining the low foothills at the edge of the Santa Clara Valley sub-basin, the geologic materials that compose the aquifers are exposed at the ground surface. These zones are collectively known as the "forebay" of the aquifer. In these exposed areas, rainfall, stream flows, and other surface water are able to infiltrate and to seep into the aquifer.²⁹ The District actively promotes recharge to the aquifer using local and imported

²⁶ California Department of Water Resources, 2004, Evaluation of groundwater resources South San Francisco Bay Volume III Northern Santa Clara County Area: Bulletin 118-1.

²⁷ California Department of Water Resources, 2004, Evaluation of groundwater resources South San Francisco Bay Volume III Northern Santa Clara County Area: Bulletin 118-1.

²⁸ Santa Clara Valley Water District, 2005, Groundwater Conditions 2002/2003.

²⁹ Iwamura, T.I., 1995, Hydrogeology of the Santa Clara and Coyote valleys groundwater basins, California, in Sangines, E. M., Andersen, D. W., and Busing, A. V., eds.,

water applied to about 390 acres of off-stream percolation ponds located throughout the County. In 2003, about 118,100 acre-feet of water was recharged through artificial recharge operations.³⁰ Seasonal dams are also used to encourage in-stream recharge.³¹

Recharge ameliorates problems related to land subsidence in addition to helping to maintain groundwater supplies. Subsidence is a broad sagging of the land surface over many miles as a result of decreased water pressure in the underlying aquifers. It is a phenomenon that has occurred extensively in the northernmost Santa Clara sub-basin, well north of the Park, during the 20th century due to over pumping of the aquifer.³² Generally, the subsidence monitoring the SCVWD performs indicates that land subsidence in the Santa Clara Valley sub-basin is minimized by their proactive groundwater management activities; with the 2003 water levels approximately 63 feet above the likely subsidence threshold and with groundwater storage increasing during recent years.³³ The project site has no meaningful potential for subsidence since the area is under active recharge and the area is composed of fine grained sediments which are less prone to subsidence.

Groundwater generally exists at depths below the streambeds, except in the lower courses of a few of the larger streams.³⁴ In 2003, groundwater elevations basin-wide were, on average, 28 feet below the 89-year historical recorded maximum levels and over 200 feet above the minimum groundwater levels on record.³⁵ The minimum

Recent geologic studies in the San Francisco Bay area: Pacific Section SEPM (Society for Sedimentary Geology) Book 76, pages 173 to 192.

³⁰ Santa Clara Valley Water District, 2005, Groundwater Conditions 2002/2003.

³¹ Reymers V and Hemmeter T., 2001, Santa Clara Valley Water District Groundwater Management Plan Santa Clara Valley Water District, San Jose, CA

³² Santa Clara Valley Water District, 1998, Relationship between groundwater elevations and land subsidence in Santa Clara County.

³³ Santa Clara Valley Water District, 2005, Groundwater Conditions 2002/2003.

³⁴ Foster, E. and Hecht, B., 1999, Regional setting for the SCVURPP watershed planning process. A consulting report prepared by Balance Hydrologics, Inc. for Santa Clara Valley URPPP.

³⁵ Part of a five-year period with normal or near normal rainfall.

groundwater level occurred in the 1960s prior to the onset of the current import and recharge programs. The most recent groundwater conditions report indicates that groundwater levels have changed between August 2004 and 2009, showing a positive 18.4 feet elevation change in southern San Jose near the project site and a negative 18.4 feet in Campbell.³⁶ Historically, depth to groundwater has seen drastic shifts. Drawdown was caused by over pumping the aquifer and rebound has occurred due to the extensive measures taken by SCVWD in recharging the aquifer with in-basin and out-of-basin waters (see Figure 4.10-3).

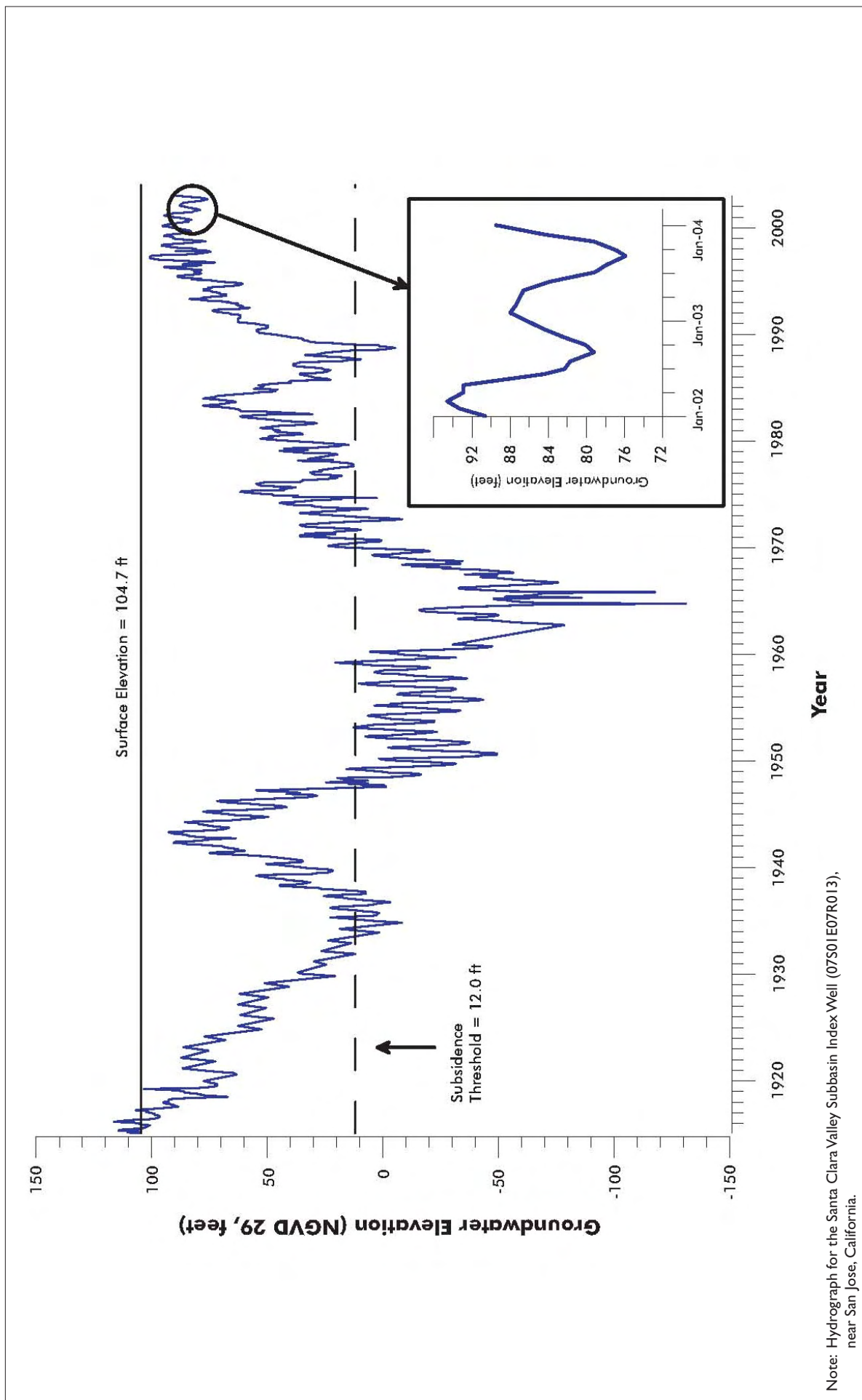
Depth to water for the agriculture well at the Park (W-5) was 25.22 feet below ground surface (bgs) on September 22, 2009, the third consecutive year of drought. Based on environmental reports prepared for properties in the vicinity of the site, groundwater had previously been measured at depths ranging between approximately 12 to 22 feet bgs.³⁷ A minimum depth to groundwater map was generated using the SCVWD website. At this site the user chooses a geographical area and a contour map is then compiled using shallow groundwater measurements observed during leaking underground storage tank investigations from 1999 to 2009 (see Figure 4.10-4). Groundwater flow direction in the vicinity of the project site is variable based on information obtained from three neighboring properties.³⁸ Groundwater at the project site will generally follow the regional pattern, which, most of the year, is north to north-west, towards the San Francisco Bay. Historically the basin-wide groundwater flow system started along the mountain fronts and flowed toward the center of the basin and toward southern San Francisco Bay. Much of the predevelopment flow paths have been modified by pumping centers characterized by groups of wells that have resulted in sub-regional cones of depression and related flow paths.

Scientists at the USGS created a Santa Clara Valley Regional groundwater and surface-water flow model in 2004, which summarizes the regional aquifer properties

³⁶ Santa Clara Valley Water District, 2009, Groundwater Conditions 2009.

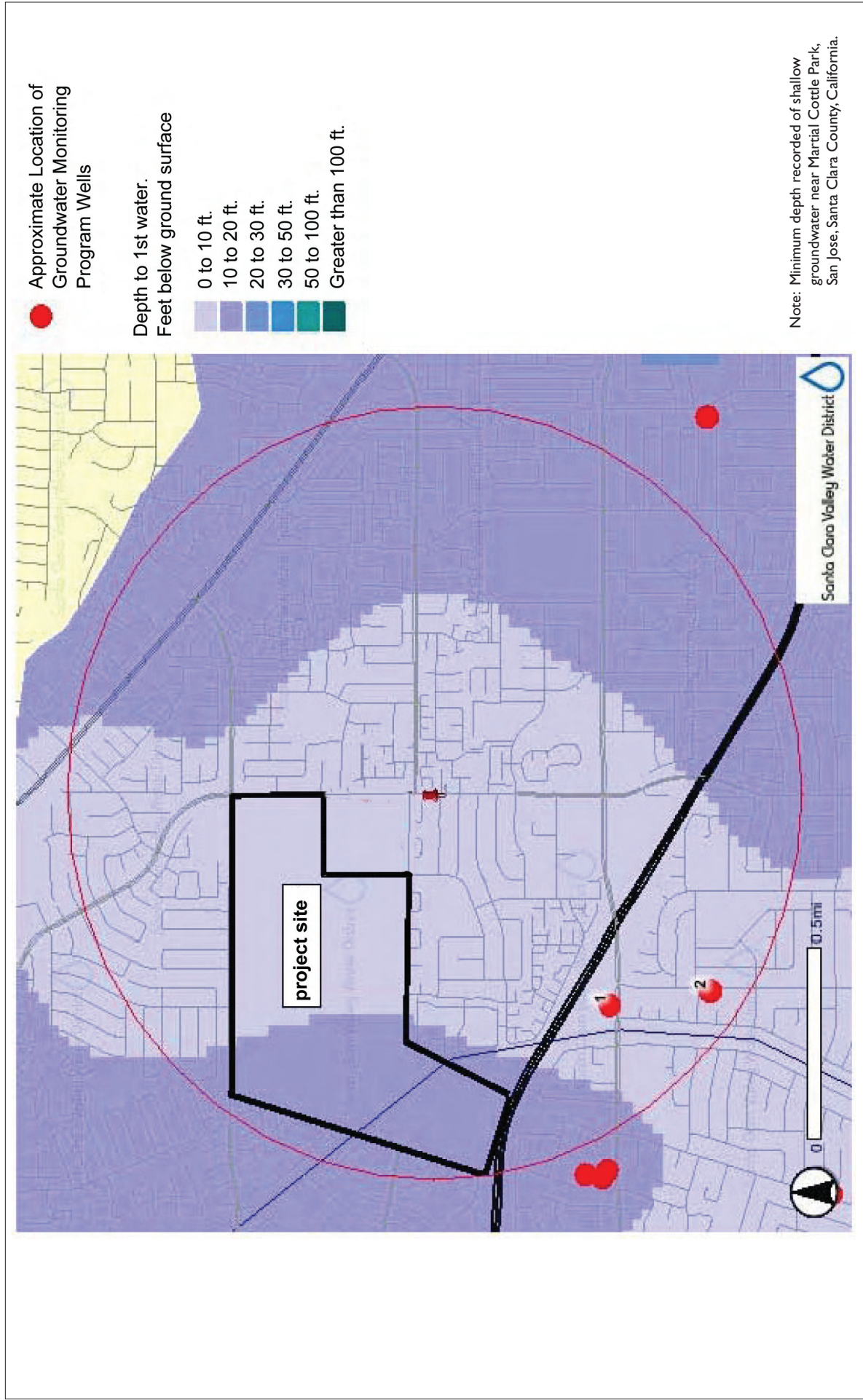
³⁷ Ninyo & Moore Geotechnical and Environmental Sciences Consultants, 2003, Phase I Environmental Site Assessment for the Lester Property – 5285 Snell Avenue.

³⁸ Ninyo & Moore Geotechnical and Environmental Sciences Consultants, 2003, Phase I Environmental Site Assessment for the Lester Property – 5285 Snell Avenue.



Note: Hydrograph for the Santa Clara Valley Subbasin Index Well (07S01E07R013), near San Jose, California.

Source: SCVWD, 2007; Balance Hydrologics.



Source: SCVWD, 2009; Balance Hydrologics.

FIGURE 4.10-4

within the Santa Clara sub-basin.³⁹ These properties will assist in estimating the drawdown effects of pumping the well at the Park. The properties of the unconfined upper-aquifer (layer 3 in the model), are as follows: horizontal hydraulic conductivity is 380 feet per day, vertical hydraulic conductivity is 5.0×10^{-3} feet per day, and aquifer specific storage is 2.0×10^{-5} per foot.⁴⁰ The storage coefficient (or storativity) can be calculated from specific storage by multiplying by the aquifer thickness, which, on average is 600 feet, yielding a storage coefficient of 0.012. Values for unconfined aquifers typically range from 0.01 to 0.30. The upper-aquifer extends to about 300 feet bgs at the project site, indicating that the well, which is 250 feet deep, at the project site, is in the upper-aquifer. Transmissivity⁴¹ values based on modeling indicate a maximum average value of 392,807 gallons per day (gpd) per foot near the project site and a more realistic value accounting for effects of faults and historic water levels of 27,675 gpd per foot,⁴² a value close to the calculated value from a nearby well.⁴³

Aquifer properties measured by Balance Hydrologics in 1996 in Great Oaks Water Company wells, located northeast of U.S. Highway 101 and northwest of Bernal Road in the City of San Jose, yielded specific capacity (Q/S)⁴⁴ ranging from approxi-

³⁹ Hanson, R.T., Li, Z, and Faunt, C.C., 2004, Documentation of the Santa Clara Valley Regional ground-water/surface-water flow model, Santa Clara County, California. Scientific Investigations Report 2004-5231

⁴⁰ The unconfined upper-aquifer is not to be confused with the Shallow Aquifer which is the confined upper-aquifer, and not to be confused with the distinction of upper and lower aquifer of Iwamura, 1995 which generalized the Santa Clara Valley into two aquifer units versus the Hanson et. al., 2004, model that divides the aquifer into 6 units.

⁴¹ Transmissivity is a measure of the ability of an aquifer to transmit water. It represents the volume of water that can move through section of cross section of aquifer 1 foot wide under a gradient of 1. The conventional units are gallons per day/ft.

⁴² DWR and SCVWD, 1975, Evaluation of ground water resources: South San Francisco Bay. Vol. III: Northern Santa Clara County Area, Bulletin No. 118-1.

⁴³ Hanson, R.T., Li, Z, and Faunt, C.C., 2004, Documentation of the Santa Clara Valley Regional ground-water/surface-water flow model, Santa Clara County, California. Scientific Investigations Report 2004-5231.

⁴⁴ Specific Capacity is a measure of the ratio of discharge rate to drawdown. The conventional units are in gallon per minute per foot of drawdown (gpm/ft).

mately 50 to 100 gallons per minute (gal/min) per foot.⁴⁵ Analysis of the data from the pumping tests reveals the composite aquifers in the area of the well to be highly transmissive with a composite transmissivity of 112,300 gpd per feet. Analysis of the step-drawdown data suggests that the some of the aquifer zones (water revealed in three prominent water-bearing zones, 50 to 90 feet, 105 to 135 feet and 170 to 230 feet) are more transmissive than others resulting in higher specific capacity values at lower discharge rates. Municipal and irrigation wells range widely in yield with maximum values of 1,650 gal/min.

6. Water Quality

a. Surface Water Quality

Headwater streams are supplied primarily by surface runoff during the wet season. However, during the dry season, springs (if present) can be important contributors to water quality. The reservoirs and other impoundments operated in many watersheds capture runoff from local drainages and are often used to store imported waters. The relative proportion of each source is dependent on management decisions by SCVWD, and the quality of water in streams downstream of reservoirs can also vary depending on how the reservoirs are operated.

Surface water quality problems typically result from human activities. The SCVURPPP has identified seven pollutants of regional concern in urban runoff: copper, nickel, mercury, pesticides, PCBs, dioxin compounds, and sediment. Additional potential pollutants were identified in the Drinking Water Source Assessment for Anderson and Calero Reservoirs: pathogens and nutrients from residential wastewater systems and grazing activities, fuel contaminants from recreation and leaking underground storage tanks, and volatile organic compounds (VOCs) from industrial uses.⁴⁶ Other watersheds within the SCVURPPP likely have similar risks. It should

⁴⁵ Feeney, M., 1998, Summary of Operations: Construction of Great Oaks Well Company Well No. 21. Balance Hydrologics, Inc., project number 97011. Prepared for Great Oaks Water Company, page 8, figures, and appendices.

⁴⁶ California Department of Health Services (DHS) Santa Clara District, 2003, California Drinking Water Source Assessment and Protection (DWSAP) Program for Anderson and Calero Reservoirs.

be noted that most reservoirs are located upstream of the majority of contaminant sources, particularly urban and residential development.⁴⁷

One of the major water quality issues in the Guadalupe River Watershed is high naturally-occurring background levels of mercury as well as legacy mercury pollution. The New Almaden mercury-mining district, which was active from 1846 to 1975, released mercury into the environment. Mercury is strongly associated with particulates and therefore is transported with sediments to streams and eventually to reservoirs. Once in the reservoir, the relatively insoluble particulate mercury sulfide undergoes biogeochemical reactions and is transformed to the bioavailable methylmercury. These reactions occur in reduced conditions which develop during the summer when warm air causes the reservoir to stratify, leaving oxygen depleted water at the bottom of the reservoir. Reservoir releases can have higher methylmercury concentrations than average reservoir concentrations because the outlet pipes pull from zones low in the water column where oxygen concentrations are lower.

Water temperatures varied between 9.5 to 21 degrees Celsius between 2002 and 2008 at two locations along the Guadalupe River in San Jose, with an average value around 14 degrees Celsius. Suspended sediment was also analyzed in this data set; maximum concentrations reached 842 milligrams per liter (mg/L) with an average concentration near 100 mg/L, a range somewhat lower than that typical of the Santa Cruz Mountains streams.

Canoas Creek was sampled, during low flow conditions, on September 22, 2009 by Balance Hydrologics for water quality and sent to a State-certified analytical facility. Water quality testing results are shown in Table 4.10-3. Field specific conductance measured 631 microsiemens per centimeter (uS/cm) at 16.3 degrees C. Both total coliforms and E. coli were detectable in the sample, likely from waterfowl in the creek or from other sources typical of urban streams. Otherwise, overall water quality is favorable. Previous work by Ninyo and Moore, 2004, found water at Canoas

⁴⁷ Mercury and nickel are enriched in the former New Almaden mining area at the headwaters of the Guadalupe River, partially localizing these hazards.

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN/
COUNTY PARK MASTER PLAN EIR
HYDROLOGY, FLOODPLAINS, AND WATER QUALITY

TABLE 4.10-3 PROJECT SITE SURFACE WATER AND GROUNDWATER WATER QUALITY ANALYSIS

Parameter	Units	Report- ing Limit	Objectives			Groundwater		
			Title 22 MCL ^a	Irrigation Water ^{a,b}		Canoas Creek	W-1 ^b	W-3
General Mineral								
pH (lab)	pH Units	0.1	--			8.6	7.3	7.5
Specific conductance (@ 25 C°)	umhos/ cm	1	1,600	750 ^a	3,000 ^b	800	1,000	950
Carbonate (as CO ₃)	mg/L	1.7	--			11	ND	ND
Bicarbonate (as HCO ₃)	mg/L	1.7	--			270	490	450
Total Alkalinity (as CaCO ₃)	mg/L	1.7	--			240	400	370
Hardness (as CaCO ₃)	mg/L	5	--			280	480	440
Total dissolved sol- ids (TDS)	mg/L	20	1,000			490	620	580
Nitrate (as NO ₃)	mg/L	1	45			ND	18.0	18.0
Chloride (Cl)	mg/L	1	500			85	52	45
Sulfate (SO ₄)	mg/L	1	500			66	81	74
Fluoride (F)	mg/L	0.1	2	1 ^a	15 ^b	0.15	0.16	0.12
Calcium (Ca)	mg/L	0.5	--			35	99	79
Magnesium (Mg)	mg/L	0.5	--			47	59	62
Potassium (K)	mg/L	0.5	--			9.4	2	2.1
Sodium (Na)	mg/L	10	--			59	38	33
Iron (Fe)	ug/L	50	300	5,000 ^a	20,000 ^b	150	260	280

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
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HYDROLOGY, FLOODPLAINS, AND WATER QUALITY

TABLE 4.10-3 PROJECT SITE SURFACE WATER AND GROUNDWATER WATER QUALITY ANALYSIS (CONTINUED)

Parameter	Units	Report- ing Limit	Objectives			Groundwater		
			Title 22 MCL ^a	Irrigation Water ^{a,b}	Canoas Creek	W-1 ^b	W-3	
Manganese (Mn)	ug/L	20	50	200 ^a	10,000 ^b	23	ND	ND
Turbidity	NTU	0.1	--			10	3	4.3
Inorganics								
Aluminum (Al)	µg/L	50	1,000	5,000 ^c	20,000 ^d	86	ND	ND
Antimony	µg/L	6	6			ND	ND	ND
Arsenic (As)	µg/L	2	10	100 ^c	2,000 ^d	ND	ND	ND
Barium (Ba)	µg/L	100	1,000			ND	ND	230
Beryllium	µg/L	1	4			ND	ND	ND
Boron (B)	µg/L	100	--	800 ^c	2,000 ^d	190	190	140
Cadmium (Cd)	µg/L	1	5	10 ^c	50 ^d	ND	ND	ND
Chromium (Cr)	µg/L	1	50	100 ^c	1,000 ^d	ND	3.5	5.2
Copper (Cu)	ug/L	50	1,000	200 ^c	5,000 ^d	ND	ND	ND
Cyanide (CN)	µg/L	100	200			ND	ND	ND
Lead (Pb)	µg/L	5	--	5,000 ^c	10,000 ^d	ND	ND	ND
Mercury (Hg)	µg/L	1	2			ND	ND	ND
Nickel (Ni)	µg/L	10	100	200 ^c	2,000 ^d	ND	ND	ND
Selenium (Se)	µg/L	5	50	20 ^c	20 ^d	ND	ND	ND
Silver (Ag)	µg/L	10	100			ND	ND	ND
Thallium (Th)	µg/L	1	2			ND	ND	ND
Zinc (Z)	ug/L	50	5,000	2,000 ^c	10,000 ^d	ND	77	160

TABLE 4.10-3 PROJECT SITE SURFACE WATER AND GROUNDWATER WATER QUALITY ANALYSIS (CONTINUED)

Parameter	Units	Report- ing Limit	Objectives		Canoas Creek	Groundwater	
			Title 22 MCL ^a	Irrigation Water ^{a,b}		W-1 ^b	W-3
Bacteria							
E.coli					present	absent	absent
Total coliforms					present	present	present

Notes: Observers included Jennie Munster, Bill Grimes, and Dave G.

Irrigation standards from the Central Coast Regional Water Quality Control Board Basin Plan, 2006.

ND = not detected

"-" = not applicable

^a MCL = Title 22 Maximum Contaminant Level as of Sept. 2009.

^b W-1 and W-3 refer to two wells on the Life Estate, as referred to in the *Martial Cottle Park Final Resource Inventory* report prepared in July 2009 by Wallace, Roberts and Todd; LSA Associates; and Design, Community & Environment.

^c For water used continuously on all soil

^d For use up to 20 years on fine textured soils of pH 6 to 8.5.

Source: Balance Hydrologics, 2010.

Creek to be below detection limits for oil and grease, arsenic, volatile organic compounds (VOCs), and pesticides.⁴⁸

b. Groundwater Quality

Groundwater in the Santa Clara Valley aquifer is of good quality, is relatively uniform, and is currently considered suitable for most beneficial uses.⁴⁹ Drinking water standards are met at public water supply wells without the use of treatment methods. Groundwater quality and chemistry is influenced by source waters (infiltration), the geologic substrate of the aquifer, interactions between adjacent groundwater sources, and management activities, including recharge of imported waters from the Delta. Average total dissolved solids (TDS) concentration ranges from 366 to 396 mg/L in the principal (confined) zone of the Santa Clara Valley aquifer and is high in calcium

⁴⁸ Ninyo & Moore Geotechnical and Environmental Sciences Consultants, 2004, Phase II Environmental Site Assessment for the Lester Property – 5285 Snell Avenue.

⁴⁹ Reymers V and Hemmeter T., 2001, Santa Clara Valley Water District Groundwater Management Plan Santa Clara Valley Water District, San Jose, CA

carbonate. Groundwater near the recharge area (forebay) has a higher magnesium concentration due to the stronger influence of serpentine bedrock. As water spends more time in the aquifer and has longer contact time with the clays in the aquitard, magnesium, and other cations are replaced with sodium. Water quality problems typically result from human activities. Saltwater intrusion, resulting from over withdrawals and historical land subsidence, contributes salts to portions of the Santa Clara Valley aquifer. Although land subsidence decreased in 1969, the water quality impacts of over-withdrawal are still evident in the San Francisco Bay front area. Portions of the Santa Clara Valley sub-basin are somewhat high in terms of total mineral salt content. Application of fertilizers can introduce nitrate to groundwater. Nitrate levels in the principal zone of the Santa Clara Valley aquifer ranged from 0 to 18 mg/L of nitrate (NO_3) between 1997 and 2000, whereas nitrate levels in the Coyote and Llagas sub-basins are usually higher and can exceed the drinking water standard of 45 mg/L. At the basin-management scale, nitrate in the Llagas sub-basin (where agriculture has been identified as a primary source) has been an issue for 40 years or more, and is of growing concern to SCVWD staff. Because nitrate is generally not filtered out by soil particles where soils are sandy and gravelly, reducing further loading of nitrate is the primary means of protecting groundwater and has been identified as an objective of the SCVWD Nitrate Management Program. The silty soils at the project site are much less prone to allowing deep percolation of applied nitrogen than the sandier substrate of the Llagas sub-basin and other areas with historically high groundwater nitrates. A summary of the County of Santa Clara groundwater quality data is presented in Table 4.10-4.

Typical urban and residential pollutants such as metals and oil and grease can impact groundwater. However, infiltration through silt- and clay-rich soils has been effective at removing these pollutants such that groundwater meets drinking water standards. Although spills and poor management of industrial chemicals and wastes can pose a potential “point-source” threat to groundwater quality, such sources are not reported in the immediate vicinity of the park.⁵⁰ Boron, a naturally occurring

⁵⁰ Reymers V and Hemmeter T., 2001, Santa Clara Valley Water District Groundwater Management Plan Santa Clara Valley Water District, San Jose, CA

TABLE 4.10-4 SUMMARY OF THE COUNTY OF SANTA CLARA GROUNDWATER WATER QUALITY DATA (1997 TO 2000)

Constituents	Santa Clara Valley Sub-Basin	
	Principal Aquifer Zone	Upper Aquifer Zone
Chloride (mg/l)	40 – 45	92 – 117
Sulfate (mg/l)	37 – 41	106 – 237
Nitrate (mg/l)	15 – 18	0.002 – 4
Total Dissolved Solids (mg/L)	366 – 396	733 – 1210
Sodium Adsorption Ratio	0.89 - 1.26	1.23 - 3.84
Electrical Conductance (uS/cm at 25 deg C)	596 - 650	1090 – 1590
Aluminum (ug/l)	6 - 18	23 – 97
Arsenic (ug/l)	0.7- 1.2	1.2 – 3.7
Barium (ug/l)	141 - 161	60 – 220
Boron (ug/l)	115 - 150	200 – 523
Cadmium (ug/l)	< 1	< 0.5
Chromium (ug/l)	6 – 8	0.5 – 1.8
Copper (ug/l)	1.9 – 4.4	0.3 – 1
Fluoride (mg/l)	0.13 – 0.16	0.15 – 0.3
Iron (ug/l)	10 – 38	40 – 160
Lead (ug/l)	0.2 – 1.1	< 0.5
Manganese (ug/l)	.15 – 1.5	120 – 769
Mercury (ug/l)	< 1	< 0.2
Nickel (ug/l)	1.8 – 3.4	4 – 10
Selenium (ug/l)	2.5 – 3.8	0.4 – 2
Silver (ug/l)	< 5	< 0.5
Zinc (ug/l)	3 – 8	3 - 13

Source: Reymers V and Hemmeter T., 2001, Santa Clara Valley Water District Groundwater Management Plan Santa Clara Valley Water District, San Jose, CA.

inorganic constituent found in groundwater, but harmful for agricultural water quality at high levels, has exceeded 0.2 mg/L in a handful of wells operated by SCVWD.

Analyses by water companies within the Santa Clara Valley Water District confirm the high quality of water within the basin. Analysis of water produced at the Great Oaks Water Company reveal the water to be of excellent quality with total dissolved solids concentration of 410 mg/L.⁵¹ The water is of a magnesium-bicarbonate chemical character, consistent with its location proximate to a spreading basin. The water meets drinking water standards for all constituents included in the analytical program. San Jose Water Company manages over 100 groundwater wells that draw water from the Santa Clara Valley Groundwater Basin near and neighboring the park. These waters are routinely analyzed for over 200 possible contaminants. The 2008 Annual Water Quality Report indicates that this water is of good quality with trace elements below maximum contaminant levels, total dissolved solids ranging from 196 to 600 mg/L, chloride from 14 to 110 mg/L, sodium from 16 to 52 mg/L, and sulfate from 18 to 85 mg/L.

A search of data near the project site also confirms the good water quality locally. Three wells located within a 2-mile radius of the project site monitored by the USGS and analyzed seven times from 2002 through 2008 indicate water quality with total dissolved solids averaging 385 mg/L. Average nitrate values were 6.5 mg/L NO₃, with a maximum value of 10.8 mg/L. The five wells operated by the San Jose Water Company within 1 mile of the project site measured total dissolved solids between 400 to 561 mg/L from 1983 through 1997 and nitrate values between 14 to 25 mg/L NO₃. Some insecticides were measured within the wells at low concentrations, such as Hexachlorocyclopentadiene at a maximum value of 10 ug/L and Methoxychlor at maximum value of 5 ug/L.

Since a sample could not be collected from the agricultural well on the project site due to a broken pump piece, samples were collected from two wells on the Life Estate by staff from County of Santa Clara Parks and Recreation Department and the

⁵¹ Feeney, M., 1998, Summary of Operations: Construction of Great Oaks Well Company Well No. 21. Balance Hydrologics, Inc., project number 97011. Prepared for Great Oaks Water Company, page 8, figures, and appendices.

site farmer. Bacteria (total coliforms) were present and E. coli was absent, though sampling techniques may have contaminated the samples. Samples had to be collected at the end of aluminum piping and hoses that had been in the dirt and may have had sources of total coliform contamination. Water quality from the two wells was similar and consistent with regional and local values. Previous work by Ninyo and Moore, 2004, found the on-site wells (W1-W5) were under detection limits for oil and grease, arsenic, VOCs and pesticides⁵² (see Table 4.10-3).

7. Water Demand

Water use is related to the land use of the property. The project is part of the historical agricultural heritage in the Santa Clara Valley. Distributing agricultural products remains a fundamental element of the region's economy and employment particularly to the economy of the South County area, and the cities of Morgan Hill and Gilroy. The project site has been owned and farmed by the Cottle and Lester families for almost 150 years. In the mid-1800s the property supported grain, row crops, and cattle. Agricultural operations over the generations have included a dairy operation, growing grain, pasturage for cattle and horses, a family orchard, row crops, and milling cattle feed. These previous land use activities likely required up to 4.4 acre-feet per acre per year. The current land use of fallow agricultural land with non-native plants and scattered oak trees does not consume water beyond incident rainfall. Within this region, nursery crops, mushrooms, cut flowers, fruits, nuts, berries, vegetables and grain crops that are grown typically do not require more than 3 acre-feet per acre per year.

The on-site well is currently not being used, but was the primary water supply for the highly productive agricultural land uses in the past.

C. Standards of Significance

Hydrology impacts associated with the Plan would be considered significant if the Plan would:

⁵² Ninyo & Moore Geotechnical and Environmental Sciences Consultants, 2004, Phase II Environmental Site Assessment for the Lester Property – 5285 Snell Avenue.

1. Violate any water quality standards or waste discharge requirements.
2. 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.
3. 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.
4. 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.
5. Create or contribute increased impervious surfaces and associated runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
6. Degrade surface or groundwater quality or public water supply (including marine, fresh and wetland waters).
7. Place a structure 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.
8. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
9. 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.
10. Be located in an area of special water quality concern (e.g., Los Gatos or Guadalupe Watershed).
11. Result in use of well water previously contaminated by nitrates, mercury, asbestos, etc. existing in the groundwater supply.
12. Result in a septic field being constructed on soil with severe septic drain field limitations or where a high water table extends close to the natural land surface.

13. Result in a septic field being located within 50 feet of a drainage swale; 100 feet of any well, water course, or water body or 200 feet of a reservoir at capacity.
14. Conflict with Water Resources Protection Collaborative Guidelines and Standards for Land Uses near Streams (Santa Clara Valley Water District Ordinance 83-2).
15. Result in extensions of a sewer trunk line with capacity to serve new development.
16. Result in significant changes to receiving water quality during or following construction requiring an NPDES permit for construction. [Does it disturb one (1) acre or more?]
17. For projects that are a tributary to an already impaired water body, result in an increase in any existing pollutants.
18. Substantially change the direction, rate of flow, quantity, or quality of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations.
19. Interfere substantially with groundwater recharge or reduce the amount of groundwater otherwise available for public water supplies.
20. Involve a surface water body, natural drainage channel, streambed, or water course such as to alter the amount, location, course, or flow of its waters.

D. Impact Discussion

1. Violation of Water Quality Standards or Waste Discharge Requirements

Impacts related to water quality standards and waste discharge requirements would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

The project would not include the creation of point discharges (for example, a wastewater treatment facility). Therefore, the project would not violate waste discharge water quality standards or requirements, and a *less-than-significant* impact would result.

For a discussion of construction related water quality impacts see Standards of Significance #17 and #18. For a discussion of stormwater quality related impacts see Standards of Significance #5 and #10. For a discussion of water quality impacts from farming practices see Standards of Significance #5, #6, and #11.

2. Substantial Depletion of Groundwater Supplies or Interference with Groundwater Recharge

Groundwater supply and groundwater recharge impacts would be the same for Phase 1 and subsequent phases. All components of groundwater use for agricultural purposes would be implemented during the project-level component. As such, project-level and program-level components are not distinguished below.

Groundwater supplies would be utilized for agricultural production at the project site using an existing on-site agricultural well, which previously supplied agricultural irrigation on-site. Part of Phase 1 of the project is to repair the well since a component of the well's pump is currently inoperable. The agricultural demand of the project is expected to result in a water demand of 430 acre feet per year (AFY).⁵³ Groundwater would be the sole source of water for the commercial agricultural areas, and municipal water would be the water source for the Parks and Recreation and Cooperative Management Zones. The project proposes sustainable farming practices in order to reduce impacts to water and other resources, conditions that would be outlined in the conditions of the agricultural lease agreements. To lessen the demand on the well, the proposed Plan also addresses the potential for on-site water recycling and reuse. Section 13550 (Article 7) of the California Water Code outlines the requirements for use of waste water for irrigation where recycled water lines are within close proximity to a project site. At this time, no recycled water lines are within a feasible distance for use at the project site. The project would prepare for potential connection in the future, however, by pre-installing infrastructure needed to appropriately distribute recycled water within the site if or when a proximal supply line is constructed.

⁵³ Assumes a demand of 3 acre-feet per acre per year for 143 acres of land used for agricultural production. This is in agreement with regional values and accounts for loss due to evapotranspiration.

In compliance with California Water Code Section 10910, a WSA was prepared for the project and approved by the County Board of Supervisors on August 24, 2010.⁵⁴ Sufficient groundwater supplies are available to support conservatively-high estimates of agricultural irrigation until the year 2025 for a “normal year” scenario and 2030 for a “multi-year drought” scenario. Increases in groundwater demand after 2025 would not induce groundwater shortages during planning periods or scenarios outside of those already identified in SCVWD’s 2005 Urban Water Management Plan, and the increase is small relative total basin groundwater demand. The WSA also concluded that sufficient water is available to support the municipal water uses at the project site (through the San Jose Water Company) through at least 2030 (the end of the required planning period).

Since groundwater is a major source of potable water in Santa Clara County, and because there are groundwater-supply wells within the vicinity of the project site, resumed pumping of the on-site well would need to be analyzed to evaluate the impact of pumping on water levels and the continued availability of water in neighboring wells. The Santa Clara Valley Water District indicated that five wells were active on the property in 2000 (the baseline used for the 2005 Urban Water Management Planning (UWMP) analysis), and approximately 52 acre-feet of water were pumped from those wells that year.⁵⁵ It is probable that all of this water was pumped from wells within the Life Estate area, and that the agricultural supply well has been predominately inactive since at least 2000. Prior records of pumping at the site are not available, but it is likely that the agricultural supply well has been predominantly dormant since the 1980s (prior to the 1987 to 1992 drought).

To evaluate the impact of pumping the on-site well, this analysis evaluates, under multiple scenarios of different hydrologic properties typical of the local aquifer⁵⁶ and assuming water will be drawn continuously for 97 days to meet the 430 AFY demand, the drawdown effects of pumping the on-site well at 1,000 gal/min, which is the current production rate of the well. This calculates the maximum drawdown

⁵⁴ Brown, S., and Hecht, B., 2010, *Water Supply Assessment for the Proposed Martial Cottle Park, San Jose, California*, 51p.

⁵⁵ E-mail correspondence from Colleen Haggerty, SCVWD Engineer, June 24, 2010

⁵⁶ Refer to Section B.5, Existing Conditions, Groundwater section.

effect as water will likely not be continuously pumped but likely drawn upon for short durations during irrigation or pumped and stored for later use.

The drawdown predictions are sensitive to the transmissivity and storativity values used, with drawdown variable by as much as a foot. The nearest wells are those at the Life Estate, which are 0.5 to 0.6 miles east of the on-site well and drawn upon for domestic and agricultural uses. These wells would experience a maximum of 2.2 feet drawdown, if pumped at 1,000 gal/min continuously for 97 days (for a total of 430 AFY). The nearest water-supply wells, besides the private wells at the Life Estate, are those operated by the Great Oaks Water Company which are about 2 miles from the on-site well.⁵⁷ At most, these wells would experience a drawdown of 1.0 feet if the on-site well is similarly pumped for 97 days at a rate of 1,000 gal/min. The wells within 2 miles of the project site and operated by the San Jose Water Company are no longer in use.⁵⁸ At a distance of 6 miles from the on-site well, no effect of pumping would be observed (see Figure 4.10-5).

The project would not alter groundwater recharge, as 93 percent of the proposed project would be pervious⁵⁹, similar to existing conditions, and most runoff from impervious areas is expected to infiltrate on-site. Additionally, depending on crop type and style of irrigation, some of the water drawn from the local aquifer and applied to agriculture as irrigation would be returned to the groundwater aquifer.⁶⁰

This hydrologic analysis indicates that pumping the on-site well would not result in a significant drawdown, and pumping for short durations could minimize drawdown effects. Also, the demand of the well would be alleviated if water recycling and reuse

⁵⁷ Personal communication, November 13, 2009, Bobby Dartez, Great Oaks Water Company.

⁵⁸ Personal communication, November 13, 2009, Pam Wessling, San Jose Water Company.

⁵⁹ Pervious acreage based on land use from the Preferred Alternative Land Use Matrix dated 8-21-09.

⁶⁰ The Martial Cottle WSA incorporates an estimate of this return flow from agricultural irrigation into the groundwater supply/demand assessment. Please see Appendix G of this Draft EIR for details.

Figure 4.10-5 Drawdown Calculated Plot

options were implemented. Groundwater elevations can range more than 10 feet on an annual basis and historically elevations can range much greater than this due to climatic conditions and effects of subsidence and pumping.⁶¹ Groundwater elevations, the depth of water at and near the project site, and the findings of a maximum of 2.2 feet of drawdown, indicate that impacts would be *less than significant*.

