

Initial Study/Mitigated Negative Declaration Beyer Ranch Winery Development Alameda County, California

Prepared for:
Alameda County Planning Department



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December 2017

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SECTION 1: INTRODUCTION

1.1 - Purpose

This document has been prepared in accordance with the California Environmental Quality Act (CEQA, 1970, as amended) (Public Resources Code [PRC] Section 2100, et seq.); the CEQA Guidelines (California Code of Regulations Section 1500, et seq.) provide for an Initial Study (IS), including an Environmental Checklist, to be prepared by a lead agency to determine if a project may have a significant effect on the environment (CEQA Guidelines Section 15063[a]), and thus to determine if an Environmental Impact Report (EIR) is required due to the identification of impacts that cannot be avoided or reduced to a less than significant level. In accordance with CEQA Guidelines Section 15070, a “public agency shall prepare . . . a proposed negative declaration or mitigated negative declaration . . . when: (a) The Initial Study shows that there is no substantial evidence . . . that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the project proponent (applicant) and such revisions would reduce potentially significant effects to a less-than-significant level.” In this instance, the lead agency (Alameda County) has prepared an Initial Study/Mitigated Negative Declaration (IS/MND) as a written statement of its basis for concluding that the project would not have a significant effect on the environment and therefore does not require the preparation of an EIR. A Mitigated Negative Declaration documents that all potential impacts on the environment can be avoided or mitigated to a less than significant level.

As described in this IS/MND (Section 2, Environmental Checklist), the project would result in certain potentially significant environmental impacts, but those impacts can feasibly be avoided or reduced to a less than significant level by implementation of mitigation measures, described herein, that have been agreed upon and would be implemented by the applicant and enforced by Alameda County. Therefore, an Initial Study/Mitigated Negative Declaration (IS/MND) is the appropriate document for compliance with the requirements of CEQA. This IS/MND conforms to these requirements and to the content requirements of CEQA Guidelines Section 15071. Analysis is also provided to confirm each conclusion reached in the document.

The purpose of this IS/MND is to identify the potential environmental impacts associated with the construction of the Beyer Ranch Winery Development on land currently consisting of fallow vineyards in the South Livermore Valley of Alameda County, southeast of the Livermore city limits. The IS/MND provides information to substantiate the conclusions made regarding the potential of the project to result in significant environmental impacts, and provides the basis for input from public agencies, organizations, and interested members of the public. Pursuant to Section 15367 of the CEQA Guidelines, Alameda County is the Lead Agency for the project and, as such, has primary responsibility for approval or denial of the project.

1.2 - Project Location

1.2.1 - Location

The project is proposed on 243.95 acres, on the south side of Tesla Road, west of Greenville Road, and southeast of the city limits of Livermore, California, within unincorporated Alameda County, at an address of 6741 Tesla Road. The project site bears Alameda County Assessor's Parcel Number (APN) 99A-1610-001-09, and is owned by Wentte Brothers, a vineyard operator. The site is roughly rectangular, except for an approximately 21.5-acre adjacent parcel that is not part of the project site but that lies at the northeast corner of the otherwise rectangular site. The site has about 3,400 feet of frontage along Tesla Road and is roughly 2,600 feet (or about half a mile) deep. Exhibit 1 shows the site's regional location, while Exhibit 2 illustrates the project study area.

1.2.2 - Existing Conditions

The approximately 244-acre site currently contains fallow vineyard lands with ruderal brush and grasslands, and a roughly 4,000 square-foot barn for agriculturally related uses near and centrally placed along the southern boundary. Vegetation on-site is primarily ruderal in nature; there are almost no trees, outcroppings, or other unique features present, including any natural creeks or channels. A high-voltage power line crosses the project site in an east-west direction, through its approximate center on a slightly west-southwest bearing. The site slopes very slightly downhill from its northeastern corner, descending in total elevation by about 35 feet to its southwestern corner over a distance of about four-fifths of a mile (under 1 percent average slope). There is also a slope downward from the northwest corner of the site, resulting in a very shallow bowl shape. A narrow drainage ditch flows southward on a straight line through the approximate center of the property from Tesla Road, turning only around the barn near the south side of the property. A roughly 16-acre, triangular-shaped area at the northwest corner lies within an Alquist-Priolo special study earthquake hazard zone.

1.2.3 - Surrounding Land Uses

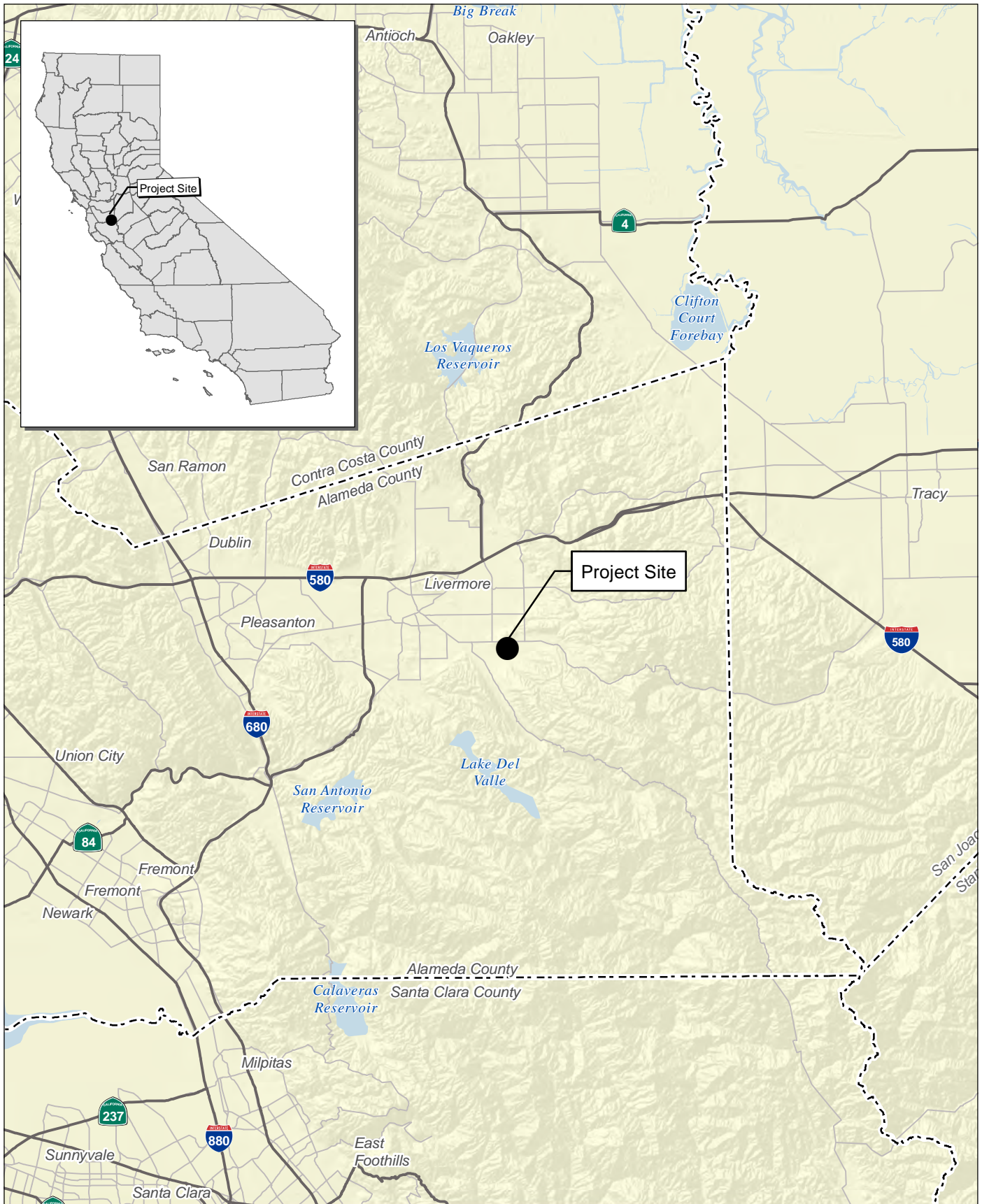
Land uses surrounding the project site are predominantly agricultural, dominated by numerous wineries and winery-related event centers, equestrian facilities and services, commercial uses, and the Poppy Ridge Golf Course. Surrounding land uses are further discussed below.

West

A recreational vehicle storage facility (Ideal Boat and Storage) borders the entire western project site boundary (on a 60-acre parcel). Wentte Vineyards lies further west of the storage facility, and a mixture of vineyards and wineries line both sides of Tesla Road to the west of the project site.

North

The project site is bounded on the north by Tesla Road, beyond which lie vineyards, vacant land, wineries and visitor-serving commercial uses. The Livermore city limits and a small residential subdivision are approximately 0.25 mile northwest of the northwest corner of the project site. Sandia National Labs are about 0.5 mile north of the site, beyond a ridge seen from Tesla Road.



Source: Census 2000 Data, The CaSIL, FCS GIS 2016.

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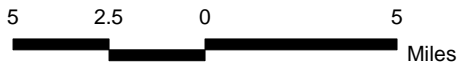
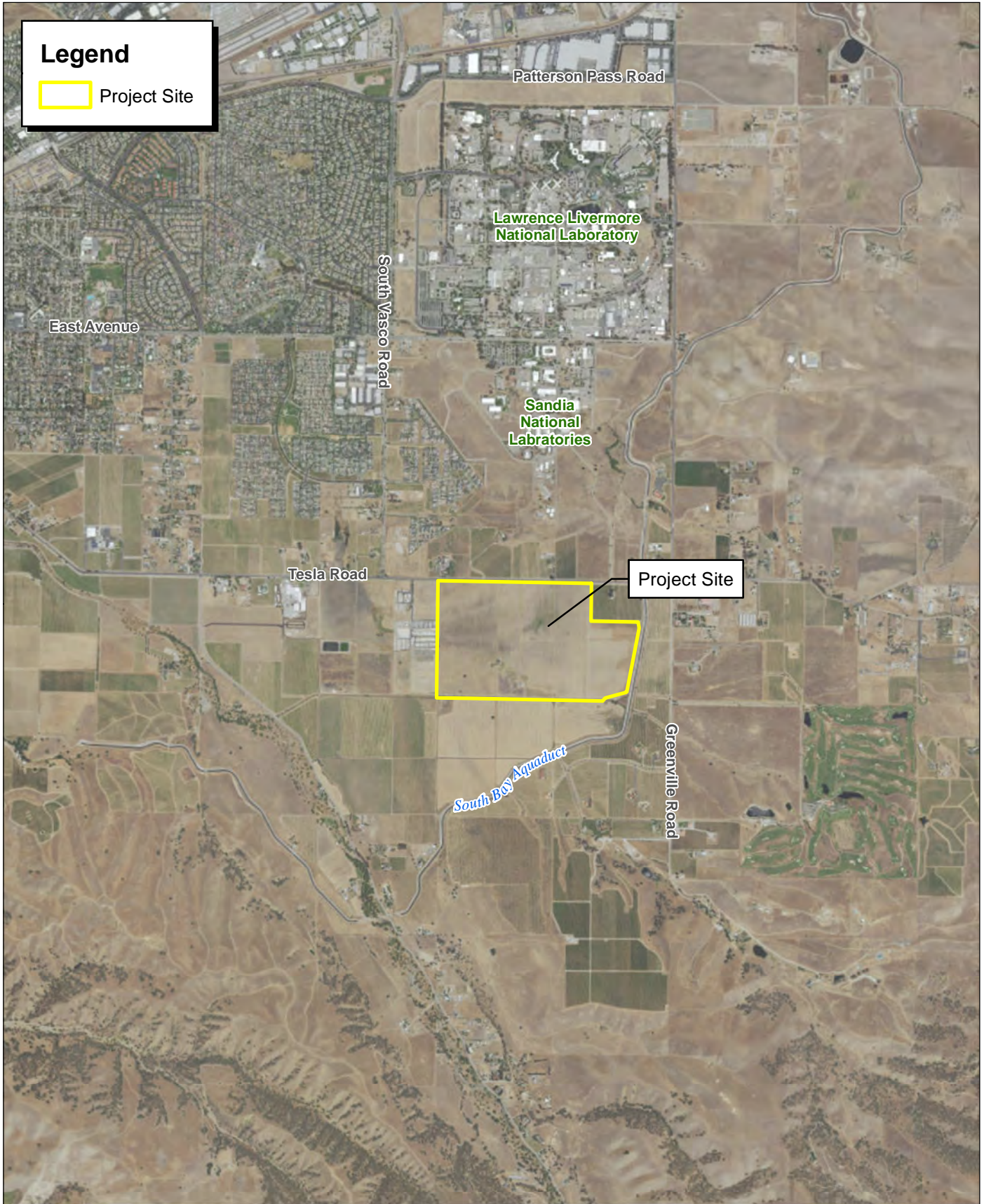


Exhibit 1 Regional Location Map

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Source: ESRI Imagery



Exhibit 2
Local Vicinity Map
Aerial Base

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East

Directly east of the project site is the South Bay Aqueduct, Greenville Road, vineyards, and one residence. Beyond Greenville Road there are equestrian, ranch, single-family residential parcels, and fallow fields, and about a mile further east, the Poppy Ridge golf course and clubhouse.

South

Agricultural lands are located south of the project site, opposite an irrigation canal that lies outside but along the southern property line.

1.2.4 - Land Use Designations

The project site is zoned Agricultural-Cultivated Agricultural (A-CA) by the Alameda County Zoning Ordinance and has a land use designation of Large Parcel Agriculture (LPA) under the County General Plan (East County Area Plan or ECAP, adopted May 1994, amended November 2000 by voter initiative Measure D [resulting modifications adopted by the Board in May 2002]). It is also within the South Livermore Valley Area Plan (SLVAP), adopted February 1993), which established the A-CA zoning and its land use controls.

1.3 - Project Description

The applicant proposes to subdivide the project site into 12 lots, of which six would contain commercial wineries and permit winery-related uses (tasting rooms, wine sales, wedding and other banquet and reception facilities, etc., subject to approval of conditional use permits), while the remaining six lots would permit one single-family residence each (Exhibit 3). All 12 lots would be a minimum of 20.00 acres, ranging up to 21.66 acres in area. The configuration of the subdivision, lot sizes and building envelopes are intended to conform to the guidelines of the SLVAP and the ECAP, and implement its goals and objectives. As permitted by the LPA designation in the ECAP and guidelines in the SLVAP (also incorporated into the A-CA zone district), development within each residential lot would be limited to a 2-acre building envelope, inclusive of the area devoted to the driveway. In the case of the commercial lots, the maximum building intensity for non-residential buildings shall be .01 FAR (floor area ratio), but not less than 20,000 square feet. As shown in Exhibit 3, the six winery lots would have direct driveway access to Tesla Road, while the residential lots would access Tesla Road via a common private driveway bordering the rear lot lines of the six commercial lots.

1.3.1 - Description of Lots and Operations

The facilities proposed for each lot are summarized in Table 1 on the following page, and further described below.

Lots 1 and 6 would include approximately 20,000 square feet each of buildings and site improvements designed to provide barrel storage, case good storage, and custom crush services—all related to the production of wine. The buildings on Lots 1 and 6 would provide winery custom crush services and would be in operation from 8:00 a.m. to 5:00 p.m. daily. The majority of the activities in these buildings would occur during harvest season, which is typically from September to November.

Table 1: Summary of Proposed Facilities by Lot

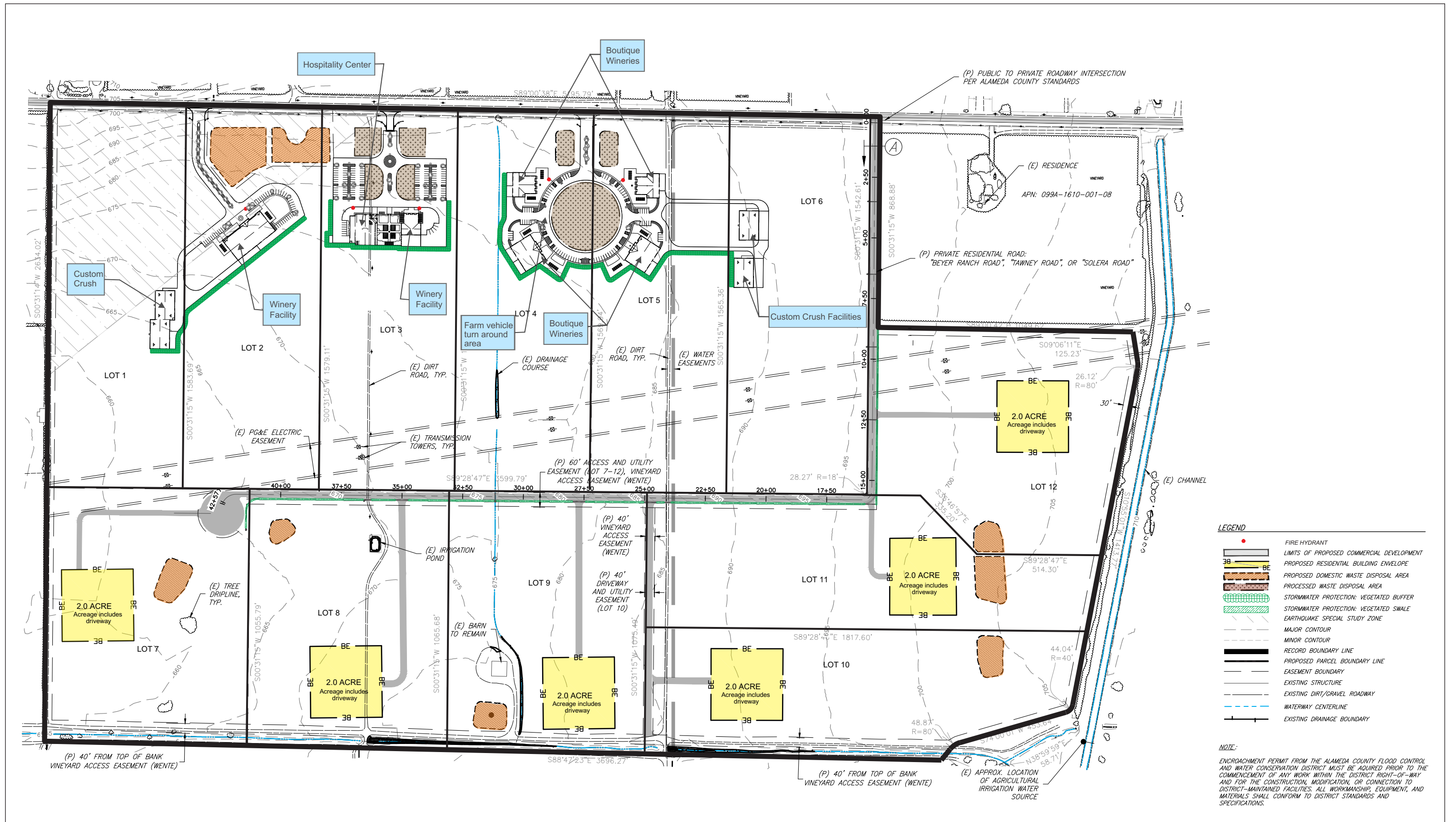
Facility	Lot Size (acres)	Building Area (sq ft)	Parking Spaces
Lot 1 Crush services	20.38	20,000	0
Lot 2 Winery	20.33	20,000	43
Lot 3 Winery Winery Hospitality Center	20.27	6,000 14,000	116
Lot 4 Boutique Winery Boutique Winery	20.21	8,000 12,000	42
Lot 5 Boutique Winery Boutique Winery	20.15	8,000 12,000	40
Lot 6 Crush services	20.68	20,000	0

Source: Site Plan by Hogan Land Services, August 2017.

Lot 2 would feature an approximately 20,000-square-foot freestanding winery. The freestanding winery would have similar hours of operation as the winery hospitality center described below (on Lot 3), with operation occurring 7 days a week and most traffic occurring on weekends from 11:00 a.m. to 5:30 p.m. Lots 4 and 5 would be developed as small boutique or incubator wineries, each producing 5,000 to 10,000 cases of wine per year. These two lots would feature an 8,000-square-foot winery and a 12,000-square-foot winery, respectively, for a total square footage of 20,000 square feet of winery space per lot. The boutique wineries would operate 7 days a week during hours similar to the winery hospitality center, but it is expected that most of their visiting traffic would occur on weekends from 11:00 a.m. to 5:30 p.m. In addition, up to four major events per winery per year may occur on each of these three lots (2, 4 and 5). There would also be smaller, private quarterly events on these lots on Saturdays and Sundays from 12:00 p.m. to 5:00 p.m.

Lot 3 would feature an approximately 6,000-square-foot freestanding winery, and a 14,000-square-foot winery hospitality center that would host events throughout the year. The freestanding winery would operate during the same hours as the boutique wineries described above, 7 days a week and most traffic occurring on weekends from 11:00 a.m. to 5:30 p.m. The winery hospitality center would host 150 private events per year, mostly wedding events with an average attendance of 125 people. The winery hospitality center hours of operation would be from 8:00 a.m. to 10 p.m. Monday through Thursday, and from 8:00 a.m. to 11:00 p.m. Friday through Sunday and holidays, although most events would occur Friday through Sunday and holidays, from 5:00 p.m. to 11:00 p.m.

The balance of the commercial lot areas will be actively cultivated as vineyards.



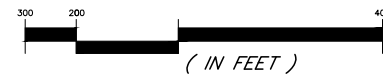
LEGEND

	FIRE HYDRANT
	LIMITS OF PROPOSED COMMERCIAL DEVELOPMENT
	PROPOSED RESIDENTIAL BUILDING ENVELOPE
	PROPOSED DOMESTIC WASTE DISPOSAL AREA
	PROCESSED WASTE DISPOSAL AREA
	STORMWATER PROTECTION: VEGETATED BUFFER
	STORMWATER PROTECTION: VEGETATED SWALE
	EARTHQUAKE SPECIAL STUDY ZONE
	MAJOR CONTOUR
	MINOR CONTOUR
	RECORD BOUNDARY LINE
	PROPOSED PARCEL BOUNDARY LINE
	EASEMENT BOUNDARY
	EXISTING STRUCTURE
	EXISTING DIRT/GRAVEL ROADWAY
	WATERWAY CENTERLINE
	EXISTING DRAINAGE BOUNDARY

NOTE:
 ENCROACHMENT PERMIT FROM THE ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MUST BE ACQUIRED PRIOR TO THE COMMENCEMENT OF ANY WORK WITHIN THE DISTRICT RIGHT-OF-WAY AND FOR THE CONSTRUCTION, MODIFICATION, OR CONNECTION TO DISTRICT-MAINTAINED FACILITIES. ALL WORKMANSHIP, EQUIPMENT, AND MATERIALS SHALL CONFORM TO DISTRICT STANDARDS AND SPECIFICATIONS.

Source: Hogan Land Services, 2017

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Lots 7–12 would be designated for vineyard estate residential development, with 20-acre minimum parcel sizes, and maximum 2-acre residential building sites or envelopes, each of which includes the square footage associated with the driveway. The balance of each residential lots (i.e., 18 acres minimum or a total of 118 acres) will be actively cultivated as vineyards.

Parking lots for the winery lots would feature shoebox light fixtures mounted on poles. These lights focus illumination downward so that no light is spilled upwards or directly to the sides. Lighting around buildings will be attached or along walkways and similarly feature fixtures that prevent upward light spillage and are designed to direct light downward. No flood lighting would be used.

1.3.2 - Agricultural Contracts and Easements

The project site is currently under a Williamson Act contract to preserve agricultural uses with tax benefits to the property owner. The County allows land under Williamson Act contract to be subdivided if the resulting parcels will be large enough to sustain a commercial agricultural use, following Rule 1 of the County's Uniform Rule and Procedures.

The project site is also subject to an Agricultural Conservation Easement with the Tri-Valley Conservancy, a non-profit corporation dedicated to agricultural land protection. As defined by the Conservancy, the conservation easement allows for the construction of additional improvements under Permitted Activities and Uses, provided that they are located within no more than 12 building site envelopes and do not exceed 24 acres overall (Tri-Valley Conservancy 2013; Appendix A)¹. Each building envelope cannot exceed 2 acres, including its access road. Based on its review, the Conservancy determined that the current conservation easement would need to be amended to include the legal descriptions of the building envelopes. Monuments will be installed to document the boundaries of the building envelopes, and will be field-verified by Conservancy staff prior to issuance of grading permits.

1.3.3 - Parking

Based on the draft site plan, approximately 241 surface parking spaces are proposed for four of the six lots related to winery facilities. The Lot 3 winery hospitality center will provide approximately 116 spaces), and the remaining 125 spaces would be distributed on Lots 2, 4, and 5, as described in Table 1. No public parking is proposed for Lots 1 and 6; they will serve as commercial crush facilities to support winery operations, with minimal public interaction.

1.3.4 - Traffic and Circulation

Access to each of the 12 lots would be via Tesla Road. Approximately half the deliveries to the project site would be anticipated to take Interstate 580 (I-580) to South Vasco Road to Tesla Road, and the other half would be anticipated to take I-580 to Greenville Road to Tesla Road. To leave the site, trucks would exit Tesla Road to reach I-580 via South Vasco Road.

¹ Originally, the site plan included 13 lots and 262 acres. The current plan includes 12 lots and approximately 240 acres.

According to the Traffic Impact Study (TIS) completed in 2014 (see Technical Appendix E), the project is expected to generate an average of 401 trips per weekday, including 17 trips during the AM peak hour and 95 during the PM peak hour (W-Trans 2014). During a typical weekend, the project would be expected to generate an average of 731 trips per day, of which 157 trips would occur during the weekend midday peak hour. More details regarding the traffic impacts is provided in the Transportation and Traffic section of the IS/MND.

1.3.5 - Water Supply

Water service would be provided by the Crane Ridge Mutual Water District (CRMWD). According to the applicant, average estimated water consumption for the winery and winery hospitality center would be approximately 27,300 gallons per month, based on actual consumption history of the two winery hospitality centers located at 410 and 1184 Vineyard Avenue in Pleasanton, California. The water consumption excludes water to be used for landscaping and irrigation as these are under a Zone 7 contract of agricultural water and are separately metered. Because of drought conditions in 2014–2015, water use in Livermore between June and December 2015 was 41.4 percent less than over the same period in 2013. According to the Livermore District 2015 Urban Water Management Plan (UWMP), 2015 usage for single-family homes was 4,803 acre-feet and the projected usage for 2020 for single-family homes is 7,804 acre-feet (UWMP pp. 27–28). Additional water would be used by the new residences, typically under 50,000 gallons per month. The CRMWD reported to the County Planning staff in 2013 that it has sufficient capacity to provide the water needed for the entire subdivision, and that Beyer Ranch is entitled to transfer 120 gallons per minute to the property overall. This volume of flow equates to over 170,000 gallons per day, or about 4.0 acre-feet per day, and 5.2 million gallons per month. The hydrology and water consumption impacts of the project are addressed in detail in applicable sections of the IS/MND.

1.3.6 - Wastewater

Wastewater would be treated and dispersed on-site over multiple sewage disposal systems. The Residential lots (Lots 7–12) would have individual residential on-site septic systems with advanced treatment septic system units to clean the effluent prior to dispersal to the at-grade disposal field. The individual residential septic systems would be designed and permitted by the individual developers of each parcel.

The winery buildings (Lots 1–6) would utilize a Shared Commercial Domestic Waste system for all wastewater, except flows derived from grape processing, which would be processed using a Shared Commercial Winery Process waste system. The winery process waste will undergo treatment prior to storage and irrigation use via a Bio-Microbics Bio-Barrier treatment system. The Bio-Barrier systems provide superior treatment to conventional treatment methods and winery waste ponds. The Bio-Barrier system exceeds NSF40 treatment standards for secondary treated effluent. After treatment has occurred, the effluent will be pumped to a storage tank, where it will be discharged as vineyard irrigation as weather permits. The irrigation system will be operated with a rain delay to ensure irrigation does not occur while surface soils are saturated.

On-site soil profile review was conducted with Alameda Environmental Health Staff throughout the site for Lots 1–12 on November 30, 2016 to determine feasibility of on-site wastewater disposal. Suitable soils exist to depths ranging from 24 inches to 36 inches, with seasonal elevated groundwater measured between 42 inches and 82 inches below the surface. An on-site percolation test was performed on March 8, 2017 for Lots 1–6 and June 1, 2017 for Lots 7-12. The results of both percolation tests determined that the soil is able to adequately treat effluent from the project.

Section 3.9, Hydrology and Water Quality and Section 3.18, Utilities and Service Systems provide further details regarding the wastewater treatment systems.

1.3.7 - Solid Waste

Livermore Sanitation Company would provide solid waste and recycling collection services at the project site.

1.3.8 - Stormwater

Based on the preliminary stormwater plan for the project, it is anticipated all runoff from the proposed subdivision's roads would drain to self-contained management areas, in which stormwater contaminants such as oil, bacteria, trash, etc. would be captured and held. In particular, the project includes a 50-foot-wide, self-retained easement parallel to the internal common private road that provides access to the residential parcels, which includes an unlined channel along the length of the road, designed to accommodate roadway runoff (SJB Consulting Group 2013; see Preliminary Stormwater Management Plan in Appendix A). In addition, bioretention areas will be established to contain runoff for each lot. Preliminary areas have been identified for the commercial lots and will also be established for residential lots.

1.3.9 - Hazardous Materials and Required Safety Measures

No on-site storage of hazardous materials would be expected to occur with the exception of common cleaning, maintenance, and agriculture/viniculture supplies.

Diesel fuel and other motor lubricants would be used during construction, and by passenger and delivery vehicles accessing the vineyard during operation. Propane storage tanks will be installed on each individual parcels, to be placed and maintained according to building codes in effect at the time of building construction.

1.3.10 - Utilities and Services

The following agencies and private companies have been identified as providers of facilities and services for the project site:

- Electricity: PG&E
- Gas: PG&E for commercial—propane will be used for residential
- Fire Protection: Alameda County Fire Department
- Police Services: Alameda County Sheriff's Office
- Solid Waste: Livermore Sanitation Company

Introduction

- Telephone: AT&T
- Water: Crane Ridge Mutual Water District
- Wastewater: Septic system

1.3.11 - Construction

Project construction is proposed to begin late in 2018 and be completed by late 2021. Street improvements and infrastructure is anticipated to occur from July 2018 to April 2019. Development of Lots 1, 2, and 6 and the residential lots depends on consumer wine industry levels and market conditions. A projected construction schedule of facilities on all the lots is displayed in Table 2.

Table 2: Tentative Facilities Construction Schedule

Facility	Commence Construction	Complete Construction
Lot 1 Crush services	March 2020	December 2020
Lot 2 Winery	January 2021	November 2021
Lot 3 Winery Winery Hospitality Center	July 2018	April 2019
Lot 4 Boutique Winery Boutique Winery	February 2019	February 2020
Lot 5 Boutique Winery Boutique Winery	February 2019	February 2020
Lot 6 Crush services	March 2020	December 2020
Lots 7-12 Residential Lots	*July 2018	March 2019
Roads and Utilities	July 2018	April 2019
Note: * Each residential lot will be constructed by the new property owner per their individual schedules Source: Mike Callahan, 2017		

1.4 - Intended Uses of this Document

The project would require the following discretionary agency approvals for actions proposed as part of the project:

- Alameda County—Adoption of the IS/MND for the project (both Planning Commission, BZA)
- Alameda County—Approval of the Tentative Tract Map (Planning Commission)

- Alameda County—Approval of the Conditional Use Permits for the Winery-Related Uses (BZA)
- Alameda County—Approval of the Preliminary and Final Design Review Permit (Planning Director, Public Works Director)
- Alameda County Public Works Agency—Stormwater Permit, Building and Encroachment permits.

The project would require the following ministerial approvals for actions proposed as part of the project:

- Alameda County Building Inspection Division—Provision of Building Permit
- Alameda County—Grading Permit

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SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

Environmental Factors Potentially Affected					
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.					
<input checked="" type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry Resources	<input checked="" type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input checked="" type="checkbox"/>	Cultural and Tribal Cultural Resources	<input checked="" type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards/Hazardous Materials	<input type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Noise
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation
<input checked="" type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Utilities/Services Systems	<input checked="" type="checkbox"/>	Mandatory Findings of Significance

Environmental Determination

On the basis of this initial evaluation:

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

Date: November 30, 17 Signed: Andrew Young
 Andrew Young, Senior Planner

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Aesthetics <i>Would the project:</i>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Livermore’s most distinguishing features are the ridgelines and hills that surround the City, many of which lie just beyond the city limits. The area just south of Livermore is defined by ridgelines, which provide views of rolling hills, intermingled with sycamore woodland areas. The views are further enhanced by the intervening vistas of agricultural land and vineyards set against a backdrop of mountains. The area surrounding the project site has retained its natural setting and rural character and is highly sensitive in terms of aesthetics, which provide unique views south of the City.

Aesthetic resources generally include both the built and natural features of a landscape that add to the public’s connection to and appreciation of the environment. A scenic vista is considered an aesthetic resource, and it is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. The ECAP and Scenic Route Element of the Alameda County General Plan identify scenic vistas throughout Alameda County, as described below.

East County Area Plan (adopted 1994, amended 2000)

The ECAP (adopted in 1994, as amended through May 2002 by voter-initiative Measure D in November 2000) includes goals and policies to preserve open space and sensitive viewsheds, defined as “natural areas that provide orientation and a sense of place within a community or region. These areas typically include ridgelines, hilltops, large contiguous open space areas, and woodlands” (ECAP, Table 1—Definitions). Ridgelines identified in the ECAP as “visually-sensitive ridgelines” include the ridgelines above the vineyards south of Livermore, and related policies disallow development on or above them. For visual protection, Policy 108 encourages development

to be clustered or located on parcels where it is the least visible to persons on public roads, trails, in parks or at other public view points, but exempts “agricultural structures.” Policy 215 also directs the County to ensure that scenic highway corridors are maintained and enhance scenic values.

Scenic Route Element (adopted 1966, amended 1994)

The Scenic Route Element of the Alameda County General Plan, (adopted in May 1966 and amended through 1994) designates all of the interstate and state highways, and many local highways and routes throughout Alameda County as scenic routes. In the immediate project area, Tesla Road is designated a Major Thoroughfare and scenic route, from Vasco Road to Greenville Road (east of which it is a major Rural Road). As defined by the Scenic Route Element, Scenic Thoroughfare routes are high-traffic-volume (typically multi-lane and median-divided) routes that traverse areas of scenic or recreational interest or are used for access to major recreational areas. Scenic routes are defined as composed of three elements, including the right-of-way, the scenic corridor, and areas extending beyond the corridor, which correspond to foreground, middle ground and long-distance views. The corridor is defined as those properties along and up to 1,000 feet beyond the right-of-way that should be acquired for protection, or where development controls should be applied to preserve and enhance nearby views, or where unobstructed distant views should be maintained along the route in rural areas with high scenic qualities. The areas extending beyond scenic corridors also require development controls, and, in the undeveloped parts of the County, should address grading, removal of vegetation, streambeds, landscaping, utility and communication towers, poles and lines, and outdoor advertising signs or structures (Scenic Route Element, pp. 3–4; p. 7).

The visual character of the project area largely consists of vineyard and agricultural uses. High-voltage electrical towers and utility poles are also in prominent view, as they run along Tesla Road. Flat grasslands make up a large portion of the project site and are the predominant view to the east. There are vineyards to the north, and Darcie Kent Vineyards is a developed feature directly north of the project site across Tesla Road. There are grassy hillsides sprinkled with trees to the south of the project site as well as wine-related buildings. Wind turbines are visible in the distance to the northeast of the project site. Del Valle Regional Park and Mission Peak Regional Preserve dominate the background views to the south and west.

Most components of the project would be visible from Tesla Road, and the project would come into prominent view as one travels east on Tesla Road. Primary viewers in the project vicinity would include motorists traveling along Tesla Road and Greenville Road, customers and workers of Rios Lovell Estate Winery, Darcie Kent Vineyards, Garré Vineyard & Winery, and people frequenting the Greenville Equestrian Center. The residents in the subdivisions along S Vasco Road would not have views of the project site because of intervening trees and buildings. The customers of the nearby wineries would be expected to experience the highest sensitivity to visual changes since they would be interested in viewing the surrounding landscape. Motorists would be expected to experience a low sensitivity to visual changes because they would be focused on driving and would not be viewing the surrounding landscape. Employees would also be expected to experience a low sensitivity because they would be focused on their work.

Sensitive Viewsheds

The project site is not designated a scenic resource. The nearest State Scenic Highway designated by the California Department of Transportation is I-680, located approximately 11 miles west of the project site and not visible from the site.

Existing Nighttime Lighting Environment

The project site is located in the rural context of Alameda County; however, the project site would be surrounded by many commercial uses in the area. Existing sources of lighting in the immediate vicinity of the project include winery event centers (such as Rios Lovell Estate Winery), golf courses, concert venues, and vineyards (such as Darcie Kent Vineyards and Garré Vineyard & Winery), all of which include nighttime lighting.

Environmental Evaluation

Would the project:

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

Less than significant impact. A substantial impact to a scenic vista or viewshed would occur if the project would obstruct the view of a scenic vista as specified in the South Livermore Valley Area Plan, ECAP, or the Scenic Route Element. The South Livermore Valley Area Plan does not specify any policies regarding the protection of specific viewsheds or scenic vista. However, it incorporates specific objectives and goals related to conserving the region's unique scenic and rural qualities. The Livermore Valley Area Plan includes policies acknowledging the region's role as a wine producer while maintaining notable ridgeline views.

The ECAP does not include the ridgelines in the vicinity of the project site within its list of visually sensitive ridgelines. It does include ridgelines south of Livermore, and these ridgelines are approximately 3 miles south of the project site (ECAP Figure 9). However, the project site has a flat topography and is located within a valley, so the project site would not obscure ridgeline views.

The Scenic Route Element specifies Tesla Road as a major thoroughfare (Scenic Route Element 6-7), and there are scenic vistas along Tesla Road. Traveling east on Tesla Road, one can view vineyards in foreground, hillsides in the middle ground, and regional parks in the background. The wineries and houses would be less than 40 feet in height and would be set back from the road. The vineyards, hillsides, and regional parks would still be visible from Tesla Road and the surrounding lands. Therefore, impacts to scenic vistas would be less than significant.

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

No impact. There are no officially designated State Scenic Highways or Routes in the project vicinity (Caltrans 2013), and, therefore, the project would have no impact on scenic resources related to views from a scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than significant impact. Currently the project site consists entirely of fallow land. The west one-third of the site has been fallow for the last 3 years and, on balance, the project site has been fallow for the past 10 years.

With project implementation, the project site would be planted with new vineyards throughout the residential and commercial portions of the site, as well as new large winery structures and visitor-serving uses and buildings, new large estate-type homes, and many additional roads and entry drives.

As such, the project would substantially alter the existing visual character of the area, as the majority of the site would operate as a group of wineries and winery-related facilities, as described in the project description. The proposed design attempts to match the existing character and streetscape of current development, including other wineries in the vicinity. The A zone district does not include a maximum height limit. The proposed buildings would be a maximum of 38 feet, and all the buildings would be set back from the street to limit the visual impact of the buildings. The building footprint would be roughly 1.35 percent of the lot acreage for all 12 lots, which would further assist in limiting the visual impact of the buildings. The project's landscape design would be compatible with building architecture and would incorporate trees and plants in the driveway medians and along parking lots.

Though the construction of the winery facilities and residential buildings on the site would alter the existing visual character, it would not substantially degrade the existing visual character because it would be compatible with the current surroundings, which also incorporate these types of structures and plantings. The replacement of fallow land with the new development, vineyards and roads would have a less than significant impact on visual character.

An evaporation treatment pond will be located in the northwestern portion of Lot 1. The pond would be located behind a building, approximately 150 feet from the building and would not be visible from Tesla Road. Therefore, the project would not significantly degrade the existing visual character or aesthetic quality of the project area and its surroundings, representing a less than significant impact.

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

Less than significant impact with mitigation incorporated. The project features most visible from the road and adjacent sites would be the vineyards and winery buildings, which could result in new daytime glare. New lighting would be introduced for the parking lots, and the commercial and residential buildings, which could result in potentially substantial sources of nighttime glare. However, lighting for the parking lots and buildings would have cutoff features to focus light downward and prevent either upward or lateral spillage, and would not be substantial new sources of light. The residences would have the greatest setback and would be the least visible from roads and adjacent areas. Cutoff lighting would also be required for all exterior residential lighting to

reduce upward or lateral spillage. Therefore, with the inclusion of mitigation requiring downward cast lighting and cut off fixtures, impacts would be less than significant.

MM AES-1: Project plans and specifications shall comply with the following requirements for lighting fixtures:

- a) All artificial outdoor lighting shall be limited to safety and security requirements, designed using Illuminating Engineering Society's design guidelines, and in compliance with International Dark-Sky Association approved fixtures.
- b) All lighting shall be designed to have minimum impact on the surrounding environment and shall use downcast, cut-off type fixtures that are shielded and direct the light only towards objects requiring illumination. Lights shall be installed at the lowest allowable height and cast low-angle illumination while minimizing incidental light spill onto adjacent properties, open spaces, or backscatter into the nighttime sky.
- c) The lowest allowable wattage shall be used for all lighted areas and the amount of nighttime lights needed to light an area shall be minimized to the highest degree possible to ensure that adjacent areas are not unnecessarily over-lit.
- d) Light fixtures shall have non-glare finishes that will not cause reflective daytime glare. Lighting shall be designed for energy efficiency and have daylight sensors or be timed with an on/off program.
- e) Technologies to reduce light pollution evolve over time and design measures that are currently available may help but may not be the most effective means of controlling light pollution once the project is designed. Therefore, all design measures used to reduce light pollution shall employ the technologies available at the time of project design to allow for the highest potential reduction in light pollution.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. Agriculture and Forestry Resources				
<i>Would the project:</i>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) was established by the State Legislature in 1982 to assess the location, quality, and quantity of agricultural lands and conversion of these lands over time. The FMMP has established five farmland categories.

- Prime Farmland (F) is farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land must have been used for irrigated agricultural production at some time during the last four years before the mapping date and have the ability to store moisture in soil well.
- Farmland of Statewide Importance (S) is similar to Prime Farmland but contains greater slopes and a lesser ability to store soil moisture.

- Unique Farmland (U) is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climate zones in California. This land must still have been cropped some time during four years prior to the mapping date.
- Farmland of Local Importance (L) is important to the local agricultural economy as determined by each county's board of supervisors and local advisory committee.
- Grazing Land (G) is land on which the existing vegetation is suited to the grazing livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

The Department of Conservation Farmland Inventory map for Alameda County shows the project area as Prime Farmland. The project site is also subject to an Agricultural Conservation Easement with the Tri-Valley Conservancy, a non-profit corporation dedicated to agricultural land protection. The project site is currently zoned Agriculture-Cultivated Agriculture (A-CA) by the Alameda County zoning ordinance. This zoning allows for a maximum unit density of 1 unit per 20 acres and requires that the applicant "demonstrate that the proposed lots will contribute substantially to the goal of promoting viticulture or other cultivate agriculture."²

The Williamson Act, codified in 1965 at the California Land Conservation Act, allows local governments to enter into contracts with private landowners, offering tax incentives in exchange for an agreement that the land will remain agricultural or related open space use only for a period of 10 years. The project site is designated Williamson Act-Prime Agricultural Land by the California Department of Conservation. The Williamson Act allows subdivision of agricultural lands without contract cancellation under certain circumstances. Individual lots must be at least 10 acres in size; the subdivided lands must continue to meet the purpose of the Williamson Act: to preserve the land for agricultural use and be of sufficient size for agriculture to remain feasible. The Williamson Act allows for commercial winery facilities. The project objective is to maintain the Williamson Act contracts for the project site and all 12 new parcels, and continue agricultural uses as the predominant use on the site, in particular vineyards, wineries, and winery-related services (e.g. grape crushing) while also providing some compatible visitor-serving event or hospitality centers and tasting rooms.

CEQA requires the evaluation of forest and timber resources where those resources are present; however there are no timberland in the project area as defined in Public Resources Code section 12220 (g), timberland as defined by Public Resources Code section 4526, or property zoned for Timberland Production as defined by Government Code section 51104(g) on the site or in its vicinity.

² Alameda County Zoning Ordinance, Section 17.30.170.

Environmental Evaluation

- a) **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

Less than significant impact. The project site is identified as Prime Farmland by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) (CDC 2010). The project includes six lots that would be dedicated to winery-related activities and another six lots that would be developed with six single-family residences. The residential lots would also be planted with vines within one year of project implementation (Lots 7–12). The County of Alameda Municipal Code Section 17.06.030 states that a winery is a permitted use on agricultural lands. This section of the County Code also states that one single-family dwelling unit is permitted on those lands that have been designated for agricultural use. Each of the six residential lots would contain one single-family residence within a limited development envelope of 2 acres, and the balance of the lot would be maintained in agriculture, and in particular be planted in wine grapes. The current agricultural zoning of the project site would not be altered. The project area is within Alameda County's South Livermore Area Plan, which emphasizes the development of wineries and viticulture in this region of the County.

According to correspondence from the Conservancy, the conservation easement covering the property³ allows for the construction of additional improvements, under Permitted Activities and Uses, provided that they are located within no more than 13 building site envelopes and do not exceed 26 acres overall (Tri-Valley Conservancy 2013; Appendix A). The project would have approximately 2-acre construction footprints for each of the 12 lots, for a total of approximately 24 acres, and thus would be consistent with the Permitted Activities and Uses provisions of the conservation easement.

Based on staff review, the Conservancy determined that the current conservation easement would need to be amended to include the legal descriptions of the building envelopes. Monuments would also be installed to document the boundaries of the building envelopes, and would be field-verified by Conservancy staff prior to occupancy.

The winery facilities are directly related to agriculture/viticulture, and would not be considered a conversion of farmland. However, the conversion of farmland to single-family residences and the related infrastructure would result in a net loss of at least 12 acres of prime farmland. The eastern 50 percent of the property has been fallow with no irrigation for 7 years. The western 50 percent of the property has been fallow with no irrigation for 3 years. Because the project will largely preserve agricultural uses on the project site, and will remain consistent with agricultural zoning and the terms of the Agricultural Conservation Easement, impacts related to the conversion of farmland would be less than significant.

- b) **Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

Less than significant impact. The project site is classified as Williamson Act—Prime Agricultural Land by the California Department of Conservation (CDC 2010). The project would subdivide 240

³ The existing conservation easement is dated April 20, 2001 Recorded Series 2001136814. The conservation easement would be amended to include the legal descriptions for each building envelope.

acres of agricultural land into 12 approximately 20-acre lots, which would meet the minimum lot size requirement defined by the CDC. Six of the lots would include a 2-acre building envelope for residential development, plus infrastructure (e.g. road for access), while the balance of the residentially designated acreage would be planted and maintained as vineyards. The remaining six lots would be dedicated to wineries, winery-related uses, vineyards, and related infrastructure.

As noted in the setting section, the project site is currently zoned Agriculture-Cultivated Agriculture (A-CA) by the Alameda County Zoning Ordinance. This zoning allows for a maximum unit density of 1 unit per 20 acres and requires that the applicant “demonstrate that the proposed lots will contribute substantially to the goal of promoting viticulture or other cultivate agriculture.”⁴

Because the continued use for agricultural appears to be feasible, and the majority acreage for both the project site and any individual lots would remain dedicated to agricultural use, the project would be consistent with the balance of Williamson Act requirements, as well as the requirements and policies of the Alameda County Zoning Ordinance. Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract and impacts would be less than significant.

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

No impact. No forest land is located on or in the immediate vicinity of the project site; the project is not located on land that is zoned as forest land, timberland, or timberland zoned Timberland Production. Accordingly, no impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No impact. No forest land is located on or in the immediate vicinity of the project site. Accordingly, no impact would occur.

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

Less than significant impact. As stated in impact discussion 2(a) and 2(b) above, the project would fall under the permitted uses of agriculturally zoned land. Some conversions of farmland to winery facilities or residential uses, and related access roads and infrastructure would occur. Overall, the site would be substantially preserved in agricultural uses. In addition, there is no forest land in the vicinity of the project site. For this reason, the impact would be less than significant.

⁴ Alameda County Zoning Ordinance, Section 17.30.170.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Air Quality <i>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.</i> <i>Would the project:</i>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The United States Environmental Protection Agency (EPA) and the California Air Resources Board designate air basins where ambient air quality standards are exceeded as “non-attainment” areas. If standards are met, the area is designated an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National non-attainment areas are further designated marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or “form” of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM_{2.5} standard is met if the 3-year average of the annual average PM_{2.5} concentration is less than or equal to the standard.

The San Francisco Bay Area Air Basin is designated non-attainment for the state ozone, PM₁₀, and PM_{2.5}, standards, non-attainment for the national ozone and PM_{2.5} standards, and unclassified for the national PM₁₀ standard.

On June 2, 2010, the Bay Area Air Quality Management District (BAAQMD) adopted its 2010 CEQA Air Quality Guidelines (2010 Air Quality Guidelines) with associated 2010 Thresholds of Significance (2010 Thresholds). The 2010 Air Quality Guidelines were updated with minor edits in May 2011; however, for the purposes of clarity, the updated 2011 Air Quality Guidelines are referred to in this document by the 2010 adoption date (2010 Air Quality Guidelines).