3. Substantial Alteration of the Existing Drainage Pattern of the Site or Area in a Manner Which Would Result in Substantial Erosion or Siltation On- or Off-Site

Impacts related to altering the existing drainage patterns of the project site would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below. Land development can adversely affect flow patterns from a site by increasing the impervious area, decreasing natural vegetation, changing grading and soil compaction, and creating new drainage facilities thereby possibly increasing erosion or siltation to nearby stream channels. The development of the project would not cause significant changes in the existing flow patterns as only approximately 5 percent more impervious surface will be created by implementing the project.⁶² Since this 5 percent increase would be more than 1 acre of impervious surface the project would be required to observe the Santa Clara NPDES permit issued by the RWQCB and would therefore be subject to provisions within the Santa Clara Hydromodification Management Plan (HMP).

The proposed project includes standard hydromodification controls such as planning buffer zones and planting native vegetation throughout the site. Further controls may be required through implementation of the HMP. Compliance with the NPDES permit and the HMP would reduce the impact to a *less-than-significant* level.

For a more detailed discussion of Best Management Practices see discussion under Standard of Significance #5. For construction related sedimentation impacts see Standard of Significance #18.

⁶¹ Santa Clara Valley Water District, 2005, Groundwater Conditions 2002/2003.

⁶² Pervious acreage based on calculations conducted by Design, Community & Environment, 2010.

4. Substantial Alteration of the Existing Drainage Pattern of the Site or Area or Substantial Increase in the Rate or Amount of Surface Runoff in a Manner Which Would Result in Flooding

Impacts related to altering the existing drainage patterns of the project site would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below. The seasonal floodplain wetland is proposed at the program-level.

The proposed project would add roughly 2.3 acres of buildings and 10.6 acres of paved roadways, parking and trails, which amounts to an increase in impervious area of 12.9 acres, or an approximately 5 percent increase in impervious surfaces.⁶³ Runoff from the site drains towards the concrete lined channel of Canoas Creek. Mean daily flow in Canoas Creek at the Almaden Expressway gage rarely exceeds 400 cubic feet per second (cfs). The amount of additional runoff generated from the project during the 2- to 100-year rain events would be between 2 and 4 cfs, which is less than 1 percent of the high flows in Canoas Creek (see Table 4.10-5 and Figure 4.10-1). This additional runoff would not be sufficient to result in flooding as the concrete channel of Canoas Creek is designed to convey 1,600 cfs at the downstream end of the altered channel, where it enters Guadalupe River.⁶⁴ Additionally, runoff at the project site would not directly enter Canoas Creek through stormwater drains or pipes. In order to minimize runoff to Canoas Creek, and thus erosion of the banks, overland flow should be avoided and stormwater should first be directed through buffer zones, permeable pavement, and other BMPs to increase detention, attenuate peak flows, and further decrease impacts to Canoas Creek. The seasonal wetland proposed by the project is planned for the floodplain so that it would not alter flows in Canoas Creek or the downstream protection that the existing floodplain currently provides. In fact, the floodplain wetland would act as extra detention from runoff on-site to reduce flooding.

⁶³ Impervious surface area calculated by Design, Community & Environment, 2010.

⁶⁴ Devin Mody, SCVWD, personal communication with Balance Hydrologics, March 2010.

TABLE 4.10-5 PROJECT SITE PEAK FLOW RESULTS

Recurrence Interval	Instantaneous Peak Discharge (cfs)		Pre-Mitigated Difference	
	Existing Conditions	Proposed Conditions	cfs	%
2-year	41	43	2	4.2
10-year	63	66	3	4.2
25-year	74	77	3	4.2
100-year	88	92	4	4.2

Notes: Peak flow calculations were prepared using the Rational Method as described in the Santa Clara County Drainage Manual (Schaaf & Wheeler, 2007). Existing conditions are 98 percent pervious surface, proposed conditions will be 93 percent pervious surface (as outlined in the Preferred Alternative Land Use Matrix dated 8-21-09). The change in discharge will be diminished to nearly zero by application of BMPs, and detention along the floodplain of Canoas Creek.
Source: Balance Hydrologics, 2010.

Because the project would follow BMPs, as described below in the discussion under in Standard of Significance #5, and would generate a small amount of additional runoff, the project would result in a *less-than-significant* impact.

5. Create or Contribute Increased Impervious Surfaces and Associated Runoff Water Which Would Provide Substantial Additional Sources of Polluted Runoff

Impacts related to impervious surfaces and associated runoff water would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below. Runoff from the project could potentially contain urban contaminants (from parking areas, for example), or runoff from the agricultural and landscaped areas may contribute additional nutrients and pesticides to receiving waters.

Best Management Practices (BMPs) have been included in the proposed Plan to reduce water quality impacts. At present the BMPs are conceptual in nature but would include practices such as landscaped buffer zones. Due to the project's size and small incremental area of impervious surface, there are many opportunities for BMPs such as vegetated swales in the buffer zones planned for the park perimeter and to isolate the agricultural areas, or rain gardens or local detention in the parking lots.

- ◆ Vegetated bioswales are recognized by the RWQCB as effective BMPs in treating water quality, especially where residence times are sufficient and velocities can be controlled to avoid erosion and resuspension of sediments.
- ◆ Rain gardens are planted depressions that are designed to absorb runoff from impervious areas like roofs, driveways, walkways, and compacted lawn areas and percolate the water into the soil column.

The project would be required as part of the NPDES permit to describe the structural and nonstructural BMPs that would be implemented during the post-construction period, as outlined in Provision C.3 of the NPDES permit which specifically addresses the control of stormwater impacts associated with new development and redevelopment projects. In addition, the practices and procedures outlined in the SCVURPPP would assist in reducing the potential for impacts from non-point source pollution.⁶⁵

Implementation of BMPs proposed in the Plan, in addition to those required under the NPDES permit and compliance with SCVURPPP procedures would result in a *less-than-significant* impact associated with increases in impervious surfaces.

6. Degradation of Surface or Groundwater Quality or Public Water Supply

Groundwater quality and public water supply impacts would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

⁶⁵ Santa Clara Valley Urban Runoff Pollution Prevention Program, 2006, C.3 Stormwater Handbook: Guidance for implementing stormwater requirements for new and redeveloped projects, http://www.eoainc.com/c3_handbook_final_may2004/

The San Francisco RWQCB Basin Plan⁶⁶ has set groundwater objectives to “maintain high quality groundwater (i.e. background levels),” so that groundwater does not contain concentrations of chemical constituents in amounts that adversely affect beneficial uses.

Possible pollutants from the project that could degrade groundwater quality are pesticides and fertilizers used on-site. Based on environmental reports prepared for properties in the vicinity of the project site, groundwater had previously been measured at depths ranging between approximately 12 to 22 feet bgs.⁶⁷ This is sufficient depth between the surface and the groundwater for infiltration to reduce these potential pollutants.

The project will adhere to practices that would reduce the impacts of fertilizer or pesticide to the groundwater and surface water. For example, Plan guideline HY-DRO.5 is to “adhere to County guidelines for use of pesticides and fertilizers in order to reduce potential adverse impacts to local and regional water resources,” as outlined in the County’s IPM Ordinance. Guideline AG.8 is to “utilize sustainable farming practices that integrate natural biological cycles and controls; protect and enhance soil fertility and the natural resource base; and minimize adverse impacts on public health, safety, wildlife, water quality and the environment.”

Under the County’s IPM Ordinance, pesticides used at the project site are registered through the County of Santa Clara Division of Agriculture, where future pesticide applications would also need to be registered. Most pesticides are immobile and would not transport past the soil zone and into the groundwater. However, proper implementation of BMPs, as previously outlined, would promote proper infiltration and lessen runoff to reduce pollutant loads from entering the groundwater and surface water.

⁶⁶ California Regional Water Quality Control Board: San Francisco Bay Region, 2007, Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin (Region 2), page 294.

⁶⁷ Ninyo & Moore Geotechnical and Environmental Sciences Consultants, 2003, Phase I Environmental Site Assessment for the Lester Property – 5285 Snell Avenue.

Because sustainable farming practices outlined in the proposed Plan would be followed in conjunction with BMPs, the impact would be *less than significant*.

7. Placement of Structures within a 100-Year Flood Hazard Area as Mapped on a Flood Hazard Delineation Map

Flood hazard impacts would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

The project would create new structures, including visitor center; visitor pavilion; caretakers residence; restrooms; rain shelters; agriculture packaging, processing, and storage facilities; a café; catering facilities; and produce stands. Because the project site is not located within a 100-year flood hazard zone, none of these structures would be built in a flood hazard area, and the impact would therefore be *less than significant*.

8. Placement of Structures within a 100-Year Flood Hazard Area That Would Impede or Redirect Flood Flows

Flood hazard impacts would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

Because the project site is not within the 100-year flood hazard area, none of the structures built on-site would redirect or impede flood flows within a 100-year flood hazard area. The impact from the project would therefore be *less than significant*.

9. Exposure of 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

Dam failure impacts would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

The project site is located within the mapped dam failure inundation area for two dams, the Leroy Anderson (on the Coyote River) and Calero Creek Dams, as shown on the Dam Failure Inundation Hazard Map for San Jose provided by the Associa-

tion of Bay Area Governments (ABAG).⁶⁸ These dams are under the jurisdiction of the California Division of Safety of Dams (DSOD) within the Department of Water Resources. As such, they are subject to supervision by DSOD with regard to operations, maintenance, and repairs.

The project site is approximately 8 miles downstream from Calero Creek Dam. The project site is located 14 miles from Anderson Dam, located in an area that could be inundated in the normal weather conditions with normal flows in the streams and a full reservoir.⁶⁹ It was calculated that the flood wave from Anderson Dam would take 5 hours and 24 minutes to reach the project site with a wave crest of 16.1 feet.

The Santa Clara County Operational Area Emergency Operations Plan⁷⁰ addresses the possibility of dam failures, having an emergency action plan for the Anderson Dam and a general Dam Plan for other dams in the county. The plans are maintained by the SCVWD. The SCVWD's Automated Local Evaluation in Real Time (ALERT) system includes 44 rain gages, 38 stream flow gages, 11 reservoir gages and one weather station which allow SCVWD to monitor hydrologic conditions or changes in real time.

SCVWD has implemented a dam instrumentation project as part of their Dam Safety Program. The instrumentation is capable of collecting, checking, recording, and archiving the collected data and alarming staff when parameters exceed set threshold limits. SCVWD routinely monitor and study the condition of each dam, providing reports to DSOD, working collaboratively with DSOD to assume that the dams in the county continue operating safely and conducting annual inspections.

The project would have a typical visitor use of 2,683 people on a typical weekday and 4,610 people on a typical weekend day during the high season. The project would

⁶⁸ Association of Bay Area Governments, 1995; the map is available at <http://www.abag.ca.gov>.

⁶⁹ Santa Clara Valley Water District, 2003, Anderson Dam EAP 2003 Flood Inundation Maps, Sheet 5.

⁷⁰ County of Santa Clara, 2008, Operational area emergency operations plan, 96p.

result in a *potentially significant* impact by exposing visitors to risks associated with dam failure.

Impact HYDRO-1: The project site is located within the mapped dam failure inundation areas for the Leroy Anderson and Calero Creek Dams, as shown on the Dam Failure Inundation Hazard Map for San Jose. The project would have a typical visitor use of 2,683 people on a typical weekday and 4,610 people on a typical weekend day during the high season. Therefore, the project would result in a *potentially significant* impact by exposing visitors to risks associated with dam failure.

Mitigation Measure HYDRO-1: The project proponents shall provide adequate public signage warning park patrons of potential flood hazard.

Significance after Mitigation: Less than significant.

10. Location within in an Area of Special Water Quality Concern

Impacts related to affecting an area of special water quality concern would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

The project site is located within the Guadalupe Watershed. This watershed has a legacy of poor water quality in regards to mercury⁷¹ and diazinon (from particular pesticides) and is listed as impacted on the 303(d) list. The current diazinon concentration target in urban creeks shall not exceed 100 nanograms per liter (ng/L) as a one-hour average.⁷² Recommendations to change this limit have been proposed since water quality data collected has indicated ambient water concentrations of diazinon are at least an order of magnitude below the current water quality criteria.⁷³ The

⁷¹ Tetra Tech, Inc., 2005, Guadalupe River Watershed mercury TMDL project, Final conceptual model report, A consulting report prepared for San Francisco Bay Regional Water Quality Control Board, multi-paged.

⁷² California Regional Water Quality Control Board: San Francisco Bay Region, 2007, Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin (Region 2), page 294.

⁷³ Olivieri, A., 2006, Comments on Draft 2006 Revisions to the Section 303(d) list.

proposed TMDL for mercury consists of concentration- and mass-based allocations which will be achieved by (a) reducing mercury inputs from mining and urban runoff, and (b) minimizing the transformation of mercury to methylmercury in impoundments and reservoirs. The purpose of the TMDL is to restore and protect a watershed over the long term, making them attainment goals and not enforceable by the regulating bodies.

Mercury can be present in urban runoff, mostly sourced from air pollution falling onto streets – a difficult source to control – and also from construction erosion, industry and tailpipe emissions.⁷⁴ The project will not create any additional sources of mercury and water quality treatment from BMPs should decrease the naturally occurring mercury in urban runoff.

Diazinon can be used to control foliage and soil insects and pests of many fruit, nut, vegetable, forage, and field crops. Once applied, diazinon is moderately persistent (i.e. it does not readily change or degrade its chemical structure) and it is moderately mobile. These two qualities make diazinon a potential for groundwater contamination. Use of diazinon was phased out of urban uses in 2004.⁷⁵ Diazinon is an EPA registered product that is also listed on the Federal Restricted Product list. Inclusion on this list dictates that all users of diazinon must register its use and be trained and pass an examination before being allowed to use the pesticide. Pesticide use must be registered through the County of Santa Clara Division of Agriculture.

Compliance with existing regulations and procedures regarding mercury and diazinon would result in *less-than-significant* impacts associated with being located within the Guadalupe Watershed.

⁷⁴ City of Palo Alto, 1997, Mercury pollution prevention plan, page 22.

⁷⁵ Phillips, P. J.; Ator, S. W.; Nystrom, E. A., 2007, Temporal changes in surface-water insecticide concentrations after the phaseout of diazinon and chlorpyrifos. Environ. Sci. Technol. 41 (12), 4246-4251.; Reregistration Eligibility Decision (RED) Diazinon; EPA 738-R-04-006; U.S. Environmental Protection Agency, Office of Prevention, Pesticides, and Toxic Substances, Office of Pesticide Programs, U.S. Government Printing Office: Washington, DC, 2006.

11. Use of Well Water Previously Contaminated by Contaminants Existing in the Groundwater Supply

Impacts related to contaminants from use of a previously contaminated well would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below. Use of the on-site well is proposed at the project-level.

Although there are known regional contamination issues with nitrates and mercury, the water for the on-site well that would be used as a water source for the proposed project does not have this legacy. Although the on-site well is currently inaccessible to sample, the near-by wells at the Life Estate are of good water quality (see Table 4.10-3). Therefore, this impact would be *less than significant*.

12. Construction of a Septic Field on Soil with Severe Septic Drain Field Limitations or Where a High Water Table Extends Close to the Natural Land Surface

Impacts related to construction of a septic field would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

The project would not involve the use of any septic fields. Therefore, there would be *no impact* associated construction of a septic field.

13. Location of a Septic Field within 50 feet of a Drainage Swale; 100 feet of Any Well, Water Course, or Water Body; or 200 feet of a Reservoir at Capacity.

Impacts related to construction of a septic field would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

The project would not involve the use of any septic fields. Therefore, there would be *no impact* associated with location of a septic field.

14. Conflict with Water Resources Protection Collaborative Guidelines and Standards for Land Uses near Streams

Impacts related to the water resources protection collaborative guidelines would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

Since the project is near Canoas Creek it must act in accordance with the Water Resources Protection Ordinance (Ordinance 06-1) adopted by SCVWD on October 24, 2006 (See Section A.2.e, above, for further discussion of the ordinance). The ordinance is designed to complement existing regulations, such as the City, County, SCVWD, and NPDES provisions, which address some related water quality issues. (For a detailed discussion of runoff, see Standard of Significance #5.)

If the project follows the guidelines outlined in the ordinance, as required, the impact would be *less than significant*. The conceptual design of the project is already consistent with these guidelines, and includes provisions such as protection of the riparian zone, removing invasive species and planting non-native species.

15. Extension of a Sewer Trunk Line with Capacity to Serve New Development

Sewer trunk line extension impacts would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

The existing Downer-Canoas Trunk Sewer runs north through the western portion of the Park. Therefore, no sewer trunk extension would be required to connect the site to the sewer system,⁷⁶ and there would be *no impact*.

16. Significant Changes to Receiving Water Quality during or Following Construction Requiring an NPDES Permit for Construction

Impacts related to the NPDES permit for construction would be same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

⁷⁶ County of Santa Clara Parks and Recreation Department, 2009, *Martial Cottle Park Final Resource Inventory*.

Since the project would modify more than 1 acre of land, the project would require a NPDES permit (see Section A.1.d). During the construction phase of development, sediment is typically of greatest potential concern to violate water quality standards. Pollutants other than sediment which might degrade water quality during project construction include petroleum products (gasoline, diesel, kerosene, oil, and grease), hydrocarbons from asphalt paving, paints, solvents, detergents, nutrients (fertilizers), pesticides (insecticides, fungicides, herbicides, rodenticides), and litter.

Once the structures and trails have been constructed, runoff contaminants might include fertilizers, as well as trace metals from pavement runoff, nutrients and pathogens from pet wastes, and landscape maintenance debris. Stormwater runoff currently drains to receiving waters with no treatment.

During construction the project would require BMPs in construction contracts, consistent with NPDES General Construction Activity Stormwater Permit⁷⁷ requirements to minimize sedimentation resulting from construction and the transport of soils by construction vehicles. The applicant would be required to submit a Notice of Intent to the State Board and apply for coverage under the NPDES Construction General Permit and to prepare a Stormwater Pollution Prevention Plan (SWPPP).⁷⁸ The SWPPP (see also Section A.1.d in this chapter, above) can be used to assist in developing the permit and details the site-specific BMPs to control erosion and sedimentation and maintain water quality during the construction phase. The SWPPP⁷⁹ also contains a summary of the structural and non-structural BMPs to be implemented during the construction period, pursuant to the non-point source practices and procedures encouraged by SCVURPPP and the Regional Board. Of particular importance is preventing runoff with high sediment concentrations or poor water

⁷⁷ California Stormwater Quality Association, 2003, Stormwater Best Management Practices handbook: Construction, page 616.

⁷⁸ Santa Clara Valley Urban Runoff Pollution Prevention Program website, http://www.scvurppp-w2k.com/construction_bmp.shtml and <http://www.scvurppp-w2k.com/construction.shtml>, accessed on June 2, 2010.

⁷⁹ Bay Area Stormwater Management Agencies Association, 2004, Bluepring for a clean bay, best management practices to prevent stormwater pollution from construction-related activities, page 12. See also <http://www.scvurppp-w2k.com/>.

quality from entering Canoas Creek, which eventually drains to Guadalupe River and then to San Francisco Bay.

Following the procedures outlined in the permits will prevent construction practices of the project to not violate established water quality standards or waste discharge requirements. Compliance with the SWPPP and NPDES permit would reduce the impact to a *less-than-significant* level.

17. Increase in any Existing Pollutants to an Already Impaired Water Body

Impacts related to increasing pollutants would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

Runoff from the project drains to Canoas Creek, which is not an impaired water body. However, Canoas Creek drains to Guadalupe River which eventually enters San Francisco Bay-South Bay. This watershed has a legacy of poor water quality in regards to mercury and diazion (from particular pesticides) and is listed as impacted on the 303(d) list. See discussion of Standards of Significance #11. Water quality testing in 2004 of Canoas Creek was found to not have detrimental levels of mercury or pesticides.⁸⁰

The San Francisco Bay is listed as impacted on the 303(d) list; in some cases for certain constituents only a portion of the Bay is listed. The Bay in its entirety is considered impaired for total mercury, methylmercury, polychlorinated biphenyls (PCBs), and dioxins. Parts of the Bay are listed for selenium, legacy pesticides (such as DDT) and PAHs. The South Bay, which includes the portion of San Francisco Bay south of the Dumbarton Bridge, is a unique, water-quality-limited environment that requires controlling urban and upland runoff sources to maintain water quality. Site-specific objectives includes dissolved copper and nickel as current, ambient levels in the Bay are above water quality criteria for the protection of aquatic life.

⁸⁰ Ninyo & Moore Geotechnical and Environmental Sciences Consultants, 2004, Phase II Environmental Site Assessment for the Lester Property – 5285 Snell Avenue.

The use of BMPs (see Standards of Significance #18) would reduce the potential impacts of the contaminants reaching Guadalupe River or the Bay, ensuring that impacts would be *less than significant*.

18. Substantial Change in the Direction, Rate of Flow, Quantity, or Quality of Ground Waters

Groundwater impacts would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

A discussion of the potential impact to groundwater supplies, with regard to groundwater withdrawal, is provided under Standards of Significance #2. The potential impacts to groundwater quality are discussed under Standards of Significance #6.

Since no sub-ground level structures are proposed to be built the project would not interfere with groundwater flow patterns. Groundwater pumping would locally alter flow patterns during the times of pumping, but the amount of pumping proposed at the on-site well is not enough to substantially alter regional groundwater flow patterns. (See also discussion of groundwater pumping impacts under Standard of Significance #2, above.) Therefore, the impact would be *less than significant*.

19. Substantial Interference with Groundwater Recharge or Reduction in the Amount of Groundwater Otherwise Available for Public Water Supplies

Groundwater impacts would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below.

The project would not significantly interfere with groundwater recharge or cause a reduction in the amount of groundwater available for pumped water supplies. While some additional impervious surfaces are proposed as part of this project, the increase is small (approximately 5 percent). In addition, Guideline HYDRO.4 in the Plan is to, "Reduce stormwater run-off by minimizing the amount of impermeable surfaces in the park and incorporating pervious surface treatments where feasible." The limited impervious surfaces would be offset by BMPs implemented throughout the project that encourage treatment and infiltration of stormwater runoff, including for example, the buffer zones along the perimeter and agricultural areas. In addition, the project site is a large tract of land located within an urban/suburban area (with mod-

erate- to high-imperviousness). Protecting this land from being developed would allow for maintained recharge relative to the surrounding areas. Therefore, the impact would be *less than significant*.

20. Involvement of a Surface Water Body, Natural Drainage Channel, Streambed, or Water Course Such as to Alter the Amount, Location, Course, or Flow of its Waters

Surface water impacts would be the same for Phase 1 and subsequent phases. As such, project-level and program-level components are not distinguished below. The floodplain wetland is proposed at the program-level.

The project does not plan to alter a surface water body, a natural drainage channel, a streambed, or a water course. Part of the project goals is to re-vegetate, with native vegetation, the channel banks of Canoas Creek. This would be completed under compliance with Santa Clara Valley Water District's goals. Re-vegetation could slow down flow in the creek. The wetland planned as part of the project will be in the flood zone of the creek and will therefore not alter the flow of the channel. Therefore, the project would create a *less-than-significant* impact.

E. Cumulative Impacts

This section analyzes potential impacts to hydrology and water quality that could occur from a combination of the proposed project with other reasonably foreseeable projects in the surrounding area.

Any foreseeable projects in the surrounding area would likely be urban development and therefore be required to use municipal water and not create a cumulative impact by pumping groundwater. Groundwater pumping at the project site is not expected to substantially deplete groundwater supplies within the underlying aquifer but if additional wells are installed near the project site the cumulative effect will need to be evaluated. See also the project WSA (Appendix H), which discusses potential broader, long-term impacts to groundwater and other water supply.

All development or redevelopment in the vicinity of the project is subject to the federal, State, and local laws and regulations described above. Compliance with these laws and regulations will prevent substantial adverse impacts.

Given that the project would incorporate appropriate stormwater quality and detention treatment measures (resulting in a less-than-significant impact to groundwater and surface water quality), the cumulative impacts are also considered less-than-significant. Keeping the project under minimal development, unlike the surrounding urban/suburban areas, will keep cumulative impacts low by preventing additional urban contamination into surface water and local groundwater.

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HYDROLOGY, FLOODPLAINS, AND WATER QUALITY

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4.11 NOISE

This chapter describes the regulatory framework and existing ambient noise conditions in and around the project site. This chapter also evaluates the potential noise impacts of the project, including cumulative impacts.

A. Existing Conditions

This section describes the methodology used for measuring noise as well as the existing noise environment within the vicinity of the project site. The project site is located in a suburban area and is, therefore, influenced by several surrounding noise sources.

1. Characteristics of Sound

Noise is generally defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: *pitch* and *loudness*. Pitch is the number of complete vibrations or cycles per second of a wave that results in the range of tone from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment, and it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effects on adjacent sensitive land uses.

a. Measurement of Sound

Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing

points on a sharply rising curve. Table 4.11-1 contains a list of typical acoustical terms and definitions. Table 4.11-2 shows representative outdoor and indoor noise levels in units of dBA.

A decibel (dB) is a unit of measurement which indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, 30 dB is 1,000 times more intense. Each 10-dB increase in sound level is perceived as approximately a doubling of loudness.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} , the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL

TABLE 4.11-1 DEFINITIONS OF ACOUSTICAL TERMS

Term	Definitions
Decibel, dB	A unit of level that denotes the ratio between two quantities proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Level, dBA	Sound The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L ₀₁ , L ₁₀ , L ₅₀ , L ₉₀	The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Noise Level, L _{eq}	Continuous The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time varying sound.
Community Equivalent Level, CNEL	Noise The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of five decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L _{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L _{max} , L _{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.

TABLE 4.11-1 DEFINITIONS OF ACOUSTICAL TERMS (CONTINUED)

Term	Definitions
Ambient Noise Level	The all encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, 1991.

scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours. Typical A-weighted sound levels from various sources are described in Table 4.11-2.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions, and addresses the annoying aspects of intermittent noise.

Noise standards in terms of percentile exceedance levels, L_n , are often used together with the L_{max} for noise enforcement purposes. When specified, the percentile exceedance levels are not to be exceeded by an offending sound over a stated time period. For example, the L_{10} noise level represents the level exceeded ten percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the lowest

TABLE 4.11-2 TYPICAL A-WEIGHTED SOUND LEVELS

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments
Near Jet Engine	140	Deafening
Civil Defense Siren	130	Threshold of pain
Hard Rock Band	120	Threshold of feeling
Accelerating Motorcycle at a Few Feet Away	110	Very loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very loud
Ambulance Siren; Food Blender	95	Very loud
Garbage Disposal	90	Very loud
Freight Cars; Tractors/ Agricultural Equipment at 50 Feet	85	Loud
Pneumatic Drill; Vacuum Cleaner	80	Loud
Busy Restaurant	75	Moderately loud
Near Freeway Auto Traffic	70	Moderately loud
Average Office	60	Moderate
Suburban Street	55	Moderate
Light Traffic; Soft Radio Music in Apartment	50	Quiet
Large Transformer	45	Quiet
Average Residence Without Stereo Playing	40	Faint
Soft Whisper	30	Faint
Rustling Leaves	20	Very faint
Human Breathing	10	Very faint

Source: Compiled by LSA Associates, Inc., 2007.

noise level experienced during a monitoring period. It is normally referred to as the background noise level. For a relatively steady noise, the measured L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first is audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 dBA or greater, since, as described earlier, this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dBA. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise level of less than 1.0 dBA that are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

b. Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the ear, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling.

2. Existing Ambient Noise Levels

An LSA noise technician conducted short-term ambient noise monitoring on the project site on Tuesday, August 21, 2007 between the hours of 10:30 a.m. and 1:00 p.m. at three separate locations within the vicinity of the project site. The purpose of this noise monitoring was to document the existing noise environment and capture the noise levels associated with operations and activities in the project vicinity. Table 4.11-3 lists the noise levels measured during the short-term 20-minute noise measurements. Maximum and minimum noise levels were recorded as well as the equivalent continuous noise level

TABLE 4.11-3 SHORT-TERM AMBIENT NOISE MONITORING RESULTS, dBA

No.	Description	Start Time	L _{eq} ^a	L _{max} ^b	L _{min} ^c	Primary Noise Sources
1	Northwest corner of project site, 70 feet south of Branham Ln.	10:50 a.m.	62.3	79.0	44.5	Traffic on Branham Lane
2	Southwest corner of project site, 115 feet north of sound wall by State Route 85	11:20 a.m.	57.8	65.7	50.5	Traffic on State Route 85
3	Southeast corner of project site, 136 feet west of Snell Ave., 21 feet north of Chynoweth Ave.	12:25 p.m.	60.0	76.9	48.7	Traffic on Snell Avenue and Chynoweth Avenue, yardwork, airplanes approaching San Jose International Airport

^a L_{eq} represents the average of the sound energy occurring over the 20-minute time period.

^b L_{max} is the highest instantaneous sound level measured during the 20-minute time period.

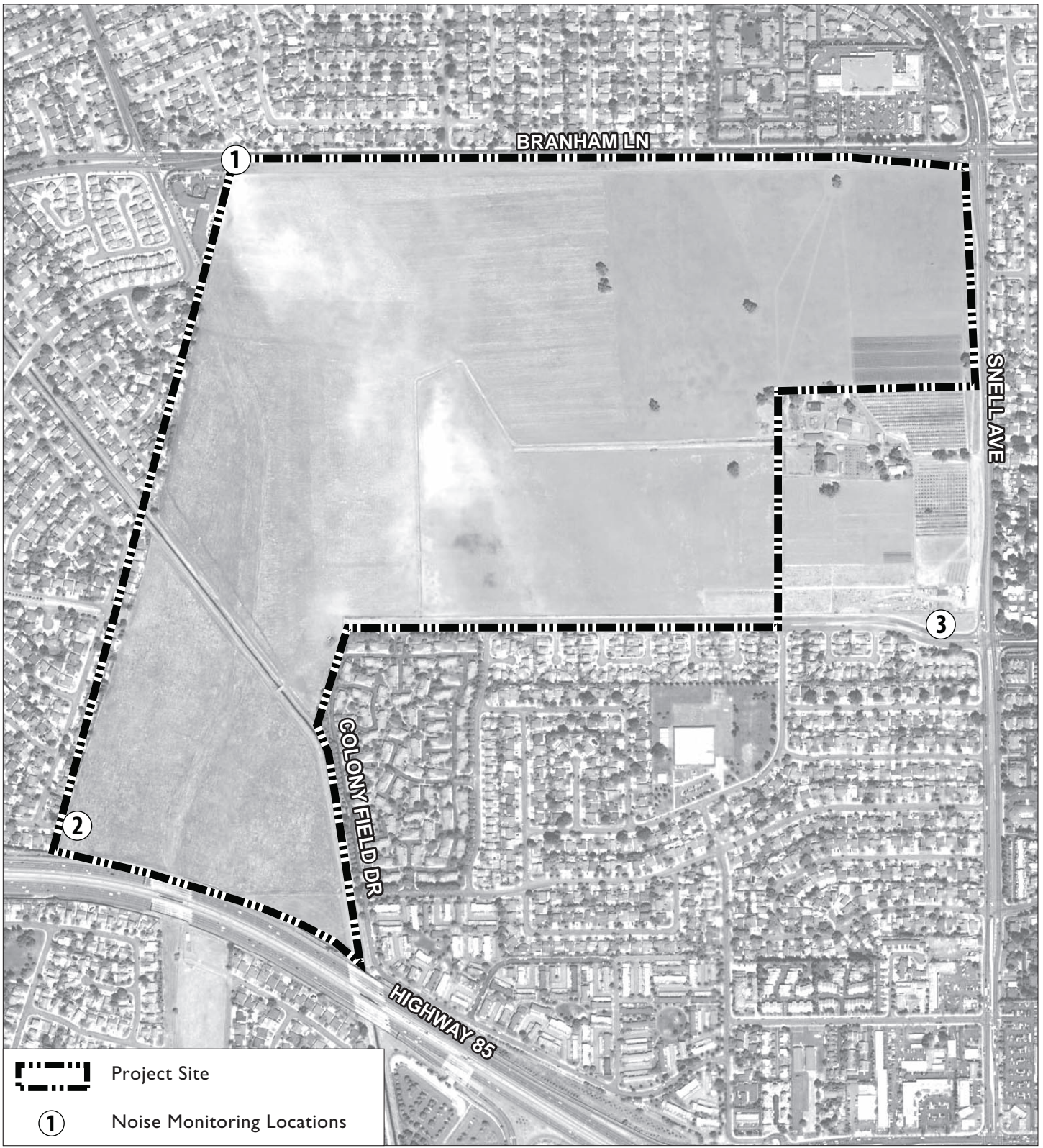
^c L_{min} is the lowest instantaneous sound level measured during the 20-minute time period.

Source: LSA Associates, Inc., August 2007.

measure L_{eq}. The meteorological conditions at the time of each noise measurement are shown in Table 4.11-4. Figure 4.11-1 shows the monitoring locations.

Vehicular noise is the primary source of ambient noise within the vicinity of the project site. The primary noise sources include traffic on SR-85, Branham Lane, and on Snell Avenue.

The County of Santa Clara has identified noise environments with ambient noise levels up to 65 dBA L_{dn} as satisfactory for open space and agricultural land use development. Measured ambient noise levels on the project site range from 57.8 dBA to 62.3 dBA L_{eq}.



Source: LSA Associates, Inc., DC&E, 2010.

FIGURE 4.11-1
NOISE MONITORING LOCATIONS

TABLE 4.11-4 METEOROLOGICAL CONDITIONS DURING AMBIENT NOISE MONITORING

Location Number	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Temperature (F)	Relative Humidity (%)
1	3.0	1.1	83	38
2	5.6	1.0	86	34
3	5.3	2.0	91	25

Source: LSA Associates, Inc., August 2007.

Although the noise descriptors L_{eq} and L_{dn} are not interchangeable, typically in suburban environments where noise levels drop off significantly at night, the L_{dn} can be equivalent to or even lower than daytime L_{eq} ambient noise levels.

3. Existing Aircraft Noise Levels

Mineta San Jose International Airport is located approximately 7 miles northwest of the project site. Noise exposure information in the community is developed for airport operations by the City of San Jose on a quarterly basis, based on current airport operations data and continuously measured noise levels. According to the most recent available quarterly report on existing noise contours and according to the projected 2010 conditions, the project site would not be located within the 65 dBA CNEL contour of the airport.¹ Although aircraft related noise is occasionally audible on the project site, it would not result in a perceptible increase in 24-hour averaged ambient noise levels such as CNEL.

¹ Mineta San Jose International Airport, 2007, *Fourth Quarter 2006 Noise Monitoring Report, Contour Map and 2010 65dB Contour Map*. <http://www.sjc.org/community/noise.html>.

4. Existing Railroad Noise Levels

The closest rail line to the project site is the Santa Clara Valley Transportation Authority (VTA) light rail line located between the east- and west-bound lanes of State Route 85. The Blossom Hill Station is located immediately south of the project site. It was observed during the ambient noise monitoring that, although several light rail trains passed during the monitoring period, noise from train passings were not audible on the project site over the noise levels from traffic on State Route 85.

The Southern Pacific railroad line runs parallel to the Monterey Highway (State Route 82) and is located approximately 2100 feet northwest of the Branham Lane and Snell Avenue intersection. Train horn noise from this railroad is occasionally audible on the project site.

5. Existing Traffic Noise Levels

Vehicular noise is the primary source of ambient noise in the project vicinity. The primary noise sources include traffic on State Route 85, Branham Lane, and on Snell Avenue. The Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions on roadway segments in the vicinity of the project site. Traffic data used in the model was obtained from the traffic impact analysis prepared by Hexagon Transportation Consultants for the project.² The resultant noise levels were weighted and summed over a 24-hour period in order to determine the L_{dn} values. Table 4.11-5 shows the traffic noise levels for roadway segments in the project site vicinity under existing traffic conditions. The traffic noise model printouts are included in Appendix I.

As shown in the table, calculated traffic noise levels at 50 feet from the outermost travel lanes of the modeled roadway segments range up to 67.5 dBA L_{dn} . However, the current alignments of Branham Lane and Snell Avenue

² Hexagon Transportation Consultants, Inc., 2009, *Martial Cottle Park Master Plan Transportation Impact Analysis*.

TABLE 4.11-5 EXISTING TRAFFIC NOISE LEVELS

Roadway Segment	ADT ^a	Centerline to 70 L _{dn} ^b (feet)	Centerline to 65 L _{dn} (feet)	Centerline to 60 L _{dn} (feet)	L _{dn} (dBA) 50 feet From Centerline of Outermost Lane
Branham Lane, Vista Park Drive to Safeway entrance	17,600	< 50	84	179	67.0
Branham Lane, Safeway entrance to Snell Avenue	16,000	< 50	79	168	66.6
Snell Avenue, Branham Lane to Chynoweth Avenue	21,900	< 50	98	208	67.5

^a Average Daily Trips.

^b Day/Night Noise Level. The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

Source: LSA Associates, Inc. May, 2010.

adjacent to the project site are setback approximately 75 and 80 feet respectively from the edge of the project property line. With the resulting geometric spreading of this noise, these traffic noise levels would attenuate to below 65 dBA L_{dn} at the nearest project property line.

6. Existing Agricultural Operations Noise Levels.

The current land use of the project site is agricultural land use, consisting primarily of flat, open fields that are seasonally cultivated for agricultural production. Related operational noise sources primarily consist of daytime diesel equipment crop harvesting operations. The majority of the site is currently dry farmed with hay and other grains. Past agricultural operations on the project site have included a dairy operation, growing grain, pasturage for cattle and horses, a family orchard, row crops, and milling cattle feed, each of which has had its own mix of equipment and, consequently, its own noise

characteristics. Typical noise levels from tractors as measured at a distance of 50 feet from the operating equipment range from 78 dBA to 106 dBA L_{max} , with an average of about 84 dBA L_{max} .³

In addition to the farming equipment noise sources, the operation of seasonal agricultural-related concessions (including a produce stand, a Christmas tree farm, and pumpkin patch) also contribute to the existing ambient noise environment. Associated noise sources include parking lot activities such as cars starting, car doors slamming, and people conversing which would take place during business hours.

7. Existing Land Uses in the Vicinity of the Project Site

The project site is bordered on all sides by medium density, single- and multi-family residential land uses. Residential properties to the west of the project site immediately abut the project property. Other adjacent residential land uses are located across the surrounding streets of Branham Lane, Snell Avenue, Chynoweth Avenue, Colony Field Drive, Velasco Drive, and State Route 85. The Carlton Plaza Senior Assisted Living facility is located adjacent to the northwest corner of the project property and would also be considered a sensitive receptor to noise.

A commercial shopping center is located adjacent to the project property at the northwest corner of the Branham Lane and Snell Avenue intersection. Commercial uses include restaurants, a gas station and car service center, a Safeway grocery store, and adjoining retail uses.

Sensitive land uses in the project vicinity, other than the residential land uses, include an elementary school on Avenida Almendros, located 375 feet south of Chynoweth Avenue, buffered by several rows of homes.

³ Bolt, Beranek & Newman, 1987. *Noise Control for Buildings and Manufacturing Plants*.

On-site land uses that would be sensitive to noise impacts include the historic residential property located within the 30.9-acre Life Estate adjacent to the project site.

The construction and operation of the proposed project could affect these surrounding land uses. The on-site residential property located on the Life Estate would be the closest receptor to construction and operational noise impacts. The closest off-site noise sensitive receptors would be the residences bordering the park to the west on Barron Park Drive, Birmingham Drive, and Vistapark Drive. Other close off-site receptors are the residential land uses located along the south side of Chynoweth Avenue, along the east side of Snell Avenue, and along the north side of Branham Lane.

B. Regulatory Framework

The following section summarizes the regulatory framework related to noise, including federal, State, County of Santa Clara, and local plans, policies, and standards.

1. United States Environmental Protection Agency (EPA)

In 1972 Congress enacted the Noise Control Act. This act authorized the EPA to publish descriptive data on the effects of noise and establish levels of sound “requisite to protect the public welfare with an adequate margin of safety.” These levels are separated into health (hearing loss) and welfare (annoyance) levels, as shown in Table 4.11-6. The EPA cautions that these identified levels are not standards because they do not take into account the cost or feasibility of the levels.

For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to an $L_{eq(24)}$ of 70 dBA. The “(24)” signifies an L_{eq} duration of 24 hours. The EPA activity and interference guidelines are designed to ensure reliable speech communication at about

TABLE 4.11-6 SUMMARY OF EPA NOISE LEVELS

Effect	Level	Area
Hearing loss	$L_{eq}(24) \leq 70$ dB	All areas.
Outdoor activity interference and annoyance	$L_{dn} \leq 55$ dB	Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.
	$L_{eq}(24) \leq 55$ dB	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	$L_{eq} \leq 45$ dB	Indoor residential areas.
	$L_{eq}(24) \leq 45$ dB	Other indoor areas with human activities such as schools, etc.