Although the 2010 Air Quality Guidelines are currently pending a decision by the Court of Appeals, the issues in the court order are not relevant to whether or not BAAQMD’s analysis provides substantial evidence in support of the proposed thresholds. Therefore, in the absence of other applicable thresholds and analysis guidance, the methods and background information provided in the 2010 CEQA Guidelines can still be applied to current projects. Currently, common and accepted practice in the Bay Area is to still use the 2010 Air Quality Thresholds in light of the substantial evidence supporting those thresholds. In addition, the thresholds represent the most stringent and scientifically supported thresholds available at the time of this analysis. Therefore, the County of Alameda, the lead agency, has determined that the 2010 Air Quality Guidelines and Thresholds are appropriate for the analysis of this project, shown in Table 3.

Table 3: Thresholds of Significance

Pollutant	Construction Thresholds Average Daily Emissions (lbs/day)	Operational Thresholds	
		Average Daily Emissions (lbs/day)	Maximum Annual Average Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀ (exhaust)	82	82	15
PM _{2.5} (exhaust)	54	54	10

Notes:
lbs/day = pounds per day; ROG = reactive organic gases; NO_x = oxides of nitrogen
PM₁₀ = particulate matter with aerodynamic diameter less than 10 microns
PM_{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns.
Source: BAAQMD 2010.

In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project’s individual emissions would be significant on a project-level and a cumulative level. If a project exceeds the identified significance thresholds, its emissions would be considered significant on a project and cumulative level, resulting in significant adverse air quality impacts to the region’s existing air quality conditions.

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact. The BAAQMD’s 2010 Clean Air Plan (2010 CAP) is the regional air quality plan (AQP) for the Air Basin. The 2010 CAP accounts for projections of population growth provided by Association of Bay Area Governments and vehicle miles traveled provided by the

Metropolitan Transportation Commission, and it identifies strategies to bring regional emissions into compliance with federal and state air quality standards. The BAAQMD's Guidance provides two criteria for determining if a plan-level project is consistent with the current AQP control measures. However, the BAAQMD does not provide a threshold of significance for project-level consistency analysis. Therefore, the following criteria will be used for determining a project's consistency with the AQP.

- Criterion 1: Does the project support the primary goals of the AQP?
- Criterion 2: Does the project include applicable control measures from the AQP?
- Criterion 3: Does the project disrupt or hinder implementation of any AQP control measures?

Criterion 1

The primary goals of the 2010 Plan, the current AQP to date, are to:

- Attain air quality standards; and
- Reduce population exposure to unhealthy air and protecting public health in the Bay Area.

The project would provide winery-related facilities in addition to single-family residences and would not result in substantial adverse conflict with the primary goals of the AQP. The project includes bicycle parking spaces and would enable expansion of the South Livermore bikeway network, which could help reduce the number of vehicle trips or their emission-related effects by visitors to the project site. In addition, as shown in Table 4 and Table 5, the project would be less than the applicable BAAQMD screening threshold for both construction and operational emissions, respectively. BAAQMD's regional thresholds of significance are considered the allowable amount of emissions for each project, under which the region would be able to attain and maintain ambient air quality standards. Therefore, projects that do not exceed regional thresholds are not considered to impede the region from attaining air quality standards.

As discussed in impact discussions 3(b), 3(c), 3(d), and 3(e), the project would not create a localized violation of state or federal air quality standards, significantly contribute to cumulative non-attainment pollutant violations, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people after incorporation of mitigation measures. Therefore, the project does not conflict with criterion 1.

Criterion 2

The 2010 CAP contains 55 control measures aimed at reducing air pollution in the Bay Area. Along with the traditional stationary, area, mobile source, and transportation control measures, the 2010 CAP contains a number of new control measures designed to protect the climate and promote mixed-use and compact development, and to reduce vehicle emissions and exposure to pollutants from stationary and mobile sources (Bay Area Air Quality Management District 2010).

None of the 18 stationary source control measures, typically applicable to industrial, heavy commercial or fuel station uses, are applicable to the project. In addition, none of the 10 mobile source measures or six land use and local impact measures applies to the project. Of the 17

transportation control measures (TCMs), TCM D (Support Focused Growth), measures D-1 through D-3, apply to the project. The project would provide parking for bicycles at the main visitor center and wine tasting rooms, and will accommodate an extension of the South Livermore Valley Bikeway trail.

In summary, the project would comply with all applicable rules and regulations. Additionally, the project would not impede attainment because its emissions do not exceed the BAAQMD regional significance thresholds.

Furthermore, for all proposed projects, BAAQMD recommends implementing all the Basic Construction Mitigation Measures to meet the best management practices threshold for fugitive dust regardless of if construction-related emissions exceed applicable thresholds (shown in Impact 3(b) below). The project would implement all the Basic Construction Mitigation Measures, which would be consistent with the assumptions in the AQP. Furthermore, the project would comply with all applicable BAAQMD rules and regulations.

Criterion 3

The project will not preclude extension of a transit line, will accommodate the extension of the regional bike path, does not propose excessive parking beyond parking requirements, or otherwise create an impediment or disruption to implementation of any AQP control measures. Indeed, as shown above, the project incorporates several AQP control measures as project design features.

The project would be consistent with the criteria; therefore, impacts would be less than significant.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than significant impact. As described above, projects that would generate construction or operational emissions that exceed BAAQMD's thresholds of significance could violate or contribute substantially to an existing or projected air quality violation. BAAQMD's thresholds of significance represent the allowable amount of emissions for each project in order for the region to achieve and maintain ambient air quality standards. Therefore, in order to evaluate the potential of the project's construction and operational emissions to violate or contribute to an air quality violation, this analysis evaluates the project's emissions with BAAQMD's regional thresholds of significance.

Construction Emissions

Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions from the heavy-duty off-road construction equipment, on-site motor vehicle operation, and fugitive dust (mainly particulate matter with aerodynamic diameter less than 10 microns [PM_{10}]) from disturbed soil. Off-site emissions are caused by motor vehicle exhaust from delivery and haul truck vehicles, worker traffic, and road dust (PM_{10} and particulate matter with an aerodynamic diameter less than 2.5 microns [$PM_{2.5}$]). BAAQMD considers implementation of its Basic Construction Mitigation Measures sufficient to minimize fugitive PM dust emissions. The Basic Construction Mitigation Measures are listed below.

The CalEEMod land use emission model (Version 2016.3.1) was used to estimate the project’s construction emissions. The CalEEMod model provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the model recommended by the BAAQMD for estimating project emissions. Modeling for construction emissions used the default assumptions (e.g., construction schedule, construction equipment mix) contained in CalEEMod for the specific type of proposed land uses.

Project construction would start in July 2018 and would be completed by November 2021. The emissions generated by construction equipment are based on the horsepower and load factors of the equipment. Table 4 shows the project’s unmitigated daily construction emissions compared with the BAAQMD’s significance thresholds. All the assumptions and parameter estimations are attached in Appendix A.

Table 4: Project Annual and Average Daily Construction-related Emissions

Construction Category	Pollutants (tons/year)			
	ROG	NO _x	PM ₁₀ (exhaust)	PM _{2.5} (exhaust)
Year 2017	1.16	3.85	0.22	0.21
Average Daily Emissions (lbs/day) ¹	8.92	29.62	1.69	1.62
Thresholds of significance (lbs/day)	54	54	82	54
Exceed thresholds?	No	No	No	No
Notes: ROG= reactive organic gases; NO _x = oxides of nitrogen PM ₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less PM _{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less ¹ Average daily emissions were calculated by dividing the total construction emissions over the construction duration (260 working days). Source: CalEEMod 2016.3.1 output, see Appendix A; BAAQMD 2010.				

As shown in Table 4, the construction emissions are well below the recommended thresholds of significance. The application of BAAQMD recommended Basic Construction Mitigation Measures identifies below would further minimize fugitive dust generated during construction.

Regardless of the level of significance, BAAQMD requires that all projects implement the following Basic Construction Mitigation Measures:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand or other loose material off-site shall be covered.
3. All visible mud or dirt track-out 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. 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.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. 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.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.

Operational Emissions

The project operational emissions of reactive organic gases (ROG), oxides of nitrogen (NO_x), PM₁₀, and PM_{2.5} were calculated using the California Emissions Estimator model (Version CalEEMod.2016.3.1). Operational emissions would be generated by area, energy, and mobile sources. Area sources would include activities such as landscape maintenance and occasional architectural coatings. Energy sources would include electricity and natural gas combustion for space and water heating. Mobile sources would include vehicle trips associated with residents’ and employees’ vehicles and trucks. Table 5 shows the annual and average daily operational-related emissions without mitigations compared with the BAAQMD’s operational significance thresholds. All the assumptions and parameter estimations are attached in Appendix A.

Table 5: Project Annual and Average Daily Operational Emissions

Operational Category	Pollutants (tons/year)			
	ROG	NO _x	PM ₁₀ (exhaust)	PM _{2.5} (exhaust)
Area	0.63	0.00	0.01	0.01
Energy	0.01	0.12	0.01	0.01
Mobile	0.12	0.42	0.01	0.01
Total	0.76	0.54	0.02	0.02
Average Daily Emissions (lb/day) ¹	4.17	2.97	0.13	0.13
Thresholds of significance (lb/day)	54	54	82	54

Table 5 (cont.): Project Annual and Average Daily Operational Emissions

Operational Category	Pollutants (tons/year)			
	ROG	NO _x	PM ₁₀ (exhaust)	PM _{2.5} (exhaust)
Exceed thresholds?	No	No	No	No
Thresholds of significance (ton/yr)	10	10	15	10
Exceed thresholds?	No	No	No	No
Notes: ROG = reactive organic gases; NO _x = oxides of nitrogen; PM ₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; PM _{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less ¹ Average daily operational emissions were calculated by dividing the total annual operational emissions by 365 days per year. Source: CalEEMod 2016.3.1 output, see Appendix A; BAAQMD CEQA Guidelines, 2010.				

As shown in Table 5, the unmitigated annual and average daily operational emissions would be less than the BAAQMD’s thresholds of significance. Therefore, the project’s operational impacts would be less than significant.

- c) **Would the project 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)?**

Less than significant impact. This determination is related to regional criteria pollutant impacts. The non-attainment pollutants of concern for this focused question are ozone, PM₁₀ and PM_{2.5}. Ozone is not emitted directly into the air; rather it is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, ROG, and NO_x react in the atmosphere in the presence of sunlight to form ozone. Therefore, the Air District does not have a recommended ozone threshold, but it has regional thresholds of significance for ROG and NO_x. The BAAQMD CEQA Guidelines state the following:

In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project’s individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region’s existing air quality conditions.

The project’s construction and operational emissions are both below the BAAQMD’s project-level thresholds of significance. The thresholds of significance represent the allowable amount of emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed the BAAQMD thresholds of significance on a project-level would also not result in a cumulatively considerable contribution to these regional air quality impacts. Considering this information, the project’s construction and

operational emissions would not be considered a cumulatively considerable contribution to the existing regional air quality impacts. This impact would be cumulatively less than significant.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. This discussion addresses whether the project would expose sensitive receptors to construction-generated fugitive dust (PM₁₀), construction-generated diesel particulate matter (DPM), operational related toxic air contaminants (TACs), or operational CO hotspots.

A sensitive receptor is defined as the following (from BAAQMD 2011): “Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals and residential areas.” The project would be located near existing sensitive receptors, as well as construction of new sensitive receptor land uses (residences) on Lots 7–12. The nearest existing sensitive receptors are rural residences located approximately 80 meters north of the project boundary. These residences are located more than 150 meters from the anticipated building footprints for the proposed wineries.

Construction DPM

As discussed in the 2010 BAAQMD Guidelines, diesel-powered equipment used in construction activity emits DPM, a known carcinogen. A 10-year research program (ARB 1998) demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. The current methodological protocols recommended by Office of Environmental Health Hazard Assessment (OEHHA) when studying the cancer risk posed by DPM is to assume a 30-year exposure duration (OEHHA 2015).⁵

The majority of heavy diesel equipment usage would occur during the building construction phase in the construction process, which would occur over a brief duration. Construction is expected to start in 2015. Residents located near the project site are more than 150 meters from the anticipated extent of building construction and parking lot paving. In addition, the nearest existing residents would be exposed to construction contaminants only for the relatively brief duration of construction nearest Tesla Road. This brief exposure period, in conjuncture with the distance between receptor and activity, would substantially limit exposure to hazardous emissions. Therefore, the project would result in a less than significant impact from exposure to construction-generated DPM.

Operational Toxic Air Contaminants

There are two levels of analysis required in assessing potential health risks and hazards: project-level and cumulative. As identified in the BAAQMD’s guidance, exposure of receptors to substantial concentrations of TACs and PM_{2.5} could occur from the following situations:

- Siting a new toxic air contaminant and/or PM_{2.5} source (e.g., diesel generator, truck distribution center, freeway) near existing or planned receptors; and
- Siting a new receptor near existing TACs and/or PM_{2.5} emissions.

⁵ Website: <http://oehha.ca.gov/media/downloads/crrn/2015guidancemanual.pdf>.

The project includes siting of a new receptor in development of the single-family residences. However, the project would not establish any new land use known to generate TACs in substantial quantities; therefore, risks to adjacent receptors from the project would be less than significant. This determination focuses on the potential impacts to on-site residents from nearby sources of TACs. The BAAQMD provides three tools for use in screening potential sources of TACs:

- **Surface Street Screening Tables.** The BAAQMD pre-calculated potential cancer risk and PM_{2.5} concentration increases for each county within their jurisdiction. The look-up tables are used for roadways that meet the BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. Risks are assessed by roadway volume, roadway direction, and distance to sensitive receptor.
- **Freeway Screening Analysis Tool.** The BAAQMD prepared a Google Earth file that contains pre-estimated cancer risk, hazard index, and PM_{2.5} concentration increases for highways within the Bay Area. Risks are provided by roadway link and are estimated based on elevation and distance to the sensitive receptor.
- **Stationary Source Risk and Hazard Screening Tool.** The BAAQMD prepared a Google Earth file that contains the locations of all stationary sources within the Bay Area that have BAAQMD permits. For each emissions source, the BAAQMD provides conservative cancer risk and PM_{2.5} concentration increase values.

The BAAQMD recommends the use of these three tools in a screening process to identify whether further environmental review of potential TAC or PM_{2.5} concentration risk for a project is warranted. Specifically, emissions sources within 1,000 feet of the project boundary should be evaluated. The area within 1,000 feet of the project boundary is the study area.

For project-level analysis, BAAQMD specifies both individual and cumulative-level thresholds of significance for risks and hazards. The BAAQMD's individual cancer risk threshold of significance is 10-in-a-million, and the cumulative risk threshold is 100-in-a-million. For a project that is considered a new source of TACs or PM_{2.5} (such as stationary sources, industrial sources, or roadway projects), it is generally appropriate to use both the project-level and cumulative-level thresholds because the project-level threshold identifies said project's individual contribution to risk, while the cumulative threshold assesses said project's cumulative contribution to risk. However, for a project that consists of new receptors, it is generally appropriate to use only the cumulative-level threshold because the project itself is not a source of TACs, and, thus, the individual project-level threshold is not relevant. The cumulative risk threshold accounts for all potential sources of TACs and PM_{2.5} in proximity to new receptors. Because the impact being assessed is for the project's residential component, this analysis is focused on the cumulative impact of nearby sources of TACs to the project.

There are no highways or other major roadways within the 1,000-foot study area that meet the BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. No stationary sources were identified within the study area. Therefore, the project would not expose sensitive receptors to substantial TACs during project operations.

Operational CO Hotspot

CO emissions from traffic generated by the project would be the greatest pollutant of concern at the local level, since congested intersections with a large volume of traffic have the greatest potential to cause high, localized concentrations of CO. The BAAQMD recommends a screening analysis to determine if a project has the potential to contribute to a CO hotspot. The screening criteria identify when site-specific CO dispersion modeling is necessary. The project would result in a less than significant impact to air quality for local CO 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; or
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; or
- The project traffic 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).

Alameda County has a Congestion Management Plan (CMP), recently updated in 2013, which also includes a Level of Service Report. The CMP requires that level of service (LOS) standards be established and monitored on the CMP-designated roadway system. However, the majority of the roads studied in the project's TIS prepared by W-Trans in 2014 are two-lane roads and are not included in the CMP network as principal arterials. Included in the TIS are larger arterials as well. LOS Standards for both of those types of roads instead come from the County of Alameda's ECAP.

The LOS Standard for the ECAP is LOS D. The project would comply with the ECAP and would include recommendations outlined within the project's TIS. The project's TIS provides the peak-hour volumes for project-affected intersections. Based on the TIS, the highest peak-hour intersection volume for a project-affected intersection would be 2,938 PM peak-hour trips at the intersection of Tesla Road and Vasco Road, under the Cumulative (Long-Term) scenario. Therefore, the project's traffic would not increase traffic volumes at nearby intersections to more than 44,000 vehicles per hour, and 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. Impacts related to operational CO hotspots would be less than significant.

e) Would the project create objectionable odors affecting a substantial number of people?

Less than significant impact. Two circumstances have the potential to cause odor impacts:

1. A source of odors is proposed to be located near existing or planned sensitive receptors, or
2. A sensitive receptor land use is proposed near an existing or planned source of odor.

The BAAQMD recommends the use of screening criteria to determine when a detailed assessment of odor impacts is warranted. The screening criteria are based on distance between types of sources known to generate odor and the receptor. For projects within the screening distances, the BAAQMD uses the following threshold for project operations:

An odor source with five (5) or more confirmed complaints per year averaged over three years is considered to have a significant impact on receptors within the screening distance shown in the Bay Area Air Quality Management District's guidance, Table 3-3.

A review of the BAAQMD's screening guidance shows the project not listed as a typical source of objectionable odors. Typical sources of objectionable odors include wastewater treatment plants, landfills, composting facilities, refineries, and chemical plants. The project includes winery facilities, including an on-site wastewater treatment plant related to grape processing. Although the BAAQMD does not list this type of development as a typical source of odor in its screening guidance, wineries may generate odor through the winemaking process and short-term on-site storage of winery wastes. Wineries are prevalent in the project area, as are rural residences. The project would construct wineries and residences at density and distance that is similar to those in the project's vicinity. Development of the wineries and residences would not result in the exposure of a substantial number of people to odorous emissions.

In addition, the project site is not located within the recommended screening distances of any typical sources of objectionable odors, which typically include agricultural operations (dairies, feedlots, etc.), landfills, wastewater treatment plants, refineries, and other types of industrial land uses. The project site is zoned Agricultural-Cultivated Agricultural (A-CA) by the Alameda County Zoning Ordinance and has a land use designation of Large Parcel Agriculture (LPA) under the County General Plan (East County Area Plan or ECAP, adopted May 1994, amended November 2000 by voter initiative Measure D [resulting modifications adopted by the Board in May 2002]). It is also within the South Livermore Valley Area Plan (SLVAP), adopted February 1993), which established the A-CA zoning and its land use controls. The current agricultural zoning of the project site would not be altered. The project area is within Alameda County's South Livermore Area Plan, which emphasizes the development of wineries and viticulture in this region of the County. The County's right to farm ordinance would apply to the project. One purpose of the ordinance is to "promote a good neighbor policy between agricultural and nonagricultural property owners by providing owners of property adjacent to or near agriculture operations a forum to discuss problems resulting from agricultural operations including, but not limited to, the noises, odors, dust, chemicals, smoke and hours of operation that may accompany agricultural operations." Considering that the project is not identified as a typical source of odor in the BAAQMD's screening guidance, that the project is not located within the recommended screening distances of any typical sources of objectionable odors, and that the County's right to farm ordinance promotes a good neighbor policy between agricultural and nonagricultural property, the project would generate a less than significant odor impact during project operations.

Diesel exhaust and ROGs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site, and therefore should not reach an objectionable level at the nearest sensitive receptors. As such, construction-period and operation-period odor impacts would be considered less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Biological Resources				
<i>Would the project:</i>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The analysis in this section is based on field reconnaissance and biological assessment by a qualified FCS biologist. Field reconnaissance was conducted on July 31, 2013; no substantial changes in site conditions are expected to have occurred since that time. The biological assessment included describing the wildlife habitat present; identifying common plant and wildlife species observed; determining the potential presence of any special habitat features, such as waters of the U.S. or state, including wetlands; and identifying any linkages within the project site to important adjacent

wildlife habitats. Habitat types were evaluated for their potential to support special-status plant and wildlife species and any other sensitive biological resources.

The project is proposed on a parcel of fallow agricultural land, predominantly covered by ruderal and weedy vegetation since being taken out of production late in 2013. The project site is primarily surrounded by agricultural development, based largely on grape growing and wine production. Average temperatures range from January and December lows of 42.7 degrees Fahrenheit (°F) to September highs of 76.1°F. Average annual precipitation is approximately 16.11 inches; precipitation falls primarily as rain with most precipitation occurring between the months of October and April (Western Regional Climate Center 2012). The topography of the project site is relatively flat, ranging from an elevation of approximately 700 feet at the northwest corner up to 740 feet at the southeast corner and down to 660 feet at the southwest corner.

The following information sources were reviewed:

- The Altamont, California USGS 7.5-minute topographic quadrangle;
- Aerial photography of the project site (Google Earth undated);
- Natural Resource Conservation Service (NRCS) soils map of the project site (Soil Survey Staff undated);
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) records for the Altamont, California 7.5-minute topographic quadrangle (CNDDDB 2013);
- CDFW California Wildlife Habitat Relationship System (CWHR) (CDFW 2013);
- U.S. Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur, or be affected by the project, in the Altamont, California quadrangle (USFWS 2013);
- The California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2013);
- Pertinent literature including the Jepson Manual, Higher Plants of California (Hickman 1993); Amphibian and Reptile Species of Special Concern in California (Jennings and Hayes 1994); California Birds: Their Status and Distribution (Small 1994); California Bird Species of Special Concern (Shuford and Gardali, eds. 2008); and Mammalian Species of Special Concern in California (Williams 1986).

Special-status plant and wildlife species were determined from a CNDDDB using a USGS quadrangle search (CNDDDB 2013a), CNDDDB QuickViewer search of unprocessed data (CNDDDB 2013b), CNPS search (CNPS 2013), and a USFWS quadrangle search. Each special-status species identified within the database search has been addressed individually in Table 1 and Table 2 of Appendix C. The potential for each special-status species to occur within the project site was assessed by known occurrences of the species within a 1-mile radius of the project site, suitability of habitat within the project site, and professional expertise.

When the USFWS lists a species as threatened or endangered under the Federal Endangered Species Act, areas of habitat considered essential to its conservation and survival may be designated as critical habitat. These areas may require special consideration and/or protection because of their ecological importance. Potential critical habitat designations within the general vicinity of the project site were checked using the USFWS Critical Habitat Portal (USFWS 2013b).

Approximately 75 acres of the 140-acre project site was normally planted as a vineyard;⁶ the property is currently a ruderal/disturbed habitat. The sparse vegetation within the project site is dominated with non-native grasses and weedy vegetation. Evidence of seasonal wetlands or other waters of the U.S. occur within project site along the southern boundary of the project site, and remnant wetland indicators occur in a small area where a drainage was rerouted over 15 years ago.

Several special-status bird and raptor species were also determined to have a potential to forage and nest near the site. Alameda whipsnake, a federal and state threatened species, has suitable habitat within the project region; however, the species was not observed during the field visit, and potential presence for the snake to occur within the project site is unlikely because of the ongoing ground disturbance from vineyard production and residential activities. The potential for burrowing owls to be present within the project vicinity was deemed likely, but burrowing owls are not expected within the project site proper because of the lack of observed small mammal burrows and other secondary evidence such as regular fire suppression management practices, including mowing.

No critical habitat for any federally listed species occurs within the project site (USFWS 2013b).

Environmental Evaluation

- a) **Would the project 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?**

Less than significant impact with mitigation incorporated. Although the project site is located within a developed agricultural area, certain special-status species have the potential to occur. Special-status species are those species listed as “threatened” or “endangered” by the federal or state Endangered Species Acts. In addition, CEQA requires that any potential impacts to species that may be considered locally rare or otherwise of special concern locally also be addressed. For the purposes of this analysis, a list of species of special concern with the potential to occur in the project area was based on listings in the following information resources, located in Appendix C:

- CNDDDB
- USFWS Database
- CNPS Ranking

⁶ At the time of the site visit, vineyards were still present on a large proportion of the project site; vineyards have subsequently been removed due to the age of the vines, but will be replanted in conjunction with the project.

The research and site survey work identified special-status plant and wildlife species that occur in the habitats found within the site boundaries. However, most of the plant and several of the animal species identified in the research require a specific habitat microclimate or other condition that was found not to occur within the site.