Source: U.S. Environmental Protection Agency, 1974, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety."

5 feet in the outdoor environment. For outdoor and indoor environments, interference with activity and annoyance should not occur if levels are below 55 dBA and 45 dBA, respectively.

The noise effects associated with an outdoor L_{dn} of 55 dBA are summarized in Table 4.11-7. At 55 dBA L_{dn} , 95 percent sentence clarity (intelligibility) may be expected at 3.5 meters, and no community reaction. However, one (1) percent of the population may complain about noise at this level and 17 percent may indicate annoyance.

2. State of California

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the "State Noise Insulation Standard," it requires buildings to meet performance standards through design and/or building materials that would offset

TABLE 4.11-7 SUMMARY OF HUMAN EFFECTS IN AREAS EXPOSED TO 55 DBA L_{DN}

Type of Effects	Magnitude of Effect
Speech – Indoors	100 percent sentence intelligibility (average) with a 5 dB margin of safety.
Speech – Outdoors	100 percent sentence intelligibility (average) at 0.35 meters. 99 percent sentence intelligibility (average) at 1.0 meters. 95 percent sentence intelligibility (average) at 3.5 meters.
Average Community Reaction	None evident; 7 dB below level of significant complaints and threats of legal action and at least 16 dB below “vigorous action.”
Complaints	1 percent dependent on attitude and other non-level related factors.
Annoyance	17 percent dependent on attitude and other non-level related factors.
Attitude Towards Area	Noise essentially the least important of various factors.

Source: U.S. Environmental Protection Agency, 1974, “Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.”

any noise source in the vicinity of the receptor. These requirements are found in the California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. The State has also adopted the California Environmental Quality Act (CEQA). The main objectives of CEQA are to disclose to decision makers and the public the significant environmental effects of proposed activities and to identify ways to avoid or reduce those effects by requiring implementation of feasible alternatives or mitigation measures. Under CEQA, a substantial noise increase may result in a significant adverse environmental effect; if so, the noise increase must be mitigated or identified as a noise impact for which it is likely that only partial (or no) mitigation measures are available. Specific economic, social, environmental, legal, and technological conditions may make noise mitigation measures infeasible. The State has also established land use compatibility guidelines for determining acceptable noise levels for specified land uses. The

County has adopted and modified the State's land use compatibility guidelines, as discussed below.

3. County of Santa Clara

The County's land use compatibility standards are contained within the Noise Element⁴ of the General Plan and in Chapter VIII of the Environmental Health Division of the County's Ordinance Code.⁵ The following sections of the County's Noise Element outline the standards that are applicable to the proposed project.

Two tables, the "Noise Compatibility Standards for Land Use in Santa Clara County" and the "Satisfactory Interior Noise Levels," were developed to set the levels of noise which are compatible with the performance and enjoyment of different classes of land use. The standards include both exterior and interior levels of sound.

Standards such as these should be used in the review of subdivisions, building sites, architectural and site approval permits, use permits, and zone changes in areas subject to noise impacts. Each of these standards is intended to protect the people on-site from noise coming from outside sources, and to prevent new projects from generating adverse noise levels on adjacent properties.

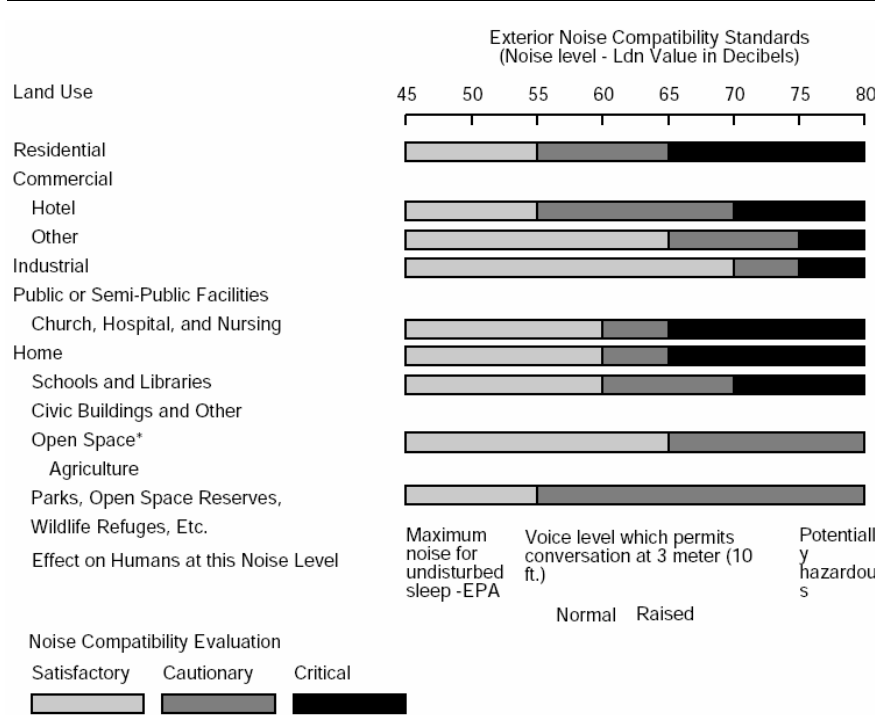
The Noise Compatibility Standards for exterior noise specify three classifications of compatibility between ambient noise levels at the site and various land uses: satisfactory, cautionary, and critical (see Table 4.11-8).

These standards serve as a preliminary analysis of potential noise incompatibility and serve to protect the proposed development from existing noise sources.

⁴ County of Santa Clara, 1994, *Santa Clara County General Plan, Health and Safety Chapter, Noise*.

⁵ County of Santa Clara, 2009, *Ordinance Code, County of Santa Clara, California*.

TABLE 4.11-8 NOISE COMPATIBILITY STANDARDS FOR LAND USE IN SANTA CLARA COUNTY



* For open space use, there are no critical noise levels listed. Homes in agricultural areas are not subject to the "Residential" standards. Public buildings in parks and open space areas shall meet noise standards as listed under "Public or Semi-Public facilities." 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."

Source: Santa Clara County, 1994, *Santa Clara County General Plan*.

Noise studies and possible attenuation procedures will also be imposed on the project if the project itself is considered a source of incompatible noise for a nearby land use.

The noise compatibility levels are defined as follows:

- ◆ Satisfactory noise levels are those which pose no serious threat to the proposed land use. 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 noise levels are those which could potentially pose a threat to the proposed land use. 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 noise levels are those which probably pose a threat to the proposed land use. The ambient noise level is severe. The situation requires rigorous analysis of the compatibility of the proposed project with the ambient noise level at the site. This analysis should include both exterior and interior impacts. Simple solutions to noise attenuation may not be adequate and uses should be allowed only if they have been designed for noise reduction by a professional who is competent in sound reduction.

The County's land use compatibility guidelines, shown in Table 4.11-8, indicate the following standards for new development within the county:

- ◆ Noise environments with ambient noise levels less than or equal to 55 dBA Ldn are considered satisfactory for all land uses.
- ◆ Noise environments with ambient noise levels up to 60 dBA Ldn are satisfactory for development of new public or semi-public facilities.
- ◆ Noise environments with ambient noise levels up to 65 dBA Ldn are satisfactory for open space and agricultural land areas development.

The County's Ordinance Code also addresses noise in Chapter VIII of the Environmental Health Division, including restricting noise producing construction activities to between the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday, and prohibits noise producing construction activities on Sundays and holidays. In addition, where technically and economically feasible, construction activities will be conducted in a manner that the maximum noise levels at affected properties will not exceed those listed in the Table 4.11-9.

C. Standards of Significance

Noise impacts associated with the project would be considered significant if the project would:

1. Result in 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.
2. Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
3. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
4. Increase substantially the ambient noise levels for adjoining areas during and/or after construction.

D. Impact Discussion

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

1. Exposure of Persons to or Generation of Noise Levels in Excess of Standards

i. Traffic Noise Impacts

The project site is located in a developed area and is, therefore, influenced by several surrounding noise sources. Vehicular noise is the primary source of ambient noise in the project site vicinity. The primary noise sources include traffic on State Route 85, Branham Lane, and Snell Avenue. Railroad and aircraft noise sources do not significantly impact the project site.

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions on roadway segments in the vicinity of the project site. The resultant noise levels were weighted and

TABLE 4.11-9 MAXIMUM NOISE LEVELS FOR OPERATION OF MOBILE EQUIPMENT

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

Source: Santa Clara County, 2009, *Ordinance Code, County of Santa Clara, California*.

summed over a 24-hour period in order to determine the L_{dn} values. The traffic noise model printouts are included in Appendix I.

Tables 4.11-10 and 4.11-11 show the traffic noise levels for roadway segments in the project site vicinity under background and background plus project traffic conditions respectively. Traffic data used in the model was obtained from the traffic impact analysis prepared by Hexagon Transportation Consultants for this project. Background traffic volumes were estimated by adding to existing peak-hour volumes the projected volumes from approved but not yet completed developments. Background plus project volumes were obtained by adding to background volumes the additional traffic generated by the project.

On-site traffic noise levels along roadway segments adjacent to the project site would range up to 69.0 dBA L_{dn} under background plus project conditions at 50 feet from the centerline of the outermost travel lane. With the resulting geometric spreading of this noise, these traffic noise levels would attenuate to

TABLE 4.11-10 BACKGROUND TRAFFIC NOISE LEVELS

Roadway Segment	ADT ^a	Centerline to 70 L _{dn} ^b (Feet)	Centerline to 65 L _{dn} (Feet)	Centerline to 60 L _{dn} (Feet)	L _{dn} (dBA) 50 feet from Centerline of Outermost Lane
Branham Ln., Vista Park Dr. to Safeway entrance	17,600	< 50	84	179	67.0
Branham Ln., Safeway entrance to Snell Ave.	16,000	< 50	79	168	66.6
Snell Ave., Branham Ln. to Chynoweth Ave.	21,900	< 50	102	210	66.3

^a Average Daily Trips.

^b Day/Night Noise Level (dBA). The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

Source: LSA Associates, Inc. May, 2010.

below 67 dBA L_{dn} at the nearest project property line adjacent to Branham Lane. This assumes that the current alignment of Branham Lane adjacent to the project site would remain the same, with the current edge of roadway remaining at approximately 75 feet from the project property line.

Under background conditions it is assumed that the segment of Snell Avenue adjacent to the project site will be widened to six lanes. Thus the predicted traffic noise levels at the nearest proposed trail areas along adjacent to Snell Avenue would be exposed to traffic noise levels up to 66.6 dBA L_{dn} under background plus project conditions.

Noise from traffic along State Route 85 was also calculated using the latest traffic volume data from Caltrans Traffic Data Branch.⁶ The modeling

⁶ Caltrans, 2008, *Traffic Volumes (Annual Average Daily Traffic)*, <http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/>

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
 MARTIAL COTTLE PARK
 STATE PARK GENERAL PLAN/COUNTY PARK MASTER PLAN EIR
 NOISE

TABLE 4.11-11 BACKGROUND PLUS PROJECT TRAFFIC NOISE LEVELS

Roadway Segment	ADT^a	Centerline to 70 L_{dn}^b (feet)	Centerline to 65 L_{dn} (feet)	Centerline to 60 L_{dn} (feet)	L_{dn} (dBA) 50 feet from Centerline of Outermost Lane	Increase Over Background Conditions
Branham Lane, Vista Park Drive to Safeway entrance	27,400	53	112	240	69.0	2.0
Branham Lane, Safeway entrance to Snell Avenue	16,800	< 50	81	174	66.8	0.2
Snell Avenue, Branham Lane to Chynoweth Avenue	23,400	< 50	106	219	66.6	0.3

^a Average Daily Trips.

^b Day/Night Noise Level (dBA). The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

Source: LSA Associates, Inc. May, 2010.

showed that traffic noise levels along the portion of State Route 85 west of Blossom Hill Road ranges up to 78.0 dBA L_{dn} at 50 feet from the outermost travel lane.

With the resulting geometric spreading of this noise, these traffic noise levels would attenuate to below 71 dBA L_{dn} at the nearest proposed trail area adjacent to State Route 85. This predicted noise level assumes implementation of the proposed 60 foot setback landscaped buffer and berm shown in Figure 3-4 of the Chapter 3, Project Description.

Impacts to on-site uses are compared to the County's land use compatibility standards. The County of Santa Clara has identified noise environments with ambient noise levels up to 65 dBA L_{dn} are satisfactory for open space and agricultural land use development. However, as shown in Table 4.11-8, the County notes that for open space uses, there are no critical levels listed and homes in agricultural areas, such as the existing residence located in the Life Estate portion of the project site, are not subject to the "Residential" standards. Public buildings in parks and open space areas shall meet noise standards as listed under "Public or Semi-Public Facilities" (i.e., environments with noise levels up to 60 dBA L_{dn} are considered "satisfactory," those with noise levels greater than 60 dBA and up to 65 dBA L_{dn} are considered "cautionary," and those with noise levels greater than 65 dBA L_{dn} are considered "critical" for new development).

Traffic noise levels on the project site under background plus project conditions would range from 66.6 dBA to 71 dBA L_{dn} ; these levels are within the County's "cautionary" range for new open space development. All proposed public buildings would be located more than 350 feet from adjacent roadways, well beyond the 60 dBA L_{dn} traffic noise contours shown in Table 4.11-12, and would meet the County's "satisfactory" land use compatibility criteria. Therefore, all traffic noise impacts to proposed on-site uses would be *less than significant*.

Project-related traffic noise impacts to off-site sensitive receptors are discussed under Standard of Significance #3 (Substantial Permanent Increase in Ambient Noise Levels in the Project Vicinity above Levels Existing without the Project).

ii. Construction Noise Impacts

Implementation of the proposed project would result in construction activities, including site preparation activities using heavy earthmoving equipment. The project site is bordered on all sides by medium density, single- and multi-family residential land uses, including the Carlton Plaza Senior Assisted Living facility located adjacent to the northwest corner of the project property. Project construction would result in short-term noise impacts on these adjacent land uses. The level and types of noise impacts that would occur during construction are described below.

Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. Although there would be a relatively high single event noise exposure potential causing intermittent noise nuisance, the effect on longer term (hourly or daily) ambient noise levels would be small. Therefore, short-term construction related impacts associated with worker commute and equipment transport to the project site would be *less than significant*.

The second type of short-term noise impact is related to noise generated during site preparation, and the construction on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase. Table 4.11-12 lists typical

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN/
COUNTY PARK MASTER PLAN EIR
NOISE

TABLE 4.11-12 TYPICAL CONSTRUCTION MAXIMUM NOISE LEVELS, L_{MAX}

Type of Equipment	Range of Maximum Sound Levels (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	74 to 84	80
Scrapers	83 to 91	87
Haul Trucks	83 to 94	88
Cranes	79 to 86	82
Portable Generators	71 to 87	80
Rollers	75 to 82	80
Dozers	77 to 90	85
Tractors	77 to 82	80
Front-End Loaders	77 to 90	86
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	86
Air Compressors	76 to 89	86
Trucks	81 to 87	86

Source: Bolt, Beranek & Newman, 1987, *Noise Control for Buildings and Manufacturing Plants*.

construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor. Typical noise levels range up to 91 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backhoes, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three or four minutes at lower power settings.

Construction of the proposed project is expected to require the use of earthmovers such as bulldozers and scrapers, loaders and graders, water trucks, and other trucks. Pile drivers and rock drills are not expected to be used during construction of this project. As shown in Table 4.11-12, the typical maximum noise level generated by backhoes is assumed to be 86 dBA L_{max} at 50 feet from the operating equipment. The maximum noise level generated by bulldozers is approximately 85 dBA L_{max} at 50 feet. The maximum noise level generated by water and other trucks is approximately 86 dBA L_{max} at 50 feet from these vehicles. Each doubling of the sound sources with equal strength would increase the noise level by 3 dBA. Assuming each piece of construction equipment operates at some distance apart from the other equipment, the worst-case combined noise level could be 91 dBA L_{max} at a distance of 50 feet from an active construction area with three or more pieces of operating earthmoving equipment. Therefore, construction of the project would generate noise in excess of County Standards, and expose people to unacceptable noise levels. This would be a *significant* impact.

Implementation of the following multi-part mitigation measure would reduce construction noise impacts on off-site sensitive receptors to a less-than-significant level.

Impact NOISE-1: Construction activities could result in exposure of persons to or generation of noise levels in excess of County standards. This would be a *significant* impact.

Mitigation Measure NOISE-1: The construction contractor shall implement the following measures:

- ◆ In accordance with Chapter VIII of the County of Santa Clara Ordinance Code, the operating of tools and equipment for construction activities (including earthmoving and grading) within the project site shall be conducted only between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. Noise producing construction activities shall not occur on Sundays or holidays.
- ◆ A notice of these construction hour restrictions shall be conspicuously posted at the entrance to the work site prior to commencement of the work informing all contractors and subcontractors, their employees, agents, materialmen and all other persons at the property of the basic limitations upon noise and construction activities provided in the County's Ordinance Code.
- ◆ The applicant shall designate a "Noise Disturbance Coordinator" who shall be responsible for responding to any complaints about construction noise. The Noise Disturbance Coordinator shall determine the cause of the noise complaint and shall require that reasonable measures warranted to correct the problem be implemented. The applicant shall conspicuously post a telephone number for the Noise Disturbance Coordinator at the construction site.
- ◆ The construction contractor shall minimize the number of earthmoving equipment pieces operated simultaneously within 60 feet of any single adjoining noise sensitive land use.
- ◆ During construction, all construction equipment powered by internal combustion engines shall be properly muffled and maintained.
- ◆ Unnecessary idling of internal combustion engines shall be prohibited.

- ◆ All stationary noise-generating equipment, such as air compressors, shall be located as far as practical from residences in the vicinity of the project site.
- ◆ Whenever feasible, quiet construction equipment, particularly air compressors, shall be utilized.

Significance after Mitigation: Less than significant.

iii. Operational Noise Impacts

Operational noise sources associated with implementation of the proposed project would include agricultural and farming equipment noise sources. These noise sources would be similar to those currently produced on the project site during the seasonal agricultural operating periods. Typical noise levels from tractors as measured at a distance of 50 feet from the operating equipment range from 78 dBA to 106 dBA L_{max} , with an average of about 84 dBA L_{max} . The closest off-site sensitive land uses would be located over 140 feet from proposed cultivation areas where large farming equipment would operate. At this distance, due to geometric spreading, these operational noise levels would be reduced to below 70 dBA L_{max} , which is below the County's daytime maximum noise level standard for operation of mobile equipment of 75 dBA L_{max} , shown in Table 4.11-9. Operation of farming equipment associated with implementation of the project is not expected during nighttime periods. Operational noise impacts to the existing residential property located in the Life Estate adjacent to the project site must be compared to the County's land use compatibility standards for open space and agricultural land use development since, as noted in Table 4.11-8, homes in agricultural areas are not subject to the "Residential" standards. Therefore, operational noise sources would not result in exposure of persons to or generation of noise levels in excess of adopted standards, and any associated impacts would be *less than significant*.

2. Exposure of Persons to or Generation of Excessive Groundborne Vibration or Groundborne Noise Levels

No permanent noise sources that would expose persons to excessive ground borne vibration or noise levels would be located within the project site. Therefore, implementation of the proposed project would not permanently expose persons within or around the project site to excessive groundborne vibration or noise.

Construction activities associated with implementation of the proposed project could temporarily expose persons in the vicinity of the project site to excessive ground borne noise levels. This would be a *significant* impact. Construction activities would not be expected to result in significant impacts associated with ground borne vibration levels, due to the distance between construction areas and the nearest sensitive receptors.

3. Substantial Permanent Increase in Ambient Noise Levels in the Project Vicinity above Levels Existing Without the Project

The proposed long-term use of the project site is open space and agricultural land use. Operational noise sources associated with implementation of the proposed project would include agricultural and farming equipment noise sources. These noise sources would be similar to those currently produced on the project site during the seasonal agricultural operating periods, and would therefore not result in a substantial permanent increase in ambient noise levels at sensitive receptors in the vicinity of the project site. Also, as shown in Table 4.11-11, the project would not generate enough traffic to create a perceptible change (at least 3 dBA) in traffic noise in the vicinity of the project site. A substantial long-term increase in ambient noise levels is not expected as a result of project implementation. Therefore, project-related traffic noise impacts to off-site sensitive receptors would be *less than significant*.

4. Substantial Increase in Ambient Noise Levels for Adjoining Areas During or After Construction

As discussed above under Standard of Significance #2, construction activities associated with implementation of the proposed project could temporarily

increase ambient noise levels. Increased ambient noise levels would be intermittent and short term, and would be considered *less than significant*.

E. Cumulative Impacts

The project site is located in a built out portion of the county, bordered on all sides by medium density, single- and multi-family residential land uses, and commercial land uses. There are no known planned future development projects in the immediate project vicinity. The number of daily project trips, as outlined in the transportation impact analysis report prepared for this project, is anticipated to remain steady over time. As shown in Table 4.11-11, the project would not generate enough traffic to create a perceptible change (at least 3 dBA) in traffic noise in the vicinity of the project site, and a substantial long-term increase in ambient noise levels is not expected as a result of project implementation. Therefore, project-related cumulative traffic noise impacts to off-site sensitive receptors would be *less than significant*.

The current land use of the project site is agricultural land use, consisting primarily of flat, open fields that are seasonally cultivated for agricultural production. The majority of the site is currently dry farmed with hay and other grains. Implementation of the project would include agricultural production, habitat enhancement, parks and recreation, and agricultural education land uses. These uses would result in similar noise levels in the project site vicinity as currently exist with the seasonal agricultural operations. These cumulative operational noise levels would not result in a significant increase in ambient noise levels at sensitive receptors in the project vicinity. Therefore, project-related cumulative operational noise impacts would be *less than significant*.

4.12 TRANSPORTATION AND CIRCULATION

This chapter describes the existing traffic and circulation conditions; transit, bicycle, and pedestrian facilities; and parking conditions in and around the project site. This chapter also examines the effect of the project on each of these components, including an analysis of potential cumulative impacts. The analysis of traffic and transportation conditions was prepared by Hexagon Transportation Consultants (Hexagon) in June, 2009. A complete copy of the traffic report prepared by Hexagon is included as Appendix J of this EIR.

A. Regulatory Framework

The following section discusses transportation and circulation related policies from regulatory agencies that have jurisdiction over the project site. Although this section presents a comprehensive set of policies, California Government Code Section 53091 states that State and county agencies and their properties are not required to comply with local agency policies. However, in the best interest of the project, State and county agencies strive to meet consistencies with relevant local agency policies.

1. Santa Clara County General Plan

Santa Clara County General Plan strategies and policies relevant to transportation and circulation are listed in Table 4.12-1.

2. County Congestion Management Program

As the Congestion Management Agency (CMA) for Santa Clara County, the Santa Clara Valley Transportation Authority (VTA) is responsible for establishing, implementing, and monitoring the County's Congestion Management Program (CMP). The VTA develops strategies to reduce congestion, promotes integrated transportation and land use planning, and encourages a balanced transportation system. Through its implementation of the CMP, the VTA works to ensure that roadways operate at acceptable levels of service, and reviews development proposals to ensure that transportation impacts are minimized and transportation alternatives are utilized.

TABLE 4.12-1 GENERAL PLAN TRANSPORTATION CHAPTER POLICIES RELEVANT TO TRANSPORTATION AND CIRCULATION

Strategy/ Policy No.	Strategy/Policy Content
<i>Strategy #2</i>	<i>Manage travel demand, system efficiency, and congestion.</i>
Policy C-TR(i) 16	Continue to develop convenient and effective transit alternatives, HOV, bicycle, and pedestrian facilities to provide the infrastructure TDM programs require to succeed.
<i>Strategy #3</i>	<i>Expand system capacity and improve system integration.</i>
Policy 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.
Policy C-TR 17	Development of the local transportation system should be coordinated with the regional and inter-regional transportation systems to ensure that they are fully integrated with each other.
Policy C-TR 18	The entire transportation system should be fully accessible to and be planned and designed to be responsive to the special needs of seniors, school children, low-income, the physically challenged and transit disabled in accordance with the Americans with Disabilities Act of 1990.
Policy C-TR 34	Bicycling and walking should be encouraged and facilitated as energy conserving, non-polluting alternatives to automobile travel.
Policy C-TR 35	Facilities should be provided to make bicycle and pedestrian travel more safe, direct, convenient and pleasant for commuting and other trips to activity centers and to support the use of other commute alternatives.
Policy C-TR(i) 39	Design all future roads, bridges, and transit vehicles and facilities to accommodate nonmotorized travel. Incorporate bicycle and pedestrian facilities into future projects including: a. Development of new travel corridors such as rail transit and road projects. b. Development of non-transportation corridors including utilities and river/creek rights of way. c. Improvements to existing transportation corridors such as expressway, interchange, intersection and Commuter Lane projects.
Policy C-TR(i) 43	Provide for foot and bicycle travel across existing barriers, such as creeks, railroad tracks and freeways.
Policy C-TR(i) 47	Incorporate bicycle and pedestrian facilities (e.g., bicycle and pedestrian access routes, showers, secure bicycle storage facilities) in site designs.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

3. California Department of Transportation (Caltrans)

Any work within a State highway right-of-way requires an encroachment permit issued by Caltrans. The encroachment permit process involves incorporation of traffic-related mitigation measures into construction plans.

4. City of San Jose Bicycle Plan

The City's 2020 Bicycle Plan¹ indicates planned bike lanes along Chynoweth Avenue between Monterey Road and Pearl Avenue with an off-street segment across the project site. The off-street segment is planned as part of the project.

5. City of San Jose Sidewalk Requirements

The City's General Plan requires new development to provide sidewalks and other features needed to provide an adequate level of public improvements.² The City of San Jose requires sidewalks along park frontages, and requires the sidewalks be built with a 12-foot width clear of street furniture and trees, and with tree wells at the back of the curb. For multi-use trails, the City of San Jose requires a 16-foot width trail, bordered by 2 feet width of hard-packed gravel shoulders.³

B. Existing Circulation Network

1. Roadway Network

Regional access to the project site is provided by Highway 101 and State Routes 82, 85, and 87. Each of these roadways is described below:

¹ City of San Jose Bike Plan 2020, available at http://www.sanjoseca.gov/transportation/bikeped/bikeped_update.asp, accessed on June 3, 2010.

² City of San Jose, 2008, *2020 General Plan*, available at <http://www.sanjoseca.gov/planning/gp/gptext.asp>, accessed on June 4, 2010, page 283.

³ Pineda, Manuel. Acting Deputy Director, Department of Transportation, City of San Jose. Personal communication with Jane Mark, Senior Planner, County of Santa Clara Parks & Recreation Department. January 15, 2010.

- ◆ **Highway 101** is an eight-lane freeway (three mixed-flow lanes and one high-occupancy vehicle [HOV] lane in each direction). Highway 101 extends northward through San Jose to San Francisco and southward through Morgan Hill and Gilroy into Monterey County. Access to the project site from Highway 101 is provided via an interchange at Blossom Hill Road/Silver Creek Valley Road and State Route 85.
- ◆ **State Route 82 (Monterey Road)** is a six-lane major arterial oriented in a north – south direction. There are three mixed-flow lanes in each direction. Monterey Road extends southward into Morgan Hill and northward into downtown San Jose. Access to the project site from Monterey Road is provided via Branham Lane and Chynoweth Avenue.
- ◆ **State Route 85** is a predominantly north – south freeway that is oriented in an east – west direction in the project site vicinity. It extends from Mountain View to Highway 101 in south San Jose. State Route 85 is a six-lane freeway with four mixed-flow lanes and two HOV lanes. There are two mixed-flow lanes and one HOV lane in each direction. State Route 85 connects to I-280, State Route 17, State Route 87, and Highway 101. Access to the project site from State Route 85 is provided via an interchange at Blossom Hill Road.
- ◆ **State Route 87** is a six-lane freeway oriented in a north – south direction. There are three mixed-flow lanes in each direction. State Route 87 begins at its interchange with State Route 85 and extends northward to Highway 101. Access to the project site from State Route 87 is provided from Capitol Expressway and Narvaez Avenue.

Local access to the project site is provided by Branham Lane, Capitol Expressway, Chynoweth Avenue, Snell Avenue, and Vistapark Drive. Figure 4.12-1 shows the project site with the street network.

Each of these roadways is described below:

- ◆ **Capitol Expressway** is a six-lane major arterial that is oriented in an east-west direction. Capitol Expressway begins at its interchange with I-680 in east San Jose, where it changes designation from San Antonio Street,

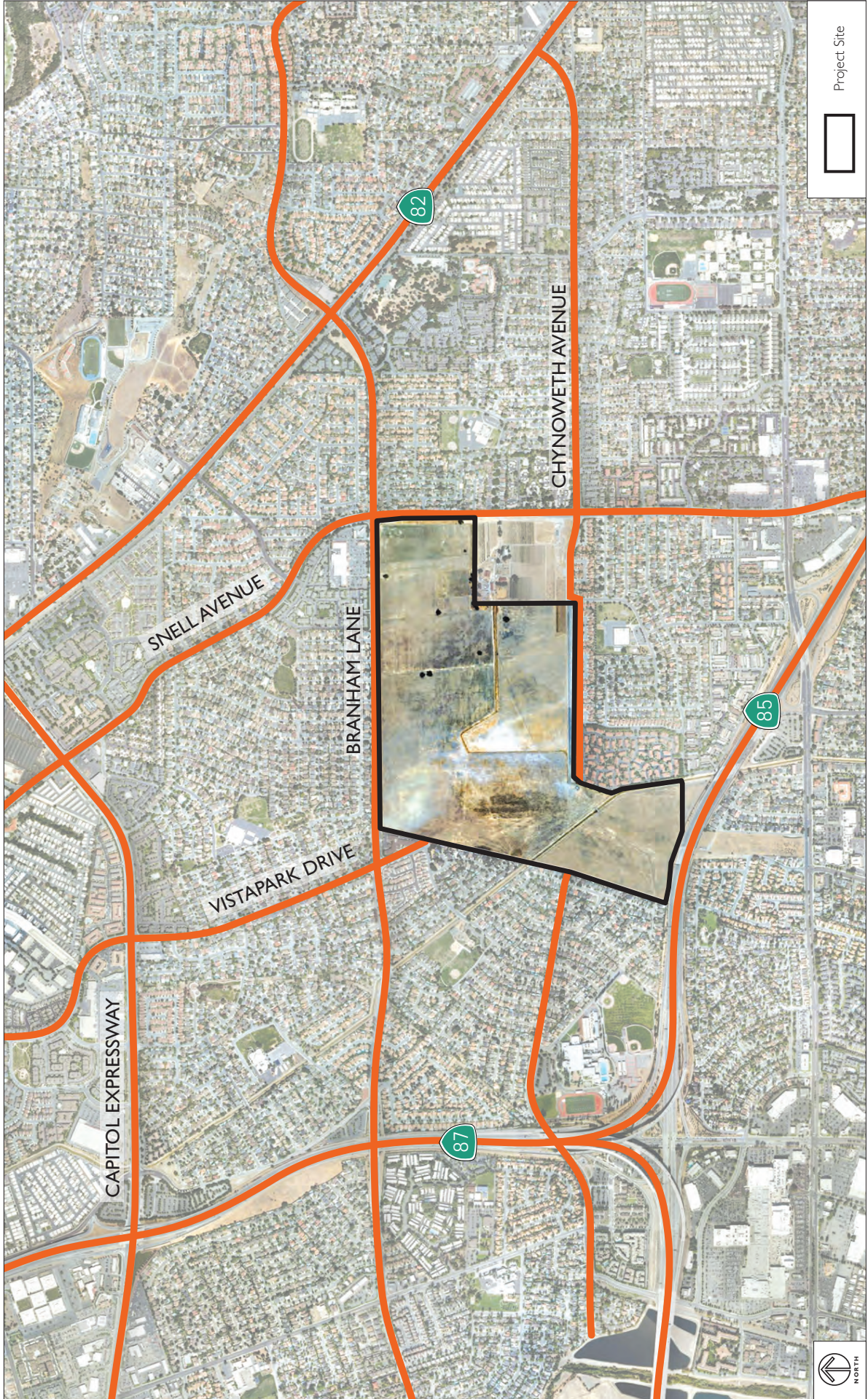


FIGURE 4.12-1
MAJOR ROADS IN THE PROJECT SITE VICINITY

and extends to the south and west where it changes designation to Hillsdale Avenue at Almaden Expressway. Access to the site from Capitol Expressway is provided via Vistapark Drive and Snell Avenue.

- ◆ **Branham Lane** is a generally four-lane wide collector that begins east of Monterey Road and extends westward to State Route 85 where it terminates. Branham Lane runs along the northern boundary of the project site and narrows to two lanes between Snell Avenue and Vista Park Drive. All side street access onto Branham Lane is controlled by stop signs. Access to the site from Branham Lane is provided via Snell Avenue.

Chynoweth Avenue is a four-lane collector that begins at its intersection with Monterey Road and extends westward to the project site, where it terminates. Chynoweth Avenue runs along the southern boundary of the project site. The speed limit on Chynoweth Avenue in the project site vicinity is 40 miles per hour. Access to the site from Chynoweth Avenue is provided via its intersection with Snell Avenue.

- ◆ **Snell Avenue** is a four-lane collector that begins south of Santa Teresa Boulevard and extends northward to Hillsdale Avenue where it terminates. The posted speed limit along Snell Avenue next to the project site is 40 miles per hour. The intersections of Snell Avenue with Chynoweth Avenue and Branham Lane are signalized. Snell Avenue runs along the eastern perimeter of the project site. Direct access to the project site from Snell Avenue is provided via a main Park entrance along Snell Avenue.

- ◆ **Vistapark Drive** is a two-lane local collector that begins at Hillsdale Avenue and extends southward beyond Branham Lane, where it terminates. Access to the project site from Vistapark Drive is provided via Branham Lane.



Source: Hexagon Transportation Consultants, Inc.

FIGURE 4.12-2
 EXISTING TRANSIT SERVICES

2. Transit Network

Existing transit service is shown on Figure 4.12-2. The VTA and Caltrain provide transit service to the site and the general vicinity. VTA operates fixed route, commuter, and paratransit bus service and light rail service in Santa Clara County. VTA provides five bus lines in the project site vicinity. Each of these is described below:

- ◆ **Local Route 27** provides service between Santa Teresa Hospital to Good Samaritan Hospital with 30-minute headways during weekday commute hours and 60-minute headways during the Saturday peak hour. The nearest bus stop to the project site is located at the Blossom Hill VTA light rail station.
- ◆ **Local Route 66** provides service between Kaiser San Jose and Milpitas/Dixon Road via downtown San Jose with 15-minute headways during weekday commute hours and 30-minute headways on Saturdays. The nearest bus stops to the project site are located near the intersection of Snell Avenue/Branham Lane and Snell Avenue/Chynoweth Avenue.
- ◆ **Local Route 73** provides service between Snell Avenue/Capitol Expressway to downtown San Jose with 15-minute headways during weekday commute hours and 45-minute headways during the Saturday peak hour. The nearest bus stop to the project site is located at the intersection of Snell Avenue and Capitol Expressway.
- ◆ **Limited Stop Route 304** provides service northbound in the AM commute hours and southbound in the PM commute hours between south San Jose and Sunnyvale Transit Center via Arques Avenue with 30-minute headways. It does not operate on Saturday. The nearest bus stops to the project site are located near the intersection of Snell Avenue/Branham Lane and Snell Avenue/Chynoweth Avenue.
- ◆ **Express Route 122** provides service between south San Jose and Lockheed Martine/Moffett Industrial Park. It makes one northbound trip during the AM commute hours and one southbound trip during the PM commute hours. It does not operate on Saturday. The nearest bus stops

to the project site are located near the intersection of Snell Avenue/Branham Lane and Snell Avenue/Chynoweth Avenue.

VTA also operates light rail service in the project site vicinity. The light rail station closest to the project site is the Blossom Hill station, which is located immediately south of the site on the Alum Rock – Santa Teresa light rail line. The Branham light rail station is also situated on the Alum Rock – Santa Teresa line and is located near State Route 87/Branham Lane.

Caltrain provides rail service between San Jose and San Francisco, as well as weekday commute hour service from Gilroy to San Francisco. The Caltrain station closest to the project site is the Blossom Hill station, which is located approximately two miles east of the site, on Monterey Highway.

3. Bicycle Facilities

Existing bicycle lanes are shown on Figure 4.12-3. Bicycle lanes are provided on Snell Avenue, between Blossom Hill Road and Capitol Expressway; on Monterey Road, south of Curtner Avenue; on Narvaez Avenue, north of Branham Lane; and on Branham Lane, between Cherry Avenue and Monterey Road.

A pedestrian and bicycle path is located along the east side of State Route 87, between Oakridge Mall and the Tamien CalTrain/VTA station. The bicycle lanes on Narvaez Avenue are part of this bicycle path.

Bicycle lockers and racks are provided at the Curtner, Capitol, and Branham VTA light rail stations.

4. Pedestrian Facilities

Pedestrian facilities in the vicinity of the project site consist primarily of sidewalks along the streets. Sidewalks are located along most of the local roadways described above in Section B.1, as well as along local residential streets and collectors near the project site. Sidewalks are not currently present along the project site's immediate perimeter. As described above, a pedestrian and



Source: Hexagon Transportation Consultants, Inc.

FIGURE 4.12-3
 EXISTING BICYCLE FACILITIES

bicycle path exists along the east side of State Route 87, between Oakridge Mall and the Tamien CalTrain/VTA station.

5. Internal Project Site Circulation

Existing internal project site circulation features are shown in Figure 4.12-4. Currently, the entire project site is fenced and gated. Access to the site is provided through gates located along the boundary of the site, although no public access is permitted. Aside from dirt roads used by the Park Donor, there is no other internal circulation system within the project site boundaries.

C. Traffic Analysis

This section describes the approach and methodology used for analyzing existing traffic conditions, as well as conditions projected to occur under the proposed project. This analysis evaluates traffic conditions for the following three scenarios:

- ◆ **Scenario 1: Existing Traffic Conditions.** Existing conditions reflect existing peak hour traffic volumes on the existing roadway network in the vicinity of the project site. Existing traffic volumes were obtained from the City of San Jose and recent traffic counts conducted by Hexagon.
- ◆ **Scenario 2: Background Traffic Conditions.** Background traffic volumes were estimated by adding existing peak hour volumes to the projected volumes from approved, but not yet completed, developments in the project site vicinity. The latter component is contained in the City of San Jose Approved Trips Inventory (ATI).
- ◆ **Scenario 3: Project Traffic Conditions.** Background traffic volumes with the project (hereafter called “project traffic volumes”) were estimated by adding additional traffic generated by the project to background traffic volumes. Project conditions were evaluated relative to background conditions in order to determine potential project impacts.



Source: Aerial Imagery from the United States Department of Agriculture, NAIP (2005).

FIGURE 4.12-4

EXISTING INTERNAL PROJECT SITE CIRCULATION

It is assumed in this analysis that the transportation network under background and project conditions scenarios would be the same as described under existing conditions.

The analysis of AM and PM peak-hour traffic conditions included 38 signalized intersections and ten directional freeway segments. The study intersections are shown in Figure 4.12-5. The study intersections were selected based upon the estimated number of project trips through the intersection (ten or more trips per lane per hour). All of the study intersections are located within the City of San Jose and are therefore subject to the City's level of service standards. Fourteen of the 38 study intersections are designated County CMP intersections and were therefore evaluated against the standards of both the City of San Jose and the CMP. The 38 intersections included in this analysis are:

1. Blossom Hill Road/Santa Teresa Road *
2. Blossom Hill Road/Playa Del Rey
3. Blossom Hill Road/Cahalan Avenue
4. Blossom Hill Road/Chesbro Avenue
5. Blossom Hill Road/State Route 85 (west) *
6. Blossom Hill Road/State Route 85 (east) *
7. Blossom Hill Road/Snell Avenue *
8. Blossom Hill Road/Judith Street
9. Blossom Hill Road/Eagles Lane
10. Blossom Hill Road/Lean Avenue
11. Blossom Hill Road/Beswich Drive
12. Blossom Hill Road/Poughkeepsie Road
13. Blossom Hill Road/Monterey Road (south) *
14. Blossom Hill Road/Monterey Road (north) *
15. Chynoweth Avenue/Monterey Road
16. Edenvue Drive/Monterey Road
17. Branham Lane/Monterey Road *
18. Skyway Road/Monterey Road *
19. Senter Road/Monterey Road *

* = CMP designated intersection



Source: Hexagon Transportation Consultants, Inc.