Plants

The project site supports two habitat types consisting of ruderal/disturbed dominated by non-native grasses, and fallow vineyard. The ruderal habitat is characterized by weedy grasses and forbs species such as wild oat, barley, rip gut brome, and ryegrass. The ruderal habitat on-site is mowed/disked on a regular basis for the purposes of fire and weed control.

Because of the highly disturbed nature and lack of suitable habitat, no special-status plant species have the potential to occur within the project site (Table 1 of Appendix C); therefore, the project would have no impact on such plant species.

Wildlife

The project site generally lacks vegetation or prey opportunities for special-status wildlife species. Common mammals that might be expected to occur in this habitat include western gray squirrel, black-tailed deer, black-tailed jackrabbit, striped skunk and opossum. Reptiles such as the gopher snake and common garter snake may be present.

With respect to special-status wildlife, review of the CNDDDB database revealed special-status species that have been previously documented within the project vicinity (Table 2 of Appendix C). These species include wetland-related invertebrates, fish, amphibians and reptiles, terrestrial mammals, bats, and a variety of bird types. Despite occurrences of these special-status species within the vicinity of the site, very little suitable habitat exists on the site to support these species. On the basis of detailed information on the site (as described in Table 2) and the highly disturbed nature of the project site, it is concluded that wildlife species have very limited potential to occur within the project site, and the project would therefore have either no impact or a less than significant impact on the vast majority of special-status wildlife species present on or near the project site.

However, the ruderal habitat found within and adjacent to the project site may provide suitable nesting habitat for several ground and tree-nesting avian species that are protected by the Migratory Bird Treaty Act (MBTA). In addition, proposed grading and construction activities on the project site may result in the removal of vegetation that can serve as nesting habitat for birds such as migrating songbirds. Removal of vegetation could also directly destroy nests, eggs, and immature birds, if present. Adverse impacts to nesting bird habitat and nesting birds are a potentially significant impact.

Mitigation Measure BIO-1 is designed to reduce potential impacts on these species to a less than significant level during the construction of the project.

Mitigation Measure

MM BIO-1 Pre-Construction Nesting Bird Surveys.

To prevent impacts to Migratory Bird Treaty Act-protected birds and their nests, removal of vegetation and grading will be limited to only those necessary to the extent necessary to construct the project.

For vegetation that must be removed to construct the project, the applicant will schedule removal to occur outside the nesting season, between September 1 and February 28. If trees and vegetation cannot be removed outside the nesting season, pre-construction surveys will be conducted prior to vegetation removal to verify the absence of active raptor nests within 76 meters (250 feet) of construction activities

If construction or vegetation removal is proposed during the breeding/nesting season for local avian species (typically March 1 through August 31), a focused survey for active nests of raptors and migratory birds within and in the vicinity of (no less than 76 meters (250 feet) outside the project boundaries, where possible) the project site shall be conducted by a qualified biologist. Two surveys will be conducted, at least one week apart, with the second survey occurring no more than two days prior to tree removal. If no active nests are found, construction activities may proceed.

If an active nest is located during pre-construction surveys, United States Fish and Wildlife Service and/or California Department of Fish and Wildlife (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or the biologist deems disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 30 meters (100 feet) around an active raptor nest, and a 15-meter (50-foot) radius around an active migratory bird nest), or alteration of the construction schedule.

No action is necessary if no active nests are found or if construction will occur during the non-breeding season (generally September 1 through February 28).

Implementation of Mitigation Measure BIO-1 would assure that potential impacts to nesting birds and bird habitat would be reduced to levels of less than significant.

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

No impact. The project site is located on land that is disturbed. No riparian vegetation or sensitive natural communities occur on the project site. Therefore, the project would not result in adverse

effects on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.

- c) **Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Less than significant impact with mitigation incorporated. Based on the reconnaissance field survey and a review of both current and historical aerial photography (Google Earth), the project site has approximately 4,000 linear feet of seasonal drainage within the property boundaries as shown in Exhibit 4. Therefore, conservatively, construction of the residences and associated vineyards could impact up to approximately 4,000 linear feet of seasonal drainage.

Implementation of Mitigation Measure BIO-2 through Mitigation Measure BIO-5 would reduce potential impacts to federally protected wetlands as defined by Section 404 of the Clean Water Act to a level of less than significant.

Mitigation Measures

MM BIO-2 The project applicant shall modify the location of building envelopes to avoid any potential wetlands and other waters of the U.S. both directly and indirectly. If wetland and other waters of the U.S. cannot be avoided, the project applicant shall prepare a jurisdictional delineation of waters of the U.S. for all areas that may be impacted by the project design.

MM BIO-3 The applicant shall comply with USACE “no net loss” policy for mitigation of wetlands under the jurisdiction of the USACE. The applicant must apply for a Section 404 permit, a Section 401 permit, and a 1602 Streambed Alteration Agreement. Pending verification of the Wetland Delineation, the project applicant shall identify all potential wetland resources that occur within the project design. If wetland resources are proposed to be filled, the project applicant shall do the following:

1. If required, apply for a Section 404 permit from the USACE after verification of the wetland delineation by the USACE. Any waters of the U.S. that would be lost or disturbed shall be replaced or rehabilitated on a “no net loss” basis in accordance with the USACE mitigation guidelines. On-site creation of wetland habitat is preferred to off-site mitigation. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to the USACE.
2. Obtain a Section 401 water quality waiver of certification from the Regional Water Quality Control Board (RWQCB).
3. Implement a mitigation plan that includes one of the following:
 - (a) Completion of an on-site Mitigation and Monitoring Plan that includes on-site creation/preservation of the wetlands.

(b) Acquisition of credits from an approved mitigation bank.

MM BIO-4 Unavoidable fill of wetlands shall be mitigated through the purchase of mitigation credits or through creation of wetlands/waters on-site or off-site. Replacement wetlands shall be created at a minimum ratio of 1:1 concurrent with or prior to impacts to existing wetlands. Alternatively, the applicant shall supply the County with proof of purchase of credits from an approved mitigation bank with a service area that includes the project area.

MM BIO-5 A 1602 Streambed Alteration Agreement for removal of or disturbance to riparian habitat and Waters of the U.S. (i.e., stream, lake, or river) from CDFW would also be required for the project. This agreement would include measures to minimize and restore riparian habitat. The 1602 Streambed Alteration Agreement would require the project proponent to prepare and implement a riparian vegetation mitigation and monitoring plan for disturbed riparian vegetation. If impacts to riparian and other sensitive natural communities are not avoidable, and on-site preservation is not possible, habitat compensation standards include a 2:1 (two acres of preserved habitat for every acre impacted) impact preservation ratio.

d) Would the project 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 wildlife nursery sites?

Less than significant impact. The project site is situated in a rural agricultural area and is surrounded primarily by active and inactive agriculture (primarily viticulture) areas. The agricultural areas surrounding the site extend for substantial distances (several miles, south of Tesla Road) and could provide a migratory corridor for a range of common species, including mammals, birds, amphibians, and aquatic species. Urban and wild, native and non-native wildlife such as western gray squirrel, black-tailed deer, black-tailed jackrabbit, striped skunk, and opossum, may be expected to move through the region.

The project site itself lacks native plant life and plant diversity because of agricultural and maintenance activities. With the exception of willow trees that are located along the southern property boundary, the project site has limited tree or native shrub cover and would not be considered an optimal corridor for wildlife movement. However, as discussed above, the project may have adverse effects on birds protected by the MBTA, which constitutes a potentially significant impact on the use of native nursery sites. Implementation of Mitigation Measure BIO-1 would assure that potential impacts to nesting birds and bird habitat would be reduced to a less than significant level, and no additional mitigation is required.

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

Less than significant impact. The project site is covered by the East Alameda County Conversation Strategy (Conservation Strategy), with a mission of “preserv[ing] endangered species by developing a shared vision for long term habitat protection. The Conservation Strategy assess[es] areas all across

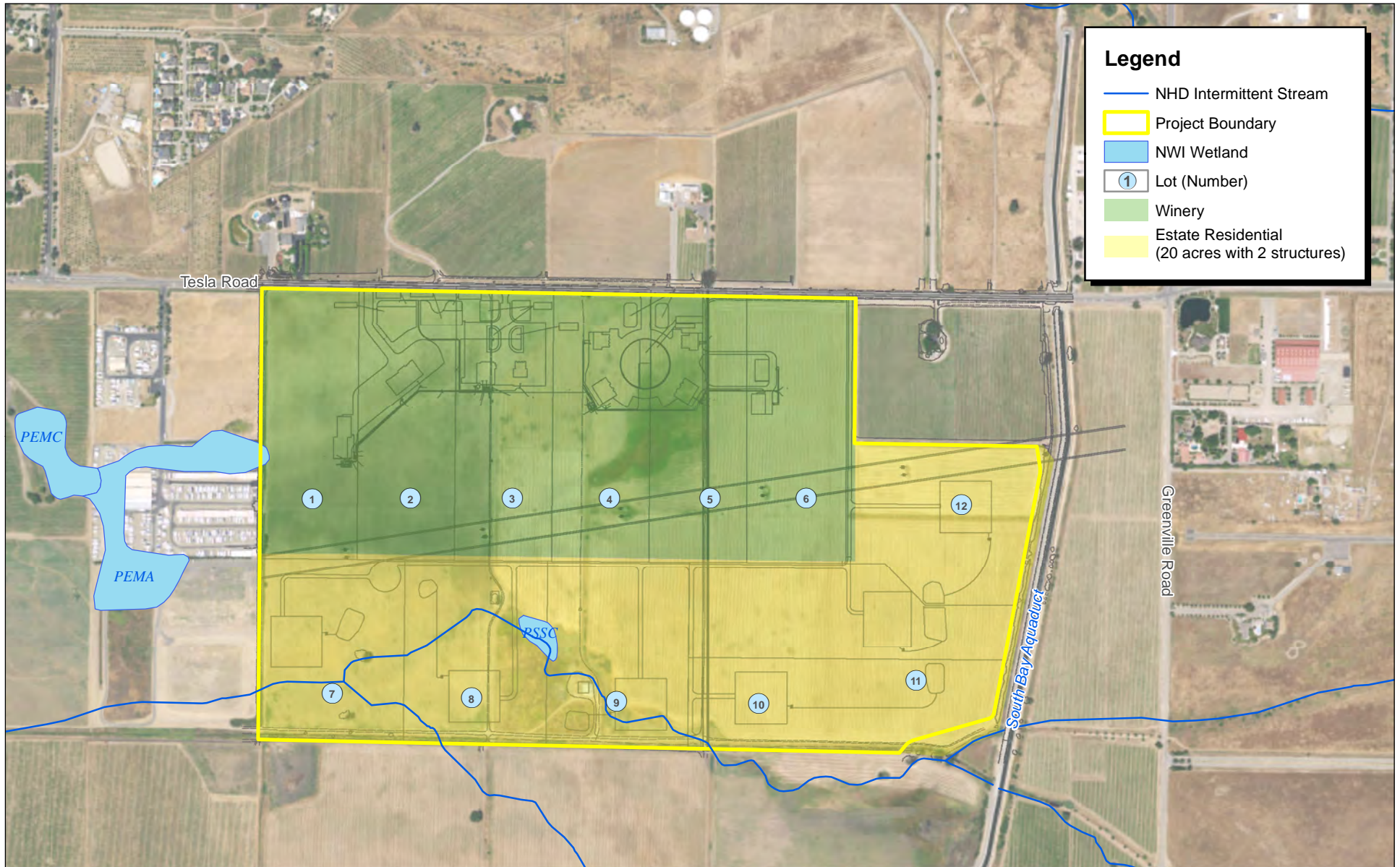
East Alameda County for their conservation value and establish[es] guiding biological principles for conducting conservation in the county.”⁷ The project does not conflict with the EACCS, as there are no known natural communities present on the project site, and focal species of the Conservation Strategy do not utilize the land cover types affected by the project. In addition, the project would not result in the removal of any protected trees. A less than significant impact would occur and no mitigation is required.

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

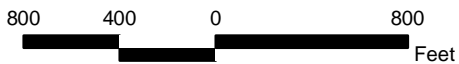
No impact. Alameda County incorporates two large-scale conservation plans, currently in the planning process: the San Francisco Public Utilities Commission (SFPUC) Alameda Watershed Habitat Conservation Plan (HCP), and the Altamont Pass Wind Resources Area (APWRA) Conservation Plan. The project site is not within either planning area.

Although it is not a conservation plan meeting the criteria of CEQA, the project site is within the planning area for the Conservation Strategy, as mentioned above, which is intended to provide an effective framework to protect, enhance, and restore natural resources. The Conservation Strategy focuses on impacts on biological resources such as endangered and other special-status species, as well as sensitive habitat types. The Conservation Strategy allows local projects to comply with state and federal requirements within a framework of comprehensive conservation goals and objectives, and to be implemented using consistent and standardized mitigation requirements, for a selected set of focal special-status species and sensitive habitats. Mitigation Measures BIO-1 through BIO-5 conform to these standardized mitigation requirements. There are no known natural communities present on the project site, and focal species of the Conservation Strategy do not utilize the land cover types affected by the project. Therefore, the project would result in no impact related to conflicts with an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No mitigation is required.

⁷ East Alameda County Conservation Strategy. 2009. About EACCS. Website: <http://www.eastalco-conservation.org/about.html>. Accessed: May 11, 2017.



Source: ESRI, Alameda County



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Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
5. Cultural and Tribal Cultural Resources <i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Record Searches

To determine the presence or absence of cultural resources within the project area and a 0.50-mile radius around the project area, an FCS Archaeologist requested that a records search be conducted at the Northwest Information Center (NWIC) in Rohnert Park on August 27 2013. To identify any historic properties or resources, the current inventories of the National Register of Historic Places (NR), the California Register of Historic Resources (CR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California State Historic Resources Inventory (HRI) were reviewed to determine the existence of previously documented local historical resources.

Results from the NWIC indicate that ten previous studies were conducted within 0.50 mile of the project area (Table 6); none included the project area. The NWIC indicated that 11 reports are classified as “other” because they lacked essential research elements.

Table 6: Studies Conducted within 0.50 mile of the Project Area

Report #	Author/Date	Title
S-007392	Guedon, Harmon, Busby, and Bard; 1985	A Cultural Resources Survey Report Proposed Replacement of Dry Creek Bridge on Mines Road, Alameda County, California
S-009690	Flynn; 1987	Archaeological Survey of Proposed Bike path along Mines Road between M.P. 1.35 and 1.65, Alameda County (letter report)
S-012280	Garaventa, Banet, Fong, and Guedon; 1990	Cultural Resources Assessment, Mines Road Storm Drainage Project, Alameda County, California
S-012285	Busby, Garaventa, Bard, Tannam, Jarvis, and Pujol; 1990	A Cultural Resources Overview and Historic Preservation Regulatory Analysis of Sandia National Laboratories Livermore Facility, Alameda County, California
S-012288	Busby et al.; 1990	A Cultural Resources Assessment of Sandia National Laboratories Livermore Facility, Alameda County, California
S-014890	Banet, Grittin, Sidhu, and Yelding-Sloan; 1993	Cultural Resources Assessment, Working Well Ranch, Livermore, Alameda County, California
S-017993	Hatoff, Voss, Waechter, Wee, and Bente; 1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project
S-023915	Self; 2001	Phase I Cultural Resources Report, South Bay Aqueduct Alignment, Alameda and Santa Clara Counties, California (letter report)
S-029590	Brown, Marlow, Young, Allan, and Self; 2004	Cultural Resources Assessment of the South Bay Aqueduct Improvement and Enlargement Project, Alameda County, California
S-033545	National Park Service	Draft Comprehensive Management and Use Plan and Environmental Impact Statement, Juan Bautista de Anza National Historic Trail, Arizona and California

The NWIC results indicate that three cultural resources have been recorded within a 0.50-mile radius of the project area (Table 7). One historic resource is located along the eastern edge of the project area. This is the South Bay Aqueduct (P#01-010629), a structure that began operating in the 1970s and may now be 45 years old in this region. Because the project will not impact the South Bay Aqueduct, mitigation will not be needed.

No recorded prehistoric resources are located on or adjacent to the project area, but two prehistoric sites that were recorded in the 1950s have been recorded approximately 2,600 feet from the southwest project area border. It should be noted that the record search results indicate that the locations for both of these sites is “approximate.” Owing to their distance from the project area boundaries, the early date of recordation, and that their location is only “approximate,” there will be no impacts to these sites from project development.

Table 7: Resources within 0.50-mile of the Project Area

Resource #	Description	Distance from Project Boundaries
P-01-000048	CA-ALA-28 Prehistoric Site (petroglyphs, architectural feature, habitation debris)	~2,600 ft. southwest
P-01-000049	CA-ALA-29 Prehistoric Site	~ 2,600 ft. southwest
P-01-010629	South Bay Aqueduct Historic Structure	Marks eastern boundary of project area

Historic aerials and maps were reviewed online utilizing the www.historicaerials.com website. Unrecorded resources were identified during the review: a high voltage transmission line and towers, and a small farm complex that was once located in the south central portion of the project area.

The farm complex was first illustrated on a 1949 aerial and was extant in 1966. The 1979 aerial shows that all of the buildings had been removed leaving only landscape elements, but the 1987 aerial shows a barn constructed near the end of the original power line for the farm complex. Correspondence with a representative from the Beyer Ranch indicates that the original barn was constructed of wood and was completely replaced in situ with a metal structure in the 1990s. Therefore, the barn requires no evaluation or recordation. Archival topographic maps indicate a house at the farm complex location by 1929 and the transmission line was first plotted on a 1943 topographic map. The 1949 aerial shows individual transmission towers within the project area, and it is likely that the transmission route is older than is indicated on these maps and images.

Native American Heritage Commission

On September 19, 2013, FCS archaeologist Arabesque A. Said, MPP, sent a letter to the Native American Heritage Commission (NAHC) requesting a Sacred Lands File search and a list of interested Native American tribal members who may have additional information about the project area. A response was received from the NAHC on September 25, 2013, stating that “a record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area.” If deemed necessary at a later date, letters may be sent to specific tribal entities requesting additional information from them about the project area.

Field Survey and Resource Recordation

On March 21, 2014, an FCS archaeologist conducted a reconnaissance survey of the project area specifically to identify the transmission line and to verify if all of the farm complex buildings were demolished. The transmission line is extant within the project area and was recorded on a Department of Parks and Recreation (DPR) Primary form (Appendix D). All of the elements of the farm complex are demolished and no evidence of any buildings, structures, or foundations was observed during the field survey. The South Bay Aqueduct is present but, as mentioned previously, there would be no impact to it from project development.

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less than significant impact with mitigation incorporated. Although there are two structures within the project area, the South Bay Aqueduct and the transmission line, there would be no impact to either of these resources from project development. Therefore, development of the project would not impact any historic properties.

Although there were significant historic resources within the project area, there is always the possibility that previously unknown historic resources exist below the ground surface. Therefore, implementation of standard cultural resource construction mitigation (Mitigation Measure CUL-1) would ensure that this impact is avoided or reduced to a less than significant level.

MM CUL-1 In the event that buried historic resources are discovered during construction, operations shall stop within 50 feet of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The developer shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Historic resources could consist of but are not limited to stone, wood, or structural remains, privies, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.

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

Less than significant impact with mitigation incorporated. The project area contains a watercourse consisting of a creek located in the southern portion of the project area. The creek bed was re-aligned into a man-made channel by 1987, and the original watercourse was backfilled. The property has been used as farmland since at least 1949 and has been plowed and planted for years. Under these conditions, intact prehistoric resources are highly unlikely on the surface of the

property and a plow zone (2 to 3 feet below grade) must be penetrated before intact native soil matrix containing sensitive cultural resources would be encountered. The project area is not located on elevated ground such as a ridge or a knoll that is typically considered archaeologically sensitive areas. Therefore, the project area is not considered sensitive for prehistoric resources.

No known prehistoric archaeological resources exist within the project area; therefore, no archaeological resources would be expected to be encountered during construction activities associated with the project. However, it is possible that subsurface earthwork activities may encounter previously undiscovered archaeological resources. The implementation of standard cultural resource construction mitigation (Mitigation Measure CUL-2) would ensure that this impact is less than significant.

MM CUL-2 In the event that archaeological resources are discovered during construction, operations shall stop within 50 feet of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The developer shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts or features, including hearths. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.

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

Less than significant impact with mitigation incorporated. The project area is not located in an area that is considered likely to have paleontological resources present. Fossils of plants, animals, or other organisms of paleontological significance have not been discovered at the project site, nor has the site been identified to be within an area where such discoveries are likely. The type of depositional environment at the project area typically does not present favorable conditions for the discovery of paleontological resources. In this context, the project would not result in impacts to paleontological resources or unique geologic features. However, if significant paleontological resources are discovered, implementation of Mitigation Measure CUL-3 would reduce this potential impact to a less than significant level.

MM CUL-3 In the event a fossil is discovered during construction for the project, excavations within 50 feet of the find shall be temporarily halted or delayed until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The County shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If

the find is determined to be significant and if avoidance is not feasible, the paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology standards.

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

Less than significant impact with mitigation incorporated. No human remains are known to exist within the project area. However, there is always the possibility that subsurface construction activities associated with the project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. Accordingly, this is a potentially significant impact. However, if human remains are discovered, implementation of Mitigation Measure CUL-4 would reduce this potential impact to a less than significant level.

MM CUL-4 In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.
2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:
 - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.
 - The descendant identified fails to make a recommendation.
 - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

- e) **Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?**

No Impact. A review of the CR, local registers of historic resources, the NAHC sacred lands file, and correspondence with applicable tribes failed to identify any listed Tribal Cultural Resources (TCRs) eligible under the CR. Thus, there would be no impact.

- f) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (d) of Public Resources Code Section 5024.1.?**

Less than significant impact with mitigation incorporated. On May 12, 2017, FCS sent a request to the NAHC to review its sacred lands file search and to provide a list of Native American representatives who may be interested in providing additional information on potential TCRs within the project area. FCS received a response from the NAHC indicating that no sacred sites were listed as present in the project area. The letter also included a list of five Native American representatives. Letters including a map and project details were sent to all representatives for information purposes on May 19, 2017. As of this date, no additional correspondence has been received. Correspondence with the NAHC and the Native American representatives may be found in Appendix D. No archaeological resources were identified during the archaeological or pedestrian surveys, and the occurrence of artifacts is unlikely. Potential impacts to TCRs would be minimized with the implementation of Mitigation Measures CUL-1 and CUL-2, which require proscriptive treatment procedures in the unlikely circumstances sensitive artifacts or even human remains are found. Thus, the impact would be less than significant.

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

Environmental Setting

Seismicity

The project site is situated in the seismically active San Francisco Bay Area, a region traditionally characterized by numerous active faults and moderate to high seismic activity. The Hayward Fault—identified on the most recent Alquist-Priolo Earthquake Fault Zone Map issued by the State Geologist—is located 14 miles southwest of the project site. Other major faults within the Bay Area include the San Andreas Fault System, which is approximately 30 miles southwest of the project site,

and the Calaveras Fault, which is approximately 10.5 miles to the west (USGS 2012). In addition, the Greenville Fault is located approximately 3.7 miles east of the project site and Los Positas Fault is approximately 0.37 mile north of the project site.

An Alquist-Priolo Special Study Zone traverses the northwestern portion of the project site. These study zones identify areas where a fault could potentially lead to surface rupture during a seismic event, and depending upon the intensity and magnitude of a seismic event. Construction of new structures within the Alquist-Priolo Special Study Zones requires a comprehensive geologic hazard investigation to show that a fault rupture does not pose a hazard to the structure.

Environmental Evaluation

Would the project:

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Agencies are directed to refer to Division of Mines and Geology Special Publication 42 for guidance).**

Less than significant impact. Based on the California Geological Survey, the northwestern portion of the project site, a roughly 17.84-acre area, is located within an Alquist-Priolo Special Study Zone. In addition, the Greenville Fault is located approximately 3.7 miles east of the project site and Los Positas Fault is approximately 0.37 mile north of the project site.

However, no structures will be built in this earthquake hazard area, which would be planted with grapevines, and a comprehensive geologic hazard investigation is not necessary. The project site would be required to comply with the current edition of the California Building Code as well as the County's Building Code, which would reduce impacts to a less than significant level.

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

Less than significant impact. All of California, including the project site, is subject to earthquake risks. The project site is situated within a region traditionally characterized by numerous active faults and moderate to high seismic activity. As discussed above, a portion of the site lies within an Alquist-Priolo Study Zone, and is also near other faults, which could, depending upon the intensity and magnitude of a seismic event, cause ground shaking within the proximity of the project site. The project would comply with California Building Code seismic design requirements, which would reduce the project's potential to expose persons or property to strong seismic ground shaking hazards; therefore, a less than significant impact would result.

iii) **Seismic-related ground failure, including liquefaction?**

Less than significant impact. The project site is located in the Altamont Quadrangle (CGS 2009). The California Geological Survey Seismic Hazard Zones map (CGS 2009) indicates that the project site does not lie in an area known to have liquefaction. Therefore, the impact to seismic-related ground failure would be less than significant.

iv) **Landslides?**

No impact. Since the site is located in a relatively flat area, no impact from landslides or other forms of natural slope instability would create a hazard to the project. The California Geologic Survey Seismic Hazards Zones map for the Altamont Quadrangle also does not include the project site in an area of susceptibility to earthquake-induced landslides (CGS 2009).

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

Less than significant impact with mitigation incorporated. Site grading, excavation, and construction have the potential to result in soil erosion or the loss of topsoil. Wind-blown soil erosion would be prevented through the use of water trucks to stabilize soils during project construction consistent with BAAQMD requirements. Alteration of drainage patterns could also result in soil erosion, as discussed in Section 9, Hydrology and Water Quality, the project would be required to install an on-site stormwater treatment system and protect against erosion during construction. With the implementation of the indicated mitigation measure, construction-related conditions of approval and the required stormwater system, potential impacts would be less than significant.

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

Less than significant impact. As stated in impact discussion 6(a.iii) above, the project site is not susceptible to liquefaction during earthquakes, and the soils would not experience liquefaction-induced strength loss. Furthermore, the site is not situated within a seismic hazard zone for earthquake-induced landslides. The geological investigation report also did not identify any other risks of soil or ground failure. Potential impacts are therefore deemed less than significant.

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

Less than significant impact. Expansive soils are mainly comprised of clay. According to the NRCS Web Soil Survey, the majority of the project site is located on Clear Lake Clay (CdA) and Pleasanton Gravelly Loam (PgA), which are moderately well drained and well drained, respectively, soil types (NRCS 2013). Because these are both well-drained soil types, there would be a less than significant impact to the risks of life or property due to expansive soil.

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

Less than significant impact. On-site wastewater disposal is the only feasible option at this time. An on-site soil profile review was conducted with Alameda County Environmental Health Staff on November 30, 2016 and a percolation test was conducted on March 8, 2017 for Lots 1–6 and June 1, 2017 for Lots 7-12. The results of the percolation tests determined that the soil is able to adequately treat effluent from the project. Suitable soils exist to depths ranging from 24 inches to 36 inches, with seasonal elevated groundwater between 42 inches and 82 inches below grade. Commercial Lots 1–6 will each be served by a commercial on-site system consisting of a Shared Commercial Domestic Waste Subsurface Drip irrigation system with Advanced Treatment and a Shared Commercial Winery Process waste system with advanced treatment and surface drip irrigation. Lots 7–12 will each have individual residential on-site systems that will be designed and permitted by the individual developers of each parcel.

The On-site Wastewater Treatment Systems (OWTS) would require approval by the Department of Environmental Health as well as the Regional Water Quality Control Board (RWQCB). The project OWTS would be required to comply with measures described in the County of Alameda Municipal Code Chapter 13.04 Sewer Service System, as well as requirements of the RWQCB. The results of the percolation test determined that the soil is able to adequately treat effluent from the project. Therefore, less than significant impacts would occur.

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

Environmental Setting

As stated within Section 3, Air Quality, the BAAQMD adopted the 2010 CEQA Air Quality Guidelines (2010 Air Quality Guidelines) with associated 2010 Thresholds of Significance (2010 Thresholds) in June 2010. The 2010 Air Quality Guidelines were updated with minor edits in May 2011; however, for the purposes of clarity, the updated 2011 Air Quality Guidelines are referred to in this document by the 2010 adoption date (2010 Air Quality Guidelines). The 2010 Air Quality Guidelines are under litigation, and the BAAQMD currently cannot legally recommend the 2010 Air Quality Thresholds. The BAAQMD recommends that lead agencies determine appropriate air quality thresholds of significance based on substantial evidence in the record.

Currently, common and accepted practice in the Bay Area is to still use the 2010 Air Quality Thresholds in light of the substantial evidence supporting those thresholds, including the thresholds for GHGs. BAAQMD's project-level significance threshold for operational greenhouse gas (GHG) generation was deemed appropriate by the County to use in this analysis when determining the project's potential GHG impacts. The thresholds suggested by BAAQMD for project-level operational GHG generation are as follows:

- Compliance with a qualified Greenhouse Gas Reduction Strategy, or
- 1,100 MT CO₂e/year, or
- 4.6 metric tons of CO₂ equivalent per service population (employees plus residents).

BAAQMD's Air Quality Guidelines state that if annual emissions of GHG exceed the thresholds, the project would result in a cumulatively considerable significant impact to global climate change. Therefore, if the project is less than any one of the thresholds identified above, then the project would result in a less than significant cumulative impact to global climate change.

The Alameda County Board of Supervisors approved a Community Climate Action Plan (CCAP) in February 2014. The CCAP outlines a course of action to reduce community-wide GHG emissions generated within the unincorporated areas of Alameda County. Successful implementation of the

CCAP will reduce GHG emissions to 15 percent below 2005 levels by 2020 and set the County on a path toward reducing emissions to 80 percent below 1990 levels by 2050. The Alameda County Board of Supervisors approved the final CCAP and associated environmental documentation in February 2014, making the CCAP an element of the General Plan.

Environmental Evaluation

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

Less than significant impact. The project is located in Alameda County, where air quality is regulated by the BAAQMD. BAAQMD's project-level significance thresholds for operational GHG generation are used when determining a project's potential GHG impacts. The thresholds suggested by the BAAQMD for project-level operational GHG emissions are as follow:

1. Compliance with a qualified Greenhouse Gas Reduction Strategy, or
2. 1,100 metric tons of carbon dioxide equivalent per year (MT CO₂e/year), or
3. 4.6 MT CO₂e equivalent per service population (employees plus residents).

The estimated annual operational GHG emissions were compared with the bright line threshold of 1,100 MT CO₂e per year to determine significance for this criterion. BAAQMD has not adopted a threshold for construction-related GHG emissions, while some agencies including the Sacramento Metropolitan Air Quality Management District (SMAQMD) have adopted 1,100 MT CO₂e per year as a threshold for construction-related emissions.⁸

Construction

The project would generate GHG emissions during construction activities such as site preparation, grading, building construction, paving, and architectural coating from heavy-duty construction equipment use, vehicles hauling materials to and from the project site, and construction worker trips. These emissions are considered temporary or short-term, but could be substantial contributions to global GHG emissions.

The BAAQMD recommends that lead agencies quantify and disclose construction-related GHG emissions. CalEEMod Version 2016.3.1 was used to estimate the project's construction-related GHG emissions. The construction period would last approximately 12 months. Where project-specific information was unknown, CalEEMod defaults were used, which typically results in conservative assumptions and emissions estimates. The project's construction GHG Emissions-unmitigated are shown in Table 8. Detailed construction assumptions and parameters are provided in Appendix B.

⁸ Sacramento Metropolitan Air Quality Management District (SMAQMD). 2015. SMAQMD Thresholds of Significance Table. <http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable5-2015.pdf>.

Table 8: Project Construction GHG Emissions—Unmitigated

Year	GHG Emissions (MT CO ₂ e/yr)
2017	466
SMAQMD significance thresholds	1,100
Exceed threshold?	No
Notes: GHG= greenhouse gases; MT CO ₂ e= metrics tons of carbon dioxide equivalent Source: SMAQMD 2015. CalEEMod 2016.3.1 output files, see Appendix B.	

As shown in Table 8, the project is expected to emit approximately 466 MT CO₂e during constructions in 2018, which would be less than 1,100 MT CO₂e per year thresholds. Therefore, the project’s construction related GHG emissions would result in less than significant thresholds.

Operation

Operational or long-term emissions would occur over the life of the project. The BAAQMD has screening criteria for determining if a project may exceed the GHG emission threshold of 1,100 MT CO₂e per year. Operational-related GHG emissions are shown in Table 9. All the assumptions are attached in Appendix B.

Table 9: Project Operational GHG—Unmitigated

Category	GHG Emissions (MT CO ₂ e/yr)
Area	1
Energy	485
Mobile	400
Waste	73
Water	83
Total	1,042
BAAQMD significance thresholds	1,100
Exceed thresholds?	No
Notes: GHG= greenhouse gases; MT CO ₂ e= metrics tons of carbon dioxide equivalent Source: BAAQMD 2010. CalEEMod 2016.3.1 output files, see Appendix B.	

As shown in Table 9, the project’s long-term annual operational emissions would not exceed the BAAQMD’s threshold of significance. Therefore, the project’s operational-related GHG emissions would be less than significant.

b) Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Less than significant impact. In 2006, the California Legislature adopted Assembly Bill (AB) 32. AB 32 established a statewide reduction goal to reduce GHG emissions back to 1990 levels by the year 2020. Consistent with the State of California’s objectives outlined in AB 32, Alameda County adopted the Community Climate Action Plan (CCAP),⁹ which outlines a course of action to reduce community-wide GHG generated within the unincorporated areas of Alameda County. In addition, the City of Livermore adopted Climate Change Goal CLI-1.1. in its 2003 General Plan to reduce GHG emissions generated by the community to a level 15 percent less than 2008 levels in order to support State implementation of the Global Warming Solution Act (AB 32).¹⁰ The City of Livermore adopted the Livermore Climate Action Plan (CAP) in November 2012, fulfilling the initiative detailed in General Plan Policy CLI-1.1-P.1.¹¹ The CAP provides mitigation measures in different categories to reduce GHG emissions, including building energy efficiency, transportation and land use, water conveyance and solid waste generation. Table 10 shows the project’s actions that consistent with the CAP GHG emissions reduction measure titles.

Table 10: CAP GHG Emissions Reduction Measure Titles and Project’s Actions

Measure ¹	Description	Actions ²
Energy-2	Existing Commercial Energy Efficiency Voluntary Retrofits	<ol style="list-style-type: none"> 1. Tasting rooms and the winery hospitality center would be air conditioned and heated using the most current Title 24 energy efficiency standards, while the remaining facilities would not be air conditioned or heated; 2. GreenBuilding Standards Mandatory Measures, which would result in reduction in water consumption.
Energy-3	Exceed Title 24 Requirements	<ol style="list-style-type: none"> 1. Renewable Portfolio Standard implementation, which would provide a cleaner energy mix; 2. 2014 Title 24 requirements are 30 percent more efficient than the 2008 Title 24 requirements for non-residential facilities, and 25 percent more efficient for residential facilities.
Waste-1	Waste Diversion	<ol style="list-style-type: none"> 1. Waste from wine production would mainly consist of cardboard and glass, which would be recycled, and skins and stems that would be composted off-site; 2. California Mandatory Waste Recycling requirement and California Integrated Waste Management Act diversion requirements, conservatively estimated to result in at least 25 percent recycling rate.
Source: ¹ From ICF International. 2012. City of Livermore Climate Action Plan. November. Website: http://www.cityoflivermore.net/civicax/filebank/documents/9789/ . ² Provided by client.		

⁹ Alameda County. 2014. Community Climate Action Plan. Website: <https://www.acgov.org/sustain/next/plan.htm>.

¹⁰ City of Livermore. 2004. City of Livermore General Plan: 2003-2025. Adopted February 9, 2004.

¹¹ ICF International. 2012. City of Livermore Climate Action Plan. Adopted November 2012. Sacramento, CA. Prepared for City of Livermore, Livermore, CA.

As shown in Table 10, the project would implement mitigation measures including enhance building energy efficiency and waste diversion. Therefore, given that the short-term construction and long-term operation of the project would be consistent with the CAP, the project would not conflict any applicable plans, rules, or regulations.

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

Environmental Setting

This section contains a description of the setting regarding hazardous materials handled by the project. Hazardous materials are defined by the California Code of Regulations as substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

- Toxic—causes human health effects
- Ignitable—has the ability to burn
- Corrosive—causes severe burns or damage to materials
- Reactive—causes explosions or generates toxic gases

The criteria that defines a material as hazardous also defines a waste as hazardous. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. The project site is currently not listed on any federal, state, regional or local hazardous materials databases.

The Alameda County Environmental Health Department (of the Health Care Services Agency) has primary responsibility for enforcing most regulations pertaining to hazardous materials within the area, while the Alameda County Fire Department acts as first responder to hazardous materials incidents. Hazardous waste programs are also governed by the Alameda County Hazardous Waste Management Plan and the Alameda County Integrated Waste Management Plan. These plans include forecasts for the generation of hazardous waste and provide policies for the management of this waste in Alameda County. The primary focus of both plans is to reduce the amount of hazardous waste generated in the County and to safely reuse, recycle, or store any waste that is generated.

Chapter 6.95 of the Health and Safety Code establishes minimum statewide standards for Hazardous Materials Business Plans (HMBPs). HMBPs contain basic information on the location, type, quantity, and health risks of hazardous materials and/or waste. Each business shall prepare an HMBP if that business uses, handles, or stores a hazardous material and/or waste or an extremely hazardous material in quantities greater than or equal to the following:

- 55 gallons for a liquid
- 500 pounds of a solid
- 200 cubic feet for any compressed gas
- Threshold planning quantities of an extremely hazardous substance

Below are General Plan goals, policies, and objectives from the Alameda County General Plan Safety Element.

Alameda County General Plan Natural Hazards and Public Safety Element

- **Goal 10.4-1.** Minimize the risk of life and property from the production, use, storage, and transportation of hazardous materials and waste by complying with all applicable Federal, State, and local requirements.
- **Policy 10.4-1.** Hazardous Materials Exposure Risks. Minimize risks of exposure to or contamination by hazardous materials by educating the public, establishing performance standards for uses that involve hazardous materials, and evaluating soil and groundwater contamination as part of development project review.
 - **Action 10.4-1 Proper Use, Storage and Disposal of Hazardous Materials.** Educate businesses and residents (for example through information on the County’s website, etc.) about the proper use, storage, and disposal of hazardous materials, but also ways to reduce or eliminate the use of hazardous materials, including the use of non-toxic or less-toxic alternatives
 - **Action 10.4-2 Highly Flammable, Toxic and Water-Reactive Materials.** Amend County zoning regulations and project review processes to ensure that uses involving the use, storage, or transport of highly flammable, toxic, and/or highly water-reactive materials are located at an adequate distance from other uses and where they will not be adversely affected by disasters such as major fires, floods, or earthquakes. Regulate these uses to minimize the risk of on-site or off-site personal injury and property damage.
 - **Action 10.4-3 Review Process for Proposals Using Hazardous Materials.** Coordinate with the Alameda County Department of Environmental Health, Hazardous Materials Division and other appropriate regulatory agencies during the review process of all proposals for the use of hazardous materials or those involving properties that may have toxic contamination such as petroleum hydrocarbons, asbestos, and lead.
 - **Action 10.4-4 Soil and Groundwater Assessment.** Require applicants of projects in areas of known hazardous materials occurrences such as petroleum hydrocarbon contamination, USTs, location of asbestos rocks and other such contamination to perform comprehensive soil and groundwater contamination assessments in accordance with regulatory agency testing standards, and if contamination exceeds regulatory action levels, require the project applicant to undertake remediation procedures prior to grading and development under the supervision of appropriate agencies such as Alameda County Department of Environmental Health, Department of Toxic Substances Control, or Regional Water Quality Control Board.

Environmental Evaluation

Would the project:

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

Less than significant impact with mitigation incorporated. The project would involve the transport and use of hazardous materials associated with the operation of a winery such as diesel fuels,

lubricants, solvents, asphalt, pesticides, and fertilizers. This use would not involve the regular use, storage, or disposal of significant amounts of hazardous materials. The handling and transport of all hazardous materials on-site would be performed in accordance with applicable laws and regulations. Furthermore, the types and quantities of hazardous materials to be used and stored on-site would not be of a significant quantity to create a reasonably foreseeable upset or accident. Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Impacts would be less than significant.

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

Less than significant impact. As previously indicated, the project would involve the minor use of hazardous materials, including lubricants, solvents, asphalt, pesticides, and fertilizer used during construction and operation. The use of these substances is not expected to create a significant hazard to the public or the environment through reasonably foreseeable upset or accident. Impacts would be less than significant.

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

Less than significant impact. Arroyo Seco Elementary School is the closest school, located approximately 1.6 miles to the northwest of the project site. Two other schools lie in similar proximity to the project, Vineyard High School, approximately 1.7 miles northwest, and Jackson Avenue Elementary School, approximately 2.1 miles northwest. There are no schools located within 0.25 mile of the project site; therefore, the proposed project would not emit hazardous waste or require the handling of hazardous or acutely hazardous materials within 0.25 mile of an existing or proposed school. Impacts from the project to an existing or proposed school is less than significant.

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

No impact. Pursuant to CEQA, the DTSC maintains a Hazardous Waste and Substances Sites List (Cortese List). As part of the Cortese List, DTSC also tracks "Calsites," which are mitigation or brownfield sites (previously used for industrial purposes) that are not currently being worked on by DTSC. Before placing a site on the backlog, DTSC ensures that all necessary actions have been taken to protect the public and environment from any immediate hazard posed by the site. The project site is not included in the DTSC Cortese List and the closest listed site is the Lawrence Livermore National Lab. The Lawrence Livermore National Lab is an active federal superfund site, which is located approximately 1.5 miles north of the project site. As the project site is not included in the DTSC Cortese List, no impact would occur.

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

No impact. The nearest airport to the project site includes the Livermore Municipal Airport, located approximately 6.3 miles northwest of the project site. The Alameda County Airport Land Use Policy Plan identifies safety zones for this airport as substantially distant from the project site. No safety hazard would be associated with these airport facilities for people visiting, residing, or working at the project site; therefore, there would be no impact.

- f) **For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

Less than significant impact. The project site is located approximately 0.2 mile west of Meadowlark Field. The project provides vineyard related uses as well as six single-family residential lots, which would not include tall structural elements that could create a hazard for aviation. The tallest structures on the site would be the existing PG&E high-voltage transmission towers, so no new aviation hazards would be created.

- g) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No impact. Construction of the project would not create an obstruction to surrounding roadways or other access routes used by emergency response units and would not impair the implementation of an adopted emergency response plan. As noted in the traffic section, all local roadways would continue to operate acceptably. No impact would occur.

- h) **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?**

Less than significant impact. The project site is located within an area that currently consists mainly of other vineyards and agricultural lands. According to the California Board of Forestry and Fire Protection State Responsibility Area (SRA) Viewer (2015), the project is not located in an SRA, defined as an area where the State of California is financially responsible for the prevention of and suppression of wildfires. However, the east portion of the property is directly adjacent to the boundary of a SRA. Although the project is not located in the SRA, wildland fires may still affect the project. A 100-foot open canal on the eastern side of the project site runs parallel to the property, and the canal will substantially serve as a buffer between the property and wildlands. The homes would be constructed in the midst of irrigated vineyard, and should not pose a fire threat to the homes so long as the vineyards are maintained. In addition, the buildings will be subject to design review by the County Fire Department, which may require specific fire suppression features (e.g. sprinklers). Based on these considerations, a less than significant impact related to wildland fires would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. Hydrology and Water Quality				
<i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site is approximately 679 feet above sea level, and is relatively flat with little impervious surface. The project site drains into tributaries of Alameda Creek, which ultimately discharges to the San Francisco Bay.

The California State Water Resources Control Board (SWRCB) is responsible for establishing water quality standards in California, and the San Francisco Bay RWQCB is responsible for regulating discharges of wastes and stormwater runoff to San Francisco Bay. The RWQCB completed the most recent major review and update of the Water Quality Control Plan (Basin Plan) for the San Francisco Bay region in 2007, although amendments to the Plan are adopted a few times per year for updates to programs for individual water bodies or portions of the Bay. The Basin Plan was previously updated at varying intervals of 2 to 5 or more years and is now on a triennial review schedule for review and revision with major amendments. Consistent with state law, the Basin Plan includes a statement of beneficial water uses to be protected, water quality objectives (or standards), strategies and schedules for achieving those objectives, and waste discharge requirements.

The RWQCB primarily regulates non-point discharges by issuing permits for stormwater runoff to municipalities and counties, contingent on the implementation of controls and practices (Best Management Practices [BMPs]) to protect water quality. Point sources, such as from wastewater treatment plants and industrial plants, are also regulated by permits from the RWQCB.

The RWQCB's Basin Plan requires that new development of one acre or more provide permanent, post-construction measures to protect water quality and reduce pollution and the rate of runoff, which typically results from new impervious surfaces such as roads and rooftops. To comply with the Basin Plan, Alameda County and its constituent cities have established the Alameda County Clean Water Program and adopted a Stormwater Quality Management Plan. Projects within the County are required to comply with Municipal Regional Stormwater Permit (MRP, NPDES No. CAS612008, adopted on October 14, 2009 and revised on November 28, 2011), which is a single regional permit for the RWQCB jurisdiction.

Stormwater discharge is also regulated in Alameda County through the Municipal Code, Title 13: Public Services, Chapter 13.08 Stormwater Management and Discharge Control. Chapter 13.08 is designed to eliminate non-stormwater discharges to the municipal separate storm drain; control the discharge to municipal separate storm drains from spills, dumping, or disposal of materials other than stormwater; and reducing pollutants in stormwater discharges to the maximum extent practicable. Chapter 13.08 requires the issuance of a County Stormwater Permit for any project that is subject to the Municipal Regional Permit of the State.

Environmental Evaluation

a) Would the project violate any water quality standards or waste discharge requirements?

Less than significant impact. Development of the project would require grading and construction activities, which could allow surface water to carry sediment from on-site erosion and small

quantities of pollutants (e.g., oil or fuel used in construction equipment) off-site, thereby potentially affecting local waterways by degrading water quality. As the project requires construction of land greater than 1 acre, compliance with the National Pollution Discharge Elimination System (NPDES) as administered by the RWQCB is required, more specifically under the Construction General Permit (GCP) issued. Under the NPDES CGP, preparation of a Storm Water Pollution Prevention Plan (SWPPP) and a Notice of Intent, along with other documentation of water quality protection methods, would be required. The project would also be subject to the special construction inspections mandated by Provision C.6 of the MRP, ensuring that BMPs are incorporated so that water quality standards are not adversely affected by construction activities. Therefore, any construction-related impacts would be less than significant, due to compliance with the provisions of NPDES, the implementation of a SWPPP, and verification that BMPs are properly implemented.

As the project will create over one acre of new impervious surface, it is subject to the hydromodification management measure requirements of Provision C.3.g of the MRP for post-construction water quality protection. Hydromodification encompasses changes to streams and river channels, construction of dams and impoundments, and erosion of streambanks or shorelines. Proposed features to retain stormwater runoff include an unlined stormwater channel along the residential access road to contain roadway runoff (SBJ Consulting Group 2013); see Preliminary Stormwater Management Plan in Appendix A), as well as bio-swales for each of the lots. Preliminary locations for the bio-swales associated with the commercial lots are illustrated in the Preliminary Wastewater plan (see Appendix A), and will also be established for residential lots. These measures will collectively capture and treat stormwater on-site.

The design of both the stormwater control measures and the on-site hydromodification management measures will be subject to review and approval by the Alameda County Public Works Agency.

Wastewater would be treated and disposed of on-site via an Onsite Wastewater Treatment System. Commercial Lots 1–6 will each be served by shared commercial on-site systems consisting of a Shared Commercial Domestic Waste Subsurface Drip irrigation system with Advanced Treatment and a Shared Commercial Winery Process Waste System with advanced treatment and surface drip irrigation of the on-site vineyards. Lots 7–12 will each have individual residential on-site systems, which will be designed and permitted by the individual developers of each parcel.

Wastewater from the wine production will use a Shared Commercial Winery Process waste system using surface drip irrigation. The winery process waste will undergo treatment prior to storage and irrigation use via a Bio-Microbics Bio-Barrier treatment system. The Bio-Barrier systems provide superior treatment to conventional treatment methods and winery waste ponds. The Bio-Barrier system exceeds NSF40 treatment standards¹² for secondary treated effluent.

After treatment has occurred, the effluent will be pumped to a storage tank, where it will be discharged as vineyard irrigation to select blocks as weather permits. The irrigation system will be

¹² NSF/ANSI 40 is a standard for residential wastewater treatment systems. To achieve certification, treatment systems must produce an acceptable quality of effluent during a six-month (26-week) test.

operated with a rain delay to ensure irrigation does not occur while surface soils are saturated. Alameda County Ordinance Chapter 15.18 provides minimum standards for the construction and operation of OWTS, which must be located, designed, constructed, and operated in a manner to ensure that sewage effluent does not surface and that percolation of effluent will not adversely affect the public health, safety, or welfare. These systems should not contaminate or otherwise be detrimental to the waters of the State of California. Furthermore, OWTS require review and approval from the Regional Water Quality Control Board and the Alameda County Zone 7 Water Agency. On-site soil profile review (November 30, 2016) and percolation tests (March 7, 2017, Lots 1–6 and June 1, 2017, Lots 7-12) have been conducted with Alameda Environmental Health Staff and determined feasibility of the planned OWTS. The results of the percolation test determined that the soil is able to adequately treat effluent from the project.