FIGURE 4.12-5
STUDY INTERSECTIONS

20. Capitol Expressway/Monterey Road (south) *
21. Capitol Expressway/Monterey Road (north) *
22. Capitol Expressway/Snell Avenue *
23. Capitol Expressway/Vista Park Drive
24. Capitol Expressway/Copperfield Drive
25. Capitol Expressway/Narvaez Avenue *
26. State Route 87/Narvaez Avenue
27. Capitol Expressway/State Route 87 *
28. Branham Lane/Narvaez Avenue
29. Branham Lane/Vista Park Drive
30. Branham Lane/Safeway
31. Gold Run/Snell Avenue
32. Rosenbaum Lane/Snell Avenue
33. Skyway Drive/Snell Avenue
34. Branham Lane/Snell Avenue
35. Chynoweth Avenue/Snell Avenue
36. Avenida del Roble/Snell Avenue
37. Giuffrida Avenue/Snell Avenue
38. Chynoweth Avenue/Lean Drive

* = CMP designated intersection

The existing lane configurations at the study intersections were provided by City staff and confirmed by field observations conducted by Hexagon. All intersections are located in the City of San Jose. The existing intersection lane configurations are shown in Figure 5 in Appendix J. The data required for the analysis were obtained from new traffic counts compiled by Hexagon, previous traffic studies, and the City of San Jose. The following data were collected from these sources:

- ◆ Existing traffic volumes
- ◆ Lane configurations
- ◆ Signal timing and phasing (for signalized intersections only)
- ◆ Average speeds on freeways
- ◆ Approved development traffic volumes

The ten directional freeway segments included in this analysis are from the following five freeway segments:

- ◆ State Route 85, from Cottle Road to Blossom Hill Road
- ◆ State Route 85, from Blossom Hill Road to State Route 87
- ◆ State Route 85, from State Route 87 to Almaden Expressway
- ◆ State Route 87, from State Route 85 to Capitol Expressway
- ◆ State Route 87, from Capitol Expressway to Curtner Avenue

These freeway segments were selected based upon their proximity to the project site and the potential of the project to add trips equivalent to 1 percent of segment capacities. CMP requires that all freeway segments to which the project could potentially add 1 percent or more of capacity be studied.

Traffic conditions at the study intersections were evaluated using level of service (LOS), a qualitative description of operating conditions ranging from LOS A, signifying free-flow conditions with little or no delay, to LOS F, signifying jammed conditions with excessive delays. The correlation between average delay and level of service is shown in Table 4.12-2.

The City of San Jose level of service methodology for signalized intersections is the 2000 *Highway Capacity Manual* (HCM) method, which is applied using the TRAFFIX software. The 2000 HCM operations method, using TRAFFIX, evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Control delay is the amount of delay that is attributed to the particular traffic control device at the intersection, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Since the CMP-designated intersection level of service methodology also utilizes TRAFFIX, the City of San Jose methodology employs the CMP default values for the analysis parameters. The City of San Jose level of service standard for signalized intersections is LOS D or better, whereas CMP level of service standard for signalized intersections is LOS E or better. Thus, the City considers an LOS of E or F at a signalized intersection to be unacceptable, while the CMP methodology considers an LOS of F to be unacceptable.

TABLE 4.12-2 INTERSECTION LEVEL OF SERVICE DEFINITIONS (BASED ON DELAY)

Level of Service	Description	Average Control Delay per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	10.0 or less
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	Greater than 80.0

Source: Hexagon Transportation Consultants, Inc., 2009.

As prescribed in the CMP technical guidelines, the level of service for freeway segments is estimated based on vehicle density. Density is calculated using a formula that takes into account density (vehicles per mile per lane), peak hour volume (in vehicles per hour), the number of travel lanes, and the average travel speed (in miles per hour). The vehicle density on a freeway is correlated to LOS as shown in Table 4.12-3. The CMP requires that mixed-flow lanes and auxiliary lanes be analyzed separately from HOV (carpool) lanes. The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for segments six lanes or wider in both directions and a capacity of 2,200 vphpl be used for segments four lanes wide in both directions. The CMP defines an acceptable level of service for freeway segments as LOS E or better.

The LOS analysis at unsignalized intersections is supplemented with an assessment of the need for signalization of the intersection. This assessment is made on the basis of the Peak-Hour Volume Signal Warrant, (Warrant #3 – Part B) described in the California *Manual on Uniform Traffic Control Devices* (MUTCD), adopted in September 2006. This method makes no evaluation of intersection level of service, but simply provides an indication of whether peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. The decision to install a traffic signal should not be based purely on the warrants alone. Instead, the installation of a signal should be considered and further analysis performed when one or more of the warrants are met. Additionally, engineering judgment should be exercised on a case-by-case basis to evaluate the effect a traffic signal will have on certain types of accidents and traffic conditions at the subject intersection as well as at adjacent intersections.

TABLE 4.12-3 FREEWAY LEVEL OF SERVICE DEFINITIONS (BASED ON DENSITY)

Level of Service	Density (vehicles/mile/lane)
A	Less than 11.0
B	11.0 to 18.0
C	18.1 to 26.0
D	26.1 to 46.0
E	46.1 to 58.0
F	Greater than 58.0

Source: Hexagon Transportation Consultants, Inc., 2009.

The operations analysis is based on vehicle queuing for high-demand movements at intersections. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using a formula that takes into account the probability of “n” vehicles in queue per lane, the number of vehicles in queue per lane, and the average number of vehicles in queue per lane (vehicles per hour per lane/signal cycles per hour).

1. Existing Traffic Conditions

a. Existing Intersection Traffic Volumes

Existing weekday peak hour traffic volumes were obtained from the City of San Jose and supplemented with manual turning-movement counts compiled by Hexagon. Existing Saturday peak hour volumes were obtained from traffic counts conducted by Hexagon in January 2009. The existing peak hour intersection volumes are shown in Figure 6 in Appendix J.

b. Existing Intersection Levels of Service

The results of the level of service analysis under existing conditions are summarized in Table 4.12-4. Using City of San Jose level of service standards, the results show that the following two signalized study intersections currently operate at an unacceptable LOS E during at least one of the peak hours:

- ◆ 5. Blossom Hill Road/State Route 85 (west): LOS E in the AM peak hour
- ◆ 22. Capitol Expressway/Snell Avenue: LOS E in the AM peak hour

Both of these intersections are CMP-designated intersections. All other signalized study intersections currently operate at an LOS D or better, which is acceptable according to both the City of San Jose standard (LOS D) and the CMP standard (LOS E).

c. Existing Freeway Levels of Service

Traffic volumes for the study freeway segments for the weekday AM and PM peak hours were obtained from the 2008 CMP Annual Monitoring Report. Freeway segment volume data for time periods other than the standard AM and PM peak hour are not available from the CMP. Therefore, freeway segment traffic volumes for the Saturday peak hour were derived utilizing weekday and Saturday volumes on freeway ramps in the vicinity of the project site. The comparison of Saturday peak hour (11:00 a.m. to 1:00 p.m.) ramp volumes and weekday (4:00 PM to 6:00 PM) ramp volume data indicated that Saturday peak hour volumes are approximately 70 percent of that of the

TABLE 4.12-4 EXISTING CONDITIONS INTERSECTION LEVELS OF SERVICE

Intersection		Peak Hour	Average Delay (Sec-onds)	Level of Service (LOS)
1.	Blossom Hill Road/Santa Teresa Road*	AM	34.8	C
		PM	41.1	D
2.	Blossom Hill Road/Playa Del Rey	AM	22.0	C
		PM	22.9	C
3.	Blossom Hill Road/Cahalan Avenue	AM	27.8	C
		PM	38.6	D
4.	Blossom Hill Road/Chesbro Avenue	AM	24.0	C
		PM	28.8	C
5.	Blossom Hill Road/State Route 85 (W)*	AM	58.9	E
		PM	53.3	D
6.	Blossom Hill Road/State Route 85 (E)*	AM	32.5	C
		PM	27.5	C
7.	Blossom Hill Road/Snell Avenue*	AM	41.0	D
		PM	45.1	D
		Sat.	46.4	D
8.	Blossom Hill Road/Judith Street	AM	19.0	B
		PM	14.0	B
9.	Blossom Hill Road/Eagles Lane	AM	20.6	C
		PM	13.9	B
10.	Blossom Hill Road/Lean Avenue	AM	25.5	C
		PM	23.9	C
11.	Blossom Hill Road/Beswich Drive	AM	22.5	C
		PM	19.6	B

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN/
COUNTY PARK MASTER PLAN EIR
TRANSPORTATION AND CIRCULATION

TABLE 4.12-4 EXISTING CONDITIONS INTERSECTION LEVELS OF SERVICE
(CONTINUED)

Intersection	Peak Hour	Average Delay (Sec- onds)	Level of Service (LOS)
12. Blossom Hill Road/Poughkeepsie Road	AM	13.2	B
	PM	13.8	B
13. Blossom Hill Road/Monterey Road (S)*	AM	24.3	C
	PM	24.4	C
14. Blossom Hill Road/Monterey Road (N)*	AM	26.5	C
	PM	18.3	B
15. Chynoweth Avenue/Monterey Road	AM	46.0	D
	PM	45.4	D
	Sat.	41.9	D
16. Edenvew Drive/Monterey Road	AM	19.8	B
	PM	13.8	B
17. Branham Lane/Monterey Road*	AM	47.1	D
	PM	38.8	D
	Sat.	39.9	D
18. Skyway Road/Monterey Road*	AM	47.7	D
	PM	30.3	C
19. Senter Road/Monterey Road*	AM	28.6	C
	PM	30.1	C
20. Capitol Expressway/Monterey Road (S)*	AM	32.0	C
	PM	13.8	B
21. Capitol Expressway/Monterey Road (N)*	AM	24.7	C
	PM	19.9	B
22. Capitol Expressway/Snell Avenue*	AM	59.7	E
	PM	36.8	D
	Sat.	46.3	D

TABLE 4.12-4 EXISTING CONDITIONS INTERSECTION LEVELS OF SERVICE
(CONTINUED)

Intersection		Peak	Average	Level of Service (LOS)
		Hour	Delay (Sec- onds)	
23.	Capitol Expressway/Vista Park Drive	AM	24.8	C
		PM	31.1	C
24.	Capitol Expressway/Copperfield Drive	AM	11.3	B
		PM	17.0	B
25.	Capitol Expressway/Narvaez Avenue*	AM	37.0	D
		PM	41.1	D
26.	State Route 87/Narvaez Avenue	AM	12.7	B
		PM	14.5	B
27.	Capitol Expressway/State Route 87*	AM	33.0	C
		PM	50.9	D
28.	Branham Lane/Narvaez Avenue	AM	19.7	B
		PM	19.9	B
29.	Branham Lane/Vista Park Drive	AM	21.9	C
		PM	22.1	C
		Sat.	23.4	C
30.	Branham Lane/Safeway	AM	14.3	B
		PM	11.9	B
		Sat.	11.5	B
31.	Gold Run/Snell Avenue	AM	27.3	C
		PM	18.4	B
32.	Rosenbaum Lane/Snell Avenue	AM	19.6	B
		PM	15.5	B
33.	Skyway Drive/Snell Avenue	AM	28.9	C
		PM	25.3	C

TABLE 4.12-4 EXISTING CONDITIONS INTERSECTION LEVELS OF SERVICE
 (CONTINUED)

Intersection	Peak Hour	Average Delay (Sec- onds)	Level of Service (LOS)
34. Branham Lane/Snell Avenue	AM	31.6	C
	PM	33.5	C
	Sat.	34.7	C
35. Chynoweth Avenue/Snell Avenue	AM	30.2	C
	PM	29.5	C
	Sat.	29.6	C
36. Avenida del Roble/Snell Avenue	AM	19.2	B
	PM	13.2	B
37. Giuffrida Avenue/Snell Avenue	AM	11.4	B
	PM	15.5	B
38. Chynoweth Avenue/Lean Drive	AM	35.5	D
	PM	33.3	C

* = CMP designated intersection; evaluated against the standards of both the City of San Jose and the County CMP.

sec. = seconds.

Note: Traffic counts were taken in February, March, and May 2007; February, March, April, September, October, and November 2008; and January 2009. Please see Appendix J for the specific counts for each intersection.

Source: Hexagon Transportation Consultants, Inc., 2009.

weekday PM peak hour.⁴ Thus, the standard PM peak hour CMP freeway segment volumes were reduced by 30 percent to derive the freeway segment volumes for the Saturday peak hour study period.

The results show that the mixed-flow lanes on three of the ten directional freeway segments analyzed currently operate at an unacceptable LOS F dur-

⁴ The PM peak hour volumes are compared because the peak hours of project traffic would occur during the PM on both weekdays and Saturdays.

ing at least one of the peak hours. All other freeway segments analyzed operate at LOS E or better during the AM, PM, and Saturday peak hours. The existing freeway level of service is summarized in Table 4.12-5.

d. Existing Traffic Operations

Table 4.12-6 presents existing vehicle queues for all turn-movements analyzed. As shown in Table 4.12-6, the following movements have inadequate queue storage capacity under existing conditions:

- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the AM Peak.** The 95th percentile queue of 475 feet exceeds the existing storage capacity of 325 feet.
- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the PM Peak.** The 95th percentile queue of 375 feet exceeds the existing storage capacity of 325 feet.
- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the Saturday Peak.** The 95th percentile queue of 525 feet exceeds the existing storage capacity of 325 feet.
- ◆ **Southbound Left-Turn Lane at Chynoweth Avenue/Snell Avenue in the PM Peak.** The 95th percentile queue of 275 feet exceeds the existing storage capacity of 225 feet.

e. Observed Existing Operational Problems

Hexagon completed field observations in order to identify existing operational deficiencies and to confirm the accuracy of calculated level of service. The purpose of the field work was to identify any existing traffic problems that are not directly related to intersection level of service, and to identify any locations where the level of service calculation does not accurately reflect level of service in the field.

Field observations revealed operational problems that may not be reflected in level of service calculations on Narvaez Avenue at the State Route 87 northbound on-ramp. During the AM peak hour, the queues of vehicles accessing the State Route 87 northbound on-ramp from northbound and

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TABLE 4.12-5 EXISTING FREEWAY SEGMENT LEVELS OF SERVICE

Freeway Segment		Peak Hour	Mixed-Flow Lanes		HOV Lanes ^a	
			Density ^b	LOS	Density	LOS
Northbound Segments						
SR 85	Cottle Road to Blossom Hill Road	AM	23.0	C	16.1	B
		PM	38.0	D	10.0	A
		Sat.	26.6	D	7.0	A
SR85	Blossom Hill Road to State Route 87	AM	46.1	E	42.1	D
		PM	35.0	D	12.0	B
		Sat.	24.5	C	8.4	A
SR 85	State Route 87 to Almaden Expressway	AM	105.0	F	72.0	F
		PM	29.0	D	7.0	A
		Sat.	20.3	C	4.9	A
SR87	State Route 85 to Capitol Expressway	AM	70.0	F	41.1	D
		PM	19.0	C	7.0	A
		Sat.	13.3	B	4.9	A
SR 87	Capitol Expressway to Curtner Avenue	AM	84.2	F	76.1	F
		PM	30.0	D	9.0	A
		Sat.	21.0	C	6.3	A
Southbound Segments						
SR 85	Almaden Expressway to State Route 87	AM	27.0	D	8.1	A
		PM	32.0	D	20.0	C
		Sat.	22.4	C	14.0	B
SR 85	State Route 87 to Blossom Hill Road	AM	20.0	C	5.1	A
		PM	40.0	D	26.0	C
		Sat.	28.0	D	18.2	C
SR85	Blossom Hill Road to Cottle Road	AM	31.0	D	13.1	B
		PM	35.0	D	26.0	C
		Sat.	24.5	C	18.2	C

TABLE 4.12-5 EXISTING FREEWAY SEGMENT LEVELS OF SERVICE
(Continued)

Freeway Segment		Peak Hour	Mixed-Flow Lanes		HOV Lanes ^a	
			Density ^b	LOS	Density	LOS
SR 87	Curtner Avenue to Capitol Expressway	AM	20.0	C	5.1	A
		PM	49.1	E	20.0	C
		Sat.	34.3	D	14.0	B
SR 87	Capitol Expressway to State Route 85	AM	33.0	D	7.0	A
		PM	31.0	D	19.0	C
		Sat.	21.7	C	13.3	B

SR = State Route

^a High-occupancy vehicle (HOV) lanes, restricted to multi-occupant vehicles and motorcycles only from 5:00 a.m. to 9:00 a.m. and between 3:00 p.m. and 7:00 p.m.

^b Density is calculated as $D = V / (N * S)$, where D = density, in vehicles per mile per lane; V = peak hour volume, in vehicles per hour; N = number of travel lanes; S = average travel speed, in miles per hour.

Source: Hexagon Transportation Consultants, Inc., 2009.

southbound Narvaez Avenue are considerably long. The northbound queue on Narvaez Avenue extends beyond the intersection of Narvaez Avenue/Capitol Expressway along both the eastbound left-turn approach and the westbound right-turn approach. It was observed that because of the long queues along Narvaez Avenue, eastbound left-turning traffic on Capitol Expressway to northbound Narvaez Avenue would block the intersection, hindering the flow of westbound traffic along Capitol Expressway. Adequate queue storage space for the southbound queue on Narvaez Avenue was observed.

The remaining study intersections and freeway segments were not observed to have any operational problems.

TABLE 4.12-6 EXISTING CONDITIONS VEHICLE QUEUING ANALYSIS

Measurement	Branham/Snell (Northbound Left-Turn Lane)			Branham/Snell (Westbound Left- Turn Lane)			Chynoweth/Snell (Southbound Left-Turn Lane)		
	AM	PM	Sat.	AM	PM	Sat.	AM	PM	Sat.
Cycle/Delay (sec) ^a	106	110	110	106	110	110	110	110	110
Lanes	1	1	1	1	1	1	1	1	1
Volume (vph) ^b	424	310	477	182	155	127	92	224	123
Volume (vphpl) ^c	424	310	477	182	155	127	92	224	123
Average Queue (vpl) ^d	12.5	9.5	14.6	5.4	4.7	3.9	2.8	6.8	3.8
Average Queue (ft/ln) ^e	312	237	364	134	118	97	70	171	94
95% Queue (vpl)	19	15	21	9	9	7	6	11	7
95% Queue (ft/ln)	475	375	525	225	225	175	150	275	175
Existing Storage (ft/ln)	325	325	325	225	225	225	225	225	225
Adequate? (Yes/No)	No	No	No	Yes	Yes	Yes	Yes	No	Yes

Notes: Cells in **bold** indicate lanes with inadequate queue storage capacity.

^a sec = seconds. Vehicle queue calculations based on cycle length for signalized intersections.

^b vph = vehicles per hour

^c vphpl = vehicles per hour per lane

^d vpl = vehicles per lane

^e ft/ln = feet per lane. Assumes 25 feet per vehicle queued.

Source: Hexagon Transportation Consultants, Inc., 2009.

2. Background Conditions Traffic Analysis

a. Background Intersection Traffic Volumes

Background peak hour traffic volumes were calculated by adding the estimated traffic from approved but not yet constructed developments to existing volumes. City data was used because the project site is surrounded by incorporated City of San Jose. The added traffic from approved, but not yet constructed, developments was provided by the City in the form of the Approved Trips Inventory (ATI). There is no database available for the Satur-

day peak hour. It is assumed that approved project traffic will be negligible during the Saturday peak hour.⁵ Background traffic volumes are shown in Figure 7 in Appendix J.

b. Background Intersection Levels of Service

The results of the intersection level of service analysis under background conditions are summarized in Table 4.12-7. The results show that, measured against the City of San Jose level of service standards, the following four study intersections would operate at an unacceptable LOS E under background conditions during at least one of the peak hours:

- ◆ 5. Blossom Hill Road/State Route 85 (west): LOS E in the AM peak hour
- ◆ 14. Blossom Hill Road/Monterey Road (north): LOS E in the AM peak hour
- ◆ 22. Capitol Expressway/Snell Avenue: LOS E in the AM peak hour
- ◆ 27. Capitol Expressway/State Route 87: LOS E in the PM peak hour

All of these intersections are CMP designated intersections, which are evaluated against the standards of both the City of San Jose and the County CMP. All other signalized study intersections would operate at an acceptable LOS D or better under background conditions, according to City of San Jose standards.

Using CMP level of service standards, all CMP study intersections would operate under background conditions at an acceptable LOS E or better during peak hours.

⁵ Approved project traffic is maintained and available only for the weekday AM and PM peak hours with the intent of capturing weekday commute traffic. With the exception of Monterey Road and Capitol Expressway, which serve as major thoroughfares for commute traffic, approved project trips in the area are non-existent or very low. Therefore, the approved project trips would be low in absence of commute related traffic on Saturday.

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TABLE 4.12-7 BACKGROUND CONDITIONS INTERSECTION LEVELS OF SERVICE

Intersection		Peak	Average	Level of
		Hour	Delay (Sec- onds)	
1.	Blossom Hill Road/Santa Teresa Road*	AM	34.8	C
		PM	41.1	D
2.	Blossom Hill Road/Playa Del Rey	AM	22.0	C
		PM	22.9	C
3.	Blossom Hill Road/Cahalan Avenue	AM	27.8	C
		PM	38.6	D
4.	Blossom Hill Road/Chesbro Avenue	AM	24.0	C
		PM	28.8	C
5.	Blossom Hill Road/State Route 85 (W)*	AM	58.9	E
		PM	53.3	D
6.	Blossom Hill Road/State Route 85 (E)*	AM	32.5	C
		PM	27.5	C
7.	Blossom Hill Road/Snell Avenue*	AM	42.9	D
		PM	47.1	D
		Sat.	46.4	D
8.	Blossom Hill Road/Judith Street	AM	16.3	B
		PM	14.1	B
9.	Blossom Hill Road/Eagles Lane	AM	19.8	B
		PM	14.2	B
10.	Blossom Hill Road/Lean Avenue	AM	24.3	C
		PM	23.5	C
11.	Blossom Hill Road/Beswich Drive	AM	26.6	C
		PM	22.7	B
12.	Blossom Hill Road/Poughkeepsie Road	AM	34.5	C
		PM	28.6	C

TABLE 4.12-7 BACKGROUND CONDITIONS INTERSECTION LEVELS OF SERVICE
(CONTINUED)

Intersection		Peak	Average	Level of Service (LOS)
		Hour	Delay (Sec- onds)	
13.	Blossom Hill Road/Monterey Road (S)*	AM	23.3	C
		PM	48.3	D
14.	Blossom Hill Road/Monterey Road (N)*	AM	69.3	E
		PM	29.3	C
15.	Chynoweth Avenue/Monterey Road	AM	52.8	D
		PM	46.0	D
		Sat.	41.9	D
		AM	14.7	B
16.	Edenview Drive/Monterey Road	PM	11.3	B
		AM	47.5	D
17.	Branham Lane/Monterey Road*	PM	35.9	D
		Sat.	39.9	D
		AM	49.4	D
18.	Skyway Road/Monterey Road*	PM	31.0	C
		AM	29.1	C
19.	Senter Road/Monterey Road*	PM	30.5	C
		AM	33.5	C
20.	Capitol Expressway/Monterey Road (S)*	PM	14.7	B
		AM	25.7	C
21.	Capitol Expressway/Monterey Road (N)*	PM	21.0	C
		AM	62.0	E
22.	Capitol Expressway/Snell Avenue*	PM	36.8	D
		Sat.	46.3	D
23.	Capitol Expressway/Vista Park Drive	AM	25.5	C
		PM	31.3	C
24.	Capitol Expressway/Copperfield Drive	AM	11.2	B
		PM	17.0	B

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TABLE 4.12-7 BACKGROUND CONDITIONS INTERSECTION LEVELS OF SERVICE
(CONTINUED)

Intersection		Peak	Average	Level of
		Hour	Delay (Sec- onds)	
25.	Capitol Expressway/Narvaez Avenue*	AM	39.4	D
		PM	46.0	D
26.	State Route 87/Narvaez Avenue	AM	14.0	B
		PM	15.0	B
27.	Capitol Expressway/State Route 87*	AM	33.3	C
		PM	56.5	E
28.	Branham Lane/Narvaez Avenue	AM	19.7	B
		PM	19.9	B
29.	Branham Lane/Vista Park Drive	AM	21.9	C
		PM	22.1	C
		Sat.	23.4	C
30.	Branham Lane/Safeway	AM	14.3	B
		PM	11.9	B
		Sat.	11.5	B
31.	Gold Run/Snell Avenue	AM	27.3	C
		PM	18.4	B
32.	Rosenbaum Lane/Snell Avenue	AM	19.6	B
		PM	15.5	B
33.	Skyway Drive/Snell Avenue	AM	28.8	C
		PM	24.4	C
34.	Branham Lane/Snell Avenue	AM	31.6	C
		PM	33.5	C
		Sat.	34.7	C
35.	Chynoweth Avenue/Snell Avenue	AM	30.2	C
		PM	29.5	C
		Sat.	29.6	C
36.	Avenida del Roble/Snell Avenue	AM	19.2	B

TABLE 4.12-7 BACKGROUND CONDITIONS INTERSECTION LEVELS OF SERVICE
 (CONTINUED)

Intersection		Peak	Average	Level of Service (LOS)
		Hour	Delay (Sec- onds)	
		PM	13.2	B
37.	Giuffrida Avenue/Snell Avenue	AM	11.4	B
		PM	15.5	B
38.	Chynoweth Avenue/Lean Drive	AM	35.5	D
		PM	33.0	C

* = CMP designated intersection; evaluated against the standards of both the City of San Jose and the County CMP.

sec. = seconds.

Source: Hexagon Transportation Consultants, Inc., 2009.

c. Background Traffic Operations

Table 4.12-8 presents projected vehicle queues for all turn-movements analyzed. As shown in Table 4.12-8, the same movements that have inadequate queue storage capacity under existing conditions would have inadequate storage under background conditions. These movements are:

- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the AM Peak.** The 95th percentile queue of 475 feet exceeds the existing storage capacity of 325 feet.
- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the PM Peak.** The 95th percentile queue of 375 feet exceeds the existing storage capacity of 325 feet.
- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the Saturday Peak.** The 95th percentile queue of 525 feet exceeds the existing storage capacity of 325 feet.
- ◆ **Southbound Left-Turn Lane at Chynoweth Avenue/Snell Avenue in the PM Peak.** The 95th percentile queue of 275 feet exceeds the existing storage capacity of 225 feet.

TABLE 4.12-8 BACKGROUND CONDITIONS VEHICLE QUEUING ANALYSIS

Measurement	Branham/Snell (Northbound Left-Turn Lane)			Branham/Snell (Westbound Left-Turn Lane)			Chynoweth/Snell (Southbound Left-Turn Lane)		
	AM	PM	Sat.	AM	PM	Sat.	AM	PM	Sat.
Cycle/Delay (sec) ^a	106	110	110	106	110	110	110	110	110
Lanes	1	1	1	1	1	1	1	1	1
Volume (vph) ^b	424	310	477	182	155	127	92	224	123
Volume (vphpl) ^c	424	310	477	182	155	127	92	224	123
Average Queue (vpl) ^d	12.5	9.5	14.6	5.4	4.7	3.9	2.8	6.8	3.8
Average Queue (ft/ln) ^e	312	237	364	134	118	97	70	171	94
95% Queue (vpl)	19	15	21	9	9	7	6	11	7
95% Queue (ft/ln)	475	375	525	225	225	175	150	275	175
Existing Storage (ft/ln)	325	325	325	225	225	225	225	225	225
Adequate? (Yes/No)	No	No	No	Yes	Yes	Yes	Yes	No	Yes

Source: Hexagon Transportation Consultants, Inc., 2009.

Notes: Cells in bold indicate lanes with inadequate queue storage capacity.

^a sec = seconds. Vehicle queue calculations based on cycle length for signalized intersections.

^b vph = vehicles per hour

^c vphpl = vehicles per hour per lane

^d vpl = vehicles per lane

^e ft/ln = feet per lane. Assumes 25 feet per vehicle queued.

3. Project Traffic Conditions

a. Project Trip Estimates

The magnitude of traffic produced by the project and the locations affected by the traffic were estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site was estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate was made of the directions of project-generated trip. In the project trip

assignment, the project trips were assigned to specific streets and intersections. These procedures are described further in the following sections.

i. Trip Generation

Through empirical research, data have been collected that correlate to common land uses and their propensity for producing traffic. Thus, for the most common land uses, there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. However, the project would consist of land uses that are atypical of common parks because the majority of the land uses during Phase I would be agricultural, not recreational. Therefore, documented trip generation data provided for common parks were investigated and found to be inapplicable to the project and were therefore not used to estimate trips.

The trip estimates for the project were developed based upon land use assumptions and visitor data provided by County of Santa Clara Parks and Recreation Department staff. The visitor data was then converted into vehicular trips based on assumptions for mode split, time of arrival/departure, and vehicle occupancy rates. The vehicular conversion assumptions were based on engineering judgment by Hexagon staff.

Driveway and vehicle occupancy counts were conducted at a comparable existing park for the purpose of providing support for the use of the estimated trip generation based upon the proposed park usage. The counts were conducted at Ardenwood Park in Fremont, California in April 2009. The data collected indicated much lower trip generation characteristics than those estimated based upon the proposed park usage. Therefore, as a conservative approach, the analysis presented within this report utilizes trip estimates for the project developed using land use assumptions and visitor data provided by County of Santa Clara Parks and Recreation Department staff. The project trip generation estimates are presented in Table 4.12-9. Based on land use and visitor assumptions, it is estimated that the project would generate 308 AM peak hour weekday trips (277 inbound trips and 31 outbound trips) and 296

TABLE 4.12-9 PROJECT TRIP GENERATION

Weekday	AM Peak	Mid-Day Peak	PM Peak
In	277	--	114
Out	31	--	182
Total	308	--	296

Weekend	Before Peak	Mid-Day Peak	After Peak
In	551	422	610
9Out	228	150	1,205
Total	779	572	1,816

Source: Hexagon Transportation Consultants, Inc., 2009.

PM peak hour weekday trips (114 inbound trips and 182 outbound trips). During the weekend mid-day peak, it is estimated that the project would generate 572 trips (422 inbound and 150 outbound). It is expected that some of the trips to the produce stand and youth agricultural activities would be pass-by trips, which are trips to the project site made by travelers who are already driving by the project site as part of a trip to a different destination. It is expected that there would be 12 pass-by trips as part of the 308 AM peak hour weekday trips, 14 pass-by trips as part of the 296 PM peak hour weekday trips, and 28 pass-by trips as part of the 572 mid-day peak hour weekend trips.⁶

ii. Trip Distribution

The trip distribution pattern for the project was estimated based on existing travel patterns in the project site vicinity and the locations of complementary

⁶ Black, Gary. Hexagon Transportation Consultants, Inc. Email correspondence with Alexis Lynch, DC&E. July 21, 2010.

land uses. The trip distribution patterns are shown graphically in Figure 8 in Appendix J.

iii. Trip Assignment

The peak hour trips generated by the project were assigned to the roadway system in accordance with the trip distribution pattern discussed above. Figure 9 in Appendix J shows the project trip assignment at the study intersections.

b. Project Intersection Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to background traffic volumes to obtain background plus project traffic volumes (hereafter referred to as “project traffic volumes;” this is contrasted with the term “project trips,” which refers to traffic that is produced specifically by the project). The project traffic volumes are shown graphically in Figure 10 in Appendix J.

c. Project Intersection Levels of Service

The results of the LOS analysis under project conditions are summarized in Table 4.12-10. The results show that the same four intersections, projected to operate at LOS E under background conditions, will operate at unacceptable levels under project traffic conditions:

- ◆ 5. Blossom Hill Road/State Route 85 (west): LOS E in the AM peak hour
- ◆ 14. Blossom Hill Road/Monterey Road (north): LOS E in the AM peak hour
- ◆ 22. Capitol Expressway/Snell Avenue: LOS E in the AM peak hour
- ◆ 27. Capitol Expressway/State Route 87: LOS E in the PM peak hour

All of these intersections are CMP designated intersections. All other signalized study intersections currently operate at an LOS D or better, which is acceptable according to both the City of San Jose standard (LOS D) and the CMP standard (LOS E).

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TABLE 4.12-10 PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Average Delay (Sec-onds)	LOS	Increase in Critical Delay	Increase in Critical Volume/Capacity ^b
1. Blossom Hill Road/ Santa Teresa Road*	AM	34.8	C	-0.1	0.003
	PM	41.1	D	0.0	0.002
2. Blossom Hill Road/ Playa Del Rey	AM	22.0	C	0.0	0.000
	PM	22.9	C	0.0	0.003
3. Blossom Hill Road/ Cahalan Avenue	AM	28.2	C	0.3	0.001
	PM	38.5	D	0.1	0.006
4. Blossom Hill Road/ Chesbro Avenue	AM	23.9	C	0.0	0.001
	PM	28.5	C	-0.2	0.002
5. Blossom Hill Road/ State Route 85 (W)*	AM	60.8	E	2.7	0.015
	PM	53.7	D	0.6	0.006
6. Blossom Hill Road/ State Route 85 (E)*	AM	33.6	C	1.3	0.002
	PM	27.8	C	0.2	0.018
7. Blossom Hill Road/ Snell Avenue*	AM	42.9	D	-0.2	0.006
	PM	47.5	D	0.6	0.013
	Sat.	46.3	D	-0.6	0.029
8. Blossom Hill Road/ Judith Street	AM	16.3	B	0.0	0.000
	PM	14.0	B	0.0	0.001
9. Blossom Hill Road/ Eagles Lane	AM	19.8	B	0.0	0.000
	PM	14.1	B	0.0	0.001
10. Blossom Hill Road/ Lean Avenue	AM	24.3	C	0.0	0.000
	PM	23.4	C	0.0	0.001
11. Blossom Hill Road/ Beswich Drive	AM	26.5	C	0.0	0.000
	PM	22.7	B	0.0	0.001
12. Blossom Hill Road/ Poughkeepsie Road	AM	34.5	C	0.0	0.000
	PM	28.6	C	0.0	0.001
13. Blossom Hill Road/ Monterey Road (S)*	AM	23.4	C	0.0	0.000
	PM	49.5	D	1.9	0.005
14. Blossom Hill Road/ Monterey Road (N)*	AM	71.1	E	2.9	0.007
	PM	29.7	C	0.6	0.003

TABLE 4.12-10 PROJECT INTERSECTION LEVELS OF SERVICE (CONTINUED)

Intersection	Peak Hour	Average Delay (Sec-onds)	LOS	Increase in Critical Delay	Increase in Critical Volume/Capacity ^b
15. Chynoweth Avenue/ Monterey Road	AM	54.8	D	3.7	0.014
	PM	46.8	D	-0.3	0.006
	Sat.	43.7	D	1.7	0.043
16. Edenview Drive/ Monterey Road	AM	14.8	B	0.2	0.002
	PM	11.4	B	0.1	0.001
17. Branham Lane/ Monterey Road*	AM	47.5	D	0.0	0.000
	PM	36.2	D	0.4	0.003
	Sat.	40.2	D	0.4	0.006
18. Skyway Road/ Monterey Road*	AM	49.3	D	0.1	0.000
	PM	31.2	C	0.2	0.004
19. Senter Road/ Monterey Road*	AM	29.2	C	0.2	0.002
	PM	30.5	C	0.0	0.003
20. Capitol Expressway/ Monterey Road (S)*	AM	33.5	C	0.1	0.001
	PM	14.9	B	0.3	0.005
21. Capitol Expressway/ Monterey Road (N)*	AM	26.0	C	0.3	0.003
	PM	21.1	C	0.0	0.003
22. Capitol Expressway/ Snell Avenue*	AM	61.5	E	-1.9	-0.006
	PM	37.0	D	0.3	0.004
	Sat.	47.2	D	1.7	0.007
23. Capitol Expressway/ Vista Park Drive	AM	25.3	C	0.0	0.000
	PM	31.5	C	0.0	0.000
24. Capitol Expressway/ Copperfield Drive	AM	11.1	B	0.0	0.001
	PM	16.9	B	0.0	0.004
25. Capitol Expressway/ Narvaez Avenue*	AM	39.3	D	0.0	0.001
	PM	45.8	D	-0.2	0.003
26. State Route 87/ Narvaez Avenue	AM	14.0	B	0.0	0.001
	PM	15.0	B	-0.1	0.000
27. Capitol Expressway/ State Route 87*	AM	33.5	C	0.0	0.001
	PM	57.5	E	2.2	0.007

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TABLE 4.12-10 PROJECT INTERSECTION LEVELS OF SERVICE (CONTINUED)

Intersection	Peak Hour	Average Delay (Sec-onds)	LOS	Increase in Critical Delay	Increase in Critical Volume/Capacity ^b
28. Branham Lane/ Narvaez Avenue	AM	19.7	B	0.0	0.000
	PM	19.9	B	0.0	0.001
29. Branham Lane/ Vista Park Drive	AM	23.3	C	1.9	0.042
	PM	22.6	C	0.7	0.019
	Sat.	25.1	C	1.6	0.065
30. Branham Lane/ Safeway	AM	14.3	B	0.6	0.005
	PM	12.1	B	0.4	0.030
	Sat.	11.5	B	0.2	0.025
31. Gold Run/ Snell Avenue	AM	27.3	C	0.0	0.001
	PM	18.4	B	-0.1	0.002
32. Rosenbaum Lane/ Snell Avenue	AM	19.9	B	0.4	0.004
	PM	15.5	B	-0.1	0.002
33. Skyway Drive/ Snell Avenue	AM	28.6	C	0.1	0.005
	PM	24.5	C	0.0	0.004
34. Branham Lane/ Snell Avenue	AM	31.7	C	0.8	0.028
	PM	33.9	C	0.9	0.041
	Sat.	35.1	D	2.0	0.061
35. Chynoweth Avenue/ Snell Avenue	AM	30.6	C	0.2	0.032
	PM	29.6	C	0.7	0.028
	Sat.	29.1	C	0.0	0.058
36. Avenida del Roble/ Snell Avenue	AM	18.6	B	-0.9	0.029
	PM	11.9	B	-4.2	-0.012
37. Giuffrida Avenue/ Snell Avenue	AM	11.1	B	-0.1	0.003
	PM	15.1	B	-0.5	0.019
38. Chynoweth Avenue/ Lean Drive	AM	35.5	D	0.0	0.005
	PM	32.8	C	-0.3	0.006

TABLE 4.12-10 PROJECT INTERSECTION LEVELS OF SERVICE (CONTINUED)

Intersection	Peak Hour	Average Delay (Sec-onds)	LOS	Increase in Critical Delay	Increase in Critical Volume/Capacity^b
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Note: * = CMP designated intersection
 sec. = seconds

^a Critical Delay is the delay experienced by vehicles on each intersection approach for each lane group serving the greatest volume.

^b Critical Volume is the volume of vehicles on each intersection approach for each lane group serving the greatest volume.

Source: Hexagon Transportation Consultants, Inc., 2009.

Using CMP level of service standards, all CMP study intersections, aside from the three mentioned above, would operate under project conditions at an acceptable LOS E or better during peak hours.

d. Project Freeway Levels of Service

Project traffic volumes on the freeway segments were estimated by adding estimated project trips to existing freeway volumes. The results of the analysis are summarized in Table 4.12-11, which shows that the mixed-flow lanes on three of the ten directional freeway segments analyzed would operate at an unacceptable LOS F during at least one of the peak hours. All other freeway segments analyzed would operate at LOS E or better during the AM, PM, and Saturday peak hours.

e. Project Traffic Operations

Table 4.12-12 presents projected vehicle queues for all turn-movements analyzed. As shown in the table, the following movements have inadequate queue storage capacity under project conditions:

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TABLE 4.12-11 PROJECT FREEWAY SEGMENT LEVELS OF SERVICE

Freeway Segment	Peak Hour	Mixed-Flow Lanes		HOV Lanes	
		Density ^a	LOS	Density	LOS
Northbound Segments					
SR 85 Cottle Road to Blossom Hill Road	AM	23.2	C	16.2	B
	PM	38.1	D	10.0	A
	Sat.	26.9	D	7.1	A
SR85 Blossom Hill Road to State Route 87	AM	46.1	E	42.1	D
	PM	35.1	D	12.0	B
	Sat.	24.6	C	8.4	A
SR 85 State Route 87 to Almaden Expressway	AM	105.1	F	72.0	F
	PM	29.1	D	7.0	A
	Sat.	20.4	C	4.9	A
SR87 State Route 85 to Capitol Expressway	AM	70.0	F	41.1	D
	PM	19.0	C	7.0	A
	Sat.	13.3	B	4.9	A
SR 87 Capitol Expressway to Curtner Avenue	AM	84.3	F	76.1	F
	PM	30.1	D	9.0	A
	Sat.	21.1	C	6.3	A
Southbound Segments					
SR 85 Almaden Expressway to State Route 87	AM	27.2	D	8.1	A
	PM	32.1	D	20.0	C
	Sat.	22.7	C	14.2	B
SR 85 State Route 87 to Blossom Hill Road	AM	20.2	C	5.1	A
	PM	40.1	D	26.0	D
	Sat.	28.3	D	18.4	C
SR85 Blossom Hill Road to Cottle Road	AM	31.0	D	13.1	B
	PM	35.1	D	26.1	D
	Sat.	24.6	C	18.3	C
SR 87 Curtner Avenue to Capitol Expressway	AM	20.2	C	5.1	A
	PM	49.2	E	20.0	C
	Sat.	34.7	D	14.1	B
SR 87 Capitol Expressway to State Route 85	AM	33.0	D	7.0	A
	PM	31.0	D	19.0	C
	Sat.	21.7	C	13.3	B

Note: SR = State Route

^a Density is calculated as $D = V / (N * S)$, where D = density, in vehicles per mile per lane; V = peak hour volume, in vehicles per hour; N = number of travel lanes; S = average travel speed, in miles per hour.