The project will comply with all RWQCB regulations, and, therefore, the impact on water quality standards or waste discharge requirements would be less than significant. Implementation of the standard provisions of the MRP will ensure that potential impacts to water quality standards and waste discharge requirements would be less than significant.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?)**

Less than significant impact. The project does not include any plan to withdraw groundwater. In a letter dated December 19, 2013, the CRMWD stated it would be able to provide domestic water to the project site. CRMWD is managed by the California Water Service Company (Cal Water). For its clients in Livermore and those with CRMWD, Cal Water receives its water supply from a combination of local groundwater, pumped from 12 wells, and surface water, purchased from Alameda County Zone 7 Water Agency through eight turnouts of the Alameda County Flood Control and Water Conservation District. The groundwater used by Cal Water is expected to be sufficient to supply the project since the applicant states that within the nearby vicinity, CRMWD serves only approximately 20 other properties and is a private water company that was formed approximately 10 years ago. As discussed in Section 3.6, Geology, the site is composed mostly of Pleasanton gravelly loam, which is well-drained and has moderately slow permeability. The proposed project development would not utilize groundwater supplies or affect soil permeability, and there would be a less than significant impact to groundwater levels. As such, impacts would be considered less than significant.

- c) Substantially alter the existing drainage pattern of 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?**

Less than significant impact. Some modification of the existing on-site drainage pattern would occur to accommodate the new facilities and related infrastructure. However, most of the site would be preserved in agriculture and existing drainage patterns would be largely retained. Also see discussion in Section 4, Biological Resources. Further, as discussed in impact discussion 9(a) above, the project design includes a stormwater treatment features consisting of a stormwater channel and

lot specific bio-swales. These facilities will retain project-related runoff on-site, such that off-site runoff does not exceed the existing condition, and would not increase the volume of runoff within Alameda County Flood Control District's Zone 7.

Based on the proposed design approach, the project would not alter drainage patterns that could result in substantial erosion on- or off-site. With implementation of the standard provisions of the Municipal Regional Stormwater Permit, potential impacts related to erosion and siltation would be less than significant.

d) 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?

Less than significant impact. As discussed in impact discussion 9(a) and 9(c) above, the project design includes an on-site stormwater channel and bio-swales to retain stormwater on-site. These facilities will retain project-related runoff on-site, such that off-site runoff does not exceed the existing condition, and would not increase the volume of runoff within Alameda County Flood Control District's Zone 7. As a result, the project would not alter drainage patterns that could result in flooding on- or off-site. Therefore, the potential impacts to flooding would be less than significant.

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

Less than significant impact. Developed areas would increase impervious surfaces (driveways, buildings, roads, etc.), and may increase stormwater runoff. As discussed in the project description, all runoff from the proposed subdivision's roads would drain to self-contained management areas, in which stormwater contaminants such as oil, bacteria, trash, etc. would be captured and held. In particular, the project includes a 50-foot-wide, self-retained easement parallel to the internal common private road that provides access to the residential parcels, which includes an unlined channel along the length of the road, designed to accommodate roadway runoff (SJB Consulting Group 2013; see Preliminary Stormwater Management Plan in Appendix A).

In addition, bioretention areas will be established to contain runoff for each lot. Preliminary areas have been identified for the commercial lots (see Preliminary Wastewater plan in Appendix A) and will also be established for residential lots. As a result, the project would not increase the volume of runoff within Alameda County Flood Control District's Zone 7, or result in flows that would affect the capacity of existing or planned stormwater drainage systems. Therefore, potential impacts to the capacity of existing or planned drainage systems would be less than significant.

f) Otherwise substantially degrade water quality?

Less than significant impact. Construction on the project site could produce pollutants that would have the potential to temporarily degrade the quality of receiving waters if not properly managed. The primary pollution of concern is sediment that results from excessive erosion of disturbed soils.

Other potential pollutants include metals, construction chemicals and fuel, and miscellaneous waste. No significant long-term impact to water quality is anticipated from construction activities because of compliance with permit requirements discussed below.

As discussed in impact discussion 9(a) above, the project would be required to obtain coverage under the RWQCB's Construction General Permit (CGP) and meet other NPDES requirements. Under the CGP, it would be mandatory for the project to produce a SWPPP, the implementation of which would provide for the potential impacts to water quality degradation to be avoided or considered less than significant.

The project would also be required to comply with all applicable regulations to protect water quality, including the special construction inspections mandated by Provision C.6 of the Municipal Regional Stormwater Permit, which ensure that BMPs related to the control of erosion and sedimentation during construction are implemented. With implementation of the standard provisions of the Municipal Regional Stormwater Permit and RWQCB's Construction General Permit, potential impacts to water quality would be less than significant.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No impact. There are six single-family residential lots, winery estates, proposed by the project. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) entitled Community Parcel Number 06001C0362G (2008), the project site is determined to be outside of the 100-year flood hazard area and therefore would not situate housing or structures in such a way that flood flows could be impeded or redirected. There would be no impact.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No impact. FEMA provides information on flood hazard and frequency for cities and counties on its FIRMs. FIRM No. 06001C0362G identifies the flood hazard potential for the project area (FEMA 2009). The project site is located in an area outside of the 100-year flood hazard area. There would be no impact.

i) 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?

Less than significant impact. According to the City of Livermore General Plan, flooding could result in the event of dam failure at the Del Valle Dam (approximately 3.76 miles southwest of the project site) or Patterson Reservoir (approximately 2.32 miles northeast of the project site). Such a flood could produce catastrophic damage and casualties in the Livermore area. The Del Valle Dam and Patterson Reservoir are both under the jurisdiction of the California Department of Water Resources (DWR), Division of Safety of Dams. The DWR periodically inspects these facilities to ensure adequate maintenance and corrections of any deficiencies. According to the City of Livermore General Plan, regular inspections and required maintenance substantially reduce the potential of failure.

Therefore, impacts related to exposure of people or structures to flooding as a result of dam failure would be less than significant.

j) Inundation by seiche, tsunami, or mudflow?

No impact. A tsunami is a large tidal wave generated by an earthquake, landslide, or volcanic eruption. Large earthquakes occurring in the Pacific Ocean can generate seismic waves such as tsunamis. The project site is approximately 44 miles east of the Pacific Ocean and approximately 25 miles east of San Francisco Bay, too distant for a tsunami to reach.

Seiches, caused by enclosed bodies of water, can also be generated by earthquakes. The largest seiche wave measured in San Francisco Bay was 4 inches high and followed the 1906 quake. The nearest bodies of water to the project site possibly susceptible to a seiche include the Del Valle Dam (approximately 3.76 miles southwest of the project site) and Patterson Reservoir (approximately 2.32 miles northeast of the project site). However, given their histories and the project's location away from large bodies of water and hillsides, there is no risk related to tsunami, seiche, or mudslides. No impacts are anticipated.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. Land Use and Planning <i>Would the project:</i>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project site is zoned Cultivated Agricultural by the Alameda County Zoning Ordinance. The County of Alameda designates the land use of the project site as Large Parcel Agriculture. The project site is also subject to an Agricultural Conservation Easement with the Tri-Valley Conservancy, a non-profit corporation dedicated to agricultural land protection.

Environmental Evaluation

Would the project:

a) Physically divide an established community?

No impact. The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local road or bridge that would impair mobility within an existing community or between a community and outlying area. The project site is currently surrounded by agricultural land uses and commercial winery and tourism-related uses. There is no known or recognized pattern of travel through the project site. Construction of new wineries and six single-family residential lots would not impair or divide the existing community but instead would be consistent with the existing pattern of development in the vicinity. Therefore, implementation of the project would not result in the division of an established community and would have no impact on community access or cohesion.

- b) **Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

Less than significant impact. The project site is within the South Livermore Valley area of unincorporated Alameda County. The 1993 *South Livermore Valley Area Plan* identifies the site as a proposed vineyard land use, and designates it within the Vineyard Area (the primary subarea of four separate areas). Primary goals of the Plan are to promote the South Livermore region as a historic wine region, protect and enhance viticulture and other cultivated agriculture, preserve the area's rural qualities, and direct development away from productive and potentially productive agricultural land. Plan policies encourage cooperation among the County, Livermore, and Pleasanton for land use planning and mitigating impacts, development of a Land Trust (operating now as the Tri-Valley Conservancy), and use of specific standards and guidelines to achieve the Plan's goals and avoiding adverse environmental effects, including:

- a) Development of a critical mass to sustain agricultural operation in the South Livermore Valley
- b) Preservation of lands best suited for agriculture and most threatened by development pressures
- c) Preservation of contiguous tracts of agricultural land of a size large enough to maintain commercial agricultural operations
- d) Minimization of conflicts with non-farm uses
- e) Creation of a permanent urban boundary
- f) Protection of critical habitat areas within the South Livermore Valley

Within the Plan Area, property owners are allowed to divide their properties into 20-acre parcels with a structure if they designate them as an Agricultural Conservation Easement (Tri-Valley Conservancy 2012). According to correspondence from the Tri-Valley Conservancy, the Agricultural Conservation Easement on the property allows for the construction of additional improvements, under *Permitted Activities and Uses*, provided that they are located within no more than 13 building site envelopes and do not exceed 26 acres overall (Tri-Valley Conservancy 2013; Appendix A). The project would divide the overall property into 12 parcels, or lots, each containing approximately 20-acres and the Agricultural Conservation Easements on the project site would be maintained. Thus, the project would be consistent with the *Permitted Activities and Uses* provisions of the conservation easement. The conservation easement would be amended to include the legal descriptions of the building envelopes. Monuments would be installed to document the boundaries of the building envelopes, and would be field-verified by Conservancy staff prior to occupancy.

The overall planned use of the site for a winery would be consistent with the goals and objectives of the South Livermore Valley Area Plan as well as the Alameda County General Plan land use designation of Large Parcel Agriculture. Therefore, the project would not conflict with any applicable land use plan, policy, or regulation; as such, impacts would be less than significant.

c) **Conflict with any applicable habitat conservation plan or natural communities conservation plan?**

Less than significant impact. There are no HCPs or NCCPs that apply to the project site. However, the Conservation Strategy bears similarity to NCCPs, whose purpose is to preserve endangered species by developing a shared vision for long term habitat protection. There are no natural communities present on the project site, and focal species of the Conservation Strategy do not utilize the land cover types affected by the project (refer to Section 3, Biological Resources for further discussion. Although the project is located in the focus area of the Conservation Strategy, it would not conflict with any HCP or NCCP, and impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. Mineral Resources <i>Would the project:</i>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The California Geological Survey (CGS) classifies the regional significance of mineral resources in accordance with the California Surface Mining and Reclamation Act of 1975 (SMARA). Mineral Resource Zones (MRZs) have been designated to indicate the significance of mineral deposits. The MRZ categories are as follows:

- **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** Areas where adequate information indicates significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- **MRZ-3:** Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- **MRZ-4:** Areas where available information is inadequate for assignment to any other MRZ.

The project site is located in MRZ-3, based on classification by the Department of Conservation. The County has policies designed to protect mineral resource extraction from intrusive incompatible development. MRZs, as well as other designators, are expressly required as part of the General Plan Resources Element.

Environmental Evaluation

Would the project:

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

No impact. The project site contains no known mineral resources, and it is unlikely that the underlying soils would have any extractive value. The Conservation Element of the Alameda County

General Plan (Alameda 2010a) does not describe or identify any such mineral resources of importance in the vicinity of the project site. Thus, the project would have no impact regarding the loss of availability of a known mineral resource.

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

No impact. No mineral extraction activities exist on the project site and mineral extraction is not proposed as part of the project. Additionally, the project site is not designated a locally important mineral resource recovery site. As such, there would be no impact.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. Noise <i>Would the project result in:</i>				
a) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Noise is defined as unwanted sound. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Most of the sounds that we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. Noise is typically generated by transportation, specific land uses, and ongoing human activity.

The standard unit of measurement of the loudness of sound is the dB. Since the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale (dBA) was derived to relate noise to the sensitivity of humans, it gives greater weight to the frequencies of sound to which the human ear is most sensitive. The human ear can detect changes in sound levels of approximately 3 dBA under normal, controlled conditions. A change of 5 dBA is noticeable to most people in an exterior environment.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noise becomes more noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, L_{dn} (day/night average sound level), was developed. The L_{dn} divides the 24-hour day into daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) The nighttime noise level is weighted 10 dB higher than the daytime noise level. The Community Noise Equivalent Level (CNEL) is another 24-hour average, which includes both an evening and nighttime weighting.

Existing Conditions

County noise standards are specified in the Noise Element of Alameda County General Plan. A noise level of up to 70 dBA CNEL is allowable for new commercial land use development, while environments with noise levels of up to 65 dBA CNEL are considered normally acceptable for new residential land use development. The County's operational noise level standards restrict operational noise levels from exceeding certain noise levels within an hour at various receiving land uses. For example, project operational noise levels should not exceed 65 dBA L_{eq} for more than 30 minutes within 1 hour at any receiving commercial property. However, if the existing measured ambient noise level already exceeds this standard, then the existing ambient noise level shall be the standard.

Noise monitoring was performed using an Extech Model 407780 Type 2 integrating sound level meter. The Extech meter was programmed in "slow" mode to record the sound pressure level at one-second intervals in "A" weighted form. The sound level meter and microphone was mounted approximately five feet above the ground and was equipped with a windscreen during all measurements. The sound level meter was calibrated before monitoring using an Extech calibrator, Model 407766. The noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

The noise monitoring locations were selected in order to obtain noise measurements of the current noise sources impacting the vicinity of the project site, and to provide a baseline for any potential noise impacts that may be created by development of the project. The sites are depicted in Exhibit 5.

The noise measurements were recorded for 15-minute durations, between 10:00 a.m. and 12:00 p.m., on Tuesday, September 3, 2013. At the start of the noise monitoring, the sky was sunny with a few clouds, and calm winds from the west (about 3 mph).

The noise measurements were taken at three locations on and adjacent to the project site. The results of the noise level measurements are provided below in Table 11. The temperature during the noise measurements ranged from 75°F to 77°F, calm to no wind, with clear skies. The primary noise source noise at each measurement site was traffic on local roadways.

Table 11: Existing Noise Level Measurements

Site Location	Description	L _{eq}	L _{max}	L _{min}
Site 1	Adjacent to Greenville Road, across from existing residential land uses east of the project site.	67.2	86.6	37.8
Site 2	South of Tesla Road, near the closest residential land use east of the northeast corner of the project site.	67.7	84.0	59.4
Site 3	Along the western border of the project site, adjacent to the RV storage land use immediately west of the project site.	65.3	78.7	58.5

Environmental Evaluation

Would the project result in:

- a) **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?**

Less than significant impact with mitigation incorporated. Noise levels in the project area would be influenced by construction activities and from the ongoing operation of the project.

Construction Noise

According to Goal N-2, Policy P4 in the County GP Noise Element:

All construction in the vicinity of noise sensitive land uses, such as residences, hospitals or convalescent homes, shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Friday, and to 8:00 a.m. to 5:00 p.m. Saturday and Sunday. These noise source standards may be exceeded as specified in the Alameda County Noise Ordinance in order to allow for temporary construction, demolition or maintenance noise and other necessary short-term noise events.

Short-term noise impacts could occur during construction activities from either the noise impacts created from the transport of workers, and movement of construction materials to and from the project site, or the noise-generated on-site during demolition and ground clearing/excavation, grading, and building activities.

Construction noise levels would vary significantly based upon the size and topographical features of the active construction zone, duration of the workday, and types of equipment employed, as indicated in Table 12. A typical construction day with an 8-hour duration would generate 84 dBA CNEL at a distance of 50 feet from the noise source, on average. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 to 4 minutes at lower power settings.

Table 12: Construction Equipment Noise Levels

Equipment Description	Noise Level (L_{max} dBA) at 50 feet	Distance to Receptor ¹ (feet)	Maximum Noise Level (L_{max} dBA) at Receptor	Average Noise Level (L_{eq} dBA) at Receptor
Grader	85.0	390	67.2	63.2
Backhoe	77.6	390	59.7	55.7
Scraper	83.6	390	65.7	61.8
Tractor	84.0	390	66.2	62.2
Compactor	83.2	390	65.4	58.4
Excavator	80.7	390	62.9	58.9

Note:
¹ Average distance of equipment to receptor boundary
 Source: FHWA Roadway Construction Noise Model (Appendix G).

Although there would be a relatively high, single-event noise exposure potential, resulting in potential short-term intermittent annoyances, the effect in long-term ambient noise levels would be small when averaged over longer time (24 hours for CNEL/ L_{dn}). As shown by the ambient noise level measurements in Table 11, the maximum noise level in the project vicinity is already 86.6 dBA L_{max} .

The closest sensitive receptor to the project site is the single-family residential land use located approximately 390 feet east of the project site’s northeast boundary along Tesla Road. The results in Table 12 show that loudest piece of construction equipment would generate maximum noise levels of 67.2 dBA L_{max} at a distance of 390 feet (average distance of equipment use from the closest off-site sensitive receptor). The noise from construction equipment would be transitory, intermittent, and not a source of continuous noise. Table 13 shows the maximum noise levels for typical construction equipment.

Construction-related noise is exempt from noise standards and would generate maximum noise levels that are similar or less than those currently experienced by receptors in the project vicinity. Further, although there would be a relatively high, single-event noise exposure potential, resulting in potential short-term intermittent annoyances, the effect of long-term ambient noise levels would be small when averaged over a longer period of time. The project would be required to comply with the County’s Municipal Code requirements (Noise Ordinance, Chapter 6.60 of the Alameda County Municipal Ordinance Code). As construction noise is exempt from noise standards (as long as the activities occur within the times designated in Goal N-2, Policy P4 of the County’s General Plan), impacts from construction noise would be less than significant.

Table 13: Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Impact Device? (Yes/No)	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Impact Pile Driver	Yes	95
Auger Drill Rig	No	85
Vibratory Pile Driver	No	95
Jackhammers	Yes	85
Pneumatic Tools	No	85
Pumps	No	77
Scrapers	No	85
Cranes	No	85
Portable Generators	No	82
Rollers	No	85
Dozers	No	85
Tractors	No	84
Front-End Loaders	No	80
Backhoe	No	80
Excavators	No	85
Graders	No	85
Air Compressors	No	80
Dump Truck	No	84
Concrete Mixer Truck	No	85
Pickup Truck	No	55

Source: FHWA 2006.

Operational Noise

Potential noise impacts associated with the operations of the project are a result of project-generated vehicular traffic on the project vicinity roadways and from stationary noise sources associated with the project. The following section provides an analysis of potential long-term, off-site and on-site noise impacts associated with the ongoing operations of the project.

Potential On-site Noise Impacts

The project would generate on-site noise from additional traffic on local roadways in the project vicinity, delivery activities, parking lot activities, and up to 10 winery-related event activities per year. The boutique wineries would be operated daily, but most of their visiting traffic would occur on weekends from 11:00 a.m. to 5:30 p.m. The winery hospitality center would be open for private

events only, the majority of these events being weddings. The winery hospitality center hours of operation would be 8:00 a.m. to 10:00 p.m. Monday to Thursday, and 8:00 a.m. to 11:00 p.m. Friday to Sunday and holidays, although most events would occur Friday to Sunday and holidays from 5:00 p.m. to 11:00 p.m. The buildings on Lots 1 and 6 would provide winery custom crush services and would be in operation from 8:00 a.m. to 5:00 p.m. daily. The majority of the operation in these buildings would occur during harvest season, from September to November.

Amplified music or similar noise sources associated with the event activities at the winery hospitality center could result in levels of annoyance or even sleep disturbance of nearby sensitive receptors and a substantial temporary increase in the ambient noise levels in the project vicinity unless mitigation is incorporated into the project.

Mitigation Measure

MM NOI-1 The project applicant shall ensure that operation of the winery hospitality center shall operate at all times under the following conditions, unless a special use permit is granted by the County:

No amplified music shall be permitted outdoors on the winery hospitality center property.

All bands and DJs and groups requiring use of amplified public address systems must be located and operate within the interior of the winery hospitality center buildings. All rooms where such uses would be performed must have automatic closures on all exterior doors. Such doors are not permitted to be propped open, but must remain in their normal closed position during all noise-generating event operations.

Implementation of this mitigation measure would reduce potential noise impact from event operations at the winery hospitality center to a less than significant level.

Traffic Noise

Access to each of the 12 lots would be via Tesla Road. Deliveries to the project site would be anticipated to take I-580 to Tesla Road. To leave the site, trucks would exit Tesla Road to reach I-580. According to the TIS, the project is expected to generate an average of 401 trips per weekday, including 17 trips during the AM peak hour and 95 during the PM peak hour. During a typical weekend, the project would be expected to generate an average of 731 trips per day, of which 157 trips would occur during the weekend midday peak hour (W-Trans).

A characteristic of noise is that a doubling of sound sources with equal strength is required to result in a perceptible increase (defined to be a 3-dBA increase) in noise level. Based on a comparison of the peak-hour traffic volumes, implementation of the project would not result in a doubling of traffic volumes along any roadway segment in the project vicinity. Therefore, project-related traffic would not result in a perceptible permanent increase in existing ambient noise levels along any roadway segment in the project vicinity.

Parking Lot Activities

On-site commercial and retail uses would generate noise from truck deliveries, loading/unloading activities, and typical parking lot activities. These activities are potential point sources of noise that could affect noise-sensitive receptors in the project vicinity. Of the on-site stationary noise sources, noise generated by delivery truck activity would produce the highest maximum noise levels. Delivery truck loading and unloading activities can result in maximum noise levels from 75 dBA to 85 dBA L_{max} at 50 feet. Representative parking activities, such as people conversing or doors slamming, would generate approximately 60 dBA to 70 dBA L_{max} at 50 feet. These noise levels are similar to what is currently experienced from existing winery operations in the project vicinity.

The closest off-site sensitive land use, the residence to the northeast of the project site, would be located over 600 feet from the proposed parking areas or loading/unloading areas. At this distance, noise from loading and unloading activities would attenuate to below 64 dBA L_{max} . As shown by the ambient noise level measurements in Table 11, the maximum noise level in the project vicinity is already 86.6 dBA L_{max} . Therefore, project-related parking lot and delivery activity noise sources would not result in a perceptible permanent increase in existing ambient noise levels, nor would those noise sources expose persons to noise levels in excess of established standards.

Mechanical Equipment

At the time of preparation of this analysis, details were not available pertaining to mechanical ventilation systems; therefore, a reference noise level for typical rooftop mechanical ventilation systems was used. Noise levels from typical rooftop mechanical ventilation equipment are anticipated to range up to approximately 60 dBA L_{eq} at a distance of 25 feet. At the closest sensitive receptor, located over 600 feet from proposed buildings, noise generated by rooftop mechanical ventilation equipment would attenuate to less than 33 dBA L_{eq} . Impacts would be less than significant.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact. The Noise Ordinance of the County of Alameda's Municipal Code prohibits the operation of any device that creates vibration above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way.

The human response to vibration greatly depends on whether the source is continuous or transient. Continuous sources of vibration include certain construction activities, while transient sources include large vehicle movements. Generally, thresholds of perception and agitation are higher for continuous sources.

Table 14 illustrates the human response to both continuous and transient sources of groundborne vibration.

Table 14: Human Response to Groundborne Vibration

Peak Particle Velocity (inches/second)		Human Response
Continuous	Transient	
0.40	2.00	Severe
0.10	0.90	Strongly perceptible
0.04	0.25	Distinctly perceptible
0.01	0.04	Barely perceptible

Source: California Department of Transportation, 2004.

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans, whose threshold of perception is around 65 VdB. Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration (Table 15). Acceptable vibration levels for an office environment would be 84 VdB, while levels for a residential use would be 78 VdB.

Table 15: Vibration Levels Generated by Construction Equipment

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level (L _v) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall)	0.008 in soil	66
	0.017 in rock	75
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

While long-term operations of the project would not generate excessive groundborne vibration or groundborne noise levels, short-term construction could potentially introduce groundborne vibration to the project site and the surrounding area. Specialty construction equipment such as pile drivers or large earthmovers, as well as construction activities such as well drilling, can be a continuous source of excessive groundborne vibration.

Construction of the project could require the use of large earthmovers, such as a large bulldozer or vibratory roller. These heaviest types of construction equipment would generate groundborne vibration levels of up to approximately 94 VdB as measured at 25 feet. The vibration from these types of equipment would be intermittent and not a source of continual vibration.