Source: Hexagon Transportation Consultants, Inc., 2009.

TABLE 4.12-12 PROJECT VEHICLE QUEUING ANALYSIS

Measurement	Branham/Snell (Northbound Left-Turn Lane)			Branham/Snell (Westbound Left- Turn Lane)			Chynoweth/Snell (Southbound Left-Turn Lane)		
	AM	PM	Sat.	AM	PM	Sat.	AM	PM	Sat.
Cycle/Delay (sec) ^a	106	110	110	106	110	110	110	110	110
Lanes	1	1	1	1	1	1	1	1	1
Volume (vph) ^b	432	359	518	204	164	161	96	248	143
Volume (vphpl) ^c	432	359	518	204	164	161	96	248	143
Average Queue (vpl) ^d	12.7	11.0	15.8	6.0	5.0	4.9	2.9	7.6	4.4
Average Queue (ft/ln) ^e	318	274	396	150	125	123	73	189	109
95% Queue (vpl)	19	17	23	10	9	9	6	12	8
95% Queue (ft/ln)	475	425	575	250	225	225	150	300	200
Existing Storage (ft/ln)	325	325	325	225	225	225	225	225	225
Adequate? (Yes/No)	No	No	No	No	Yes	Yes	Yes	No	Yes

Notes: Cells in **bold** indicate lanes with inadequate queue storage capacity.

^a sec = seconds. Vehicle queue calculations based on cycle length for signalized intersections.

^b vph = vehicles per hour

^c vphpl = vehicles per hour per lane

^d vpl = vehicles per lane

^e ft/ln = feet per lane. Assumes 25 feet per vehicle queued.

Source: Hexagon Transportation Consultants, Inc., 2009.

- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the AM Peak.** The 95th percentile queue of 475 feet would exceed the existing storage capacity of 325 feet.
- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the PM Peak.** The 95th percentile queue of 425 feet would exceed the existing storage capacity of 325 feet.

- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the Saturday Peak.** The 95th percentile queue of 575 feet would exceed the existing storage capacity of 325 feet.
- ◆ **Westbound Left-Turn Lane at Branham Lane/Snell Avenue in the AM Peak.** The 95th percentile queue of 250 feet would exceed the existing storage capacity of 225 feet.
- ◆ **Southbound Left-Turn Lane at Chynoweth Avenue/Snell Avenue in the PM Peak.** The 95th percentile queue of 300 feet would exceed the existing storage capacity of 225 feet.

Four of these movements – the northbound left-turn lane at Branham Lane/Snell Avenue in the AM, PM, and Saturday peak hours, and the southbound left-turn lane at Chynoweth Avenue/Snell Avenue in the PM peak hour – would also have inadequate queue storage capacity under existing and background conditions. The 95th percentile queues at three of these four movements would be increased in comparison to existing and background conditions. The 95th percentile queue at Branham Lane/Snell Avenue in the AM peak hour would not be increased in comparison to existing and background conditions.

D. Standards of Significance

Transportation and circulation impacts associated with the project would be considered significant if the Plan would:

1. 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.
2. 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.

3. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. Result in inadequate emergency access.
5. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.
6. Not provide future street right of way or safe access, or obstruct access to nearby uses.
7. Increase traffic hazards to pedestrians, bicyclists, or vehicles.
8. Cause increases in demand for existing on- or off-street parking because of inadequate project parking.

E. Impact Discussion

All potential impacts described below would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

1. Conflicts with Applicable Plans, Ordinances, or Policies Establishing Measures of Effectiveness for the Performance of the Circulation System

All of the study intersections are located within the City of San Jose and are therefore subject to the City's level of service standards.

All intersections within the City of San Jose are required to meet the City's standard of LOS D. The project would have a significant impact on traffic conditions at signalized intersections if for either weekday peak hour:

- ◆ The level of service at an intersection would degrade 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 would be an unacceptable LOS E or F under background conditions and the addition of project trips would cause both the critical-movement delay at the intersection to increase by four or more seconds and the demand-to-capacity ratio (V/C) to increase by 0.01 or more. An exception to this rule applies when the addition of project traffic reduces the amount of average control delay for critical movements (i.e. the change in average control delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

The results of the intersection LOS analysis under project conditions are summarized in Table 4.12-11. The results show that the following four intersections would operate at unacceptable levels under project traffic conditions:

- ◆ 5. Blossom Hill Road/State Route 85 (west): LOS E in the AM peak hour
- ◆ 14. Blossom Hill Road/Monterey Road (north): LOS E in the AM peak hour
- ◆ 22. Capitol Expressway/Snell Avenue: LOS E in the AM peak hour
- ◆ 27. Capitol Expressway/State Route 87: LOS E in the PM peak hour

These four intersections would operate at LOS E under project conditions. The same four intersections are projected to operate at LOS E under background conditions. However, when measured against the City of San Jose impact criteria, no study intersections would be impacted by the project. All other signalized study intersections would operate at an acceptable LOS D or better under project conditions.

Traffic operational requirements are determined based on the adequacy of existing storage to accommodate estimated maximum vehicle queues at turn pockets.⁷ The project would have a significant adverse impact on traffic conditions if the estimated maximum (95th-percentile) vehicle queue would ex-

⁷ Turn pockets give cars turning their own lane at an intersection. For example, a left-turn pocket gives cars turning left their own lane at an intersection.

ceed the available storage capacity of an intersection turn pocket for either peak-hour.

As discussed above in Section C.3.e, the following movements would have inadequate queue storage capacity under project conditions:

- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the AM Peak.** The 95th percentile queue of 475 feet would exceed the existing storage capacity of 325 feet.
- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the PM Peak.** The 95th percentile queue of 425 feet would exceed the existing storage capacity of 325 feet.
- ◆ **Northbound Left-Turn Lane at Branham Lane/Snell Avenue in the Saturday Peak.** The 95th percentile queue of 575 feet would exceed the existing storage capacity of 325 feet.
- ◆ **Westbound Left-Turn Lane at Branham Lane/Snell Avenue in the AM Peak.** The 95th percentile queue of 250 feet would exceed the existing storage capacity of 225 feet.
- ◆ **Southbound Left-Turn Lane at Chynoweth Avenue/Snell Avenue in the PM Peak.** The 95th percentile queue of 300 feet would exceed the existing storage capacity of 225 feet.

The 95th percentile queue at Branham Lane/Snell Avenue in the AM peak hour would not be increased in comparison to existing and background conditions. However, the 95th percentile queues at the remaining four of these movements – the northbound left-turn lane at Branham Lane/Snell Avenue in the PM and Saturday peak hours, the westbound left-turn lane at Branham Lane/Snell Avenue in the AM peak hour, and the southbound left-turn lane at Chynoweth Avenue/Snell Avenue in the PM peak hour – would be increased in comparison to existing and background conditions. As described in Section C.2.3 of Chapter 3, Project Description, the project would include the following off-site improvements:

- ◆ A second northbound left-turn lane on Snell Avenue turning onto westbound Branham Lane would be provided. The second northbound left-turn lane would be designed to ensure that storage capacity is sufficient to accommodate future traffic at this intersection.
- ◆ The existing southbound left-turn pocket on Snell Avenue turning onto eastbound Chynoweth Avenue would be extended by approximately 75 feet. A 75-foot extension would provide a total queue storage capacity of 300 feet, which would be sufficient to accommodate projected traffic volumes.
- ◆ The existing westbound left-turn pocket on Branham Lane turning onto southbound Snell Avenue would be extended by approximately 25 feet. A 25-foot extension would provide a total queue storage capacity of 250 feet, which would be sufficient to accommodate projected traffic volumes.

These off-site improvements would ensure that storage capacity at the intersections identified above is sufficient to accommodate project traffic.

Peak hour volume signal warrants indicate that the proposed entrance to the project site on Snell Avenue would need to be signalized. As described in Section C.2.3 of Chapter 3, Project Description, as part of the project the County would monitor traffic volumes at the Park entrance and coordinate with the City of San Jose to install a new signal when signal warrants indicate the need for signalization. The installation of a new signal, when warranted, and the provision of adequate queue storage at nearby intersections, as discussed above, would ensure that traffic-related impacts would be *less than significant*.

An assumption of up to 3 percent transit mode share, which is probably the highest that could be expected, yields an estimate of approximately 9 transit trips during both the AM and PM peak hours and 23 transit trips during the Saturday peak hour. These riders easily could be accommodated by the existing service. Therefore, impacts associated with transit systems would also be *less than significant*.

As described in Chapter 3, Project Description, all Park trails have been designed to be consistent with the Countywide Trails Master Plan Update, Uniform Interjurisdictional Trail Use, Design and Management Guidelines, and Americans with Disabilities Act. Therefore, proposed trails are considered to be consistent with applicable plans for trail design. In addition, sidewalks along the Park's frontage on Branham Lane and Snell Avenue have been designed to be consistent with the City of San Jose's requirement that park frontages have 12-foot wide sidewalks.

The City of San Jose's *San José Bike Plan 2020* identifies existing bicycle lanes along the project site on Branham Lane and Snell Avenue, and a planned bicycle lane along the southern perimeter of the project site on Chynoweth Avenue. As shown in Figure 3-5, the project would provide multi-use trails along Branham Lane, Snell Avenue, and Chynoweth Avenue. In addition, as described in Section C.2.3 of Chapter 3, Project Description, improvements to off-site roadways would be designed and implemented in a manner consistent with City of San Jose standards and to ensure that bicycle, pedestrian, and transit facilities are not adversely affected. Therefore, the project would have a *less than significant* impact on City of San Jose plans.

2. Conflicts with a Congestion Management Program

The CMP standard for acceptable level of service at a CMP-designated intersection is LOS E or better. The results of the intersection level of service analysis under project conditions are summarized in Table 4.12-11. The results show that all CMP study intersections would operate under project conditions at an acceptable LOS E or better during peak hours.

The project would have a significant impact on a CMP freeway segment if for either peak hour:

- ◆ The level of service on the freeway segment would be an unacceptable LOS F under project conditions, and
- ◆ The number of project trips on that segment would constitute at least 1 percent of capacity on that segment.

- ◆ The level of service on the freeway segment would degrade from an acceptable LOS E or better under existing conditions to an unacceptable LOS F under project conditions.

The results of the freeway level of service analysis are summarized in Table 4.12-8. The results show that the mixed-flow lanes on three of the ten directional freeway segments analyzed would operate at an unacceptable LOS F during at least one of the peak hours under project conditions. All other freeway segments analyzed would operate at LOS E or better during the AM, PM, and Saturday peak hours. Project traffic would constitute less than 1 percent of freeway capacity on each of the segments. Therefore, based on the CMP criteria listed above, the project would not have a significant impact on any of the study freeway segments.

The project would not result in unacceptable intersection or freeway level of service conditions under CMP criteria; therefore, impacts would be *less than significant*.

3. Substantial Increase in Hazards Due to a Design Feature or Incompatible Uses

The project would include circulation components that could result in hazardous design features or incompatible uses. These components include a new public vehicular entrance on Snell Avenue; multi-user trails for pedestrians, bicyclists, and equestrians; and internal circulation for motorists, emergency vehicles, farmers, pedestrians, and bicyclists.

The main Park entrance would be located on Snell Avenue, between Kehoe Court and Rue Paris. In order to avoid potential conflicts to turn-movements and traffic flows, the entrance would need to be a minimum of 250 feet north of Kehoe Court to accommodate a northbound left-turn queue on Snell Avenue. The proposed Park entrance shown in Figure 3-5 is approximately 350 feet north of Kehoe Court. Therefore, the Park entrance would not result in hazards and potential impacts associated with the Park entrance would be *less than significant*.

The project proposes to provide different entrances and access roads for Park visitors and service vehicles/farm equipment. As shown on Figure 3-5, the project includes some trails that would be for pedestrians only. In addition, the project contains goals and guidelines aimed to reduce potential circulation hazards and conflicts between incompatible users. The Plan's Circulation and Access goal is to, "Provide safe and convenient access to the Park for a wide range of users." Under this goal, several guidelines would help to provide safe circulation options for various users, and prevent conflicts between different types of uses and Park users. For example, Guideline CIRC.13 is to "provide trails around the perimeter as well as through the Park that are designed to accommodate safe and compatible use by multiple trail user groups, including pedestrians, joggers, rollerbladers, bicyclists, and equestrians." Guideline CIRC.15 is to "provide a system of internal service roads that facilitates access and circulation of park vehicles and farm machinery (e.g. security patrol, maintenance trucks, tractors, etc)."

The project's creation of separate entrances and access roads for public users and service vehicles, and the implementation of goals and guidelines intended to prevent circulation hazards, would ensure that impacts would be *less than significant*.

4. Inadequate Emergency Access

As shown in Figure 3-5, the project proposes four emergency access entrances into the project site. One of the emergency entrances would be located on Branham Lane, across from the Snell and Branham Plaza entrance, on the northern edge of the project site. The second emergency entrance would be located on the western edge of the project site at Chynoweth Avenue. Two emergency entrances would be located along the southern edge of the project site along Chynoweth Avenue. Under the phasing plan for the project, at least one emergency entrance would be developed under Phase 1, including associated signage, gates, and fencing. This would ensure that emergency vehicles have access to the project site during Phase 1, and at project buildout the four entrances would help to ensure that emergency vehicles have sufficient access to the site and have an alternative entrance to the main Park entrance on Snell Avenue.

The project also contains goals and guidelines to ensure that emergency access to the project site is adequate. The Plan contains a Circulation and Access goal to “provide safe and convenient access to the Park for a wide range of users.” Under this goal, Guideline CIRC.2 is to “design and maintain emergency access roads to meet Santa Clara County Fire Marshal Office standards.”

The creation of at least one emergency entrance during Phase 1, the ultimate development of a total of four emergency entrances at project buildout, and the implementation of the Plan Guideline CIRC.2 would ensure that impacts associated with emergency access are *less than significant*.

5. Conflicts with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities

Because the project site is located in unincorporated Santa Clara County but surrounded by City of San Jose lands, this section analyzes the project against both County and City policies, plans, and programs. According to the VTA’s recommended rates for bicycle parking, the project would provide adequate parking.⁸

Right- and left-turn lanes into the project site would require widening Snell Avenue, which would potentially require removing bike lanes, which would conflict with City of San Jose’s bicycle plan. However, as described in Section C.2.e of Chapter 3, Project Description, the widening of Snell Avenue would be designed and implemented in a manner consistent with City of San Jose standards and to ensure that bicycle, pedestrian, and transit facilities are not adversely affected. Therefore, impacts would be *less than significant*.

6. Failure to Provide Future Street Right-of-Way or Safe Access, or Obstruction of Access to Nearby Uses

There is currently no public access to the project site from surrounding roads. In addition, aside from dirt roads used by the Park Donor, there is no other

⁸ Hexagon Transportation Consultants, Inc., 2009, Martial Cottle Park Master Plan: Transportation Impact Analysis, page 45.

defined internal circulation system within the project site boundaries. As shown in Figure 3-5, the project proposes five vehicular entrances into the project site, and seven non-vehicular entrances. The project site would be accessible from the north along Branham Lane, from the east along Snell Avenue, from the south along Chynoweth Avenue with a connection to the Blossom Hill VTA station, and from the residential streets along the western edge of the project site. New pedestrian and bicycle access points, including the proposed trail undercrossing beneath State Route 85 to the neighborhood south of the project site, would provide new pedestrian/bicycle access points into the project site. Figure 3-5 shows the vehicular roads and non-vehicular trails proposed by the project. Creation of a new connection to the Blossom Hill VTA station would require an encroachment permit from Caltrans for work within a State right-of-way.

In addition, as described in Section C.2.e of Chapter 3, Project Description, the project would include widening Snell Avenue. The widening would provide right- and left-turn lanes into the project site. The County work with the City of San Jose to ensure that future widening of Snell Avenue would not result in the loss of bicycle lanes on Snell Avenue.

As discussed above in Section E.4, the project contains goals and guidelines to ensure that adequate emergency access to the project site is adequate. In addition to these guidelines, the project also contains additional guidelines intended to ensure a high level of access from surrounding neighborhoods and the region. For instance, Circulation and Access Guideline CIRC.8 is to “work with the City of San Jose and the VTA to provide multiple points of walk-in entry and crosswalks for pedestrians and bicyclists to facilitate access to the Park from surrounding neighborhoods and regional transit.” Guidelines CIRC.10 and CIRC.11 call for the County to work with the VTA, Santa Clara Valley Water District, and Caltrans to ensure safe access from the project site to the area around the Blossom Hill light rail station. Lastly, Guideline CIRC.17 is to “work with the City of San Jose to provide safe and comfortable pedestrian and bicycle crossings at all intersections leading to the park.”

Because the project would widen Snell Avenue to provide sufficient right of way, would result in seven new entrances to the project site, and would enhance local and regional access to and throughout the project site for vehicular and non-vehicular visitors, the project would have a *less than significant* impact on future access to and through the site.

7. Increase in Traffic Hazards to Pedestrians, Bicyclists, or Vehicles

The project would result in increased pedestrian, bicycle, and vehicular travel to and within the project site, and could therefore result in increased traffic hazards.

As discussed above in Section E.3, the Plan contains goals and guidelines aimed to reduce potential circulation hazards. The Plan's Circulation and Access goal is to "provide safe and convenient access to the Park for a wide range of users." Under this goal, several guidelines would help to provide safe circulation options for various users, and prevent conflicts between vehicular and non-vehicular visitors. In addition to the guidelines discussed above that address on-site safety, the Plan also includes Guidelines CIRC.7, which is to "work with the City of San Jose and the Santa Clara Valley Transportation Authority (VTA) to provide safe and convenient pedestrian and bicycle connections from nearby transit nodes that include bus stops, light rail, and Caltrain stations to the park." This guideline would help to ensure the safety of pedestrians and bicyclists traveling to the site from the nearby vicinity.

As discussed above, the project proposes separate access roads for vehicular and non-vehicular travel, and also includes some trails that would be for pedestrian use only. Such features would help to prevent accidents between vehicles, bicyclists, and pedestrians.

The project's creation of separate entrances and access roads for public users and service vehicles, and the implementation of goals and guidelines intended to prevent on- and off-site hazards, would ensure that impacts would be *less than significant*.

8. Increases Demand for Existing On- or Off-Street Parking Because of Inadequate Project Parking

The project would result in increased vehicular trips to and from the project site, which could affect parking supply in the surrounding area. The project proposes approximately 10 acres of vehicular parking, consisting of one lot near the visitor center, 5 acres of unpaved overflow parking near the main entrance, and several smaller lots near other destinations within the project site. The paved parking areas would accommodate approximately 532 vehicles, which would be sufficient to accommodate weekday peak hour trips to the project site and weekend mid-day peak hour trips to the project site. An additional 19 parking spaces would be needed during the weekend before peak hour, and an additional 78 parking spaces would be needed during the weekend after peak hour. The 5-acre overflow parking area proposed near the main entrance would have sufficient capacity to accommodate these additional vehicles.

In addition, the project contains several guidelines intended to ensure that on-site parking is adequate to accommodate visitors' vehicles. In particular, Guideline CIRC.3 is to "provide adequate parking on-site to minimize parking on adjacent residential streets." Guideline CIRC.4 is to "locate adequate visitor parking to reduce potential for circulation, parking, and visual impacts on adjacent neighborhoods." Lastly, Guideline CIRC.18 is to "develop a coordinated facilities use and parking strategy for special events that optimizes the beneficial use of parkland during non-event periods, avoids visual impacts associated with large parking lots, and minimizes parking impacts on adjacent residential neighborhoods."

On-site parking facilities planned for the project are estimated to be sufficient to meet peak hour parking demand on weekdays and weekends. Guidelines intended to reduce impacts to neighboring streets and adjacent neighborhoods would further prevent potential effects on existing parking near the project site. Therefore, impacts would be *less than significant*.

F. Cumulative Impacts

The analysis above considers project impacts in relation to both existing conditions and baseline conditions, which includes recently approved but not yet constructed development projects in the project site vicinity. Please see section C.2 of this chapter for a discussion of background conditions. Because the evaluation in this impact discussion compared project conditions to existing and background conditions, no separate cumulative impact discussion is needed. As discussed in Section E, Impact Discussion, above, the project would not have any significant transportation or circulation impacts.

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN/
COUNTY PARK MASTER PLAN EIR
TRANSPORTATION AND CIRCULATION

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4.13 UTILITIES AND INFRASTRUCTURE

This chapter describes the existing infrastructure and utility services in the vicinity of the project site and evaluates the potential impacts of the project on those services. Wastewater, water supply, stormwater, and solid waste are each addressed in a separate section of this chapter. Within the separate sections of this chapter, a discussion of existing conditions is followed by an analysis of project-specific and cumulative impacts. The Santa Clara County General Plan contains several policies relevant to utilities and infrastructure. Many of these policies apply to utilities in general, rather than one of the specific services analyzed below. These general service policies are listed in Table 4.13-1.

Development of the Park would require that existing on-site utilities be connected to the City of San Jose's utilities infrastructure. In order to connect to the City's infrastructure, the project site may need to be annexed by the City of San Jose. Therefore, annexation is considered in some of the impact discussion sections of this chapter.

Unless otherwise noted, existing conditions information in this chapter is from the *Martial Cottle Park Final Resource Inventory* report prepared in July 2009 for the County of Santa Clara Parks and Recreation Department by Wallace, Roberts and Todd; LSA Associates; and Design, Community & Environment.

A. *Wastewater*

1. **Regulatory Framework**

a. Federal and State Regulations

i. *Clean Water Act*

The Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), regulates the discharge of pollutants into watersheds throughout the nation. Under the CWA, the United States

TABLE 4.13-1 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO UTILITIES AND INFRASTRUCTURE

Strategy/Policy Number	Strategy/Policy Content
General Land Use Management Chapter	
<i>Strategy #3</i>	<i>Provide services as efficiently and equitably as possible.</i>
Policy U-LM 11	Urban services shall be provided to residents and businesses of unincorporated urban areas in the most efficient, cost effective and equitable manner possible, using cooperative efforts by all jurisdictions involved.
Policy U-LM 13	Cities should not be expected to provide urban services, either directly or indirectly, to urban unincorporated areas unless through contractual arrangements or as part of improvements to area services or infrastructure that are of recognized benefit to both unincorporated and incorporated areas.
Policy U-LM 14	In order to anticipate long term service and infrastructure needs and to facilitate the eventual annexation of urban unincorporated areas, the County, LAFCO, cities, and urban unincorporated area residents should cooperatively explore and develop long term plans for urban service provision, integration of services, and infrastructure maintenance and replacement, where appropriate.
<i>Strategy #2</i>	<i>Ensure conformity of development with Cities' General Plans.</i>
Policy U-LM 6	County land use and development regulations within a city Urban Service Area shall be generally compatible with the applicable city's general plan designations and accompanying policies.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

Environmental Protection Agency (EPA) implements pollution control programs and sets wastewater standards.

ii. National Pollutant Discharge Elimination System (NPDES)

The CWA established the National Pollutant Discharge Elimination System (NPDES) permit program to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source

municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant. As described below, wastewater effluent from the project site vicinity is conveyed to the San Jose/Santa Clara Water Pollution Control Plan (WPCP) in Alviso. On April 8, 2009, the San Francisco Bay Regional Water Quality Control Board (RWQCB) approved the reissuance of the WPCP's NPDES permit. The permit, #CAS0037842 (RWQCB Order #R2-2009-0038), is effective from June 1, 2009 to May 31, 2014.

iii. San Francisco Bay Regional Water Quality Control Board

The San Francisco Bay RWQCB is the local division of the State Water Resources Control Board (SWRCB). The SWRCB is a State department that provides a definitive program of actions designed to preserve and enhance water quality and to protect beneficial uses of water in California. The San Francisco Bay RWQCB issues NPDES permits in Santa Clara County. NPDES permits allow the RWQCB to collect information on where the waste is disposed, what type of waste is being disposed, and what entity is depositing the wastes. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

b. Local Policies

i. Santa Clara County General Plan

The County's General Plan contains several goals and policies relevant to wastewater. Goals and policies relevant to the project are listed in Table 4.13-2.

TABLE 4.13-2 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO WASTEWATER

Strategy/ Policy Number	Strategy/Policy Content
Health and Safety Chapter	
<u>Waste Water Disposal</u>	
Policy C-HS 43	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.
Policy C-HS 44	All new septic systems should be located only in areas where: a. there is reasonable assurance that they will function well 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, groundwater or surface water.
Policy C-HS 45	Septic systems should not be allowed in areas where soil characteristics impede their operation (e.g., areas of high groundwater conditions, areas with saturated soils, areas with limited depth to bedrock, etc.).

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

2. Existing Conditions

a. Wastewater Collection

The City of San Jose’s wastewater collection system consists of a network of sewer pipes that convey effluent from sources to the City’s wastewater treatment plant. Two City sewer pipes are currently located on the project site. A 42-inch sewer pipe that is part of the Downer-Canoas Trunk Sewer runs north through the western portion of the site. The Downer-Canoas Trunk Sewer runs through a City of San Jose easement on the project site and after exiting the site continues west along Branham Lane. A 36-inch sewer pipe follows the alignment of the Canoas Creek through the site. Two additional City sewer lines are located adjacent to the project site: a 30-inch sewer pipe that is part of the Monterey-Riverside Trunk Sewer runs along Snell Avenue,

and a 21-inch sewer pipe runs along Branham Lane between Snell Avenue and Kingspark Drive.

b. Wastewater Treatment

Wastewater effluent from the City's collection system is conveyed to the San Jose/Santa Clara WPCP in Alviso. The WPCP provides wastewater treatment services to an approximately 300-square-mile area that includes the Cities of Campbell, Cupertino, Los Gatos, Milpitas, Monte Sereno, San Jose, Santa Clara, and Saratoga.¹ The WPCP serves a population of approximately 1.4 million people. The WPCP utilizes a tertiary treatment process and has the capacity to treat 167 million gallons per day (MGD). In wet weather conditions, the WPCP has the capacity to treat a peak of up to 400 MGD.² The WPCP treatment process removes approximately 99 percent of impurities in the wastewater it treats and is currently in compliance with State and federal water quality and discharge requirements.³

Most of the water treated at the WPCP is discharged through the Artesian Slough into the South San Francisco Bay.⁴ The WPCP discharges approximately 110 MGD of fresh water into the South San Francisco Bay. The WPCP discharges 100 to 11 MGD of treated wastewater from April through October, and 120 MGD from November through March. Approximately 10 percent of the water treated at the WPCP (or approximately 10 MGD) is recycled through the South Bay Water Recycling (SBWR) program and used for landscaping, agricultural irrigation, and industrial uses. The SBWR program

¹ City of San Jose website, <http://www.sanjoseca.gov/esd/wastewater/water-pollution-control-plant.asp>, accessed on March 2, 2010.

² San Jose/Santa Clara Water Pollution Control Plant website, <http://www.piersystem.com/go/doc/1823/254806>, accessed on March 2, 2010.

³ City of San Jose website, <http://www.sanjoseca.gov/esd/wastewater/water-pollution-control-plant.asp>, accessed on March 2, 2010; and San Jose/Santa Clara Water Pollution Control Plant website, <http://www.piersystem.com/go/doc/1823/254806>, accessed on March 2, 2010.

⁴ City of San Jose website, <http://www.sanjoseca.gov/esd/wastewater/water-pollution-control-plant.asp>, accessed on March 2, 2010.

consists of over 100 miles of pipeline bringing recycled water to areas of the Cities of Milpitas, San Jose, and Santa Clara.⁵ No recycled water pipelines are located in the vicinity of the project site.

3. Standards of Significance

Wastewater impacts associated with the project would be considered significant if the project would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- b. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- c. 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.

4. Impact Discussion

The impact discussion takes into consideration that all wastewater would be collected through a wastewater collection system, and that septic systems would not be utilized at the project site.

All potential wastewater impacts would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

a. Exceedance of RWQCB Wastewater Treatment Requirements

The project would have a significant environmental impact if it would result in a violation of the sanitary wastewater treatment requirements established in the NPDES Permit that was issued by the RWQCB on April 8, 2009 for the San Jose/Santa Clara Pollution Control Plant, City of San Jose's sewage

⁵ San Jose/Santa Clara Water Pollution Control Plant website, <http://www.piersystem.com/go/doc/1823/254806>, accessed on March 2, 2010.

collection system, and the City of Santa Clara's sewage collection system. The NPDES Permit is effective from June 1, 2009 through May 31, 2014. The dischargers named in the permit, the Cities of San Jose and Santa Clara and the San Jose/Santa Clara Pollution Control Plant, ensure that effluent released into Coyote Creek and Artesian Slough comply with Water Quality Objectives established by the Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan). The Basin Plan serves as the Regional Water Board's master water quality control planning document, includes programs and implementation measures for meeting these objectives.

Detailed wastewater generation calculations are included in Appendix K. Buildout of the project is anticipated to result in the generation of an average of 2,476 gallons of wastewater per day (0.0025 MGD), assuming that 90 percent of water consumed within Park structures, including restrooms, would enter the San Jose Sewer Collection System and be treated by the WPCP.⁶ Park uses that would generate wastewater would be similar to other educational, recreational, commercial, and light industrial uses that are currently served by the San Jose/Santa Clara Pollution Control Plant. Therefore, buildout of the project would be unlikely to substantially increase pollutant loading levels in the sanitary sewer system, and the project would not be expected to exceed treatment RWQCB standards. Impacts to sanitary wastewater quality would be *less than significant*.

b. Construction of New Wastewater Treatment Facilities or Expansion of Existing Facilities

The project would have a significant impact if it would require the City of San Jose to construct new wastewater treatment facilities or require the expansion of the San Jose/Santa Clara Wastewater Pollution Control Plant. The project would not require any expansions to the WPCP or the construction of a new facility because the anticipated wastewater generation would be within the capacity of the existing plant; therefore, impacts associate with

⁶ The assumption that wastewater would be equal to 90 percent of water consumed in Park structures is based on consultation between DC&E, Balance Hydrologics and City of San Jose staff.

new wastewater treatment utilities would be *less than significant*. See the response to criteria c) below for additional information on existing facility capacity and projected wastewater generation volume as part of the project.

c. Determination by the Wastewater Treatment Provider that It has Inadequate Capacity to Serve the Project's Projected Demand

The San Jose/Santa Clara WPCP has a dry weather capacity of 167 million gallons per day (MGD). The WPCP is permitted to discharge up to 120 MGD into the San Francisco Bay. Studies conducted on WPCP capacity for the Envision San Jose 2040 General Plan Update indicate that the WPCP has adequate capacity to treat wastewater generated by projected growth in San Jose through 2040.⁷ Discharge rates are also anticipated to remain below the 120 MGD limit. The average effluent flow to the WPCP between 2004 and 2008 was 108 MGD, and the maximum effluent flow between 2004 and 2008 was 133 MGD.⁸ The South Bay Water Recycling Program redistributes approximately 10 to 15 MGD of treated effluent from the WPCP, reducing the amount of effluent that enters the San Francisco Bay and helping to ensure that the WPCP does not exceed the 120 MGD threshold.

Detailed wastewater generation calculations are included in Appendix K. Buildout of the project is anticipated to result in the generation of an average of 2,476 gallons of wastewater per day (0.0025 MGD), assuming that 90 percent of water consumed within Park structures, including restrooms, would enter the San Jose Sewer Collection System and be treated by the WPCP.⁹ It is assumed that water used for irrigation would be retained on-site and would not enter the San Jose Sewer Collection System. Projected flows from the

⁷ Krupp, Matt, City of San Jose Environmental Services Division, Project Planner for the Plant Master Plan. Personal communication with Isby Fleischmann, DC&E, April 28, 2010.

⁸ California Water Quality Control Board NPDES Permit No. 0037842, adopted April 8, 2009.

⁹ The assumption that wastewater would be equal to 90 percent of water consumed in Park structures is based on consultation between DC&E, Balance Hydrologics and City of San Jose staff.

project site would constitute only a fraction of 1 percent of the WPCP's 167 influent capacity. The amount of wastewater generated by the project would be minimal compared to the amount of future wastewater that the WPCP can accommodate.¹⁰ There would be a *less-than-significant* impact on wastewater treatment facilities.

5. Cumulative Impacts

This section analyzes the potential for cumulative impacts to the wastewater collection and treatment system that could occur from the project in combination with other foreseeable projects. As discussed above, initial studies indicate that the WPCP has adequate capacity to treat wastewater generated by projected growth in San Jose through 2040. Wastewater generated by the project would constitute a small percentage of the influent flow to the WPCP, and the capacity of the WPCP would therefore not be exceeded. The project would result in *less-than-significant* cumulative impacts on the wastewater treatment system.

B. Water Supply

1. Regulatory Framework

a. Senate Bill 610/Assembly Bill 901 and Senate Bill 221

Three recent Senate Bills address water supply issues. Senate Bills (SB) 610 and 221 and Assembly Bill (AB) 901, Water Supply Planning, amend the Public Resources and Water Codes as they pertain to consultation with water supply agencies, urban water management plans, and water supply assessments. SB 610 requires water supply assessments (WSAs) for projects, as defined by Water Code Section 10912, that are subject to the California Environmental Quality Act (CEQA). SB 221 establishes consultation and analysis requirements related to water supply planning for residential subdivisions including more than 500 dwelling units.

¹⁰ Krupp, Matt, City of San Jose Environmental Services Division, Project Planner for the Plant Master Plan. Personal communication with Isby Fleischmann, DC&E, April 28, 2010.

b. Santa Clara Valley Water District

The Santa Clara Valley Water District (SCVWD) is the main water resource agency in Santa Clara County. SCVWD is guided by their mission of “a healthy, safe and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective and environmentally sensitive manner for current and future generations.”¹¹ SCVWD policies regarding water supply are identified in Table 4.13-3.

c. Santa Clara County General Plan

The County’s General Plan contains several goals and policies relevant to parks and recreational facilities. Goals and policies relevant to the project are listed in Table 4.13-4.

2. Existing Conditions

Agricultural needs on the project site have historically been served by groundwater withdrawals, and the site currently relies on on-site well water and well water from the Life Estate. There is one existing well located on the project site, and four existing wells located on the Life Estate. The well, located in the southwestern area of the project site, is covered by a pump house. The pump house well was installed in December 1933 and has a depth of 202 feet. The pump house is inoperable at this time. An above-ground water storage tank is also located in this area of the project site.

SCVWD is responsible for the conservation and development of water resources in Santa Clara County, and serves as a water wholesaler to water purveyors. The San Jose Water Company provides municipal water service for the portion of San Jose in which the project site is located. The San Jose

¹¹ Santa Clara Valley Water District, Mission, Values and Goals; <http://www.valleywater.org/MissionVisionValues.aspx>; accessed May 5, 2010.

TABLE 4.13-3 SCVWD ADOPTED POLICIES

Policy Number	Policy Content
2.1	There is a reliable supply of healthy, clean drinking water.
2.1.1	The water supply meets or exceeds all applicable water quality regulatory standards in a cost-effective manner.
2.1.2	The water supply is reliable to meet current demands.
2.1.3	The water supply is reliable to meet future demands in Santa Clara County, consistent with the County's and cities' General Plans and other appropriate regional and statewide projections.
2.1.4	There are a variety of water supply sources.
E.2.1.5	Groundwater resources are sustained and protected for water supply reliability and to minimize land subsidence.
E.2.1.6	The groundwater basins are aggressively protected from contamination and the threat of contamination.
E.2.1.7	Water recycling is expanded within Santa Clara County in partnership with the community, consistent with the District's Integrated Water Resources Plan (IWRP), reflecting its comparative cost assessments and other Board policies.

Source: Integrated Water Resource Planning Study, 2003.

TABLE 4.13-4 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO WATER SUPPLY

Strategy/ Policy Number	Strategy/Policy Content
Resource Conservation Chapter	
<u>Water Supply Resources</u>	
Policy 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.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

Water Company provides water service to approximately one million people in the San Jose metropolitan area. The Company's service area is supplied by

three major water sources: groundwater, surface water provided through the SCVWD, and local mountain surface water. The water supply for the portion of San Jose in which the project site is located is imported surface water from SCVWD.¹²

The water is brought from the Sierra Nevada mountains via the State Water Project and federal Central Valley Project to the Sacramento-San Joaquin Delta. From there, three main pipelines convey the water to the SCVWD.¹³ The SCVWD has contracts for 100,000 acre-feet per year (AFY), or 89.3 MGD, from the State Water Project and 152,500 AFY (136.1 MGD) from the federal Central Valley Project.¹⁴

The SCVWD operates and maintains ten reservoirs and dams, dozens of groundwater recharge basins, nearly 150 miles of pipelines, and three pump stations.¹⁵ The SCVWD also has three water treatment plants (WTPs): the Penitencia WTP, which can treat and deliver up to 40 MGD of treated water;¹⁶ the Rinconada WTP, which can treat and deliver up to 80 MGD;¹⁷ and

¹² San Jose Water Company, 2009, *Guide to Using Water Wisely*, page 9. (http://www.sjwater.com/content/conservation/water_wisely_06242009.pdf)

¹³ San Jose Water Company website, <http://www.sjwater.com/conservation/index.jsp>, accessed on March 3, 2010. Santa Clara Valley Water District website, <http://www.scvwd.dst.ca.us/Services/WhereDoesYourWaterComeFrom.aspx>, accessed on March 3, 2010.

¹⁴ Santa Clara Valley Water District, 2005, *Urban Water Management Plan*, page 57. (http://www.valleywater.org/Services/Clean_Reliable_Water/Water_Supply_Planning/Urban_Water_Management_Plan_2005.aspx).

¹⁵ Santa Clara Valley Water District website, <http://www.valleywater.org/Services/WaterSupplySustainabilityPlanning.aspx>, accessed on March 3, 2010.

¹⁶ Santa Clara Valley Water District website, <http://www.valleywater.org/Services/PenitenciaWTP.aspx>, accessed on March 3, 2010.

¹⁷ Santa Clara Valley Water District website, <http://www.valleywater.org/Services/RinconadaWTP.aspx>, accessed on March 3, 2010.

the Santa Teresa WTP, which can treat and deliver up to 100 MGD.¹⁸ The three WTPs are located in the foothills of the Santa Clara Valley and rely on gravity to deliver treated water to users.¹⁹

3. Standards of Significance

Water supply impacts associated with the project would be considered significant if the project would:

- a. Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- b. Have insufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.
- c. Increase the need for new local or regional water distribution systems or supplies, or cause substantial alterations to water distribution utilities.

4. Impact Discussion

All potential water supply impacts would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

- a. Construction of New Water Treatment Facilities or Expansion of Existing Facilities

The project would cause significant water supply impacts if the water demand generated by the project necessitated construction of new, or expansion of existing, San Jose Water Company water treatment facilities. Total municipal water demand for the project is estimated to be 45.5 million gallons per year (equivalent to 133 acre-feet per year (AFY)). This includes 116 AF for irrigation and 17 AF for other uses, such as restrooms, kitchens, and other uses associated with proposed buildings. Water demand for the project was esti-

¹⁸ Santa Clara Valley Water District website, <http://www.valleywater.org/Services/SantaTeresaWTP.aspx>, accessed on March 3, 2010.

¹⁹ Santa Clara Valley Water District website, <http://www.valleywater.org/Services/HowWeCleanYourWater.aspx>, accessed on March 3, 2010.

mated based on anticipated water use within buildings as well as irrigation water and other water needs for agricultural programs, such as water for the equestrian area. These estimates assume that water closets and irrigation infrastructure are designed for water efficiency. Detailed water demand calculations are included in Appendix K. According to the San Jose Water Company, existing water supply infrastructure is adequate to provide for the Park's estimated potable water demand without changes to the operation system.²⁰ Therefore, the impact of the project to water facilities would be *less than significant*.

b. Insufficient Water Supplies Available to Serve the Project

The project would cause significant impacts to water supply if it created a greater demand than could be met by SCVWD water supplies. The SCVWD Urban Water Management Plan 2005 estimates that water demand in the District will increase by 18 percent (70,000 AFY), between 2005 and 2030, reaching 450,000 AFY in 2030. This estimate assumes that conservation and water efficiency programs would be implemented by SCVWD and their major suppliers as planned. Currently, there are adequate supplies to meet this demand without using groundwater. However, it is anticipated that groundwater pumping would be necessary by 2020 and that additional supplies of approximately 14,000 AFY will be needed in addition to groundwater pumping by 2030.²¹ In order to meet projected demand, SCVWD will need to protect its existing water supplies and invest in new supplies. SCVWD has a planning process in place to evaluate options for future water supplies that considers various weather scenarios, climate change, unexpected demand increases, and reduced availability of imported water. It is anticipated that SCVWD will identify appropriate strategies and funding for providing adequate supply through this planning process.