The closest sensitive receptor to the project site would be the single-family residential land use located approximately 390 feet east of the project site's northeast boundary south of Tesla Road. At this distance, groundborne vibration levels from operation of heavy construction equipment would attenuate to below 59 VdB. This level is below what is considered the perceptible level for groundborne vibration sources of 65 VdB. In addition, it is well below the acceptable level of 78 VdB for sensitive uses during the day.

Given the anticipated construction activities described above, impacts associated with the vibration from construction equipment would be less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

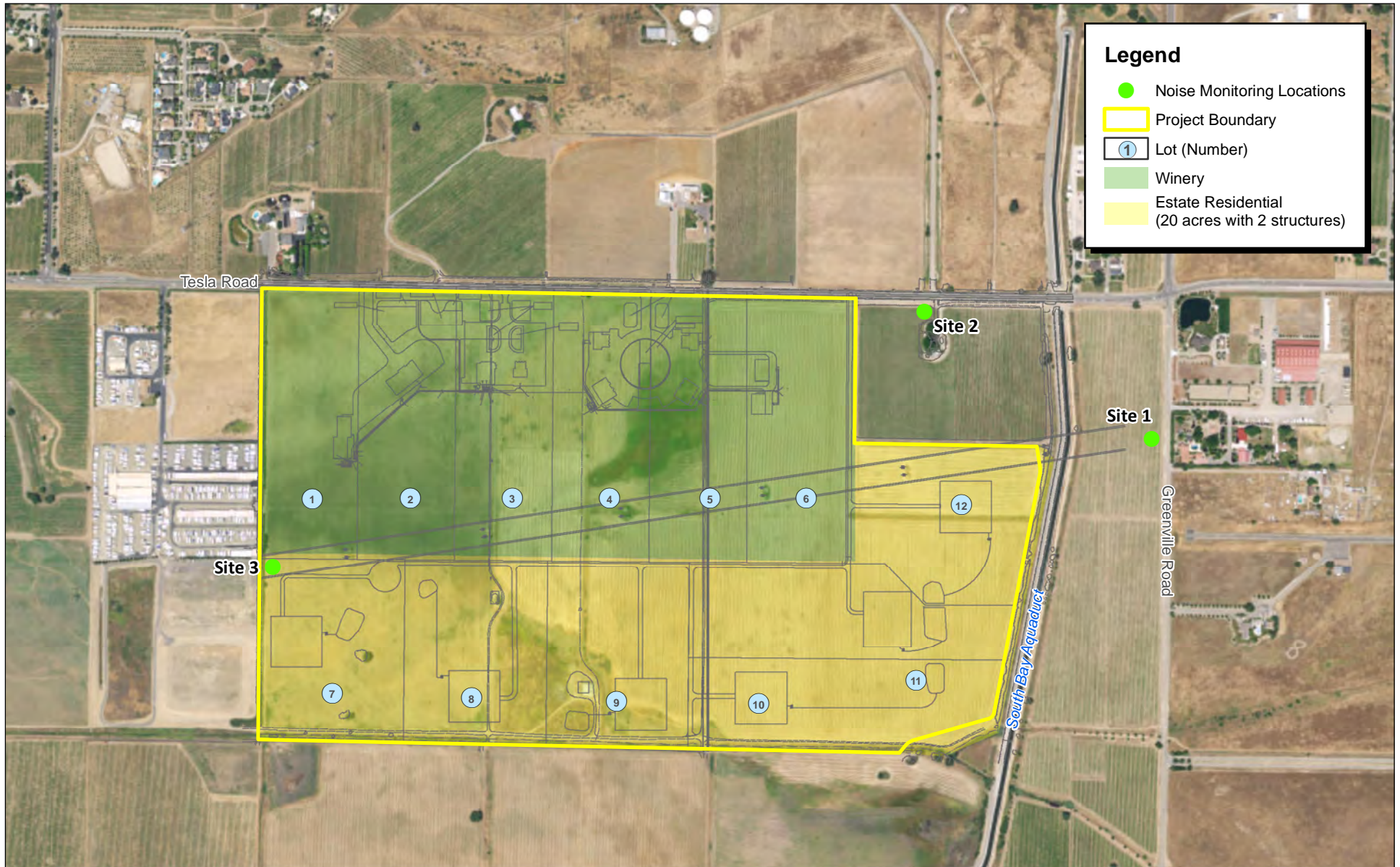
Less than significant impact. An increase of 3 dBA is considered barely perceptible to human ears in outdoor environments, while an increase of 5 dBA or greater is considered significant.

As shown in the discussion under impact discussion 12(a), above, implementation of the project would not result in a perceptible permanent increase in traffic noise levels along existing roadways in the project vicinity.

Similarly, it was shown that project related stationary noise sources would also not result in a perceptible permanent increase in existing ambient noise levels at nearby sensitive land uses; thus, implementation of the project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Therefore, this impact would be less than significant.

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

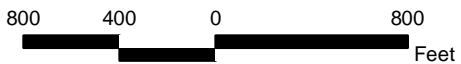
Less than significant impact. The closest airport to the project site is Livermore Municipal Airport, approximately 5.6 miles northwest of the site. Because of the distance from the site and the existing flight path patterns, the project site lies outside of the 55 dBA CNEL noise contour of the airport, and, therefore, impacts associated with excessive noise levels associated with airports would be less than significant.



Legend

- Noise Monitoring Locations
- Project Boundary
- 1 Lot (Number)
- Winery
- Estate Residential (20 acres with 2 structures)

Source: ESRI, Alameda County, Richard Dart Architect Inc, 2013



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- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less than significant impact. The closest private airstrip to the project site is the Meadowlark Field Airport (63CN), located approximately 0.2 mile east of the project site. However, activity at this field is restricted to daytime use only and would not result in nighttime disturbance of proposed residential land uses. In addition, the project site does not lie within the 55 dBA CNEL contours of this airfield. As such, the project would not expose people residing or working on the project site to excessive noise levels from private airstrip activities. Therefore, impacts regarding private airstrips would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. Population and Housing <i>Would the project:</i>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

This analysis is based on the potential demographic changes caused by the project in employees, residents, and visitors associated with the project.

Environmental Evaluation

Would the project:

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

Less than significant impact. The project would add six new single-family residential homes, and would potentially add 16 people to the population, based on the County's average household size of 2.71 (Alameda 2010b). The winery is also likely to generate an estimated 22 new jobs. The project would create temporary employment associated with construction. These changes will produce small increases in population and employment, but these increases are insufficient to substantially induce population growth. In addition, there are no off-site improvements associated with the project that would result in population growth. The project would not need new utility trunk lines and would only create access to the project site. Therefore, implementation of the project would not result in any project-level impacts related to substantial population growth during the short-term construction phase or long-term project operation.

- b) **Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

No impact. No housing currently exists on the project site. Therefore, no impact would occur.

- c) **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

No impact. The project includes the grading and construction of winery facilities as well as six single-family residential lots. No persons would be displaced because no one currently lives on the project site. Thus, the project would have no impact.

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

Environmental Setting

This section describes existing public services serving the project site, and evaluates the effects on those services from the proposed Beyer Ranch Winery Development including residential lots.

Environmental Evaluation

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

a) Fire protection?

Less than significant impact. The Alameda County Fire Department (ACFD) provides fire protection services to the unincorporated areas of Alameda County. Fire protection by the ACFD also includes provision of services related to hazardous materials, paramedic services, urban search and rescue, fire protection, building code enforcement, risk management, and public education.

The service area of ACFD covers approximately 508 square miles and a population of 394,000 people, encompassing the cities of Dublin, Newark, San Leandro, and Union City, and other unincorporated areas of Alameda County, including Lawrence Berkeley National Laboratory and the Lawrence Livermore National Laboratory. The ACFD comprises four battalions, 30 fire stations, 26 engine companies, seven ladder truck companies, and one heavy rescue vehicle. A staff of 405 personnel work out of 28 fire stations.¹³ The ACFD serves the community from two fire stations

¹³ "Alameda County Fire Department," Alameda County, accessed December 20, 2016, <https://www.acgov.org/fire/about/index.htm>.

(ACFD Stations #20 and #8) in the area of unincorporated Alameda County where the project is located. The first response station for emergencies at the project site is the ACFD Station on East Avenue, located approximately 0.95 mile north of the site. The ACFD has a response time goal of 5 minutes for 90 percent of all service calls. Response times tend to be faster in urban areas because fire stations in urban areas are often closer together.

According to the Alameda County Fire Department, the Department's ability to serve the project was not of concern; however, the Deputy Fire Marshall did comment that the project would need to implement several design features to support fire protection (such as a 20-foot-wide road with turnaround and fire sprinklers in each building) and would need to have an assured water supply.¹⁴ The Fire Department is included in the County's design review process, which requires the implementation of specific design requirements. Fire hydrants and appropriate connections will be installed pursuant to Alameda County Municipal Code. In addition, the Crane Ridge Mutual Water District (CRMWD) has provided documentation indicating its ability to serve the project. Therefore, the project would have a less than significant impact on fire protection services and would not require the construction of new facilities, or compromise the service level or response time of the ACFD.

b) Police protection?

Less than significant impact. The Alameda County Sheriff's Office provides law enforcement in the project area within South Livermore Valley, as well as other unincorporated areas of the County. The Sheriff provides numerous other services, including operations of the County Office of Emergency Services, operating the two County jails, Coroner services, and other duties. A Sheriff's Department office is located at 5672 Stoneridge Drive, California, approximately 9.8 miles northwest of the project site.

According to the Alameda County Sheriff's Office, the calls for service might increase slightly as a result of the project, but this would not represent a substantial impact to the Sheriff's Office.¹⁵ Because the project is not expected to significantly change the demand for law enforcement services, it would not require the construction of new facilities to meet service demands, and the impact on Sheriff's Office services and facilities would be less than significant.

c) Schools?

Less than significant impact. The Livermore Valley Joint Unified School District (LVJUSD) would serve the project site. The construction of six new single-family residences could add approximately eight additional school-age children to the area.¹⁶ As stated in the South Livermore Valley Specific Plan, the LVJUSD has a capacity of 13,342¹⁷ students and currently serves about 12,500¹⁸ students. Therefore, there is enough capacity for eight additional students. In accordance with California Development Code Section 53090, the project will be required to pay a fee to offset the increased

¹⁴ Personal communication with Deputy Fire Marshall R. Snodgrass, May 9, 2014.

¹⁵ E-mail communication with Sergeant Ray Kelly, Tri-Valley Unit, May 14, 2014.

¹⁶ Based on State of California student generation factor of 1.4 students per household.

¹⁷ South Livermore Valley Specific Plan, 7-1.

¹⁸ "About Us," Livermore School District. Accessed December 20, 2016. Website: <http://www.livermoreschools.com/aboutus>.

demand and pay for any additional services. With payment of legislated development fees, impacts would be less than significant.

d) Parks?

Less than significant impact. The proposed six single-family residences could generate additional use of park facilities. Because of the small number of residences, the extent of the use is estimated to be minimal (also see discussion in Section 15 regarding parks). In accordance with Alameda County's Municipal Code Section 12.20, the project applicant would be required to dedicate land or pay a fee in-lieu thereof, or both, for park or recreational purposes.¹⁹ With payment of required fees, impacts would be less than significant.

e) Other public facilities?

Less than significant impact. Public facilities are typically provided to serve a residential population. Since the project includes six single-family residential lots, there may be an incremental increase in the demand for other public facilities. The project would add an estimated 16 new residents to the area, and the impact to public facilities is expected to be minimal and could be accommodated by existing facilities. Therefore, the project would not create substantial additional demands of other public facilities near the project site, and impacts to libraries and other facilities would be less than significant.

¹⁹ Alameda County Municipal Code. Alameda County. 2016. Website: https://www.municode.com/library/ca/alameda_county/codes/code_of_ordinances. Accessed December 20, 2016.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
15. Recreation				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

This section analyzes the project in light of the existing recreation conditions around the project, and summarizes potential recreation-related impacts.

Environmental Evaluation

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

Less than significant impact. The Livermore Area Recreation and Park District identifies the closest recreational facilities to the project site as Almond Park, approximately 1.6 miles northwest; Poppy Ridge Golf Course, approximately 0.8 mile southeast; and Robertson Park and Equestrian Center, approximately 2 miles northwest. There are numerous regional parks in the area such as Del Valle Regional Park, Ohlone Regional Wilderness, Sunol Regional Wilderness, and Pleasanton Regional Park. The area around the project site has numerous hiking, biking and equestrian trails. These facilities are available to serve recreational needs of the community. The proposed six single-family residences could generate additional use of recreational facilities. However, the incremental increase in use of the recreational facilities would not cause accelerated physical deterioration of the facilities. Therefore, project-level impacts to neighborhood or regional parks would be less than significant.

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?**

Less than significant impact. The project does not include the construction of recreational facilities. The addition of six single-family residences is not expected to generate a substantial increase in the use of existing recreational facilities in the project vicinity, and would not be sufficient to require the construction of new or expanded recreational facilities. Impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. Transportation/Traffic <i>Would the project:</i>				
a) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Whitlock & Weinberger Transportation, Inc. (W-Trans) prepared a TIS for the Beyer Ranch Subdivision in May 2014, included in Appendix E. The TIS evaluated project impacts to traffic conditions on intersections in the project vicinity and evaluated the project design in relation to standards for parking.

Traffic impacts are evaluated by determining the number of new trips that the project would be expected to generate, distributing these trips to the surrounding street system based on existing or anticipated travel patterns specific to the project, then analyzing the impact the new traffic would be expected to have on critical intersections or roadway segments.

Intersection Operations

Operating conditions during the weekday PM and weekend midday peak hours were evaluated to capture the highest potential impacts for the proposed project as well as the highest volumes on the local transportation network. The winery use would create a relatively low potential for trip generation during the AM peak hour, so this was not included in the analysis. The weekday PM peak hour occurs between 4:00 p.m. and 6:00 p.m., while the weekend midday peak occurs between 12:00 noon and 2:00 p.m. on weekend days. The traffic study area includes the five intersections of Greenville Road/Altamont Pass Road, Greenville Road/Southfront Road (in the City of Livermore), Greenville Road/Patterson Pass Road, Vasco Road/Tesla Road, and Greenville Road/Tesla Road. These intersections are considered the most likely to be potentially impacted by the proposed project, based on the trip generation and projected travel paths of visitors, staff delivery and other project-related vehicles.

The project site is located on Tesla Road west of Greenville Road in unincorporated Alameda County, southeast of the City of Livermore city limits. Determination of the directional distribution of project traffic, which predicts the potential routes of travel, was based on examinations of the study area street layout, area land use, current circulation patterns, and traffic volumes.

Study Intersections

The following is a brief description of roadway intersections that provide access to the project site:

- *Greenville Road/Altamont Pass Road* is an all-way stop-controlled T-intersection with channelized right turns on the west and south legs. Limit lines are marked on the channelized right-turn movements to mark the point where vehicles stop for pedestrians crossing the south leg of the intersection.
- *Greenville Road/Southfront Road* is a signalized T-intersection in the City of Livermore with protected left-turn phasing for all approaches. There are marked crosswalks on the north and west legs of the intersection and pedestrian signal push-buttons at each approach.
- *Greenville Road/Patterson Pass Road* is an unsignalized intersection with stop-sign control on the Patterson Pass Road approaches only. There is a marked pedestrian crossing on the west leg of the intersection.
- *Vasco Road/Tesla Road* is a signalized T-intersection with protected left-turn phasing on all approaches and a right-turn overlap on the southbound approach. Pedestrian-actuated signals are present for the north and west legs of the intersection. There are no crosswalks striped at the intersection.
- *Greenville Road/Tesla Road* is a four-legged, all-way stop-controlled intersection. There are no pedestrian crosswalks at the intersection.

Intersection Level of Service Methodologies

Level of Service (LOS) is a system used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F.

Generally, LOS A represents free flow conditions and LOS F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the Highway Capacity Manual (HCM), Transportation Research Board, 2000. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

LOS for the intersections with side-street stop controls, or those that are unsignalized and have one or two approaches stop controlled, were analyzed using the “Two-Way Stop-Controlled” intersection capacity method from the HCM. This methodology determines an LOS for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The study intersections with stop signs on all approaches were analyzed using the “All-Way Stop-Controlled” Intersection methodology from the HCM. This methodology evaluates delay for each approach based on turning movements, opposing and conflicting traffic volumes, and the number of lanes. Average vehicle delay is computed for the intersection as a whole, and is then related to LOS.

The study intersections that are currently controlled by a traffic signal, or may be in the future, were evaluated using the signalized methodology from the HCM. This methodology is based on factors such as traffic volumes, green time for each movement, phasing, whether the signals are coordinated, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. For purposes of this study, delays were calculated using optimized signal timing.

Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in its Statewide Integrated Traffic Records System (SWITRS) reports. In reviewing the collision records for Greenville/Patterson Road, an unsignalized intersection with stop-sign control on the Patterson Pass Road approaches only, it was noted that the majority of recorded collisions were broadside collisions involving westbound through vehicles and southbound through vehicles. These types of collisions are typically associated with high traffic volumes on the main street, resulting in vehicles on side streets crossing the intersection despite the lack of an adequate gap in traffic to allow safe crossing.

Study Intersections

The following five intersections were analyzed for potential traffic impacts associated with project development:

1. Greenville Road/Altamont Pass Road (unsignalized)
2. Greenville Road/Southfront Road (In the City of Livermore)

3. Greenville Road/Patterson Pass Road (unsignalized)
4. Vasco Road/Tesla Road
5. Greenville Road/Tesla Road (unsignalized)

Alternative Modes

Pedestrian Facilities

There are no dedicated pedestrian facilities such as sidewalks or crosswalks in the vicinity of the project site. This is consistent with the rural character of the area.

Transit

Wheels, the fixed route bus transit service provided in the vicinity of the project site, is operated by the Livermore Amador Valley Transit Authority. The nearest bus stop is located at the Lawrence Livermore National Laboratory/Sandia Transit Hub, located near the intersection of Vasco Road and East Avenue, approximately 2 miles from the project site. Because of the distance from the project site to the nearest transit service, transit does not present a viable mode of choice to or from the site. The lack of nearby transit services is consistent with the rural, low-density nature of the land uses in the vicinity of the project site.

Bicycle Facilities

The Highway Design Manual, California Department of Transportation (Caltrans) 2012 classifies bikeways into three categories:

- **Class I Multi-Use Path:** a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane:** a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route:** signing only for shared use with motor vehicles within the same travel lane on a street or highway.

Currently, Class II bicycle lanes are provided along the project frontage on Tesla Road west of Greenville Road, and along Greenville Road north of Tesla Road.

These existing and proposed routes, along with shared use of streets where dedicated bicycle facilities are not available, would provide access to the project site.

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing lane configurations and traffic volumes during the PM peak periods. As shown in Table 16, under existing conditions, the signalized study intersections are operating at an acceptable LOS. However, the unsignalized study intersections of Greenville Road at Altamont Pass Road, Patterson Pass Road, and Tesla Road currently operate at LOS E or F either overall or on at least on approach. Alameda County's Policy 193 from the ECAP (2000) states that the County shall ensure that, on intercity arterials significantly affected by a project, traffic operation does not exceed LOS D on major arterial

segments within unincorporated areas. New development would be required to pay for roadway improvements necessary to mitigate that exceedance of traffic LOS standards.

For the Greenville Road/Southfront Road intersection, the upper limit of acceptable level of service at selected intersections near freeway interchanges in Livermore is LOS E (City of Livermore General Plan, Objective CIR-5.1, Policy P3).

Table 16: Summary of Existing Peak Hour Level of Service

Study Intersection Approach	Existing Conditions			
	Weekday PM Peak		Weekend Midday	
	Delay	LOS	Delay	LOS
1. Greenville Road/Altamont Pass Road	**	F	8.0	A
2. Greenville Road/Southfront Road*	18.2	B	21.1	C
3. Greenville Road/Patterson Pass Road	12.1	B	2.7	A
<i>Eastbound Approach</i>	51.6	<i>E</i>	7.9	A
<i>Westbound Approach</i>	<i>22.8</i>	<i>C</i>	<i>10.2</i>	<i>B</i>
4. Vasco Road/Tesla Road*	13.5	B	16.5	B
5. Greenville Road/Tesla Road	46.6	E	8.6	A

Notes:
 Delay is measured in average seconds per vehicle; LOS = Level of Service
 * = signalized intersection
 ** = delay greater than 120 seconds
 Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*.
Bold text = deficient operation.
 Source: W-Trans, 2014.

Trip Generation

The anticipated trip generation for a project is typically estimated using standard rates published by the Institute of Transportation engineers (ITE) in Trip Generation Manual, 9th Edition, 2012. The trip generation potential of the residential portion of the project was developed using the published standard rates for “Single Family Detached Housing” (ITE LU#210). However, the publication contains no such information for a winery.

Winery Trip Generation

Development of winery trip generation projections was based on a review of the site plan and project description, discussions with the project applicant and experience preparing numerous transportation impact studies for wineries throughout the Bay Area. Different lots within the winery are evaluated separately, as discussed below.

Lots 1 and 6—Custom Crush Facilities

Lots 1 and 6 would be developed as custom crush facilities. These would not be wineries in and of themselves but instead will provide wine production services to individuals who want to produce a small amount of wine. Based on information provided in the project description, it was assumed that each site would employ four people. The custom crush facilities would not be open to the public, but there is a potential for clients to visit the site; therefore, it was assumed that there would be approximately five visitors daily.

Lots 2, 4, and 5—Winery with Tasting Room

Lots 2, 4, and 5 would be developed as small boutique wineries, each producing in the range of 5,000 to 10,000 cases per year. It is expected that each of the tasting rooms would host up to 50 visitors on a weekday and 150 visitors on a weekend day. It is expected that each of the wineries would employ four people. Limited events may occur on each of the sites, likely resulting in no more than five events per winery per year, with no more than 100 people per event. Because of the limited nature of these events, these events were not included in the analysis of typical daily operations.

Lot 3—Winery Hospitality Center

Lot 3 would operate as a winery hospitality center. It is understood that the winery on this lot would operate similar to the other proposed winery lots; however, there would be an additional hospitality center that would host events throughout the year. It is expected that the tasting room would host 40 visitors on a weekday and 125 visitors on a weekend day. Furthermore, the hospitality center would host up to 150 events per year, with an average attendance of 125 guests per event. It is expected that the site would employ four people during non-event conditions but would increase to 10 employees during events. Since these events would occur on a regular basis, event traffic was accounted for in typical daily operations. Based on discussions with the applicant, it was assumed that events would start in the evening, typically around 5:00 or 6:00 p.m.; therefore, on weekdays, all guests would arrive during the PM peak hour but would leave the event during an off-peak period. Similarly, it was assumed that an event would begin during the weekend midday peak hour, with all guests arriving during the peak hour but leaving during an off-peak period.

Winery Trip Generation Assumptions

Based on an average vehicle occupancy of 2.5 visitors per vehicle, 160 daily trips generating from tasting are expected. Data collected from a Sonoma County Winery were used to develop factors for winery tasting room trips made during both the PM and weekend midday peak hours. These winery driveway counts, which were collected during one week of every month for a year, indicate that 10 percent of the winery trips generated daily occur during the PM peak hour and 13 percent during the weekend midday peak.

Employees were assumed to generate three trip-ends per day. Half of all winery employees were assumed to arrive during the AM peak hour, and all were assumed to depart during the PM peak hour. One trip per employee was assumed during the weekend midday peak hour.

In addition, trucks would be expected to access the project site for deliveries and other services. However, based on experience with completing studies for comparably sized wineries and professional judgment, truck traffic would typically average less than one truck per day. Therefore, to provide a conservative analysis, it was assumed that one truck would visit each winery site daily, for a total of two truck trips per day. These trucks would be expected to arrive outside the peak hour of traffic.

It is likely that some traffic associated with the wineries would potentially visit several of the winery lots. For example, a UPS delivery truck may complete deliveries at multiple lots during one trip. Alternatively, a winery tasting room visitor may choose to visit more than one of the wineries at the site. These linked trips would potentially reduce the overall number of trips generated at study intersections. However, for the sake of providing a conservative analysis, it was assumed that each trip represents a new trip on the adjacent transportation network.

Total Trip Generation and Distribution

The project is expected to generate an average of 401 trips per weekday, including 17 trips during the AM peak hour and 95 trips during the PM peak hour. During a typical weekend, the project would be expected to generate an average of 731 trips per day, of which 157 trips would occur during the weekend midday peak hour. Weekday and weekend trip generation summaries are provided in Tables 4 and 5 in the TIS (Appendix E).

In addition, trip distribution—the pattern used to allocate new project trips to the street network—was based on a review of existing traffic volumes and an understanding of the nearby land uses and street network. The applied distribution assumptions and resulting trips are provided in Table 17.