²⁰ Tuttle, William, Director of Engineering, Water Services and Planning, San Jose Water Company. Written communication with Jane Mark, Senior Planner, Santa Clara County Parks and Recreation Department. June 30, 2010.

²¹ Santa Clara Valley Water District Urban Water Management Plan, 2005.

The approximately 133 AFY municipal water demand associated with the project would account for only 0.2 percent of the projected increase in district-wide demand. Although projected district-wide demand will require additional supplies to be secured by SCVWD, this would be necessary regardless of the project. It is anticipated that SCVWD's planning efforts to ensure adequate provision of water supplies would enable adequate water supply to be provided to the project site. Since the water demand generated by the project would not constitute a substantial portion of the total demand and since SDVWD is planning to invest in additional water supplies to meet future demands, the impact of the project on water supplies would be *less than significant*.

c. Increased Need for New Local or Regional Water Distribution Systems or Supplies, or Substantial Alterations to Water Distribution Utilities

Since the project site is currently undeveloped agricultural land, the development of the project would require the extension of the San Jose Water Company's water distribution system through the project site to uses needing municipal water. Approximately 21,000 linear feet of pipeline would be needed to extend municipal water through the site.²² New pipes would only be used to provide water supply to the Park uses and would not be used for any other purposes. Potential construction-related impacts would be associated with construction activities, involving ground disturbance, and would be related to air quality, noise, and biological resource impacts that are addressed in other sections of this EIR. The pipeline extension that would be required to serve the project would not be substantial; therefore, impacts associated with new water utilities would be *less than significant*.

5. Cumulative Impacts

This section analyzes the potential impacts to water supply that could occur from the project in combination with other reasonably foreseeable growth within the SCVWD's service area.

²² Estimate of linear feet of pipeline is based on calculations conducted by Design, Community & Environment, 2010.

As discussed above, SCVWD has determined the need to invest in additional water supplies to meet future projected demand. Demand associated with the project is within the district area, and therefore is assumed to be included in future district-wide projections. Since the demand associated with the project is a small portion of current district-wide demand projections, and since SCVWD has a planning process in place to identify strategies to meet the demand, cumulative impacts would be *less than significant*.

C. Stormwater

1. Regulatory Framework

a. Federal, State, and Regional Regulations and Agencies

i. Clean Water Act

Section 402(p) of the CWA establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program.²³ On December 8, 1999, the EPA circulated Phase II regulations for non-point sources requiring permits for stormwater. Permits will be required for discharges from Small Municipal Separate Storm Sewer System (MS4s) operators. In California, the NPDES program is administered by the State (see below).

ii. San Francisco Bay Regional Water Quality Control Board

The San Francisco Bay RWQCB issues NPDES permits in Santa Clara County. The NPDES permit is concerned with regulating trash, pollutants of concern, and excessive hydrologic runoff that can carry sediment and cause

²³ Authorized by the CWA, the permit program controls water pollution by regulating point sources (discrete conveyances such as pipes or man-made ditches) that discharge pollutants into waters of the United States. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. In most cases, the NPDES permit program is administered by authorized states with oversight from the EPA. Summarized from the EPA website, <http://cfpub.epa.gov/npdes/>, accessed on November 12, 2009.

flooding. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

The SWRCB Construction General Permit (99-08-DWQ) requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for dischargers whose projects disturb 1 or more acres of soil or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres. An updated Construction General Permit (2009-0009-DWQ), adopted on September 2, 2009 and effective July 1, 2010, will require tighter stormwater pollution prevention controls, including the imposition of more minimum Best Management Practices (BMPs) and the development and implementation of Rain Event Action Plans for certain sites.

iii. Santa Clara Valley Urban Runoff Pollution Prevention Program

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) is an association of thirteen Santa Clara Valley cities and towns, Santa Clara County, and the SCVWD (co-permittees), which share a common NPDES permit, #CAS612008 (RWQCB Order #R2-2009-0074), to discharge stormwater to the South San Francisco Bay.²⁴ The SCVURPPP incorporates regulatory, monitoring, and outreach measures to reduce stormwater runoff pollution.²⁵

Provision C.3 of the SCVURPPP's NPDES permit requires that development or redevelopment projects that disturb more than 1 acre of impervious surface, or that create or replace 10,000 square feet or more of impervious surface, meet certain site design measure, pollutant source control measures, and treatment control measures. Under the SCVURPPP, co-permittees are required to implement a verification program to ensure that treatment control

²⁴ San Francisco Bay Regional Water Quality Control Board website, http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/mrp.shtml, accessed on March 5, 2010.

²⁵ Santa Clara Valley Urban Runoff Pollution Prevention Program, http://www.scvurppp-w2k.com/about_scvurppp.shtml, accessed on March 5, 2010.

measures are being properly operated and maintained. Projects that increase peak runoff flows, volumes, and durations that may cause erosion in downstream receiving waters must also include hydromodification control measures.²⁶ Site design measures include site planning techniques intended to prevent or reduce adverse impacts of stormwater pollutants, such as natural resource protection and impervious surface reduction.²⁷ Pollutant source control measures include post-development BMPs to prevent pollutant generation, discharge, runoff at its source, and operational BMPs to prevent pollutants from entering the stormwater runoff.²⁸ Treatment control measures include structural and landscape features designed to treat and remove stormwater pollutants, volumes, and rates. Such features can include bioretention, vegetated swales, media filters, dry and wet detention ponds, water quality wetlands, and solids separators.²⁹ The SCVURPPP has developed a *C.3 Stormwater Handbook* to assist project applicants and co-permittee staff in meeting the requirements of NPDES Permit Provision C.3.³⁰

b. Local Policies and Regulations

i. *County of Santa Clara*

Division B11 1/2 of the County of Santa Clara Ordinance Code, Nonpoint Source Pollution, contains provisions designed to protect surface water quality and comply with the CWA and NPDES permits. Section B11 1/2-4, Discharge Prohibition, states that it is unlawful to discharge certain materials into the stormwater system or watercourses, including sewage, hazardous waste, petroleum products, chemicals, detergents, solvents, paints, pesticides

²⁶ Santa Clara Valley Urban Runoff Pollution Prevention Program, http://www.scvurppp-w2k.com/new_dev.shtml, accessed on March 5, 2010.

²⁷ Santa Clara Valley Urban Runoff Pollution Prevention Program, http://www.scvurppp-w2k.com/site_design.shtml, accessed on March 5, 2010.

²⁸ Santa Clara Valley Urban Runoff Pollution Prevention Program, http://www.scvurppp-w2k.com/source_control.shtml, accessed on March 5, 2010.

²⁹ Santa Clara Valley Urban Runoff Pollution Prevention Program, http://www.scvurppp-w2k.com/treatment_control.shtml, accessed on March 5, 2010.

³⁰ Santa Clara Valley Urban Runoff Pollution Prevention Program, http://www.eoainc.com/c3_handbook_final_may2004/, accessed on March 5, 2010.

and herbicides, fertilizers, soil sediments, wash water, animal wastes, and other materials that may be hazardous to aquatic life. Section B11 1/2-28 lists the following approved stormwater site design BMPs:

- ◆ Minimize land disturbance.
- ◆ Minimize impervious surfaces.
- ◆ Minimize the impact of parking lots, including parking space maximization within a given area, use of landscaping as a stormwater treatment feature, and consideration to the use of pervious pavement, etc.
- ◆ Cluster structures and pavement to preserve open space and/or vegetated areas.
- ◆ Connect roof downspouts to splash blocks or “bubble-ups,” and conduct stormwater to vegetated or landscaped areas, instead of directly to the street gutter or storm drain.
- ◆ Install micro-detention areas, including landscape detention and the use of cisterns or dry wells for infiltration, where conditions allow.
- ◆ Preserve open space.
- ◆ Maintain and/or restore riparian areas and wetlands as project amenities, including vegetated buffer zones to reduce runoff into waterways, potential stream channel changes, and other mitigations.
- ◆ Incorporate supplemental controls to minimize changes in the volume, flow rate, timing, and duration of runoff for a given precipitation event or events. Changes may include mitigating the cumulative hydromodification caused by site development. Measures may include landscape-based measures or other features to reduce the runoff velocity, increase runoff detention, and/or increase runoff infiltration.

County General Plan policies relevant to stormwater are listed in Table 4.13-5.

TABLE 4.13-5 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO STORMWATER

Strategy/Policy Number	Strategy/Policy Content
Resource Conservation Chapter	
<u>Water Quality & Watershed Management</u>	
<i>Strategy #1</i>	<i>Reduce non-point source pollution.</i>
Policy C-RC 22	Countywide, compliance should be achieved with the requirements of the National Pollution Discharge Elimination System (NPDES) permit for discharges into S.F. Bay, and to that end, the Countywide Nonpoint Source Pollution Control Program should receive the full support and participation of each member jurisdiction.
Policy C-RC 23	The countywide Stormwater Management Plan should be routinely reviewed and updated as additional information is collected on the effectiveness of prescribed control measures.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

2. Existing Conditions

Stormwater on the project site currently permeates directly through the soils on-site, flows to lower elevations via natural drainage courses, or flows to the Canoas Creek, which ultimately flows to the Guadalupe River. The SCVWD has land rights over most of the creek channels that collect runoff from storm drains in urban areas, including Canoas Creek.

Two stormwater mains run adjacent to the project site. A main varying in width from 72 to 84 inches runs within Branham Lane, to the north of the site. A 54-inch storm main runs along with Snell Avenue along the eastern boundary of the site. Both of these storm mains convey stormwater from inlets in their respective roadways and adjacent streets.

3. Standards of Significance

Stormwater impacts associated with the project would be considered significant if the project would:

- a. 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.

4. Impact Discussion

All potential stormwater impacts would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

- a. Construction of New Storm Water Drainage Facilities or Expansion of Existing Facilities

Buildout of the project is anticipated to result in a 4.2-percent increase in peak stormwater flow rates for each return period. This increase is low due to the relatively small increase in impermeable surfaces and the soil type.³¹ The project includes policies requiring the use of bioswales and green infrastructure to capture and filter stormwater, as well as policies to minimize impermeable surfaces. Natural drainage to the creek combined with these on-site stormwater management features identified by the project would be sufficient to handle the increase in stormwater drainage. Therefore, the project would not require construction of new or expansion of existing storm water drainage facility, and impacts would be *less than significant*.

5. Cumulative Impacts

The project would not construct or connect to any stormwater drainage infrastructure, and increases in flow into the Canoas Creek channel would be minimal. Therefore, the project would not make a significant impact to stormwater drainage in the City and cumulative impacts would be *less than significant*.

³¹ Balance Hydrologics, Peak Flow Calculations for Martial Cottle Park.

D. Solid Waste

This section describes existing conditions and potential impacts of the project with regard to solid waste services.

1. Regulatory Framework

a. State Regulations

Solid waste handling and disposal is regulated at the State level. Specific regulations relevant to the project are described below.

i. California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) requires that cities and counties divert 50 percent of all solid waste from landfills as of January 1, 2000 through source reduction, recycling, and composting. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity. To help achieve this, the Act requires that each City and County prepare a Source Reduction and Recycling Element to be submitted to the California Integrated Waste Management Board (CIWMB).

ii. California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act requires areas in development projects to be set aside for collecting and loading recyclable materials. The Act required the CIWMB to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, governing adequate areas in development projects for collection and loading of recyclable materials.

iii. County of Santa Clara Department of Environmental Health

The Hazardous Materials Compliance Division of the County of Santa Clara Department of Environmental Health is the State-certified Local Enforcement Agency (LEA) for solid waste in Santa Clara County. The LEA regu-

lates all facilities and operations for the collection, handling, transportation, storage, and disposal of solid waste in the county.

b. Local Regulations and Agencies

i. *Santa Clara County General Plan*

Santa Clara County General Plan requires compliance with State regulations and includes four strategies for solid waste management, including to:

- ◆ Encourage source reduction and reuse
- ◆ Facilitate recycling and promote composting
- ◆ Explore transformation opportunities
- ◆ Plan for adequate landfill capacity

The General Plan includes policies to ensure the implementation of each of the above strategies. Policies that are relevant to the project are listed in Table 4.13-6.

2. Existing Conditions

The City of San Jose Environmental Services Department oversees solid waste and recycling in San Jose, and contracts with service providers for collection services. The City has a contract with Newby Island Sanitary Landfill for residential garbage disposal, although Newby Island Sanitary Landfill also accepts non-residential waste. Commercial solid waste and recyclables in San Jose are collected by twenty-four non-exclusive, City-franchised service providers. Waste from these providers is brought to any of five privately-owned landfills in San Jose. Allied Waste would be the company responsible for transferring solid waste from the project site to the Newby Island Sanitary Landfill. Newby Island Sanitary Landfill accepts a variety of waste types, including recyclables and compostable materials.³² The Newby Island Sanitary Landfill is permitted to receive up to 4,000 tons. The facility has a maximum permitted capacity of 50.80 million cubic yards (CY) and as of October

³² Allied Waste website, <http://www.alliedwastescco.com/facilities.cfm>, accessed on May 11, 2010.

TABLE 4.13-6 SANTA CLARA COUNTY GENERAL PLAN POLICIES RELEVANT TO SOLID WASTE

Policy Number	Strategy/Policy Content
Resource Conservation Chapter	
<u>Solid Waste Management</u>	
Policy C-RC 65	All solid waste management services and facilities shall conform to applicable federal, state, and local regulations and standards.
Policy 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.
Policy C-RC 73	Santa Clara County acknowledges the need for long term disposal capacity and will strive to maintain 20 to 30 years of ongoing collective disposal capacity.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

2006 had a remaining capacity of 18.27 CY. The estimated date when the facility will reach its permitted capacity is June 1, 2025.³³

3. Standards of Significance

Solid waste impacts associated with the project would be considered significant if the project would:

- a. Not be able to be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- b. Not comply with federal, State, and local statutes and regulations related to solid waste.

³³ California Department of Resources Recycling and Recovery Solid Waste Information System, Facility/Site Summary Details for Newby Island Sanitary Landfill (43-AN-0003), accessed on May 17, 2010.

- c. Increase the need for new solid waste or litter systems or supplies, or cause substantial alterations to solid waste or litter facilities.

4. Impact Discussion

All potential solid waste impacts would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

- a. Insufficient Permitted Capacity to Accommodate the Project's Solid Waste Disposal Needs

The project would be expected to incorporate features to reduce solid waste generation, such as on-site composting and recycling of grass and yard clippings. The Plan includes a goal to maximize the amount of solid waste diverted to the landfill through reuse, composting, and recycling, as well as the following guidelines for achieving this goal. Guidelines UTIL.9 and UTIL.10, for instance, encourage recycling service, on-site composting and mulching or reuse of plant debris, and the use of recyclable and/or compostable materials by concessionaires. Many agricultural and animal waste products could also be used on-site. Such features would reduce the project's effect on the remaining capacity of the Newby Island Sanitary Landfill. The project is expected to generate approximately 2,657 CY of solid waste per year and 857 CY of recyclable materials per year.³⁴ Allied Waste and Newby Island Sanitary Landfill

³⁴ Solid waste estimate is based on data for solid waste generated by Vasona Lake County Park and Emma Prusch Farm Park, adjusted to reflect the projected visitor usage of the proposed project. Vasona Lake County Park is representative of a large County Park that employs waste reduction strategies, and Emma Prusch Farm Park is representative of a small-scale agricultural park. The estimate assumes that lawns are grasscycled, that agricultural waste and animal waste are composted/used on site, and that the only compostable waste not composted on site is from park users. Additional efforts to reduce waste may further decrease the total volume of waste generated by the park.

would have sufficient capacity to accommodate disposal of the project's solid waste.³⁵ Therefore, the project would have a *less than significant* impact.

b. Lack of Compliance with Federal, State, and Local Statutes and Regulations Related to Solid Waste

The Newby Island Sanitary Landfill is a permitted Class III, Subtitle D facility. All of the facility's active management units meet or exceed criteria for Federal Subtitle D.

Waste reduction strategies identified in the City of San Jose Zero Waste Strategic Plan, discussed above, would inform the design and operations of the project site. The implementation of strategies and programs from this project would allow the City to meet the State-mandated waste diversion goal of 50 percent. Therefore, the project would comply with applicable statutes and regulations related to solid waste, and impacts would be *less than significant*.

c. Increased Need for New Solid Waste or Litter Systems or Supplies, or Substantial Alterations to Solid Waste or Litter Facilities

The Newby Island Sanitary Landfill has a remaining capacity of 18.27 million CY. The project site is estimated to generate 2,657 CY of solid waste per year, or less than 0.01 percent of the remaining capacity. Given the relatively minor increase in solid waste generated by the buildout of the project site, it is unlikely that the project would substantially increase the need for new waste facilities, and impacts would be *less than significant*.

5. Cumulative Impacts

As discussed above, the project would generate approximately 2,657 CY of solid waste and 857 CY of recyclable materials per year. The project would be expected to incorporate features to reduce solid waste generation, such as on-site composting and recycling of grass and yard clippings. Many agricultural and animal waste products could also be used on-site. Such features would reduce the project's affect on solid waste providers. Waste generated

³⁵ Gil Cheso, Republic Services, Inc. Personal communication with Isby Fleischmann, DC&E. May 11, 2010.

by the project would be handled by Newby Island Sanitary Landfill, which has enough remaining capacity to accommodate the project's waste and handles a variety of waste products, including the types of waste that would be generated by the project. Therefore, the project would have *less-than-significant* cumulative impacts on solid waste facilities.

E. Electricity and Natural Gas

1. Regulatory Framework

This section summarizes existing federal, State, and local policies and regulations that apply to energy conservation.

a. Federal Agencies and Regulations

Federal agencies regulate energy production, transmission, and consumption through various regulations and programs. Federal agencies, such as the Environmental Protection Agency (EPA), the U.S. Department of Energy (USDOE), and the U.S. Department of Transportation (USDOT) affect energy consumption in the transportation sector through fuel economy standards, funding for transportation infrastructure and funding for energy related research and development projects. The USDOT also promotes a diverse supply and delivery of reliable, affordable, and environmentally sound energy.

The Federal Energy Regulatory Commission (FERC) is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. FERC also reviews proposals to build liquefied natural gas (LNG) terminals and interstate natural gas pipelines and licenses hydropower projects.³⁶

b. State Agencies and Regulations

The California Energy Commission (CEC) is the State's primary energy policy and planning agency. Created by the Legislature in 1974, the Commission has five major responsibilities:

³⁶ Federal Energy Regulatory Commission website, <http://www.ferc.gov/>, accessed on May 17, 2010.

- ◆ Forecasting future energy needs and keeping historical energy data
- ◆ Licensing thermal power plants 50 megawatts or larger
- ◆ Promoting energy efficiency through appliance and building standards
- ◆ Developing energy technologies and supporting renewable energy
- ◆ Planning for and directing State response to energy emergency

With the signing of the Electric Industry Deregulation Law in 1998 (Assembly Bill 1890), the Commission's role was expanded to include funding program oversight in support of energy research, development, and demonstration.

*i. California's Energy Efficiency Standards for Residential and Nonresidential Buildings of 2005 (Title 24 Building Standards)*³⁷

Administered by the CEC, Title 24 Building Standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Last updated in 2008, the standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. Title 24 standards require that new construction include a variety of energy conservation measures including ceiling, wall, and concrete slab insulation; weather-stripping on doors and windows; vapor barriers; insulated heating and cooling ducts; water heater insulation blankets; and certified energy-efficient appliances.³⁸

ii. California Environmental Quality Act, Appendix F

Appendix F, Energy Conservation, of the California Environmental Quality Act (CEQA) contains guidelines for considering the energy implications of a proposed project.³⁹ Appendix F does not contain specific thresholds or standards, but outlines possible energy impacts, such as project effects on local energy supply and project compliance with existing energy standards. It also

³⁷ California Energy Commission website, <http://www.energy.ca.gov/title24/>, accessed on May 17, 2010.

³⁸ California Energy Commission website, <http://www.energy.ca.gov/title24/2008standards/>, accessed on May 17, 2010.

³⁹ Section 15126.4 (a)(1) CEQA Guidelines.

provides potential energy conservation strategies, such as siting and designing to increase energy efficiency and implementing various recycling efforts.

According to Appendix F of the Guidelines, energy conservation can be achieved through reduced reliance on natural gas and oil, increased reliance on renewable energy sources, and decreased overall per capita energy consumption. Energy can be reduced and cost efficiencies can be realized through mitigation measures that:

- ◆ Reduce inefficient and wasteful energy consumption during the life of the project
- ◆ Include efficiencies in design and transportation related features of the project
- ◆ Reduce peak energy demand
- ◆ Promote the use of alternative, renewable energy fuels
- ◆ Conserve nonrenewable resources through recycling

iii. CALGREEN

On January 12, 2010, the California Building Standards Commission adopted CALGREEN and became the first state in the United States to adopt a state-wide green building standards code. CALGREEN will require new buildings to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low pollutant-emitting materials.

c. Local Policies

The County of Santa Clara promotes energy conservation through its Green Building Policy and Green Building Ordinance. The Green Building Policy applies to both new and existing County facilities and sets an intention to design, construct, maintain, and lease buildings that reflect leadership on behalf of the Board of Supervisors in regards to green building.⁴⁰ The County's

⁴⁰ County of Santa Clara Office of the County Executive, *Report Back on Two Referrals Relating to Leadership in Energy and Environmental Design (LEED) Certification and Green Building Policy for County Owned and Leased Buildings*, <http://www.sccgov.org/keyboard/attachments/Committee%20Agenda/2009/Septem>

Green Building Ordinance is contained in Division C3, Chapter III of the County of Santa Clara Ordinance Code. The regulations apply to major remodels and new residential projects over 1,200 square feet in size.

2. Existing Conditions

Pacific Gas and Electric Company (PG&E) supplies electricity and natural gas to the project site vicinity. PG&E energy is provided via a system of existing electric transmission towers and overhead electrical lines that run along most of the existing streets in the project site vicinity. PG&E's electricity distribution system is powered by the Metcalf Energy Center, a 600-watt power generation facility in southern San Jose. PG&E has an easement along Snell Avenue, along the project site's eastern boundary.

3. Standards of Significance

Electricity and natural gas impacts associated with the project would be considered significant if the project would:

- a. Increase the need for new electricity or natural gas systems or supplies, or cause substantial alterations to electricity or natural gas utilities.

4. Impact Discussion

- a. Increased Need for New Electricity or Natural Gas Systems or Supplies, or Substantial Alterations to Electricity or Natural Gas Utilities

Potential impacts to electricity and natural gas systems and supplies would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below. At buildout, it is estimated that the project would demand 1,178,584 kilowatt hours (kWh) of electricity per year.⁴¹ This estimate assumes that structures would require 3

ber%2010,%202009/202547978/KeyboardTransmittalWeb202780924.PDF, accessed on May 17, 2010.

⁴¹ Energy consumption estimates are based primarily on 2003 data for comparable land uses from the Energy Information Administration; http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/detailed_tables_2003.html#enduse03; accessed on April 16, 2010. Since these figures reflect national data, estimates have been adjusted for California energy use and implementation of Leadership in

to 36 kWh per square foot (SF) depending upon the type of building. Buildings that would be primarily dedicated to storage require only 3 kWh, classroom and kitchen buildings require approximately 10 kWh, and food sales and related uses are estimated to require 36 kWh. The estimate assumes energy demand for outdoor lighting, irrigation, and operation of the well. These figures assume the use of passive solar design and energy efficient technology. Natural gas demand could be used for some features, such as kitchen stoves in the café and pavilion and building heating, but would be minimal. In order to minimize energy demand, the project has sets a goal to “encourage use of self-sustaining energy systems for electricity and heating and cooling within all park structures and park use areas,” and includes several guidelines for meeting this goal (Guidelines UTIL.3, UTIL.5, and UTIL.6).

The Plan includes a policy to “maximize use of sustainable energy practices such as the use of solar, and wind, passive solar, and geothermal technologies” (UTIL 3). Therefore, it is anticipated that some energy would be generated on site through the use of solar and wind technology, and that the remaining energy demand would be met by natural gas and electricity provided by PG&E. As discussed above, existing PG&E infrastructure surrounds the project site, and a PG&E easement runs along the east side of the project site. Development of the project would require that connections between the developed portions of the project and existing PG&E infrastructure be established. Potential construction-related impacts would be associated with construction activities that are addressed in other sections of this EIR. Connection to existing PG&E utilities would not require substantial alterations to PG&E utilities, and the estimated demand of the project would not constitute a substantial demand. Therefore, impacts associate with new electricity utilities would be *less than significant*.

Energy and Environmental (LEED) Design standards. It is assumed that energy demand is 23 percent less than the national average and that green building can reduce energy consumption by 15 percent based on the following sources: http://www.statemaster.com/graph/ene_tot_ene_con-energy-total-consumption and <http://www.naiop.org/governmentaffairs/pdf/consol.pdf>, both accessed July 16, 2010.

5. Cumulative Impacts

In 2007, approximately 16,386.8 million kWh of electricity and 473.1 million therms of natural gas was used within Santa Clara County. Cumulative development within Santa Clara County, including the project, is expected to result in an increase in the demand for energy sources throughout the County. However, the demand associated with the project would be minimal compared to countywide energy usage and is therefore not expected to make a substantial contribution to a cumulative impact. As discussed above, the project includes a limited amount of development, all of which would be designed for energy efficiency. In addition, the project would be connected to existing energy infrastructure and would not require substantial alterations to the existing system. As a result, the project would have a *less-than-significant* cumulative impact in relation to energy supplies and infrastructure.

4.14 PUBLIC SERVICES AND RECREATION

This chapter describes the existing public service conditions in the project site vicinity and evaluates the potential impacts of the project on those services. Fire protection and emergency medical response, law enforcement, schools, and parks and recreational facilities are each addressed in a separate section of this chapter. In each section, a summary of policies from regulatory agencies that have jurisdiction over the project site is included. Separate sections in this chapter also include a discussion of existing conditions and an analysis of project-specific and cumulative impacts. Unless otherwise noted, existing conditions information in this chapter is from the *Martial Cottle Park Final Resource Inventory Report* prepared in July 2009 for the County of Santa Clara Parks and Recreation Department by Wallace, Roberts and Todd; LSA Associates; and Design, Community & Environment.

A. Fire Protection and Emergency Medical Response

1. Regulatory Framework

a. California Emergency Services Act

The California Emergency Services Act is set forth in Chapter 7 of the California Government Code. The Emergency Services Act outlines several regulations and procedures pertaining to fire emergency preparedness and response. Article 9.5, Disaster Preparedness, of Chapter 7 establishes a Standardized Emergency Management System (SEMS), with which State and local agencies are required to comply. The SEMS serves as a framework for responding to and managing emergencies that affect multiple agencies or jurisdictions.¹

¹ California Emergency Management Agency, 2009, *California Emergency Services Act, California Disaster Assistance Act, Emergency Compacts, and California Disaster and Civil Defense Master*, available at [www.oes.ca.gov/WebPage/oeswebsite.nsf/ClientOESFileLibrary/Plans%20and%20Publications/\\$file/113766_final.pdf](http://www.oes.ca.gov/WebPage/oeswebsite.nsf/ClientOESFileLibrary/Plans%20and%20Publications/$file/113766_final.pdf).

b. State of California Emergency Management Agency

The California Emergency Management Agency (CalEMA) was created when the California Emergency Services Act was revised to merge the Office of Emergency Services and the Office of Homeland Security.² Title 7, Section 8585 *et seq.*, of the California Government Code sets forth the responsibilities of CalEMA. CalEMA develops the State's Emergency Plan and requires that Cities and Counties adopt ordinances to establish an emergency organization and local disaster council. All local governments with a disaster council are required to develop an Emergency Operations Plan in accordance with State and federal requirements and CalEMA Local Planning Guidance.³

c. County of Santa Clara Office of Emergency Services

SEMS regulations authorize each Board of Supervisors in California to designate an Operational Area lead agency. The County of Santa Clara Office of Emergency Services (OES) is the County's lead agency. The OES administers an Emergency Operations Center (EOC), which is activated by an on-call County OES Coordinator in the event of an emergency. In the event of an emergency, EOC staff work to meet the County's immediate needs, work toward the temporary restoration of facilities, and meet the rehabilitative needs of people.⁴

In March 2008, the County of Santa Clara Board of Supervisors adopted the Operational Area Emergency Operations Plan. The Plan is an extension of

² State of California, 2009, *Emergency Plan*, available at [http://www.oes.ca.gov/WebPage/oeswebsite.nsf/ac853b3f23b1cdac88257353004a071f/79fce3912398fa168825740f0060ce32/\\$FILE/State%20of%20California%20Emergency%20Plan%202009.pdf](http://www.oes.ca.gov/WebPage/oeswebsite.nsf/ac853b3f23b1cdac88257353004a071f/79fce3912398fa168825740f0060ce32/$FILE/State%20of%20California%20Emergency%20Plan%202009.pdf), page vi.

³ California Emergency Management Agency website, http://cms.calema.ca.gov/prep_local_gov.aspx, accessed on February 22, 2010.

⁴ Santa Clara County Office of Emergency Services website, <http://www.sccgov.org/portal/site/oes/>, accessed on February 22, 2010.

the State's California Emergency Plan, and provides tasks, policies, and procedures for handling emergency operations.⁵

d. City of San Jose General Plan

The City of San Jose General Plan 2020 sets level of service standards for its public services. General Plan policies relevant to fire protection services are included in Table 4.14-1. As shown in Table 4.14-1, General Plan Level of Service Policy #16 sets a fire response standard of a 4-minute average response time for all calls.

2. Existing Conditions

The City of San Jose Fire Department (SJFD) is responsible for providing fire protection and emergency medical response services for the project site and would be the responding agency for the Park.⁶ The SJFD serves a population of 1,006,892 and an area of 205 square miles.⁷ The SJFD currently has 34 stations in San Jose. The fire station closest to the project site is Station #18, located at 4430 South Monterey Road, approximately ½-mile northeast of the project site. Station #18 is served by Battalion Chief #13 and has both an engine and truck company.⁸

Through a mutual aid program, one or more of San Jose's neighboring jurisdictions provide assistance to the SJFD when needed. Santa Clara County is located within the CalEMA Mutual Aid System Region #2. CalEMA Mutual Aid Region #2 covers the northern coast of California, from Monterey

⁵ Santa Clara County, 2008, *Operational Area Emergency Operations Plan*, available at http://www.sccgov.org/SCC/docs%2FEmergency%20Services,20Office%20of%20%28DEP%29%2FAttachments%2FEOP_Complete.pdf.

⁶ Ryan Rucker. Senior Deputy, Santa Clara County Fire Marshal's Office. Personal correspondence with DC&E. February 23, 2010.

⁷ San Jose Fire Department website, <http://www.sjfd.org/Stats/statsindex.asp>, accessed on February 18, 2010.

⁸ San Jose Fire Department website, <http://www.sjfd.org/Stats/0708Company.asp>, accessed on February 18, 2010.

TABLE 4.14-1 CITY OF SAN JOSE GENERAL PLAN POLICIES RELEVANT TO FIRE PROTECTION

Strategy/Policy Number	Strategy/Policy Content
Level of Service Goal	
Goal 1	<i>Provide a full range of City services to the community at service levels consistent with a safe, convenient, sustainable and pleasant place to live, work, learn and play.</i>
Level of Service Policies	
<u>Other Services</u>	
Policy 16	Utilize the following Citywide level of service measures as benchmarks to be used to evaluate major General Plan land use and policy changes, such as expansions of the Urban Service Area or land use changes from non-residential to residential: [...] • For fire protection, a 4-minute average response time to all calls. [...]
Policy 17	In reviewing major land use or policy changes, the City should consider the availability of police and fire protection, parks and recreation and library services to the affected area as well as the potential impacts of the project on existing service levels.
Policy 18	Fire service facilities should be located so that essential services can be most efficiently provided.
Fire Hazards Goal	
Goal	<i>To incorporate fire safety precautions as an integral consideration in planning development.</i>
Fire Hazards Policies	
Policy 5	Anticipated fire response times and fire flows should be taken into consideration as a part of the Development Review process.
Policy 6	New development should provide adequate access for emergency vehicles, particularly fire fighting equipment, as well as provide secure evacuation routes for the inhabitants of the area.

Source: City of San Jose 2020 General Plan, <http://www.sanjoseca.gov/planning/gp/gptext.asp>, accessed on February 9, 2010.

County north to the Oregon border. In the 2007-2008 Fiscal Year, the SJFD responded to 719 calls outside of its jurisdiction.⁹

In the event of a major disaster or emergency, the County's EOC serves as a centralized emergency management location. The EOC provides a location for information and resource sharing among various agencies. The following communications systems are available in the EOC:

- ◆ Response Information Management System (RIMS)
- ◆ Operational Area Satellite Information System (OASIS)
- ◆ Emergency Alert System (EAS)
- ◆ Emergency Digital Information System (EDIS)
- ◆ EOC-Net, a low band inter-city radio system
- ◆ Control 10 Radio, a radio system dedicated to linking County staff, Cities, and special agencies
- ◆ EMSsystem, a communications network linking hospitals, the EMS Agency, first responders, and public health officials
- ◆ Government Emergency Telecommunications Service (GETS) Cards, a federal program that prioritizes calls over wire line network
- ◆ Land line telephones and Telecommunications Service Priority (TSP) Essential Services
- ◆ ARES/RACES amateur radio disaster services/radio amateur civil defense services
- ◆ Radio capability

3. Standards of Significance

Per Appendix G of the CEQA Guidelines, fire protection and emergency medical response impacts associated with the project would be considered significant if the project would:

- a. Result in substantial adverse physical impacts associated with the need for or provision of new or physically altered fire protection or emergency medical response facilities, the construction of which could cause signifi-

⁹ San Jose Fire Department website, <http://www.sjfd.org/Stats/0708Station.asp>, accessed on February 18, 2010.

cant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

- b. Employ equipment which could interfere with existing communications or broadcast systems.

4. Impact Discussion

All potential fire protection and emergency medical response impacts would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

- a. Physical Impacts Associated with New or Physically Altered Fire Protection or Emergency Medical Response Facilities

The project would have a significant impact on fire protection and emergency response facilities if it would necessitate substantial alterations to existing facilities or require the construction of new facilities. As explained above, SJFD would provide fire protection and emergency medical response services for the project site and would be the responding agency for the project site. The closest SJFD Station is Fire Station #18, which is located a Monterey and Skyway approximately 0.7 miles from the project site. However, faster response times may be possible from Fire Station #13, located at Pearl Avenue approximately 2.0 miles from the project site, due to lower call volumes.¹⁰ It is anticipated that SJFD would be able to provide adequate levels of service using existing facilities, and that any increases to staffing as a result of the Project would be minimal. However, on-call paramedics or first aid stations would be provided during large-scale events to ensure that adequate service levels continue to be met. Therefore, impacts to fire protection and emergency medical response facilities would be *less than significant*.

- b. Interference with Existing Communications or Broadcast Systems

The project would cause significant impacts to the ability of law enforcement to provide service to the project site and surrounding areas if it affected exist-

¹⁰ County of Santa Clara Parks and Recreation Department, Summary Notes from Meeting with City of San Jose Police Department RE: Public Safety and Anticipated Services for Martial Cottle Park, April 1, 2010.

ing communication and broadcast systems. The project does not include any infrastructure or programming that would affect existing communication and broadcast systems, and Park Rangers and the SJFD would use existing communication and broadcast systems to communicate. All calls made by Park Rangers would be directed to County Communications. County Communications would route calls to the appropriate dispatch. Therefore, impacts to existing communication and broadcast systems would be *less than significant*.

5. Cumulative Impacts

This section analyzes the potential for the project to impact the provision of fire protection and emergency medical services in the SJFD's service area. As discussed above, the project would not require substantial increases in staffing, alterations to existing facilities, or the construction of new facilities. Since the project would not have a substantial impact on existing services and facilities, it is not anticipated that it would substantially contribute to any cumulative impacts to fire protection and emergency and medical response services. Therefore, cumulative impacts to these services and facilities would be *less than significant*.

B. Law Enforcement

1. Regulatory Framework

a. County of Santa Clara Office of Emergency Services (OES)

The County of Santa Clara OES Operational Area Emergency Operations Plan, described above in Section A.1.c, identifies terrorism as one of the threats facing the county. As described above, the Emergency Operations Plan outlines the procedures to be followed in the event of a disaster or emergency. The OES operates its EOC that can be activated in the event of an emergency to facilitate inter-agency communication and provide a centralized location for information sharing.¹¹

¹¹ Santa Clara County, 2008, *Operational Area Emergency Operations Plan*, available at http://www.sccgov.org/SCC/docs%2FEmergency%20Services,20Office%20of%20%28DEP%29%2Fattachments%2FEOP_Complete.pdf, page 22.

b. City of San Jose General Plan

The City of San Jose General Plan 2020 sets level of service standards for its public services. General Plan policies relevant to law enforcement services are included in Table 4.14-2. As shown in Table 4.14-2, General Plan Level of Service Policy #16 sets a police protection standard of a 6-minute or less response time for 60 percent of all Priority 1 calls, and an 11-minute or less response time for all Priority 2 calls. Priority 1 calls involve immediate danger to life or property, and Priority 2 calls are non-emergency situations.¹²

2. Existing Conditions

a. County of Santa Clara

The County of Santa Clara Sheriff's Office serves the City of Cupertino, Town of Los Altos Hills, and City of Saratoga, as well as unincorporated areas of the county. The Headquarters Division station is located at 55 West Younger Avenue in San Jose. The Sheriff's Office also has a South County Substation in San Martin, and a West Valley Division station in Cupertino.¹³ Santa Clara County is a part of Law Enforcement Mutual Aid Region II, which extends from Monterey County to the Oregon border. The Mutual Aid Coordinator for Region II is the Alameda County Sheriff's Office of Emergency Services.¹⁴

The Sheriff's Office has contracts with the Valley Transportation Authority and County of Santa Clara Parks and Recreation Department for transit and

¹² City of San Jose, 2006, *Baseball Stadium in the Diridon/Area Area EIR*, <http://www.sanjoseca.gov/planning/eir/BallparkStudy/DEIR22006/5n-PublicSvcsFac.pdf>, page 291.

¹³ Santa Clara County Sheriff's Office website, <http://www.sccsheriff.org/portal/site/sheriff/agencychp?path=%2Fv7%2FSheriff%2C%20Office%20of%20the%20%28ELO%29%2FEnforcement%20Operations>, accessed on February 17, 2010.

¹⁴ Alameda County Sheriff's Office website, <http://www.alameda-countysheriff.org/CWS/oes.htm>, accessed on February 17, 2010.

TABLE 4.14-2 CITY OF SAN JOSE GENERAL PLAN POLICIES RELEVANT TO LAW ENFORCEMENT

Strategy/Policy Number	Strategy/Policy Content
Level of Service Goal	
Goal 1	<i>Provide a full range of City services to the community at service levels consistent with a safe, convenient, sustainable and pleasant place to live, work, learn and play.</i>
Level of Service Policies	
<u>Other Services</u>	
Policy 16	Utilize the following Citywide level of service measures as benchmarks to be used to evaluate major General Plan land use and policy changes, such as expansions of the Urban Service Area or land use changes from non-residential to residential: [...] <ul style="list-style-type: none"> For police protection, achieve a response time of six minutes or less for 60 percent of all Priority 1 calls, achieve a response time of eleven minutes or less for 60 percent of all Priority 2 calls. [...]
Policy 17	In reviewing major land use or policy changes, the City should consider the availability of police and fire protection, parks and recreation and library services to the affected area as well as the potential impacts of the project on existing service levels.

Source: City of San Jose 2020 General Plan, <http://www.sanjoseca.gov/planning/gp/gptext.asp>, accessed on February 9, 2010.

park related law enforcement services, respectively.¹⁵ The Transit Patrol Division operates out of the Valley Transportation Authority office at 3331 North First Street, and the Parks Patrol is operated under the Headquarters Division.¹⁶ The Sheriff's Office currently employs one Sheriff, one Undersheriff, two Assistant Sheriffs, 11 Captains, 15 Lieutenants, 86 Sergeants,

¹⁵ Santa Clara County Sheriff's Office website, <http://www.sccsheriff.org/portal/site/sheriff/>, accessed on February 17, 2010.

¹⁶ Santa Clara County Sheriff's Office website, <http://www.sccsheriff.org/portal/site/sheriff/agencychp?path=%2Fv7%2FSheriff%2C%20Office%20of%20the%20%28ELO%29%2FEnforcement%20Operations>, accessed on February 17, 2010.

22 Investigators, and 432 deputies.¹⁷ In 2009, the Sheriff's Office responded to 2,595 incidents in unincorporated areas of the county, including 30 rapes and three homicides.¹⁸ The Sheriff's office contracts with Santa Clara County Communications for dispatch services. Santa Clara County Communications is funded for 73 full-time dispatchers.¹⁹

The County of Santa Clara Parks and Recreation Department's Park Rangers patrol the County parks on foot, bicycle, motorcycle, vehicle, and boat. The primary responsibility of Park Rangers is the safety of park visitors. The regular activities of Park Rangers include answering questions, conducting interpretive and resource management programs, assisting park visitors, providing medical aid, investigating vehicle accidents, and conducting search and rescue operations. Park Rangers also enforce park ordinances and rules, and State and federal laws. In addition, on-call Park Ranger staff is as available, per the department's standard practice for addressing after-hours security concerns.

Under the current contractual agreement between the County of Santa Clara Parks and Recreation Department and Sheriff's Office, the Sheriff's Office provides deputies to support Park Rangers and patrol the County's parks system year round. Currently, the Sheriff's Office parks patrol includes six full-time deputies and 15 deputies during peak season, which allows coverage seven days per week during normal park hours.²⁰

¹⁷ Erick Bourassa, Park Sergeant, Santa Clara County Sheriff's Office. Personal communication with DC&E. February 22, 2010.

¹⁸ Erick Bourassa, Park Sergeant, Santa Clara County Sheriff's Office. Personal communication with DC&E. March 9, 2010.

¹⁹ Curtis Darnell, Chief Dispatcher, Santa Clara County Communications. Personal communication with DC&E. March 10, 2010.

²⁰ Erick Bourassa, Park Sergeant, County of Santa Clara Sheriff's Office. Personal communication with DC&E. February 22, 2010.

b. City of San Jose

If annexed by the City of San Jose, the project site would be within the City of San Jose Police Department (SJPD) service area. The SJPD office is located at 201 West Mission Street in San Jose, and the SJPD is currently building a new substation in South San Jose on Great Oaks Boulevard. The project site is located in the SJPD Southern Division, in the X-Ray patrol area.²¹

3. Standards of Significance

Law enforcement impacts associated with the project would be considered significant if the project would:

- a. Result in substantial adverse physical impacts associated with the need for or provision of new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
- b. Employ equipment which could interfere with existing communications or broadcast systems.
- c. Create substantial security problems.

4. Impact Discussion

All potential law enforcement impacts would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

a. Physical Impacts Associated with New or Physically Altered Law Enforcement Facilities

The project would cause significant impacts if it would require the development of new or alterations to existing law enforcement facilities. The County of Santa Clara Parks and Recreation Department would hire additional Park Rangers to staff the Park once opened. The number of staff required would generally increase with each phase of project implementation. Park Rangers

²¹ City of San Jose Police Department website, <http://www.sjpd.org/BFO/>, accessed on February 17, 2010.

hired to serve the Park would be first responders for incidents during Park hours, and are anticipated to provide adequate levels of public safety and law enforcement services for the project site.²² Agencies to respond to incidents that take place after park hours would be the County of Santa Clara Parks and Recreation Department and local law enforcement, which may include either the County Sheriff's Office or local police (SJPD). On duty local law enforcement would be dispatched to the park and on-call Park Ranger staff would be notified and respond if necessary. It is anticipated that the responding department would receive at least one call each night, and that the same department would also support Park Rangers during park hours as necessary. Since the Park Rangers would provide most law enforcement at the Park, the impacts to either department would be minimal and it is unlikely that additional facilities or staffing would be necessary. A new SJPD police substation is planned for Bernal Road and San Ignacio Avenue that will enable the SJPD to respond faster to incidents in the project site and surrounding area. Therefore, law enforcement facilities would not need to be improved or built as a result of the development of this project, and impacts to law enforcement facilities would be *less than significant*.

b. Interference with Existing Communications or Broadcast Systems

The project would cause significant impacts to the ability of law enforcement to provide service to the project site and surrounding areas if it hindered the communication systems used by law enforcement. Park Rangers and the SJPD would utilize existing communication systems within and around the project site, and therefore the project would not require new systems. Calls made by Park Rangers would be directed to County Communications, from which calls would be routed to the appropriate dispatch. The project does not include any additional infrastructure or programming that would affect existing communication and broadcast systems. Therefore, impacts to existing communication and broadcast systems would be *less than significant*.

²² Jane Mark, Senior Planner, County of Santa Clara Parks and Recreation Department. Email communication with DC&E, March 30, 2010.

c. Creation of Substantial Security Problems

The project would cause impacts to law enforcement if it would lead to the creation of new security problems. Since implementation of the project would allow for public access to the project site that had been previously fenced from public use, it is likely that the same type of crimes that occur on other public property could occur on the project site. Crimes that are associated with park areas and therefore may occur at the Park include loitering, trespassing, vandalism and graffiti, sexual assaults, and suicides. The vast majority of public safety concerns and resident issues related to the project, however, would likely be related to trespassing, nighttime access inside the Park, and the possibility of visitors parking in adjacent neighborhoods. Potential call-outs would be related to the quality of life concerns and complaints from nearby residents.²³ Other security concerns may include trespassing and vandalism in agricultural production areas, and providing security along the perimeter trail which would be outside of security fencing but within park boundaries.

The project includes the following guidelines for deterring the types of crime identified above:

- ◆ Secure parking and other facilities during and after normal visitor hours, and make security provisions for evening programmed activities. (OP-1)
- ◆ Provide an on-site presence, such as caretaker or site host, to minimize safety and security concerns. (OP-24)
- ◆ Provide visual buffers along the adjoining street corridors (Branham Lane, Snell Avenue, and Chynoweth Avenue) and Highway 85 that reduce the visual prominence of automobile traffic from within the Park. Maintain adequate views into the Park to ensure visitor safety and preserve scenic views from surrounding neighborhoods. (VIS-4)

²³ Mark, Jane, Senior Planner, Santa Clara County Parks and Recreation Department. Communication with the City of San Jose Police Department. April 1, 2010.

- ◆ Provide limited and fully shielded site lighting only as necessary for public safety to minimize potential impacts on park neighbors, the night sky, and wildlife habitat. (VIS-8)
- ◆ Minimize conflicts between agriculture and other adjacent uses by establishing buffers and using fencing as appropriate, and by broadly disseminating information about seasonal agricultural operations. (AG-7)

The project also includes design guidelines for the inclusion of 8- to 10-foot tall security fencing to protect the Park's significant resources, including agricultural crops and hazardous areas like corporation yards. The design guidelines specify that fencing around agricultural areas should be transparent and allow for continuous views. In addition, on-call Park Ranger staff is available, per the department's standard practice for addressing after-hours security concerns.

Since existing law enforcement would be adequate to provide adequate levels of service for the project site, and since the project is largely self-mitigated by guidelines included as part of the Plan, new security problems created by the project would be *less than significant*.

5. Cumulative Impacts

The project would have significant cumulative impacts if it substantially contributed to the need for SJPD, the County Sheriff's Office, or the County of Santa Clara Parks and Recreation Department to construct additional facilities in order to provide adequate law enforcement services. As discussed above, existing facilities and staffing levels are anticipated to be sufficient for providing adequate law enforcement service to the project site. In addition, the SJPD is currently creating a new sub-station that would serve the vicinity of the project site and is expected to accommodate future development in the vicinity. Therefore, the project would not have a substantial affect on existing or future service provision and cumulative impacts would be *less than significant*.

C. Parks and Recreational Facilities

1. Regulatory Framework

a. Americans with Disabilities Act

The Americans with Disabilities Act (ADA) was enacted by the United States Congress in 1990 to address discrimination against individuals with physical and mental disabilities. The ADA requires that all public sites and buildings be accessible to those with disabilities.

b. State of California Trail Plan for Accessibility in California State Parks

The Trail Plan for Accessibility in California State Parks was developed by the California Department of Parks and Recreation. The Trail Plan contains principles for providing accessibility in State parks and is intended for use in the field for regular maintenance duties and construction projects, and to understand and review the work of outside contractors. The Trail Plan contains accessibility guidelines that represent a compilation of accessibility standards, recommendations, and regulations for compliance with accessibility laws.

c. County of Santa Clara General Plan

The County's General Plan contains several goals and policies relevant to parks and recreational facilities. Goals and policies relevant to the project are listed in Table 4.14-3.

d. County of Santa Clara Parks and Recreation System Strategic Plan

The Strategic Plan for the County of Santa Clara Parks and Recreation System (2003) was prepared under the direction of a nine-member steering committee composed of seven County of Santa Clara Parks and Recreation Commissioners, as well as the Director and Deputy Director of the Parks and Recreation Department. The Strategic Plan sets for a vision for the Parks and Recreation Department to balance the growing need for outdoor recreation opportunities with the management and preservation of the county's resources. The Strategic Plan is intended to guide the acquisition, planning, development, programming, management, and funding of regional parks and open spaces, their recreational opportunities, and how their resources may be managed and enhanced to meet the county's growing population.

TABLE 4.14-3 GENERAL PLAN POLICIES RELEVANT TO PARKS AND RECREATIONAL FACILITIES

Strategy/Policy Number	Strategy/Policy Content
Parks and Recreation Chapter	
<u>Regional Parks and Public Open Space Lands</u>	
<i>Strategy #1</i>	<i>Develop parks and public open space lands.</i>
Policy C-PR 1	An integrated and diverse system of accessible local and regional parks, scenic roads, trails, recreation facilities, and recreation services should be provided.
Policy C-PR 3	The County's regional park system should: <ol style="list-style-type: none"> utilize the county's finest natural resources in meeting park and open space needs; provide a balance of types of regional parks with a balanced geographical distribution; provide an integrated park system with maximum continuity and a clear relationship of elements, using scenic roads, bike-ways, and trails as important linkages; and give structure and livability to the urban community.
Policy C-PR 4	The public open space lands system should: <ol style="list-style-type: none"> preserve visually and environmentally significant open space resources; and provide for recreation activities compatible with the enjoyment and preservation of each site's natural resources, with trail linkages to adjacent and nearby regional park lands.
<i>Strategy #2</i>	<i>Improve accessibility.</i>
Policy C-PR 7	Opportunities for access to regional parks and public open space lands via public transit, hiking, bicycling, and equestrian trails should be provided. Until public transit service is available, additional parking should be provided where needed.
Policy C-PR 8	Facilities and programs within regional parks and public open space lands should be accessible to all persons, regardless of physical limitations, consistent with available financial resources, the constraints of natural topography, and natural resource conservation.
<i>Strategy #3</i>	<i>Balance recreational and environmental objectives.</i>
Policy C-PR 10	Recreation facilities and activities within regional parks and public open space lands should be located and designed to be compatible with the long term sustainability of each site's natural and cultural resources, with particular attention to the preservation of unique,

TABLE 4.14-3 GENERAL PLAN POLICIES RELEVANT TO PARKS AND RECREATIONAL FACILITIES (CONTINUED)

Strategy/Policy Number	Strategy/Policy Content
	rare, or endangered resources (including historic and archeological sites, plant and animal species, special geologic formations, etc.).
<i>Strategy #4</i>	<i>Facilitate interjurisdictional coordination.</i>
Policy C-PR 14	Parks and recreation system planning, acquisition, development, and operation should be coordinated among cities, the County, State and Federal governments, school districts and special districts, and should take advantage of opportunities for linkages between adjacent publicly owned parks and open space lands.
Policy C-PR 15	The provision of public regional parks and recreational facilities of countywide significance both in urban and rural areas shall be the responsibility of county government.
Resource Conservation Chapter	
<u>Overall Strategies</u>	
Policy C-RC 3	Multiple uses of lands intended for open space and conservation shall be encouraged so long as the uses are consistent with the objectives of resource management, conservation, and preservation, particularly habitat areas.
<u>Agriculture & Agricultural Resources</u>	
Policy C-RC 37	Agriculture should be encouraged and agricultural lands retained for their vital contributions to the overall economy, quality of life, and for their functional importance to Santa Clara County, in particular: <ol style="list-style-type: none"> a. local food production capability; b. productive use land not intended for urban development; and c. protection of public health and safety.
<i>Strategy #2</i>	<i>Maintain stable, long range land use patterns.</i>
Policy C-RC 40	Long term land use stability and dependability to preserve agriculture shall be maintained and enhanced by the following general means: <ol style="list-style-type: none"> a. limiting the loss of valuable farmland from unnecessary and/or premature urban expansion and development; b. regulating non-agricultural uses in agricultural areas, and their intensity and impacts on adjacent lands; c. maintaining agriculturally-viable parcel sizes; and d. minimizing conflicts between adjacent agricultural and non-agricultural land uses, through such means as right-to-farm legislation and mediation of nuisance claims.

TABLE 4.14-3 GENERAL PLAN POLICIES RELEVANT TO PARKS AND RECREATIONAL FACILITIES (CONTINUED)

Strategy/Policy Number	Strategy/Policy Content
Policy C-RC 41	In addition to general land use and development controls, agricultural areas of greatest potential long term viability should be identified and formally designated for permanent preservation.
Policy C-RC 42	Interjurisdictional coordination and cooperation necessary to achieve agricultural preservation goals and strategies should be encouraged. These goals should include: <ol style="list-style-type: none"> preservation of remaining areas of large and medium scale agriculture in South County; encouragement of retention of agricultural lands in San Benito County adjoining South County agricultural areas; and discouragement of Urban Service Area (USA) expansions into agricultural areas when LAFCO determines that a city's USA contains more land than is needed to accommodate five years of projected growth and development.
<i>Strategy #3</i>	<i>Enhance the long term economic viability of agriculture.</i>
Policy C-RC 43	Long term economic viability of agricultural activities shall be maintained and enhanced by providing <ol style="list-style-type: none"> improved markets for locally-grown products; property tax relief; appropriate application of "renewable," organic agriculture and other innovative, cost-efficient growing techniques; and adequate agricultural worker housing supply.
General Land Use Management Chapter	
<i>Strategy #1</i>	<i>Promote eventual annexation.</i>
Policy U-LM 1	Urban unincorporated areas within city Urban Service Areas should eventually be annexed into the city.
Policy U-LM 2	The quality, integrity, and community identity of existing residential and commercial areas in urban unincorporated areas should be maintained and, where possible, enhanced.
<i>Strategy #2</i>	<i>Ensure conformity of development with Cities' General Plans.</i>
Policy U-LM 6	County land use and development regulations within a city Urban Service Area shall be generally compatible with the applicable city's general plan designations and accompanying policies.

Source: Santa Clara County General Plan, 1994, <http://www.sccgov.org/portal/site/dpd/>, accessed on January 6, 2010.

The Santa Clara County *Open Space Preservation 2020 Report* (2020 Report) was adopted by the County's Board of Supervisors in April 1987. The 2020 Report recommends an open space preservation program for the county. The key aspects of the recommended program include the creation of a new open space district, land trust, and joint powers agreements; the identification of study areas to be used in developing priorities; the implementation of development transfer programs; and viewshed protection through hillside cluster development.

e. County of Santa Clara Park Charter Fund

Since 1972, the County of Santa Clara Park Charter Fund has been the primary source of funding for County Parks. The fund is a set-aside of property taxes and is used to operate, manage, and expand the park system. Every twelve years, voters decide whether the fund will be continued for an additional twelve year cycle. The most recent vote in 2006 extended the fund from July 1, 2009, through and including the 2021 fiscal year. Martial Cottle Park will be funded at least in part by this fund.

2. Existing Conditions

Several San Jose neighborhood parks are located in close proximity to the project site. Parkview III Park is a 5.4-acre park located approximately one-quarter mile north of the project site. Chynoweth Neighborhood is a 2.4-acre park located approximately $\frac{2}{3}$ -mile to the east of the Park site. Coy Park is a 4.5-acre park located approximately $\frac{1}{2}$ -mile east of the project site. Vista Park is a 9.9-acre park located approximately one-quarter mile west of the project site.

Several regional parks are located in the greater vicinity of the project site. The City of San Jose's Edenvale Garden Park is a 19.5-acre park located approximately $\frac{1}{2}$ -mile east of the project site that features picnic areas, a walking path, and a playground. Coyote Creek Parkway County Park is a 15-mile-long (1,613 acres in area) park located approximately 2 miles east of the project site. Other County regional parks in the vicinity include Santa Teresa County Park (1,568 acres), located approximately 2 miles to the southwest, and Almaden Quicksilver County Park (3,943 acres), located approximately 3

miles to the southwest. The California State Park located nearest to the project site is Henry W. Coe State Park (87,000 acres), located approximately 20 miles southwest of the project site.

3. Standards of Significance

Parks and recreational facilities impacts associated with the project would be considered significant if the project would:

- a. Result in substantial adverse physical impacts associated with the need for or provision of new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios.
- b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.
- c. Be on, within, or near a public or private park, wildlife reserve, or trail (includes those proposed for the future) or affect existing or future recreational opportunities.
- d. Result in loss of open space rated as high priority for acquisition in the 2020 Report.

4. Impact Discussion

All potential parks and recreational facilities impacts would be the same for Phase I and subsequent project phases. As such, project-level and program-level components are not distinguished below.

a. Physical Impacts Associated with New or Physically Altered Park Facilities

The project would cause significant impacts to park facilities if development were to require additional facilities to be constructed in order to maintain service ratios. The project does include the development of park facilities, such as picnic grounds and trails, and community facilities like the pavilion. However, the project does not include any residential development, with the exception of a caretaker's residence or a site host, and therefore would not

increase the need for additional recreational facilities. On the contrary, the project would increase the amount of recreational facilities provided in the area. The 2009 Greenprint Strategic Plan identifies park and recreation needs for each of the City Council districts. The project is located within Council District 10, which is in need of community-serving parkland. Although it was not mentioned as such in the Greenprint Strategic Plan, the project would provide for community access to recreational facilities and trails, and therefore would supplement District 10 and citywide park services. Since the project would increase park facilities in the project site vicinity, would not impact the potential for the other recreational facilities to be established in the surrounding area, and would not increase residential population, impacts to recreational facility demand would be *less than significant*.

b. Physical Impacts Associated with the Inclusion of Recreational Facilities or Construction or Expansion of Recreational Facilities

The project would have a significant impact on park and recreational facilities if it were to include the development of facilities that would negatively affect the environment. Buildout of the project would include the construction of several recreational facilities and support facilities, including an entry kiosk, visitor center, visitor pavilion, a restroom building, trails, picnic areas, a caretaker's residence, and a park corporation yard. In addition, limited public access would be provided for agricultural facilities and facilities operated by cooperative partners that are developed as part of the project. For instance, members of the general public would be able to access the café, produce stand, and demonstration gardens. The physical and environmental impacts of the construction and operation of these facilities are analyzed throughout this EIR. Potential impacts would occur during construction and would not occur during the ongoing operation of the project. Potential construction-related impacts would be associated with construction activities involving ground disturbance, and would be related to air quality, noise, and biological resource impacts that are addressed in other sections of this EIR. Potential impacts would largely be associated with temporary construction activities, and would be mitigable to less-than-significant levels; therefore, impacts associated with new park and recreational facilities would be *less than significant*.

c. Location on, within, or near a Public or Private Park, Wildlife Reserve, or Trail, or Effects on Existing or Future Recreational Opportunities

As discussed in Chapter 3, Project Description, the project site is primarily agricultural land and is not accessible to the public prior to development. Implementation of the project would create approximately 81 acres of publicly accessible park and recreation land while maintaining approximately 143 acres for production agriculture, which would typically not be open to the public and/or provide limited access (as part of interpretive and educational programming for the Park). The remainder of the project site would be used by the cooperative partners that would offer various degrees of public accessibility. For instance, community gardens would be limited to participants, and demonstration gardens would offer specific programs for the public. The large portion of the project site that is dedicated to agricultural uses would limit future expansion of the new park area. However, agricultural uses are consistent with the Grant Deed that enables the project and are intended to provide educational and visual benefits to the Park area, as well as fresh produce that can be purchased by Park visitors.

The Plan also identifies future trail connections to the City of San Jose trail system, which would enhance the existing system. In addition, the City's 2009 Greenprint Strategic Plan identifies a future feasibility study to be undertaken to evaluate future trail connections between the Park and the neighborhood and ultimately to the Guadalupe River Parkway.

Since the project would provide new parkland and open space preservation that would not be possible without the preservation of on-site agricultural land, impacts to park, wildlife reserve, trails, and future recreational opportunities would result in a *beneficial* impact.

d. Loss of Open Space Rated as High Priority for Acquisition in the 2020 Report

The 2020 Report was completed in 1987. The project site is not identified as a new park or publicly owned open space by the County General Plan. As a result, the project site is not identified as such in the 2020 Report. Consider-

ing that the project site is in proximity to areas experiencing substantial development pressure, the property would have likely been deemed vulnerable to development and identified as a priority for protection if it had not been donated to the County and sold to the State by the Park Donor. The project site is most similar to the Type 1 Study Areas identified in the 2020 Report, defined as “[v]alley floors, interstices, and edges. These areas are flat valley bottom lands in the main valley floor or adjacent sub-valleys. They contain or immediately adjoin urbanization, or have no natural barriers separating them from urban development.”

The 2020 Report identifies benefits of open space as including, but not limited to, those of recreation, control of urban sprawl, protection of scenic vistas, and preservation of farmlands. Although the project site is not identified by the 2020 Report, the project itself will provide the desired outcome and benefits intended by the 2020 Report. Through the preservation of agriculture and the provision of recreational space and scenic views, the project would provide additional open space to that identified in the 2020 Report. Therefore, impacts of the project related to the loss of open space would be *less than significant*.

5. Cumulative Impacts

The project would contribute to cumulative impacts to open space expansion projects if it were to include the loss of open space identified as high priority for acquisition in the 2020 Report. However, since the project is not identified in the 2020 Report and would result in an increase to the amount of publicly accessible open space, it would not contribute to the loss of open space potential. In addition, since the County was given its portion of the project site as a donation, the County did not need to shift funds dedicated to the acquisition of other open spaces to purchasing the project site. Although the project would include some development on agricultural land, development would be limited to recreational and agricultural facilities necessary for a successful historic agricultural park project. Since the project would increase publicly owned open space in the county, it would have *no impact* to the cumulative loss of open space.

STATE OF CALIFORNIA/COUNTY OF SANTA CLARA
MARTIAL COTTLE PARK
STATE PARK GENERAL PLAN/
COUNTY PARK MASTER PLAN EIR
PUBLIC SERVICES AND RECREATION

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5 ALTERNATIVES

CEQA Guidelines require that an EIR include a description and comparative analysis of alternatives to the proposed project, including both a No Project Alternative and a reasonable range of alternatives that could feasibly attain most or all of the project's objectives and reduce significant impacts of the proposed project. The following discussion is intended to inform the public and decision makers of feasible alternatives to the proposed project. Each alternative is analyzed against the significance thresholds considered in Chapter 4.

A. Methodology

Section 15126.6 of the CEQA Guidelines sets forth the following criteria for selecting alternatives:

- ◆ The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. (Section 15126.6(b))
- ◆ The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. (Section 15126.6(c))
- ◆ The specific alternative of “no project” shall also be evaluated along with its impact. (Section 15126.6(e)(1))
- ◆ The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making. (Section 15126.6(f))

The alternatives evaluated in this chapter are the No Project Alternative, Plan Alternative 1 (Branham Lane Entrance Alternative), and Plan Alternative 2 (Chynoweth Avenue Entrance Alternative). The No Project Alternative, as described above, is required to be evaluated under CEQA Guidelines. Plan Alternative 1 (Branham Lane Entrance) would involve a more concentrated park area than the proposed project, and would involve a focus on high-end, organic agricultural production. Plan Alternative 2 (Chynoweth Avenue Entrance Alternative) would involve a greater intensity of parks and recreational land uses in comparison to the proposed project, and a lesser intensity of productive agricultural uses. Both Plan Alternatives were developed as part of a public planning process for the development of the draft Plan alternatives, in consultation with the Park Donor, community members, agency representatives, and project Committee members.

Each of the alternatives is summarized below:

- ◆ **No Project Alternative.** Under this alternative, the proposed Plan would not be adopted and future development on the project site would be subject to the deed, existing policies and regulations. Under this scenario, the County and State would maintain joint ownership of the property. Some intensification of agricultural activities may occur compared to existing conditions, but agricultural uses would not be as intense as under the proposed project. Public park uses would be limited to passive recreational uses, such as trails and community gardening. No on-site parking area would be provided apart from curb-side parking and a loading area. This alternative would utilize the existing, unimproved Park entrance at Chynoweth Avenue to provide on-site service and employee access, as well as access to the community garden loading area.
- ◆ **Plan Alternative 1 (Branham Lane Entrance Alternative).** Implementation of this alternative would place the Park entrance on Branham Lane, and would include equestrian facilities. All farming at the Park would be organic, as defined by the Organic Foods Production Act, and water use for agricultural activities would be reduced by one half. In comparison to the proposed project, this alternative would have an increased emphasis on agricultural uses.

- ◆ **Plan Alternative 2 (Chynoweth Avenue Entrance Alternative).** Implementation of this alternative would place the Park entrance on Chynoweth Avenue. A concentrated visitor area with equestrian facilities, including a barn and riding arena, would be located centrally within the Park. In comparison to the proposed project, this alternative would have a more substantial emphasis on recreational elements, and would include a large lake, recreational trails, picnic areas, and a community hall.

A comparison of potential impacts of each alternative to those of the project is provided in Table 5-1, below.

B. Alternatives Considered but Rejected

Other alternatives were considered for inclusion in this evaluation but were not selected for in-depth analysis. The alternative scenarios were intended to allow for the development of a park that would include many of the proposed project's components but would avoid the project's significant and unavoidable impacts. The significant and unavoidable impacts identified under the proposed project are related to climate change, and are due to increased GHG emissions. Approximately 77 percent of project emissions would be produced by motor vehicles traveling to and from the site, and the remainder would result primarily from electricity production and solid waste generation and disposal. Because the majority of GHG emissions are from vehicle trips, an alternative would be needed with substantially fewer vehicle trips in order to avoid a significant and unavoidable impact from GHG emissions. Under the proposed project, the majority (74 percent of AM peak, 87 percent of PM peak) of peak hour weekday trips, and all of mid-day weekend peak hour trips, would be attributed to visitor trips. However, even without these visitor trips the project would still result in a significant and unavoidable impact due to weekday peak hour staff trips. The reduction in trips needed to avoid the significant and unavoidable climate change impact was therefore determined to be so high that the key project components – to provide active recreational and agricultural uses with associated educational and commercial

TABLE 5-1 COMPARISON OF PROJECT ALTERNATIVES TO THE PROPOSED PROJECT

Topic	No Project Alternative	Branham Lane Entrance Alternative	Chynoweth Avenue Entrance Alternative
Land Use, Plans, and Policies	=	=	=
Aesthetics and Visual Quality	=	=	=
Agricultural Resources	=	=	--
Air Quality	+	=	--
Biological Resources	+	=	=
Climate Change	++	+	-
Cultural Resources	=	=	=
Geology and Soils	=	=	=
Hazards and Hazardous Materials	=	=	=
Hydrology, Floodplains, and Water Quality	+	=	--
Noise	+	=	--
Transportation and Circulation	=	=	=
Utilities and Infrastructure	=	=	=
Public Services and Recreation	=	=	=
++ Substantial improvement compared to the proposed project. + Slight improvement compared to the proposed project. = Similar to the proposed project. - Slight deterioration compared to the proposed project. -- Substantial deterioration compared to the proposed project.			

activities and to develop a park consistent with State and County goals – could not be attained under such a scenario. Because no feasible alternative could be found that would meet the project’s objectives and the requirements

of the grant deed restrictions without resulting in a significant and unavoidable impact, these alternatives were rejected from further consideration.

C. No Project Alternative

1. Principal Characteristics

Under CEQA Guidelines Section 15126.6(e)(1), the consideration of alternatives to a proposed project must include a “no project” alternative. Under the No Project Alternative, the proposed Plan would not be adopted and the Plan’s proposed policies would not be implemented. Future use of the project site would be subject to existing land use policies and regulations, and the County and State would maintain ownership of the property, subject to the grant deed’s restrictions. The proposed development plans for the project site would proceed, and no improvements would be made to the Canoas Creek channel. As dictated by the grant deed, the No Project Alternative would involve minimal improvements that would allow a public park use. This alternative would utilize the existing, unimproved Park entrance at Chynoweth Avenue to provide on-site service and employee access, as well as access to a community garden loading area. As a point of reference, the No Project Alternative would be similar to the Wilder Ranch State Park in Santa Cruz County. Park facilities would include trails for bicyclists and pedestrians, and limited curb-side parking. Apart from trails, portable restrooms, and picnic areas, no visitor center or other visitor-serving structures and facilities would be developed. On-site community gardens would also be provided, with an on-site loading area for community gardeners’ use, but no on-site parking area would be provided apart from the curb-side parking. Future agricultural activities under this alternative may be more intense than current agricultural practices, but it is assumed that agricultural uses would not be as intense as under the proposed project, and would not include the potential for livestock, agricultural support facilities (such as a the corporate yard, new storage areas, and new barns and outbuildings), or agricultural commercial uses (such as processing and packaging facilities, farmers’ market, produce stand, or farm café). The activities would be consistent with the requirements of the project site’s Williamson Act contract.

2. Impact Discussion and Reason for Rejection

a. Land Use, Plans, and Policies

The proposed project would not result in any significant impacts related to the division of an established community, conflicts with applicable policies, or incompatibilities with existing land uses. Under the No Project Alternative, on-site agricultural activities would continue to occur, and some intensification of agricultural uses may occur, and the project site would be developed into a park with limited public access and minimal site improvements for passive recreational uses, such as trails, picnic areas, and community gardening activities. The land uses in the minimal park development scenario would be consistent with applicable County plans and policies and would not be expected to conflict with existing land uses. Although the project site would not be fully developed as a historic agricultural park, the No Project Alternative would allow public park use such as trails and picnic areas. Because it is consistent with County plans and policies, the No Project Alternative would be considered to be *similar* to the proposed project.

b. Aesthetics and Visual Quality

The proposed project would have no significant impacts to aesthetics and visual quality. Under the No Project Alternative, the project site would remain in its current state as an open space, although some intensification of agricultural uses may occur in comparison to existing uses. In addition, passive recreational and community gardening activities would occur on-site. However, it is assumed that the site would largely remain in its current state, and therefore there would be no impacts on aesthetic resources. Therefore, the No Project Alternative would have no impacts to aesthetics and visual quality. Because neither this alternative nor the proposed project would result in significant impacts, the aesthetic and visual quality impacts of the No Project Alternative would be *similar* to that of the proposed project.

c. Agricultural Resources

The proposed project would have no significant impacts to agricultural resources. Farmland under the proposed project would be used for long-range active farming and agriculturally-supportive uses; these uses would result in a less-than-significant impact. Under the No Project Alternative, a greater

amount of the site would be available for long-range active farming, and limited public uses would include trails, picnic areas, restrooms, and community gardening areas, where a full complement of visitor-serving and recreational facilities would not be provided. Therefore, the No Project Alternative would be a slight improvement compared to the proposed project because more acres of farmland would be available for active agriculture. Similar to the proposed project, the No Project Alternative would not result in any significant impacts regarding conflicts with existing zoning for agricultural use, conflicts with existing Williamson Act contracts or the County's Williamson Act Ordinance, and changes to the existing environment which could result in conversion of farmland to non-agricultural use. Although the No Project Alternative would include more agricultural land than the proposed project, neither this alternative nor the proposed project would result in significant impacts to agricultural resources, and therefore this alternative would be *similar* to the proposed project.

d. Air Quality

As described in Chapter 4.4, the proposed project would result in three significant but mitigable impacts associated with construction activities and potential livestock operations. Under the No Project Alternative, no new structures would be built on the site, and therefore no significant air quality impacts associated with construction would be expected. In addition, this alternative would include in a lower intensity of agricultural activity than the proposed project and would not include livestock operations. Because the significant impacts under the proposed project could be mitigated to a less-than-significant level, this would only represent a slight improvement over the proposed project.

e. Biological Resources

The proposed project would have significant but mitigable impacts associated with potential disturbance of native bird nests, impacts to western pond turtles, loss of foraging habitat, impacts to special-status plants, and impacts to jurisdictional waters. Impacts to foraging habit due to agricultural activities and impacts to potential wetlands would also occur under the No Project

Alternative because this alternative would involve some intensification of existing agricultural activities. However, it is expected that under the No Project Alternative, significant but mitigable impacts associated with construction on the project site and improvements to Canoas Creek could be avoided because the only new development on the site would be a limited number of restrooms located in the public use areas. Therefore, the No Project Alternative would be a *slight improvement* compared to the proposed project.

f. Climate Change

The proposed project would result in significant and unavoidable impacts due to increased GHG emissions. Approximately 77 percent of project emissions would be produced by motor vehicles traveling to and from the site, and the remainder would result primarily from electricity production and solid waste generation and disposal. Under the No Project Alternative, motor vehicle trips, electricity usage, and solid waste generation would not be expected to increase in comparison to existing conditions. The project site would remain in its existing agricultural state, although some intensification of agricultural uses may occur, and would not become a publicly accessible park with a full complement of recreational facilities and amenities. Therefore, there would be no new visitor vehicular trips to the project site. Any additional vehicle trips would be associated with slight increases in agricultural uses and would not be due to visitor trips or on-site commercial or marketing uses. Therefore, the No Project Alternative would not result in these significant and unavoidable impacts and this alternative would be a *substantial improvement* over the proposed project.

g. Cultural Resources

Neither the proposed project nor the No Project Alternative would result in significant impacts due to the disturbance of a historic resource. The proposed project would have significant but mitigable impacts related to the potential disturbance of subsurface prehistoric archaeological deposits and associated human remains. Under the No Project Alternative, the project site would be maintained as an agricultural open space and no new development

would occur. However, as under the proposed project, the No Project Alternative would include the ongoing agricultural use of the project site, which would have the potential to disturb subsurface cultural resources. However, it is expected that such impacts could be mitigated through measures similar to those proposed for the project. Therefore, the No Project Alternative would be *similar* to the proposed project.

h. Geology and Soils

The proposed project would have no significant impacts to geology and soils. Under the No Project Alternative, the project site would be maintained in an agricultural state, although some intensification of agricultural uses may occur, and no new development would occur on the project site. No visitor center, classrooms, processing facilities, or other structures that would be used for extended periods of time would be constructed, therefore, it is expected that the exposure of people or structures to geologic hazards would largely be avoided. There would be no siltation or compaction resulting from development, and no sewer infrastructure systems would be installed. As the proposed project, soil erosion would have the potential to occur as a result of agricultural activities. Under the proposed project, it is expected that guidelines in the Plan, and the adherence to Best Management Practices (BMPs) and the County's Grading Ordinance, would avoid erosion impacts. The No Project Alternative would also involve adherence to the Grading Ordinance, as well as use of BMPs, thus no erosion impacts would be expected. Because the No Project Alternative would not include new development on the project site, no significant impacts associated with construction related activities or exposure of people or structures to geologic risks would be expected. Neither the proposed project nor the No Project Alternative would result in significant geology and soils impacts; therefore, this alternative would be *similar* to the proposed project.

i. Hazards and Hazardous Materials

The proposed project would have one significant impact pertaining to the exposure of people to existing sources of potential health hazards, specifically rodents. Under the No Project Alternative, the project site would largely

remain in its existing agricultural state, although some passive recreational uses and community gardening on-site would occur. There would be similar development and ground digging on the site due to agricultural uses that could cause rodents to leave the project site for adjacent neighborhoods. As under the proposed project, it is expected that such impacts could be mitigated to a less-than-significant level. Additionally, the No Project Alternative would have similar impacts to hazardous materials, impairment or interference of an adopted emergency response plan, wildland fires on people or structures, breeding grounds for vectors, a site plan resulting in a safety hazard, exposure of people to existing sources of potential health hazards, or an unsafe technology breakdown. Because neither the No Project Alternative nor the proposed project would result in significant impacts, this alternative would be *similar* compared to the proposed project.

j. Hydrology, Floodplains, and Water Quality

The proposed project would have one potentially significant impact pertaining to flooding as a result of the failure of a levee or dam; this impact would be mitigable to a less-than-significant level. Under the No Project Alternative, minimal site improvements for park use (i.e. trails, picnic areas, and community gardens) would occur on the project site. No visitor center, classrooms, processing facilities, or other structures that would be used for extended periods of time would be constructed, therefore, it is expected that the exposure of people or structures to hazards from flooding would be avoided. It is expected that, as under the proposed project, agricultural activities would rely on groundwater, but that as under the proposed project this would not result in a significant impact. With limited development, there would be no impact on hydrology or water quality. Therefore the impact findings would be decreased from significant but mitigable under the proposed project to no impact under the No Project Alternative. Consequently, the No Project Alternative would be a *slight improvement* compared to the proposed project.

k. Noise

The proposed project would result in a significant but mitigable impact associated with construction noise levels. Under the No Project Alternative,

minimal development would occur on the site and therefore no significant impacts due to construction noise would be expected. Because the significant impact under the proposed project could be mitigated to a less-than-significant level, this would represent a *slight improvement* over the proposed project.

l. Transportation and Circulation

Although the proposed project would require off-site transportation improvements and increase vehicle trips from visitors and staff traveling to and from the project site, the proposed project would not result in any significant transportation or circulation impacts. The No Project Alternative would generate fewer staff and visitor vehicle trips than the proposed project; this would improve traffic conditions and, like the proposed project, the No Project Alternative would not be expected to result in any significant traffic impacts. The existing, unimproved entrance at Chynoweth Avenue would be utilized to provide access for employees and service/maintenance vehicles, as well as access to a loading area for the community gardens. In addition, the No Project Alternative would include new multi-use trails in the project site that would serve to improve connectivity within the project site and between adjacent neighborhoods. Although the No Project Alternative would improve traffic conditions, neither the No Project Alternative nor the proposed project would result in significant transportation or circulation impacts. Therefore, the No Project Alternative would be *similar* to the proposed project.

m. Utilities and Infrastructure

The proposed project would increase demand for wastewater, water supply, stormwater, solid waste, and electricity and natural gas services and would involve the construction of new utilities infrastructure, but would not result in any significant impacts. The No Project Alternative would generate similar types of demand, but due to the reduced visitor uses the demands would be decreased. Because neither the proposed project nor the No Project Alternative would result in a significant impact, the No Project Alternative would be *similar* to the proposed project.

n. Public Services and Recreation

The proposed project would increase demand for law enforcement and fire protection services but would not result in a significant impact. The proposed project would also include the creation of a new public park with limited recreational uses such as trails, picnic areas, restrooms, and community gardens, which would improve a public service for the project site vicinity and constitute a beneficial impact. The No Project Alternative would increase demand for law enforcement or fire protection services because the project site would be developed into a publicly accessible park site, but the demand would be lower than under the proposed project.

Similar to the proposed project, the No Project Alternative would result in the development of a new public park given the underlying deed. The No Project Alternative would also not conflict with the *Open Space Preservation 2020 Report* and therefore would not constitute a significant impact. Because neither the proposed project nor the No Project Alternative would result in a significant impact, the No Project Alternative would be *similar* to the proposed project.

o. Reason for Rejection

Under the No Project Alternative, the County and the State would maintain ownership of the project site but would not fully implement that proposed Plan. The project site would be developed into a public park with minimal passive recreational uses and community gardening, and agricultural activities would continue on the remainder of the site. The project would not include other types of recreational facilities such as a visitor center/pavilion and visitor parking area, interpretive uses, educational facilities, or agricultural support and marketing facilities. As such, this alternative would not completely fulfill the deed restrictions applicable to the development of the project site. This alternative does not provide a regional park and an educational resource for the community as stipulated in the deed. Therefore, the No Project Alternative has been rejected.

D. Plan Alternative 1 (Branham Lane Entrance Alternative)

1. Principal Characteristics

Under the Branham Lane Entrance Alternative, the guidelines of the proposed Plan would be adopted, but the project site would be developed under an alternative site plan. The project site would be developed under a site plan that, similar to the proposed project, would include both agricultural and recreational land uses. In comparison to the proposed project, this alternative would have an increased emphasis on agricultural uses.

This alternative would include a main Park entrance at the existing signalized intersection at Branham Lane. A concentrated visitor area would be located at the northeast corner of the project site, along Branham Lane and Snell Avenue. As under the proposed project, the Branham Lane Entrance Alternative would include a visitor area with a large, grassy area for passive recreation, a farmer's market and produce stand, a visitor center/pavilion, a farm café, and a visitor parking area. Unlike the proposed project, the Branham Lane Entrance Alternative would include equestrian facilities.