Table 17: Trip Distribution Assumptions

Route	Percent	Daily Trips	AM Trips	PM Trips	Weekend Trips	Weekend Midday Trips
To/From I-580 West	60%	241	10	57	439	94
To/From I-580	10%	40	2	10	73	16
To/From Patterson East	10%	40	1	9	73	15
To/From Tesla Road West	10%	40	2	10	73	16
To/From I-580 East	10%	40	2	9	73	16
Total	100%	401	17	95	731	157

Source: W-Trans 2014.

Existing Plus Project Conditions

The Existing Plus Project Condition scenario evaluates the addition of project traffic to the study area intersections. Upon the addition of project-related traffic to the Existing volumes, the study intersections are expected to operate at similar LOS compared to Existing Conditions, with the

exception of Greenville Road/Patterson Pass Road and Greenville Road/Tesla Road. Greenville Road/Patterson Pass Road would be expected to operate at LOS F on both the eastbound and westbound approaches during the weekday PM peak, though still acceptably on the weekend. Greenville Road/Tesla Road is expected to operate at LOS F with the addition of project-related traffic, also only on weekdays. The results are summarized in Table 18.

Table 18: Summary of Existing Plus Project Peak Hour Level of Service

Study Intersection Approach	Existing Plus Project Conditions			
	Weekday PM Peak		Weekend Midday	
	Delay	LOS	Delay	LOS
1. Greenville Road/Altamont Pass Road	**	F	8.1	A
2. Greenville Road/Southfront Road*	18.2	B	21.4	C
3. Greenville Road/Patterson Pass Road	15.7	C	2.5	A
<i>Eastbound Approach</i>	64.2	F	8.1	A
<i>Westbound Approach</i>	80.5	F	10.9	B
4. Vasco Road/Tesla Road*	13.9	B	17.7	B
5. Greenville Road/Tesla Road	57.2	F	9.1	A
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service * = signalized intersection ** = delay greater than 120 seconds Results for minor approaches to two-way stop-controlled intersections are indicated in <i>italics</i> . Bold text = deficient operation. Source: W-Trans 2014.				

Future Conditions

The Future Cumulative plus Project scenario evaluates the combined addition of project traffic and approved traffic to the study area intersections. As shown in Table 19, under the anticipated future volumes with addition of project-generated traffic (Cumulative plus Project Peak Hour 2035 Conditions), the signalized study intersections are expected to continue to operate acceptably. The unsignalized study intersections are projected to operate at LOS F. Improvements are needed to achieve acceptable operation.

Table 19: Cumulative Plus Project Peak Hour Level of Service

Study Intersection Approach	Cumulative Plus Project Conditions			
	Weekday PM Peak		Weekend Midday	
	Delay	LOS	Delay	LOS
1. Greenville Road/Altamont Pass Road	**	F	8.3	A
2. Greenville Road/Southfront Road*	18.6	B	21.4	C

Table 19 (cont.): Cumulative Plus Project Peak Hour Level of Service

Study Intersection Approach	Cumulative Plus Project Conditions			
	Weekday PM Peak		Weekend Midday	
	Delay	LOS	Delay	LOS
3. Greenville Road/Patterson Pass Road	**	F	2.6	A
<i>Eastbound Approach</i>	**	F	8.2	A
<i>Westbound Approach</i>	**	F	11.1	B
4. Vasco Road/Tesla Road*	19.6	B	18.5	B
5. Greenville Road/Tesla Road	**	F	13.0	B
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service * = signalized intersection ** = delay greater than 120 seconds Results for minor approaches to two-way stop-controlled intersections are indicated in <i>italics</i> . Bold text = deficient operation. Source: W-Trans 2014.				

Regulatory Context

Alameda County

Alameda County's adopted LOS standards for the project area is contained in the ECAP. Policy 193 states that the County shall ensure that, on intercity arterials significantly affected by a project, traffic conditions do not exceed LOS D on major arterials segments within unincorporated areas. New developments would be required to pay for roadway improvements necessary to mitigate the exceedance of traffic LOS standards.

City of Livermore

For the Greenville Road/Southfront Road intersection, the upper limit of acceptable level of service at selected intersections near freeway interchanges in Livermore is LOS E (City of Livermore General Plan, Objective CIR-5.1, Policy P3).

Congestion Management Plan

The applicable congestion management program is the Alameda County Congestion Management Program (CMP). It identifies countywide strategies to respond to future transportation needs and develop strategies to reduce congestion. The CMP identifies existing and desired traffic conditions on a variety of roadways throughout the County. State law requires that LOS standards be established as part of the CMP process. The CMP evaluates projects that are expected to generate more than 100 PM peak project trips.

Environmental Evaluation

- a) **Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less than significant impact with mitigation incorporated. Operating conditions of intersections and queuing during the weekday PM and weekend midday peak hours were evaluated under existing and future conditions, with and without the project. Each scenario is described and evaluated below.

Intersection

The existing conditions scenario provides an evaluation of current operation based on existing traffic volumes during the weekday PM and weekend midday peak period. This condition does not include project-generated traffic volumes. W-Trans evaluated existing traffic operations with traffic counts collected from the field in March 2014 on typical days while local schools were in session.

The traffic LOS analysis for current conditions indicated that although the signalized study intersections are operating acceptably, the unsignalized study intersections of Greenville Road at Altamont Pass Road, Patterson Pass Road, and Tesla Road are currently operating at LOS E or F, either overall or on at least one approach.

Existing (Near-Term) With Project

To determine trip generation for the project, W-Trans reviewed trip rates published in the latest edition of ITE (Institute of Transportation Engineers) Trip Generation Manual 9th Edition, for “Single Family Detached Housing” (ITE LU#210). At the time of the analysis, details of the proposed winery operation were not available. Therefore, winery trip generation projections were developed based on a review of the site plan and project description, discussions with the project applicant, and experience preparing numerous transportation impact studies for wineries throughout the Bay Area and did not rely on the ITE Trip Generation Manual. Based on the assumptions, W-Trans predicts the project would generate an average of 401 trips per weekday, including 17 trips during the AM peak hour, and 95 trips during the PM peak hour. During a typical weekend, the project would be expected to generate an average of 731 trips per day, of which 57 would occur during the weekend midday peak hour. Table 20 and Table 21 provide the trip generation summary for the project for weekday and weekend trip generation, respectively.

Table 20: Weekday Trip Generation Summary

Land Use	Units	Weekday Daily		AM Peak Hour*				PM Peak Hour			
		Rates	Trips	Rates	Trips	In (%)	Out (%)	Rates	Trips	In (%)	Out (%)
Lot 1											
Employees	4	3.0	12	0.5	2	2	0	1.0	4	0	4
Visitors	5	0.8	4	—	0	0	0	—	0	0	0
Lot 2											
Employees	4	3.0	12	0.5	2	2	0	1.0	4	0	4
Visitors	50	0.8	40	—	0	0	0	—	4	1	3
Lot 3											
Employees	4	3.0	12	0.5	2	2	0	1.0	4	0	4
Visitors	40	0.8	32	—	0	0	0	—	3	1	2
Event Staff	10	2.0	20	—	0	0	0	—	0	0	0
Event Attendees	125	0.8	100	—	0	0	0	—	50	50	0
Lot 4											
Employees	4	3.0	12	0.5	2	2	0	1.0	4	0	4
Visitors	50	0.8	40	—	0	0	0	—	4	1	3
Lot 5											
Employees	4	3.0	12	0.5	2	2	0	1.0	4	0	4
Visitors	50	0.8	40	—	0	0	0	—	4	1	3
Lot 6											
Employees	4	3.0	12	0.5	2	2	0	1.0	4	0	4
Visitors	5	0.8	4	—	0	0	0	—	0	0	0
Lots 1–6 Trucks	6	2	12	—	0	0	0	—	0	0	0
Lots 7–12											
Single Family Residence	6 du	9.52	57	0.75	5	1	4	1.00	6	4	2
Total Trips	—	—	401	—	17	13	4	—	95	58	37
Notes: du = dwelling unit * = AM rates shown for information only—no analysis was conducted because of the relatively low number of AM peak-hour trips.											

Table 21: Weekend Trip Generation Summary

Land Use	Units	Weekday Daily		Weekend Midday Peak Hour			
		Rates	Trips	Rates	Trips	In (%)	Out (%)
Lot 1							
Employees	4	3.0	12	1.0	4	2	2
Visitors	5	0.8	4	—	1	1	0
Lot 2							
Employees	4	3.0	12	1.00	4	2	2
Visitors	150	0.8	120	—	20	10	10
Lot 3							
Employees	4	3.0	12	1.00	4	2	2
Visitors	125	0.8	100	—	16	8	8
Event Staff	100	2.0	20	—	0	0	0
Event Attendees	125	0.8	100	—	50	50	0
Lot 4							
Employees	4	3.0	12	1.00	4	2	2
Visitors	150	0.8	120	—	20	10	10
Lot 5							
Employees	4	3.0	12	1.00	4	2	2
Visitors	150	0.8	120	—	20	10	10
Lot 6							
Employees	4	3.0	12	1.0	4	2	2
Visitors	5	0.8	4	—	1	1	0
Lots 1–6 Trucks	6	2	12	—	0	0	0
Lots 7–12							
Single Family Residence	6 du	9.91	59	0.76	5	3	2
Total Trips	—	—	731	—	157	105	52

Cumulative Conditions With Project

The traffic operation analyses indicated that under anticipated future conditions, with the addition of project-generated traffic (Cumulative plus Project Peak Hour 2035 Conditions), the signalized study intersections are expected to continue to operate acceptably; however, the unsignalized study

intersections are projected to operate at LOS F. Improvements to the unsignalized intersections are needed to achieve acceptable operation.

In order to achieve acceptable operation, Mitigation Measure TRANS-1 will require the project to pay traffic impact mitigation fees, which will be used to address project deficient operations at unsignalized intersections. The County of Alameda's General Ordinance Code establishes a Cumulative Traffic Impact Mitigation Fee (CTIM) for new developments. Section 15.44.010, *Findings and Purpose*, of the General Ordinance Code states:

The County has completed a background study that identifies the total cumulative traffic impact of project new development and the method for determining each individual development's share of that traffic impact. The purpose of the traffic impact mitigation fee is to implement the findings of the background study, thereby assuring that each new development bears the burden of its individual, incremental share of those roadway improvements needed to offset the cumulative traffic impacts caused by all new development. The revenue generated from this fee shall be allocated to roadway capital improvement projects that are designed to mitigate such cumulative traffic impacts.

The County's General Ordinance Code defines the CTIM fee amount to be \$1,674 per single-family residence, and \$3.66/gross square foot for winery retail sales and tasting facilities. Based on the site plans available, it is estimated that approximately 20,000 square feet of winery facilities are proposed for each of Lots 1–6. Therefore, the expected CTIM fee for the project would be \$449,244.

In addition to the CTIM, the County of Alameda's General Ordinance Code Section 15.48 establishes the Tri-Valley Transportation Development (TVTD) Fee for new developments in the Tri-Valley development area. The cities in the Tri-Valley development area include Pleasanton, Livermore, Dublin, San Ramon, Danville, Alamo, Blackhawk, Camino Tassajara, Diablo, Norris Canyon, and Sunol, and the counties in the Tri-Valley Area include Alameda and Contra Costa. These cities and counties have identified, through the Tri-Valley Transportation Plan, the impact of projected Tri-Valley Area new development and certain regional transportation improvement projects that will mitigate these traffic impacts. Because the Plan identified new impacts not identified in the background study for the CTIM, the TVTD fees are in addition to the CTIM fees described earlier.

The County's General Ordinance Code defines the TVTD fee amount to be \$1,711 per single-family residence, and \$685 per the average of AM and PM peak-hour trips for other uses not otherwise defined in the Code, such as winery facilities. The expected TVTD fee amount for the project would be \$45,201.

The Traffic Mitigation Fee calculations for CTIM and TVTD fees are summarized in Table 22. With implementation of Mitigation Measure TRANS-1, the project impacts would be less than significant.

Table 22: Summary of Existing Peak Hour Level of Service

Portion of Project	Size	Average AM/PM Peak Hour Trips	CTIM Fee	TVTD Fee	Total
Winery Facilities	120 ksf	51	\$3,660/ksf	\$685/trip*	\$474,135
Residences	6 du	5	\$1,674/du	\$1,711/du	\$20,310
Total	—	—	\$449,244	\$45,201	\$494,445

Notes:
 du = dwelling unit; ksf = 1,000 square feet; * = average of AM and PM peak-hour trips

Mitigation Measure

MM TRANS-1 The project applicant will pay impact mitigation fees consistent with County of Alameda Ordinances, including the Cumulative Traffic Impact Mitigation Fee estimated at \$449,244, and the Tri-Valley Transportation Development (TVTD) Fee estimated at \$45,201.

b) 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?

No impact. The applicable congestion management program is the Alameda County CMP. It identifies countywide strategies to respond to future transportation needs and develop strategies to reduce congestion. The CMP identifies existing and desired traffic conditions on a variety of roadways throughout the County. State law requires that LOS standards be established as part of the Congestion Management Program process. According to the CMP, “[p]rojects are reviewed if they will cause a net increase of 100 PM peak-hour trips.” The proposed project is not expected to generate 100 net new peak-hour trips. Therefore, impacts would be less than significant.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No impact. The project site is located approximately 0.2 mile west of Meadowlark Field. The project provides vineyard related uses as well as six single-family residential lots, which would not include tall structural elements that could create a hazard for aviation. The tallest structures on the site would be the existing PG&E high-voltage transmission towers, so no new aviation hazards would be created. The project would not involve use of air transit, nor is it expected to cause any change in air traffic patterns; therefore, no impacts would occur.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant impact. At unsignalized intersections, a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross

through the intersection or turn left or right, without requiring the through traffic to radically alter its speed. Sight distance should be measured from a 3.5-foot height at the location of the driver on the minor road to a 4.25-foot object height in the center of the approaching lane of the major road. The setback for the driver on the crossroad shall be a minimum of 15 feet, measured from the edge of the traveled way.

Evaluation of sight distance along Tesla Road at the project driveway was based on sight distance criteria contained in the Highway Design Manual published by Caltrans. The recommended sight distances for minor street approaches that are either a private road or a driveway are based on stopping sight distance. The approach travel speeds are used as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop if there is a vehicle waiting to run into a side street or driveway is evaluated on stopping sight distance criterion and the approach speed on the major street.

Sight distance at the proposed driveway was field measured. The stopping sight distance criterion for private street intersections was applied for evaluation purposes. Based on a design speed of 50 miles per hour, the minimum stopping sight distances needed is 430 feet. The available sight distance at the proposed driveway location is in excess of 500 feet in both directions.

The project does not propose sharp curves, dangerous intersections, or incompatible uses, and, thus, impacts related to transportation hazards would be less than significant.

e) Result in inadequate emergency access?

Less than significant impact. Access to the proposed project would be available from four driveways on Tesla Road, as shown in Exhibit 3. The winemaking and wine tasting room facilities would be accessed from three shared driveways. Access to the single-family residences would be available from a common private driveway bordering the rear lot lines of the six commercial lots. The project would comply with all Alameda County Fire Department standards to ensure that implementation would not result in hazardous design features or inadequate emergency access to the site or areas surrounding the site. Therefore, impacts would be less than significant.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less than significant impact with mitigation incorporated. Some of the project's employees, residents, and visitors may choose to use alternative modes of transportation to access the site. However, with the exception of bicycle facilities, there is limited infrastructure supporting alternative modes of transportation in the vicinity of the project site.

There are no dedicated pedestrian facilities such as sidewalks or crosswalks in the vicinity of the project site, as the project site is located in a rural area. Transit is provided by the Livermore Amador Valley Transit Authority and the nearest bus stop to the project site is located near the intersection of Vasco Road and East Avenue, approximately 2 miles from the project site.

In terms of bicycle infrastructure, Class II bicycle lanes are provided along the project frontage on Tesla Road and Greenville Road. There is a proposed extension of the Class II (on-street) Tesla Road bicycle lanes east of Greenville Road. There is also a proposed off-road, multi-use path that would run along the South Bay Aqueduct, located to the east of the project site. Finally, the South Livermore Valley Bikeway trail would extend the existing trail along Tesla Road east of Greenville Road to the proposed Future Tesla Park. Mitigation Measure TRANS-2 will ensure that any improvements to the project's frontage would be designed and constructed in a manner that does not impact future installation of the multi-use path.

The project does not include any external circulation improvements on nearby roadways nor would the project conflict with existing or planned public transit, bicycle, or pedestrian facilities. With implementation of Mitigation Measure TRANS-2, the project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Mitigation Measure

MM TRANS-2 Any improvements to the project's frontage will be designed and constructed in a manner that does not impact the future installation of the County's planned multi-use path along the South Bay Aqueduct.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
18. Utilities and Service Systems				
<i>Would the project:</i>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Wastewater and Water Treatment

Domestic water treatment services would be provided by CRMWD. There is no wastewater service in the area; wastewater is managed via septic systems.

Water Supplies

Water in the project vicinity is provided by CRMWD. Water conservation measures related to bathroom fixtures, landscaping materials, and other characteristics of water consumption are incorporated into the Uniform Building Code, as required by Title 24 of the California Code of

Regulations. New development, including the project, is required to meet these standards, and thereby avoid excessive, uncontrolled water consumption. All landscaped areas would be required to meet the Alameda County Landscape Water Conservation Guidelines and the California Water Efficient Landscapes Ordinance (WELO).

Solid Waste

Solid waste in the project area is collected by the Livermore Sanitation Company. Currently, two active permitted landfills serve Alameda County's solid waste disposal needs: Altamont Sanitary Landfill and Vasco Road Sanitary Landfill in Livermore.

Environmental Evaluation

Would the project:

- a) **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

Less than significant impact. Wastewater would be treated and disposed of on-site via an Onsite Wastewater Treatment System Commercial Lots 1–6 will each be served by shared (three-lot) commercial on-site systems consisting of a Shared Commercial Domestic Waste Subsurface Drip irrigation system with Advanced Treatment and a Shared Commercial Winery Process Waste System with advanced treatment and surface drip irrigation. Lots 7–12 will have an individual residential on-site system that will be designed and permitted by the individual developers of each parcel.

Lots 1–6 will share a community leach field located over Lots 2 and 3. The community leach field will each have a 10,000-gallon aboveground holding tank that will collect wastewater from other lots prior to directing the treated waste into the leach fields. The wastewater derived from grape processing is proposed to be recycled and used for landscape irrigation.

It is estimated that the six residential lots would produce approximately 2,880 gallons of wastewater per day, and the domestic wastewater produced from the winery buildings would be approximately 3,508 gallons per day. The OWTs would be required to comply with the Alameda County Onsite Wastewater Treatment Systems and Individual/Small Water Systems Ordinance Chapter 15.18 (Alameda 2007) and all applicable RWQCB regulations.

Wastewater from the wine production will use a Shared Commercial Winery Process waste system using surface drip irrigation, which is described in more detail in Section 3.9, Hydrology and Water Quality, consistent with the RWQCB's requirements. The estimated winery production wastewater is approximately 9,937 gallons per day. The project would not exceed wastewater treatment requirements, and, therefore, the project would have a less than significant impact related to wastewater treatment facilities.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than significant impact. The project would be expected to require approximately 114,750 gallons of potable water per month. The water consumption excludes water to be used for landscaping and agricultural use because these are under a Zone 7 contract of agricultural water and are separately metered. In a letter provided by CRMWD on December 19, 2013, the existing water supply capacity would be used and is sufficient to serve the project's needs. Currently, as indicated by the applicant, CRMWD serves approximately 20 properties in the nearby vicinity of the project. As stated in impact discussion 18(a) above, wastewater would be disposed via OWTS and would include a total wastewater production of approximately 16,325 gallons per day. No new water facilities would be needed, and necessary wastewater treatment facilities would be constructed on-site and are accounted for as part of this project evaluation. Therefore, there would be a less than significant impact.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than significant impact. As discussed in impact discussion 9(a) the project design must accommodate a stormwater treatment system to comply with the hydromodification management measures requirements of Provision C.3.g of the Municipal Regional Stormwater Permit. Therefore, impacts related to stormwater drainage facilities would be less than significant.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less than significant impact. Water in the project's vicinity is provided by CRMWD, which is managed by the California Water Company and has sufficient capacity to serve the project. Therefore, the project would have a less than significant impact regarding water supply.

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

Less than significant impact. The wastewater produced within the project site would be treated by an OWTS, including the use of individual residential on-site systems, a Shared Commercial Domestic Waste system, and a Shared Commercial Winery Process waste system, so no service provider is involved. Therefore, the project would have a less than significant impact related to wastewater treatment facilities.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than significant impact. Solid waste in Alameda County is disposed of at two landfills within the County: Altamont Landfill and Resource Recovery Facility and Vasco Road Landfill, both in the City of Livermore. Table 23 provides a summary of the landfills and their remaining capacity, and Table 24 provides the estimated solid waste to be produced by the project.

Table 23: Landfill Summary

Landfill	Location	Permitted Daily Capacity (tons)	Remaining Total Capacity (cubic yards)	Estimated Closure Date
Altamont Landfill and Resource Recovery Facility	Livermore	2,000	45.7 million	2025
Vasco Road Sanitary Landfill	Livermore	2,250	7.4 million	2022

Source: California Integrated Waste Management Board, 2012.

Table 24: Project Estimated Solid Waste Generation

Waste Generation Source	Size	Generation Rate	Multiply Rate by:	Total (pounds/day)
Single-Family Residential ¹	12.23	lbs/household/day	6 households	74
Winery facilities ²	1.42	lbs/100 sq. ft./day	100,000 sq. ft.	1,420
Total	—	—	—	1,494

Source:
¹ CalRecycle. 2013. "Residential" Waste Generation Source
² CalRecycle. 2013. "Manufacturing/Warehouse" Waste Generation Source

The project would produce approximately 1,494 pounds/day of solid waste. Based on the available capacity of the landfills, the impact of the project on landfill capacity would be considered less than significant. Furthermore, the project would comply with all federal, state, and local statutes and regulations related to solid waste.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less than significant impact. Solid waste disposal services must follow federal, state, and local statutes and regulations related to the collection of solid waste. The project would be required to comply with the County of Alameda Construction and Demolition Debris Management Ordinance diversion requirements. The Ordinance requires projects to divert at least 75 percent of all inert solids, (asphalt, concrete, rock, stone, brick, sand, soil, and fines) and 50 percent of all remaining project-related construction and demolition waste. Because the project site is predominately agricultural fields, waste from construction is expected to be limited in quantity. The project would also produce an estimated 1,494 pounds per day of solid waste. A Debris Management Plan would be prepared and submitted to the County Engineer for review and approval. The plan would include information regarding the estimated total volume or weight of waste generated by the project and means for diverting waste, including the facilities to be used. In addition, the project would comply with all state and local waste diversion requirements, including AB 939 and SB 1016. Thus, the project would have a less than significant impact.

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

Environmental Evaluation

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

Less than significant impact with mitigation incorporated. The project proposed is to subdivide the project site into 12 lots, of which six would contain winery-related uses while the remaining six lots would support one single-family residence each. As discussed in the preceding sections, the project would result in several potentially significant, project-level impacts. Development of the project would have the potential to affect nesting birds and wetlands. Cultural resources may be impacted with earthwork activities. In addition, construction of the project would result in short-term impacts to air and geological resources. However, mitigation measures have been developed that would reduce these impacts to less than significant levels. Impacts would be less than significant.

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

Less than significant impact with mitigation incorporated. The project would result in several potentially significant project-level impacts in the following areas: air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and transportation and traffic. However, mitigation measures have been identified that would reduce each of these impacts to less than significant. Specifically with regard to cumulative impacts, the project would result in potentially significant traffic impacts under “Cumulative Plus Project” conditions, but Mitigation Measure-TRANS-1 requires the payment of impact mitigation fees, including the Cumulative Traffic Impact Mitigation Fee (CTIM) and the Tri-Valley Transportation Development (TVTD) Fee, which will reduce this cumulative impact to less than significant. Other new development projects within Alameda County would also be required to pay the CTIM and/or TVTD fees, as applicable, in order to offset their share of cumulative traffic impacts.

All other impacts of the project were determined to either have no impact, or to be less than significant without the need for mitigation. Cumulatively, the proposed project would not result in significant impacts that would substantially combine with impacts of other current or probable future impacts. Therefore, the proposed project, in conjunction with other future development projects, would not result in any cumulatively considerable impacts.

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

Less than significant impact with mitigation incorporated. As described throughout this environmental checklist, the project would not result in substantial environmental effects on human beings. Mitigation measures are identified to reduce potential significant impacts related to air quality, geology, and traffic. Implementation of these mitigation measures would ensure that the project would not result in impacts that would cause substantial adverse effects on human beings, either directly or indirectly.

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