Immediately west of the visitor area, approximately 30 acres of the project site would be dedicated to demonstration gardens, youth agriculture, equestrian facilities, agricultural research, and community gardens. Similar to the proposed project, the alternative would include a seasonal wetland area located on the north side of Canoas Creek. The remainder of the project site would be dedicated to agriculture, organized by a master lessor. Buffers separating the project site from the surrounding residential neighborhoods would consist of more formal orchard plantings.

Under the Branham Lane Entrance Alternative, all farming practices at the Park would be organic, as defined by the Organic Foods Production Act. Agriculture on the project site would therefore not involve the use of most

conventional pesticides or synthetic fertilizers.¹ This alternative would also involve half of the water usage of the proposed project for agricultural activities. As under the proposed project, agricultural water would be sourced from groundwater.

The Branham Lane Entrance Alternative, similar to the proposed project, would include off-site transportation improvements and Park entrance improvements needed to provide adequate traffic conditions consistent with City standards and policies. The Park entrance on Branham Lane under this alternative would affect how trips would affect roadways in the project site vicinity. The entrance on Branham Lane would provide a fourth lane to the existing signalized T-intersection serving the Safeway shopping center that is located approximately 700 feet west of Snell Avenue. The fourth lane would be constructed to provide a separate left-turn lane and a shared through-right-turn lane along with associated signal modifications. Two left-turn lanes at the left-turn pocket at Branham Lane/Snell Avenue would be provided. The dual inbound left-turn lanes from Branham Lane would provide for efficient ingress to the project and would avoid potential blockage of through traffic along Branham Lane. Alternatively, Branham Lane could be widened at the intersection to provide two through lanes in each direction, though through traffic volumes do not indicate the need, to allow for more efficient operations of the intersection as a whole. Branham Lane would be widened approximately 300 feet to the east and west of the project entrance. A right-turn lane into the Park entrance on Branham Lane would also be provided.

As under the proposed project, internal circulation on the project site would include limited public vehicular access, multi-use trails, and service/emergency access. Unlike the proposed plan, this alternative would include a dedicated equestrian trail and a trolley route. Other equestrian facilities would include a round pen/ring, a barn, and horse trailer parking. As under the proposed project, this alternative would include a multi-use trail

¹ Gold, Mary V., Organic Production/Organic Food: Information Access Tools, National Agricultural Library website, <http://www.nal.usda.gov/afsic/pubs/ofp/ofp.shtml>, accessed on May 26, 2010.

around the perimeter of the site and a non-vehicular connection to the VTA station. In comparison to the proposed project, this alternative would involve three additional pedestrian access points (for a total of ten access points) connecting the surrounding neighborhoods to the project site.

The Branham Lane Entrance Alternative was chosen for consideration in this analysis because it: meets the project's objectives of providing a single park unit with both recreational and agricultural components; has the ability to reduce the project's impacts through the use of organic farming, reduced water usage, an alternate Park entrance location, and adjusted land use intensities; would be feasible to implement due to its compliance with applicable deed restrictions and land use policies; and represents a reasonable variation on the proposed project.

2. Impact Discussion and Reason for Rejection

a. Land Use, Plans, and Policies

The proposed project would not result in any significant impacts related to the division of an established community, conflicts with applicable policies, or incompatibilities with existing land uses. The Branham Lane Entrance Alternative would involve similar land uses, although some land uses would be located in different areas of the project site, yet would still meet the deed restrictions applicable to the development of project site. Neither the proposed project nor the Branham Lane Entrance Alternative would be expected to result in a significant impact; therefore, impacts would be *similar*.

b. Aesthetics and Visual Quality

The proposed project would have no significant impacts to aesthetics and visual quality. Implementation of the Branham Lane Entrance Alternative would include locating the Park entrance on Branham Lane, as well as the construction of new buildings and Park facilities similar to the proposed project. In contrast to the proposed project, under which new structures would be scattered throughout the project site, the Branham Lane Entrance Alternative would include a concentrated visitor area. As described in Chapter 3, Project Description, public development in Santa Clara County is not required to comply with certain regulations, such as the County's Architectural

and Site Approval guidelines. Under both the proposed project and this alternative, potential adverse visual impacts associated with new development on the project site would be avoided through compliance with design guidelines in the proposed Plan. Therefore, the Branham Lane Entrance Alternative would be *similar* to the proposed project.

c. Agricultural Resources

The proposed project would have no significant impacts to agricultural resources. The Branham Lane Entrance Alternative would have the same impact findings as the proposed project regarding conflicts with existing zoning for agricultural use, conflicts with existing Williamson Act contracts or the County's Williamson Act Ordinance, and changes to the existing environment which could result in conversion of farmland to non-agricultural use. Farmland under both the proposed project and the Branham Lane Entrance Alternative would be used for long-range active farming and agriculturally-supportive uses, and both the proposed project and this alternative would involve the conversion of some Prime Farmland to recreational uses. As under the proposed project it is expected that conversion of Prime Farmland to uses supportive of agricultural activity would not constitute a significant impact; therefore, this alternative would be *similar* to the proposed project.

d. Air Quality

As described in Chapter 4.4, the proposed project would result in three significant but mitigable impacts associated with construction activities and potential livestock operations. The Branham Lane Entrance Alternative would involve a similar level of development and agricultural activities. Although this alternative would involve equestrian facilities that would not occur under the proposed project, these facilities would be located in the center of the northern area of the project site, away from nearby residential properties. Therefore, equestrian facilities would not be expected to adversely affect nearby sensitive receptors. The Branham Lane Entrance Alternative would not include the use of pesticides or synthetic fertilizers, which would reduce the potential for associated air quality impacts from the use of such materials. However, because the proposed project would not result in impacts associated

with potential pesticide and synthetic fertilizer use, and would follow sustainable farming practices, impacts would be *similar*.

e. Biological Resources

The proposed project would have significant but mitigable impacts associated with potential disturbance of native bird nests, impacts to western pond turtles, loss of foraging habitat, impacts to special-status plants, and impacts to wetlands and jurisdictional waters. The Branham Lane Entrance Alternative would involve similar uses and disturbance of the project site and would be expected to result in the same significant but mitigable impacts. Therefore, this alternative would be *similar* to the proposed project.

f. Climate Change

The proposed project would result in significant and unavoidable impacts due to increased GHG emissions. As under the proposed project, the Branham Lane Entrance Alternative would result in new trips due to visitors and employees traveling to and from the project site. Trip numbers under the Branham Lane Entrance Alternative are expected to be lower than those expected under the proposed project due to the increased emphasis on agricultural uses. Other factors affecting climate change, such as electricity usage and solid waste generation and disposal, would also be reduced due to the decreased visitor usage. Overall, because this alternative would include a smaller recreational component, it is expected that the greenhouse gas emissions would be reduced under this alternative but would not be entirely avoided. This alternative would improve, but not avoid, the project's significant and unavoidable impacts, which would represent a *slight improvement* over the proposed project.

g. Cultural Resources

Neither the proposed project nor the Branham Lane Entrance Alternative would result in significant impacts due to the disturbance of a historic resource. The proposed project would have a significant but mitigable impact related to the potential disturbance of subsurface prehistoric archaeological deposits and associated human remains. Under the Branham Lane Entrance

Alternative, digging and ground disturbance related to construction activities, site development, and agricultural uses would have similar significant impacts as the proposed project. However, it is expected that such impacts could be mitigated through mechanisms similar to those proposed for the project. Therefore, the Branham Lane Entrance Alternative would be *similar* to the proposed project.

h. Geology and Soils

The proposed project would have no significant impacts to geology and soils. Under the Branham Lane Entrance Alternative, the project site would be developed similarly to the proposed project. The project site would be developed with modern geotechnical engineering science and would comply with building standards, such as the California Building Code. Therefore, the Branham Lane Entrance Alternative would have the same impact findings as the proposed project and this alternative would be *similar* to the proposed project.

i. Hazards and Hazardous Materials

The proposed project would have one significant impact pertaining to the exposure of people to existing sources of potential health hazards, specifically rodents. Under the Branham Lane Entrance Alternative, the project site would be developed similarly to the proposed project. There would be similar development and construction activities such as ground digging on the site that could cause rodents to leave the project site for adjacent neighborhoods. As under the proposed project, it is expected that such impacts could be mitigated to a less-than-significant level. Additionally, the Branham Lane Entrance Alternative would have similar impacts to hazardous materials, impairment or interference of an adopted emergency response plan, wildland fires on people or structures, breeding grounds for vectors, a site plan resulting in a safety hazard, exposure of people to existing sources of potential health hazards, or an unsafe technology breakdown. Unlike the proposed project, the Branham Lane Entrance Alternative would involve only organic farming techniques, which would reduce the potential for health risks associated with pesticide use. However, because neither the Branham Lane En-

trance Alternative nor the proposed project would result in significant impacts, this alternative would be *similar* compared to the proposed project.

j. Hydrology, Floodplains, and Water Quality

The proposed project would have one potentially significant impact pertaining to flooding as a result of the failure of a levee or dam. Under the Branham Lane Entrance Alternative, the project site would be developed similarly to the proposed project and would similarly expose people or structures to a significant risk of loss, injury, or death involving flooding. Although this alternative would use only half the amount of water of the proposed project for agricultural uses, the substantial depletion of groundwater supplies or interference with groundwater recharge would be a less-than-significant impact under both this alternative and the proposed project. This alternative would involve organic agriculture, which would reduce, but not eliminate, the potential for polluted runoff. Nevertheless, neither the proposed project nor the Branham Lane Entrance Alternative would result in impacts associated with groundwater supplies or water quality, and impacts associated with flooding would be the same. Therefore, the Branham Lane Entrance Alternative would be *similar* compared to the proposed project.

k. Noise

The proposed project would result in a significant but mitigable impact associated with construction noise levels. Because the Branham Lane Entrance Alternative would involve a similar level of development and similar types of site improvements, impacts would be *similar*.

l. Transportation and Circulation

Although the proposed project would increase vehicle trips from visitors and staff traveling to and from the project site, the proposed project would not result in any significant transportation or circulation impacts. Under the proposed project, the majority of vehicle trips would be from visitors traveling to and from the project site, rather than staff. Trip numbers under the Branham Lane Entrance Alternative are expected to be lower than those expected under the proposed project due to the increased emphasis on agricul-

tural uses. As under the proposed project, the Branham Lane Entrance Alternative would include off-site transportation improvements needed to accommodate project traffic. Nevertheless, because this alternative would result in fewer vehicle trips generated, this alternative would be an improvement over the project.

The Branham Lane Entrance Alternative would include similar internal circulation improvements, including non-motorized circulation routes and a non-vehicular connection to the VTA light rail station. The Branham Lane Entrance Alternative would also include a designated equestrian trail and a trolley loop, which would not be included in the proposed project.

Overall, although the Branham Lane Entrance Alternative would generate fewer vehicle trips and include transportation improvements that would not be included in the proposed project, neither this alternative nor the proposed project would result in significant impacts and therefore this alternative would be *similar* to the proposed project.

m. Utilities and Infrastructure

The proposed project would increase demand for wastewater, water supply, stormwater, solid waste, and electricity and natural gas services and would involve the construction of new utilities infrastructure, but would not result in any significant impacts. The Branham Lane Entrance Alternative would increase service demands by a similar amount and would require a similar amount and type of infrastructure. Because agricultural water would rely on groundwater rather than municipal water, the Branham Lane Entrance Alternative would result in a similar demand for municipal water utilities even though agricultural water demand would be reduced by half. Therefore, this alternative would be *similar* to the proposed project.

n. Public Services and Recreation

Both the proposed project and the Branham Lane Entrance Alternative would increase demand for law enforcement and fire protection services but would not be expected to result in significant impacts. Both the proposed project

and this alternative would also include the creation of a new public park with recreational facilities, which would provide a public service for the project site vicinity. Therefore, impacts would be *similar*.

o. Reason for Rejection

Under the Branham Lane Entrance Alternative, the project site would be developed under a different site plan than that proposed in the Plan. New development on the project site would be contained in a concentrated visitor area, and the Park entrance would be located on Branham Lane rather than Snell Avenue. Although this alternative would, for the most part, result in similar impacts as the proposed project, it would reduce the project's significant and unavoidable climate change impacts. However, the alternative would not avoid the significant and unavoidable impact altogether. The Branham Lane Entrance Alternative is based on a draft alternative developed through the public planning process that resulted in the proposed Plan. This alternative was not selected by the community as the preferred alternative that became the proposed Plan. Because this alternative was not the preferred Plan developed through the public process, and because this alternative would not avoid the project's significant impacts, the alternative has been rejected.

E. Plan Alternative 2 (Chynoweth Avenue Entrance Alternative)

1. Principal Characteristics

Under the Chynoweth Avenue Entrance Alternative, the guidelines of the proposed Plan would be adopted, but the project site would be developed under an alternative site plan. The project site would be developed under a site plan that, like the proposed project, would include both agricultural and recreational land uses. In comparison to the proposed project, this alternative would have an increased emphasis on recreational uses.

This alternative would include a main Park entrance on Chynoweth Avenue, directly across from Duesenberg Drive. A concentrated visitor area would be located centrally within the project site, north of the main Park entrance. As under the proposed project, the visitor area would include a grassy recrea-

tional area; a visitor center/pavilion complex; a designated farmer's market area; a caretaker's residence or a site host; an overflow parking lot; and agricultural land for specialty crops, native plant nursery, and community gardens. Production agriculture would be accomplished through a master lessor. The Chynoweth Avenue Entrance Alternative would include two parking lots and an equestrian arena. In this alternative, the equestrian center would be a larger facility than in Branham Lane Entrance Alternative, and would be primarily for day use. It would include boarding and rentals for a limited number of horses. Unlike the proposed project and Branham Lane Entrance Alternative, the Chynoweth Avenue Entrance Alternative would include a lake instead of a seasonal wetland. The lake would provide additional recreational opportunities, such as fishing. Buffers separating the project site from the surrounding residential neighborhoods would alternate between formal plantings and more natural plantings.

The Chynoweth Avenue Entrance Alternative, similar to the proposed project, would include off-site transportation improvements and Park entrance improvements needed to provide adequate traffic conditions consistent with City standards and policies. The Park entrance on Chynoweth Avenue would affect trips and roadways in the project site vicinity. An existing median extends along Chynoweth Avenue, with breaks located at Avenida Al-mendros and Duesenberg Drive. Though signal warrant checks do not indicate the need for signalization of Chynoweth Avenue, it is likely that the City of San Jose would require the entrance to be signalized due to traffic safety concerns at the Duesenberg Drive median break. Signalization of the entrance would also provide for efficient egress from the project site.

Internal trails would be located in the visitor complex area, and access to other areas of the Park would be limited to the perimeter trail. As under the proposed project, this alternative would include a non-vehicular connection to the VTA station, and seven pedestrian access points into the project site.

The Chynoweth Avenue Entrance Alternative was chosen for consideration in this analysis because it: meets the project's objectives of providing a single park unit with recreational, educational, and agricultural components; has the

ability to reduce the project's impacts through an alternate Park entrance location and adjusted land use intensities; would be feasible to implement due to its compliance with applicable deed restrictions and land use policies; and represents a reasonable variation on the proposed project.

2. Impact Discussion and Reason for Rejection

a. Land Use, Plans, and Policies

The proposed project would not result in any significant impacts related to the division of an established community, conflicts with applicable policies, or incompatibilities with existing land uses. The Chynoweth Avenue Entrance Alternative would involve similar land uses, although some land uses would be located in different areas of the project site, and would still meet the deed restrictions applicable to the development of project site. Neither the proposed project nor the Chynoweth Avenue Entrance Alternative would be expected to result in a significant impact; therefore, impacts would be *similar*.

b. Aesthetics and Visual Quality

The proposed project would have no significant impacts to aesthetics and visual quality. Implementation of the Chynoweth Avenue Entrance Alternative would include locating the Park entrance on Chynoweth Avenue and locating the visitor center centrally within the Park, and would include new buildings and Park facilities similar to the proposed project. In contrast to the proposed project, under which new structures would be located throughout the project site, the Chynoweth Avenue Entrance Alternative would include a concentrated central visitor area. Under both the proposed project and this alternative, potential adverse visual impacts associated with new development on the project site would be avoided through compliance with design guidelines in the proposed Plan. Therefore, the Chynoweth Avenue Entrance Alternative would be *similar* to the proposed project.

c. Agricultural Resources

The Chynoweth Avenue Entrance Alternative would have the same impact findings as the proposed project regarding conflicts with existing zoning for agricultural use. However, it could have significant impacts regarding conflicts with existing Williamson Act contracts or the County's Williamson Act

Ordinance, and changes to the existing environment which could result in conversion of farmland to non-agricultural use. Farmland use under the Chynoweth Avenue Entrance Alternative would include substantially greater amount of land used for recreation instead of farming. Whereas the proposed project would involve the conversion of Prime Farmland to recreational, educational, and agricultural support uses, the Chynoweth Avenue Entrance Alternative would dedicate a larger amount of land, including Prime Farmland, for new recreational uses than proposed by the project. Consequently, this alternative would conflict with the terms of the Williamson Act contract, and would result in a significant impact that would not occur under the proposed project. Therefore, this alternative would result in a *substantial deterioration* over the proposed project.

d. Air Quality

The proposed project would result in three significant but mitigable impacts associated with construction activities and livestock operations. Because the Chynoweth Avenue Entrance Alternative would involve a similar level of development and agricultural activities, overall the impacts would be similar. However, the equestrian facilities in the Chynoweth Avenue Entrance Alternative would be located in the southern portion of the project site, in proximity to residential properties south of Chynoweth Avenue. Therefore, this alternative may result in odor impacts that would not occur under the proposed project. This would be a significant impact that would not occur under the proposed project, which would constitute a *substantial deterioration* in comparison to the proposed project.

e. Biological Resources

The proposed project would have significant but mitigable impacts associated with potential disturbance of native bird nests, impacts to western pond turtles, loss of foraging habitat, impacts to special-status plants, and potential impacts to wetlands and jurisdictional waters. The Chynoweth Avenue Entrance Alternative would involve similar uses and disturbance of the project site and would be expected to result in the same significant but mitigable impacts. Therefore, this alternative would be *similar* to the proposed project.

f. Climate Change

The proposed project would result in significant and unavoidable impacts due to increased GHG emissions. As under the proposed project, the Chynoweth Avenue Entrance Alternative would result in new trips due to visitors and staff traveling to and from the project site. Trip numbers are expected to be greater than those expected under the proposed project due to the increased recreational components that would be involved under this alternative. Other factors affecting climate change, such as electricity usage and solid waste generation and disposal, would also be greater due to the increased visitor usage. Therefore, this alternative could worsen the significant and unavoidable impact that would occur under the proposed project, which would be a *slight deterioration* in comparison to the project.

g. Cultural Resources

Neither the proposed project nor the Chynoweth Avenue Entrance Alternative would result in significant impacts due to the disturbance of a historic resource. The proposed project would have a significant but mitigable impact related to the potential disturbance of subsurface prehistoric archaeological deposits and associated human remains. Under the Chynoweth Avenue Entrance Alternative, digging and ground disturbance related to construction activities, site development, and agricultural uses would have similar significant impacts as the proposed project. However, it is expected that such impacts could be mitigated through measures similar to those proposed for the project. Therefore, the Chynoweth Avenue Entrance Alternative would be *similar* to the proposed project.

h. Geology and Soils

The proposed project would have no significant impacts to geology and soils. Under the Chynoweth Avenue Entrance Alternative, the project site would be developed similarly to the proposed project. The project site would be developed with modern geotechnical engineering science and would comply with building standards, such as the California Building Code. Therefore, the Chynoweth Avenue Entrance Alternative would have the same impact find-

ings as the proposed project and this alternative would be *similar* to the proposed project.

i. Hazards and Hazardous Materials

The proposed project would have one significant impact pertaining to the exposure of people to existing sources of potential health hazards, specifically rodents. Under the Chynoweth Avenue Entrance Alternative, the project site would be developed similarly to the proposed project. There would be similar development and ground digging on the site that could cause rodents to leave the project site for adjacent neighborhoods. As under the proposed project, it is expected that such impacts could be mitigated to a less-than-significant level. Additionally, the Chynoweth Avenue Entrance Alternative would have similar impacts to hazardous materials, impairment or interference of an adopted emergency response plan, wildland fires on people or structures, breeding grounds for vectors, a site plan resulting in a safety hazard, exposure of people to existing sources of potential health hazards, or an unsafe technology breakdown. Therefore, this alternative would be *similar* compared to the proposed project.

j. Hydrology, Floodplains, and Water Quality

The proposed project would have one potentially significant impact pertaining to flooding as a result of the failure of a levee or dam. Under the Chynoweth Avenue Entrance Alternative, the project site would be developed similarly to the proposed project and would similarly expose people or structures to a significant risk of loss, injury, or death involving flooding. However, the Chynoweth Avenue Entrance Alternative would not involve the seasonal wetland that would be created under the proposed project and would act as extra detention from runoff on-site to reduce flooding. Therefore, this alternative could result in a significant impact that would not occur under the proposed project, which would constitute a *substantial deterioration* in comparison to the proposed project.

k. Noise

The proposed project would result in a significant but mitigable impact associated with construction noise levels. Because the Chynoweth Avenue Entrance Alternative would involve a similar level of development and similar types of site improvements, overall impacts would be similar. However, the equestrian facilities in the Chynoweth Avenue Entrance Alternative would be located in the southern portion of the project site, in proximity to residential properties south of Chynoweth Avenue. Therefore, this alternative may result in noise impacts that would not occur under the proposed project. This would be a significant impact that would not occur under the proposed project, which would constitute a *substantial deterioration* in comparison to the proposed project.

l. Transportation and Circulation

Although the proposed project would increase vehicle trips from visitors and staff traveling to and from the project site, the proposed project would not result in any significant transportation or circulation impacts. Under the proposed project, the majority of vehicle trips would be from visitors traveling to and from the project site, rather than staff. Trip numbers under the Chynoweth Avenue Entrance Alternative are expected to be greater than those expected under the proposed project due to the increased emphasis on recreational uses. As under the proposed project, the Chynoweth Avenue Entrance Alternative would include off-site transportation improvements needed to accommodate project traffic. Nevertheless, because this alternative would generate a greater number of vehicle trips, this alternative would be a slight deterioration in comparison to the proposed project.

The Chynoweth Avenue Entrance Alternative would also include similar internal circulation improvements, including non-motorized circulation routes and a non-vehicular connection to the VTA light rail station.

Overall, although the Chynoweth Avenue Entrance Alternative would generate more vehicle trips than the proposed project, neither this alternative nor

the proposed project would result in significant impacts and therefore this alternative would be *similar* to the proposed project.

m. Utilities and Infrastructure

The proposed project would increase demand for wastewater, water supply, stormwater, solid waste, and electricity and natural gas services and would involve the construction of new utilities infrastructure, but would not result in any significant impacts. The Chynoweth Avenue Entrance Alternative would increase service demands by a similar amount and would require a similar amount and type of infrastructure. Therefore, this alternative would be *similar* to the proposed project.

n. Public Services and Recreation

Both the proposed project and the Chynoweth Avenue Entrance Alternative would increase demand for law enforcement and fire protection services but would not be expected to result in significant impacts given the presence of additional Park staffing. Both the proposed project and this alternative would include the creation of a new public park with recreational facilities, which would provide a public service for the project site vicinity. Therefore, impacts would be *similar*.

o. Reason for Rejection

Under the Chynoweth Avenue Entrance Alternative, the project site would be developed under a different site plan than that proposed in the Plan. New development on the project site would be contained in a concentrated visitor area, and the Park entrance would be located on Chynoweth Avenue rather than Snell Avenue. Although this alternative would, for the most part, result in similar impacts as the proposed project, this alternative could result in four new significant impacts, associated with agricultural resources, air quality, flooding, and noise. This alternative would convert a greater amount of Prime Farmland to recreational uses, which would conflict with Williamson Act requirements. Equestrian uses on the project site under this alternative would be located in proximity to residential properties, which could create an odor and noise impact. Lastly, because this alternative does not include a

seasonal wetland component, flooding impacts may be created. The Chynoweth Avenue Entrance Alternative is based on an alternative developed through the public planning process that resulted in the proposed Plan. This alternative was not selected as the preferred alternative that became the proposed Plan. Because this alternative was not the preferred Plan developed through the public process, and because this alternative could result in significant impacts that would not occur under the proposed project, the alternative has been rejected.

F. Environmentally-Superior Alternative

CEQA Guidelines require that an EIR identify the environmentally-superior alternative. If the alternative with the least environmental impact is the No Project Alternative, then an EIR must also identify the next most environmentally-superior alternative.

Based on the analysis above, the results of which are summarized in Table 5-1, the environmentally-superior alternative would be the No Project Alternative. The Branham Lane Entrance Alternative would be the next most environmentally-superior alternative.

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ALTERNATIVES

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6 CEQA-REQUIRED ASSESSMENT CONCLUSIONS

This chapter provides an overview of the impacts of the proposed project based on the technical analyses presented in Chapters 4 and 5. The topics covered in this chapter include growth inducement, unavoidable significant impacts, and significant irreversible changes. A more detailed analysis of the effects that the project would have on the environment and the proposed mitigation measures to minimize significant impacts is provided in Chapter 4.

A. Growth Inducement

Section 15126.2(d) of the 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 under-served area, or the removal of major barriers to development. This section evaluates the proposed project's potential to create such growth inducements. Not all growth inducement is negative; rather, negative impacts associated with growth inducement occur only where the project growth would cause adverse environmental impacts.

The project includes the creation of new park and recreational facilities, as well as 143 acres of agricultural lands. Apart from an on-site caretaker's residence, the project would not involve the construction of any housing. Project construction and ongoing on-site agriculture and associated agricultural marketing uses would provide new job opportunities in the project site vicinity. However, given the available labor force in Santa Clara County, it is unlikely that a substantial number of construction workers, farm workers, or other on-site employees would relocate to work on the proposed project. Therefore, the project would not directly or indirectly induce growth.

B. Unavoidable Significant Impacts

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. This section lists the impacts for the proposed project that were found to be significant and unavoidable. More information on these impacts is found in Chapter 4 of this Draft EIR.

CC-1: Construction and operation of the project would result in GHG emissions that would have a significant physical adverse impact and cumulatively contribute to global climate change.

CC-2: The project would generate increased GHG emissions that hinder or delay the State's ability to meet the AB 32 reduction target.

C. Significant Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines requires an EIR to discuss the extent to which a proposed project would commit nonrenewable resources to uses that future generations would probably be unable to reverse. The three CEQA-required categories of irreversible changes are discussed below.

1. Changes in Land Use that Commit Future Generations

The project would commit future generations to active agricultural land, park and recreational areas, cooperative management uses, associated internal roads and trails, parking areas, and associated structures and infrastructure. However, the project would largely maintain the existing site as open space, with enhanced natural features and recreational opportunities. Many of the on-site roadways and trails, including parking areas, would be unpaved. New structures built on the project site as part of the project would be minimal and would be scattered throughout the site, and would be designed to complement historic uses on the project site and the adjacent Life Estate. Because the project does not propose the conversion of the existing site to urban uses or intense development, the project would primarily serve to enhance and pre-

serve the existing uses associated with the site and the adjacent Life Estate. Therefore, the project would not result in land use changes that would commit future generations to adverse effects.

2. Irreversible Damage from Environmental Accidents

Construction activities and ongoing agricultural uses, including the potential use of pesticides and herbicides, could involve some risk for environmental accidents. However, these activities would be conducted in accordance with local, State, and federal environmental protection and safety regulations and would follow professional industry standards for safety and construction. The proposed Plan includes guidelines to encourage sustainable farming techniques, and therefore ongoing agricultural activities under the project are not expected to involve heavy uses of chemicals that could affect nearby waterways or residents. As a result, the project would not pose a substantial risk of environmental accidents.

3. Large Commitment of Nonrenewable Resources

Construction and ongoing maintenance of the project would irreversibly commit some materials and non-renewable energy resources. Materials and resources used would include, but are not limited to, nonrenewable and limited resources such as oil, gasoline, sand and gravel, asphalt, and steel. These materials and energy resources would be used for site preparation, infrastructure development, transportation of people and goods, and utilities. During the operational phase of the project, energy sources including oil and gasoline would be used for lighting, heating, and cooling of on-site buildings, ongoing agricultural activities, and the transportation of people and goods to and from the project site. Ongoing energy usage for agricultural activities and associated buildings and transportation needs would result in an irreversible environmental change. However, because the project does not involve residential uses, apart from an on-site caretaker's residence or site host, such energy uses would be limited to working hours and would fluctuate throughout the year depending on crop types and farming needs. Therefore, it is not likely that energy usage would continuously result in significant irreversible effects.

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The entire project site is currently used for agriculture use, and the project would involve the conversion of some agricultural areas to non-agricultural park and recreational uses due to the deed stipulations for a public historic agricultural park. Because the project involves the preservation of active agricultural uses in perpetuity, along with the creation of new agricultural marketing and support uses that do not currently exist, the project is considered to have a beneficial effect on the nonrenewable resource of agricultural lands.

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MARTIAL COTTLE PARK
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8 LIST OF ACRONYMS

°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
AFY	acre feet per year
Ag	Silver
Al	Aluminum
ALERT	Automated Local Evaluation in Real Time
APN	Assessor's Parcel Number
ARB	California Air Resources Board
ARES	amateur radio disaster services
As	Arsenic
AST	aboveground storage tank
ATCM	Airborne Toxic Control Measures
ATI	Approved Trips Inventory
B	Boron
Ba	Barium
BAAQMD	Bay Area Air Quality Management District
BGM	BAAQMD GHG Model
bgs	below ground surface
BMPs	best management practices
BUFRs	Broadleafed upland forest
C ₂ F ₆	hexafluoromethane
Ca	calcium
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CaCO ₃	calcium carbonate

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LIST OF ACRONYMS

CAFÉ	Corporate Average Fuel Economy
CalEMA	California Emergency Management Agency
Cal/EPA	California Environmental Protection Agency
CALFIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CCFrS	closed-cone coniferous forest
CCR	California Code of Regulations
Cd	Cadmium
CDFG	California Department of Fish and Game (also DFG)
CE	State-listed as endangered
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CF ₄	tetrafluoromethane
cfs	cubic feet per second
CH ₄	Methane
Chprl	Chaparral
CHWMP	Countywide Hazardous Waste Management Plan
CI	Compression Ignition
Cl	Chloride
CIWMB	California Integrated Waste Management Board
CMA	Congestion Management Agency
CMP	Congestion Management Program
CmWld	Cismontane woodland
CN	Cyanide
CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level

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CNPS	California Native Plant Society
CO	carbon monoxide
CO ²	carbon dioxide
CO _{2eq}	CO2 equivalents
CO ³	carbonate
CoDns	Coastal dunes
COLD	cold freshwater habitat
CoPrr	Coastal prairie
Corps	U.S. Army Corps of Engineers
CoScr	Coastal scrub
Cr	Chromium
Cu	Copper
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CY	cubic yards
dB	decibels
dBA	A-weighted decibels
DOM	Department Operations Manual
DOT	Department of Transportation
DPR	Department of Pesticide Regulation
DSOD	Division of Safety of Dams
DTSC	Department of Toxic Substances Control
EAS	Emergency Alert System
EDIS	Emergency Digital Information System
EIR	Environmental Impact Report
EMSystem	communications network linking hospitals, the EMS Agency, first responders, and public health officials
EOC	Emergency Operations Center
EOC-Net	low band inter-city radio system

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EPA	(United States) Environmental Protection Agency
ESA	Environmentally Sensitive Area
ESLs	Environmental Screening Levels
ETo	evapotranspiration
F	fluoride
FAHCE	Fisheries and Aquatic Habitat Collaborative Effort
Fe	iron
FE	Federally-listed as endangered
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRMs	Flood Insurance Rate Maps
FT	Federally-listed as threatened
ft/ln	feet per lane
gal/min	gallons per minute
GETS	Government Emergency Telecommunications Service
GIS	geographical information systems
GHG	greenhouse gas
gpd	gallons per day
gpm/ft	gallon per minute per foot
GWP	Global Warming Potential
GWR	groundwater recharge
HCP	Habitat Conservation Plan
HCM	Highway Capacity Manual
HFCs	Hydrofluorocarbons
Hg	Mercury
HHC	Historical Heritage Commission
HIT	Hazardous Incident Team

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HLUET	Housing, Land Use, Environment and Transportation
HMCD	Hazardous Materials Compliance Division
HMP	Hydrograph Modification Management Plan
HOV	high occupancy vehicle
IPCC	Intergovernmental Panel on Climate Change
IPM	Integrated Pest Management
IWRP	Integrated Water Resources Plan
JPOA	Joint Powers Operating Agreement
K	potassium
KV	kilovolts
kWh	kilowatt hours
LAFCO	Local Agency Formation Commission
LCFrS	Lower montane coniferous forest
LCFS	Low Carbon Fuel Standard
LEA	Local Enforcement Agency
Ldn	level, day-night (sound)
LEDs	light emitting diodes
LEED	Leadership in Energy and Environmental Design
Leq	equivalent continuous noise level
Leq(24)	Leq duration of 24 hours
Lmax	maximum noise level
LNG	liquefied natural gas
LOS	Level of Service
LRA	Local Responsibility Area
LUST	Leaking Underground Storage Tank

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MBTA	Migratory Bird Treaty Act
MCL	Maximum Contaminant Level
Medws	meadows and seeps
Mg	magnesium
MGD	million gallons per day
mg/L	milligrams per liter
mg/m ³	milligrams of gaseous pollutant per cubic meter of ambient air
MLD	Most Likely Descendant
MMT	million metric tons
Mn	manganese
mpg	miles per gallon
mph	miles per hour
MPOs	metropolitan planning organizations
MS4s	Small Municipal Separate Storm Sewer System
MshSw	marshes and swamps
msl	mean sea level
MTBE	methyl tertiary butyl ether
MTC	Metropolitan Transportation Commission
MUN	municipal and domestic supply
MUTCD	Manual on Uniform Traffic Control Devices
N ₂ O	nitrous oxide
Na	Sodium
NAAQS	national ambient air quality standards
NCCP	Natural Communities Conservation Plan
NCFrs	North Coast coniferous forest
ND	not detected
NEPA	National Environmental Policy Act
ng/L	nanograms per liter
NHTSA	National Highway Traffic Safety Administration

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Ni	Nickel
NMFS	National Marine Fisheries Service
NO	Nitric oxide
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NO _x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRMP	Natural Resource Management Program
NWIC	Northwest Information Center
O ₃	ozone
OASIS	Operational Area Satellite Information System
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHWM	ordinary high water mark
OPR	Office of Planning and Research
OSHA	Occupational Health and Safety Administration
Pb	Lead
PCBs	polychlorinated biphenyls
PCE	perchloroethylene
PCP	pentachlorophenol
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric Company
PM	particulate matter
PM ₁₀	particulate matter less than 10 micrometers in aerodynamic diameter
PM _{2.5}	particulate matter less than 2.5 micrometers in aerodynamic diameter
ppb	parts per billion

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ppm	parts per million
PRGs	Preliminary Remedial Goals
PSD	Prevention of Significant Deterioration
Q/S	specific capacity
RACES	radio amateur civil defense services
RCRA	Resource Conservation and Recovery Act
RIMS	Response Information Management System
ROGs	reactive organic gases
RpWld	Riparian woodland
RWD	Reports of Waste Discharge
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SBWR	South Bay Water Recycling
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVWD	Santa Clara Valley Water District
Se	Selenium
SEMS	Standardized Emergency Management System
SF	square foot
SF ₆	sulfur hexafluoride
SIPs	State implementation plans
SJFD	San Jose Fire Department
SJPD	San Jose Police Department
SO ₂	sulfur dioxide
SO ₄	sulfate
SPWN	fish spawning
SRA	State Responsibility Area

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SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
TACs	Toxic air contaminants
TDM	transportation demand management
TDS	total dissolved solids
Th	Thallium
TMDL	Total Maximum Daily Load
TPH-MO	total petroleum hydrocarbons as motor oil
TSP	Telecommunications Service Priority
UCMP	University of the California Museum of Paleontology
USA	Urban Service Area
uS/cm	microsiemens per centimeter
US-DOE	U.S. Department of Energy
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
USPS	United States Postal Service
USTs	underground storage tanks
UWMP	Urban Water Management Planning
V/C	volume-to-capacity
VFGrs	Valley and foothill grassland
VMT	vehicle miles traveled
VnPls	Vernal pools
VOCs	volatile organic compounds
vph	vehicles per hour
vphpl	vehicles per hour per lane
vpl	vehicles per lane

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VTA	Valley Transportation Authority
WARM	warm freshwater habitat
WDR	Waste Discharge Requirement
WILD	wildlife habitat
WMI	Water Management Initiative
WPCP	Water Pollution Control Plan
WSA	Water Supply Assessment
WTPs	water treatment plants
Z	Zinc

9 GLOSSARY OF TERMS AND DEFINITIONS

Attainment Status Designations

Designations that the California Air Resources Board is required to apply to areas of the State. Designations include “attainment,” “nonattainment,” and “unclassified” for any State standard. An “attainment” designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An “unclassified” designation signifies that data does not support either an attainment or nonattainment status.

Best Management Practices (BMPs)

Management practices (such as nutrient management) or structural practices (such as terraces) designed to reduce the quantities of pollutants-- such as sediment, nitrogen, phosphorus, and animal wastes -- that are washed by rain and snow melt from farms.

California Environmental Quality Act (CEQA)

A California statute that requires State and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.

Climate Change

Changes in the earth’s global temperature over a long period of time. Global climate change, or global warming, refers to the current warming pattern caused at least in part by human activities.

Corporation Yard

An area designated for support, maintenance, and operation facilities. The proposed project’s agriculture corporation yard would include miscellaneous buildings such as a barn and buildings for equipment storage. The park corporation yard would include a storage building and associated facilities for the maintenance and operation of the park and recreational uses.

Demonstration Gardens

Educational gardens that are accessible to the public, although access may be restricted to certain hours, guided tour groups, or other monitored access. These gardens would provide resources for home gardeners and small scale urban farmers.

Environmental Impact Report (EIR)

A report required of general plans by the California Environmental Quality Act and which assesses all the environmental characteristics of an area and determines what effects or impacts will result if the area is altered or disturbed by a proposed action. (See "California Environmental Quality Act.")

Flood Insurance Rate Map (FIRM)

For each community, the official map on which the Federal Insurance Administration has delineated areas of special flood hazard and the risk premium zones applicable to that community.

Farmland Security Zone

A farmland security zone is an area created within an agricultural preserve by a board of supervisors upon request by a landowner or group of landowners. Farmland security zones offer landowners greater property tax reduction. Land restricted by a farmland security zone contract is valued for property assessment purposes at 65 percent of its Williamson Act valuation, or 65 percent of its Proposition 13 valuation, whichever is lower.

Greenhouse Gas Emissions

Gases that capture heat in the atmosphere, contributing to the warming of the earth's oceans and atmospheres. Carbon dioxide, methane and nitrous oxide are greenhouse gases that are emitted by human activities.

Level of Service (LOS) Standard, Traffic

A scale that measures the amount of traffic that a roadway or intersection can accommodate, based on such factors as maneuverability, driver dissatisfaction, and delay.

Liquefaction

A phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other rapid loading.

Mean Sea Level

The average mean height of the sea, with reference to a suitable reference surface.

Municipal Service Review

A review of the municipal services provided in the county or other appropriate area such as a proposed incorporation area designated by LAFCO's Commission.

National Environmental Policy Act (NEPA)

A federal law very similar to CEQA which requires its own environmental review process.

Qualified Archaeologist

For purposes of this report, a "qualified archaeologist" is an individual who meets the Secretary of the Interior's Professional Qualification Standards for archaeology, as described at 36 CFR Part 61.

Qualified Biologist

A professional biologist approved by the applicable regulatory agency or permitting agency (U.S. Fish and Wildlife Services, California Department of Fish and Game, Regional Water Quality Control, etc.).

Right-to-Farm Law

A local government ordinance protects farmers from nuisance complaints for standard farming practices.

Sphere of Influence

The probable ultimate physical boundaries and service area of a city as determined by the local agency formation commission (LAFCO) of each county.

Sustainable Farming

Farming practices integrate natural biological cycles and controls; protect and conserve water, air, soil, and energy resources; and minimize adverse impacts on health, safety, wildlife, water quality and the environment.

Vector

A carrier of infectious agents. In Santa Clara County, for example, mosquitoes, rodents, and other wildlife can serve as vectors for Malaria, West Nile Virus, and St. Louis encephalitis.

Williamson Act

The California Land Conservation Act of 1965, or Williamson Act. The Williamson Act allows local governments to enter into voluntary contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, restricted parcel property taxes are assessed at a rate consistent with their actual use rather than potential market value.



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